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FLIGHT PLAN 1997: POSITIONING THE CANADIAN AIR FORCE FOR SUCCESS

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ABSTRACT

The 1990s was a period of unparalleled turmoil for the Canadian Forces (CF) as a whole and the Air Force in particular. The demise of the Soviet Union, the fall of the Berlin Wall, the peace dividend, the global economic recession, negative Canadian public opinion and the determination of successive Canadian governments to balance the budget all combined to force the Canadian Air Force into a tremendous organizational and operational transformation. Defence and fiscal policies of successive Canadian governments intended to balance the budget resulted in major reductions in defence funding and mandated cuts to resources, including the direction to reduce headquarters and retire entire fleets of aircraft. The transformation affected all aspects of the Air Force: organizational structure, operational capabilities, personnel, and infrastructure. In addition to creating the Chief of the Air Staff organization in Ottawa, amalgamating the various capability groups into 1 Canadian Air Division, and imposing the Wing Structure on the tactical level, the operational capabilities of the Air Force were transformed through significant reductions in aircraft numbers, types of fleets and personnel.

The transformation of the 1990s, orchestrated by Lieutenant-General Allan DeQuetteville, was successfully positioned the Air Force for success in providing a critical operational capability to the Government of Canada. Despite not achieving every transformation goal, the Air Force emerged from the crucible of the 1990s as a flexible and responsive organization, operationally capable of generating, deploying and maintaining a wide variety of multi-purpose, combat capable forces.

CHAPTER 1. INTRODUCTION AND LITERATURE REVIEW

> *The primary duty of any national government is to do its best to ensure the security of its citizens. Maintaining a capable military is one of the most important ways it can do that. Without a capable military, no government can confidently assure the sovereignty of the state, nor defend against those who would attack its people and undermine its society.*
>
> — Senate Committee on National Security and Defence, September 2005, *Wounded: Canada's Military and the Legacy of Neglect*

Background

Popularized by General Rick Hillier as the "decade of darkness," the 1990s was a period of turmoil for the Canadian Air Force (CAF) and the Canadian Forces (CF). [1] The changing world security environment, domestic pressure to balance the federal budget, and disengaged politicians on matters of defence combined to create a situation that forced the CF to undertake a significant transformation program in order to stay relevant and capable. This situation became the genesis for the Air Force transformation efforts though the mid-1990s.

Beginning in 1992 government policy changed in order to reflect the new world reality. The end of the Cold War, the anticipated "peace dividend," negative Canadian public opinion, changing defence policies and the economic reality of the massive federal deficit all combined to create a situation where successive Conservative and Liberal governments mandated defence reductions in funding, personnel, equipment and infrastructure for the Department of National Defence (DND). These reductions forced the CF and the Air Force in particular to undertake a series of transformation initiatives in

[1] Ottawa Citizen, "Top General calls Liberal rule 'decade of darkness'," *Ottawa Citizen,* 17 February 2007. At http://www.canada.com/ottawacitizen/news/story.html?id=d569d0fb-d9cf-4119-84cb-39dd89571625, accessed 15 February 2013.

response to government policies in order to remain relevant, combat capable and responsive to Government of Canada (GoC) requirements.

Thesis

In the mid-1990s, a myriad of factors – financial, political, security and human resources – forced the Air Force to evolve very rapidly in order to remain relevant and capable. Command and control structures, fleet types, numbers of aircraft, personnel manning levels, and occupation structures were all altered as part of a larger CF-wide transformation. This transformation was critical in enabling the Air Force to be capable of effectively responding to government direction, to remain operationally effective, and to position itself for success in a rapidly evolving global environment. As this essay will show, these changes resulted in a smaller, more streamlined Air Force focussed on delivering a smaller number of capabilities in a more effective and efficient manner, while maintaining relevance both domestically and internationally. This smaller, streamlined, highly-capable Air Force is a result of the forced transformation program initiated during the 1990s.

Methodology and Outline

This paper will examine the results of the Air Force transformation of the 1990s, carried out under the Air Force Command and Control Re-engineering Team (AFCCRT) program. Flight Plan 97 (FP 97) was the name coined by Lieutenant-General (LGen) Allan DeQuetteville, Commander Air Command (AIRCOM) 1995-1997, to describe the transformation efforts that are the subject of this paper. AFCCRT and FP 97 are interchangeable terms for the transformation program and both will be used in this paper to indicate the overarching effort to modernize and evolve the Air Force. While the focus

of this paper will be on the Air Force, the FP 97 transformation took place coincident with the greater CF Management, Command and Control Re-engineering (MCCR) effort and must be viewed in this context.

Chapter Two will examine the causal factors and context behind the requirement to transform the CF and the Air Force, discussing the implications of the end of the Cold War, the peace dividend, domestic public opinion, government defence policy, and fiscal restraint policy. Understanding these factors and the political and economic context of the 1990s is central to understanding the magnitude of the challenge faced by the CAF. Chapter Three will examine the actual air force transformation that took place, under the key groupings of command and control, operational capability, personnel, and infrastructure. Following this discussion of the main air force initiatives to transform, Chapter Four will analyze the successes and challenges of the transformation efforts in meeting the initial objectives in three main areas: organization, operational capabilities, and lessons learned. Of note, given that the focus of this paper is the 1990s, the terms used in this paper will be those in use during that period - the Canadian Forces (CF) and the Canadian Air Force (CAF).

Literature Review

A comprehensive literature review has revealed, surprisingly, that there has been very little academic research into the transformational efforts of the CF and more specifically the Air Force during the 1990s. Other than occasional articles published in military journals or military-oriented studies, the majority of published works mainly discuss the causal factors of the 1990s, such as government policy and the expected peace dividend resulting from the end of the Cold War. Very few contained a focus on the

service-oriented transformations that took place, such as the FP 97 efforts that drastically changed the face and nature of the CAF. No holistic study of the transformation of the 1990s or of the results of those Air Force efforts has been undertaken.

The research sources for this paper can be categorized into four broad areas, and are discussed below: official GoC and DND publications; historical DND documents and reports; published articles in scholarly journals; and papers and chapters in other published works and selected papers written by Canadian Forces College (CFC) students. Additionally, due to the dearth of information on the CAF's transformation, interviews were conducted with two retired air force commanders in order to provide a view from the inside of the transformation and the effectiveness and follow-on results of the transformation. As will be shown below, both retired general officers stated that the results of the air force transformation were for the most part successful.[2]

Official GoC publications provided the political direction issued to the CF, based on the strategy and priorities of the government at the time of issue. As the *1994 Defence White Paper* declared: "The world is neither more peaceful nor more stable than in the past. Canada's defence policy must reflect that world as it is rather than the world as we would like it to be."[3] Official government publications include *Canadian Defence Policy 1992*, the *1994 Defence White Paper*, and the *2008 Canada First Defence Strategy* (CFDS). These documents provided insight in to the government and DND policies of the 1990s and current policies that affected the CF and the Air Force.

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[2] The rank of the senior officers interviewed (LGen DeQuetteville and LGen Lucas) are key to provide the senior Air Force officer view of the transformation, and therefore their rank will be included in all references in this paper. All quotations in the paper are included with the permission of LGens DeQuetteville and Lucas.

[3] Department of National Defence, *1994 White Paper* (Ottawa: Canada Communications Group, 1994), 2.

The second group of documents include CAF publications such as *Out of the Sun*, the air force doctrine published in 1989, *Air Staff Functional Review*, and *Strategic Vectors (2004*), which all provide the strategic direction prepared and issued by the Air Force in response to the government and departmental policies. These documents provided both the context behind the intent of FP 97, as well as an understanding of the goals of the project. For example, one consistent theme throughout the Air Force guidance and doctrine in the 1990s that continues to be maintained in government policy documents today is the paramount description of the raison d'être of the Air Force: "The fundamental and most demanding role for air forces is to generate, apply and sustain aerospace power in combat operations."[4] This clearly-stated mission was key to the analysis of the success of the transformation actions of the 1990s.

Historical DND material was gleaned from the Department of History and Heritage (DHH) archives in Ottawa, and consists of various orders, PowerPoint presentations, Master Implementation Plans (MIPs) and historical reports. This material mainly provided details on the larger CF MCCRT initiative, including briefings to senior civilian and military staff. While the topic of this paper focuses on Air Force specific transformation, the MCCRT material provides information on the greater CF transformation, critical to set the context of the Air Force efforts in the 1990s. Of note, the MCCRT initiative was a CF-wide attempt to reduce administrative and bureaucratic overhead to reduce costs and gain efficiencies. "The driving force for the MCCRT initiative was the need to reduce resources consumed by headquarters, infrastructure and

[4] Department of National Defence, A-GA-007-000/AF-002, *The Aerospace Capability Framework. A guide to transform and develop Canada's Air Force* (Ottawa: DND Canada, 2003), 7.

wasteful business practices to ensure preservation of combat capability."[5] The intent was to impose business management processes, including the introduction of a formal business planning process, on the CF and DND as a whole, including all three environments: Air Force, Army and Navy. Flight Plan 97 was the CAF's efforts to respond government direction under the umbrella of the greater MCCRT initiative.

Published articles in various military journals and studies mainly provided material related to the context and causal factors behind the requirement for transformation and snapshots of specific actions, such as the reduction of various aircraft fleets. Authors such as defence analyst Douglas Bland, generally refer to the causal factors and transformation actions of the 1990s when discussing a separate topic, as opposed to specifically examining the transformation efforts of the CF. For example, discussing Canadian defence policy Bland clearly ties the economic outlook of the federal government to the funding of the CF. "National funds are always limited and, because there are no threats nor any imperative purposes for defence spending, defence policy will be driven by what is available, not what is needed."[6] While it is abundantly clear that changing government priorities and the resultant reduction in DND and CF funding in the 1990s was a significant causal factor, he does not comment on the results of these changes. Scholars such as Bland and others provide critical background information and context for the period and the re-engineering initiatives; however no military analyst has examined in detail the degree of success and/or areas of failure of the transformation efforts of the 1990s.

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[5] Department of National Defence, *MCCRT Historical Report. Executive Summary*, (Ottawa: DND Canada, 1997), 1.

[6] Douglas Bland, "Everything Military Officers Need To Know About Defence Policy-Making in Canada" in *Canadian Strategic Forecast 2000: Advance or Retreat? Canadian Defence in the 21st Century,* ed. David Rudd, 15-29 (Toronto: Canadian Institute of Strategic Studies, 2000), 18.

Various Command and Staff Course papers written by students while attending the Canadian Forces College (CFC) in Toronto were also examined. As expected, especially considering that the defence reductions were seriously affecting morale across the CF, they provide a negative view of the outcome of the FP 97 initiative and the subsequently continuing Air Force transformation. These papers tend to focus on specific capabilities at the tactical level, and do not provide an overall holistic view of level of the outcome of the 1990s transformation that examines the entire CAF. For instance, in 2007 in a CFC paper discussing the topic of Air Force offensive capabilities, a senior air force officer stated: "Nevertheless, while the upgraded CF-18 fleet continues to be a very effective force, the overall capability and flexibility available to the operational commander has diminished with its numbers."[7] This limited and critical assessment illustrates the primary focus on specific tactical capabilities and equipment losses of most of the research discussing FP 97 at the time. Most of the material the author of this paper examined does not provide any balancing argument on the geopolitical concerns of the GoC regarding defence policy, but rather, generally reflects the personal experiences – and frustrations - of the writers. Still, these viewpoints were beneficial to review as they often provided unique perspectives on certain unique and focussed aspects of the Air Force transformation.

Given the paucity of secondary source research material into the topic of Air Force transformation, interviews with two retired senior Air Force Commanders were critical in order to gain a perspective on the entire and influential transformation process. Discussing issues from the causal factors of transformation, the challenges of

[7] D.L.R. Wheeler, "What Happened to the Force in Canada's Air Force?," a paper presented in partial fulfilment of the Joint Command and Staff Program (JCPS), CFC Toronto, 2007, 12.

transforming the air force, to the results of Flight Plan 97 and the continuing demand for a flexible, agile Air Force able to provide the GoC and Canadians with capabilities required today, these officers provided an understanding and unique insights into the extremely complex strategic environment of the Air Force. LGen Allan DeQuetteville was the last Commander of Air Command (AIRCOM) and the first Chief of the Air Staff (CAS) during the period of the major transformation of the 1990s. FP 97 was launched under his leadership while he was serving in these two senior positions. While LGen DeQuetteville never published his thoughts on the Air Force evolution of the 1990s, he was generous with his time in providing the senior leadership perspective on the actions that took place during this turbulent period. His perceptions and insights proved to be extremely valuable in the research work for this thesis, especially in the area of lessons learned. In addition to initially being part of the MCCRT project, LGen Steve Lucas held senior appointments in the Air Staff and 1 Canadian Air Division / Canadian NORAD Region during the FP 97 efforts. Eventually he became Commander 1 Canadian Air Division and was subsequently appointed CAS during the initial Canadian commitment to Afghanistan. During his tenure as head of the air force between 2005 and 2007, he oversaw the acquisition of modern strategic and tactical airlift capabilities and medium-to-heavy lift helicopter capability initiatives. His insights into the years following the closure of the FP 97 project were a critical resource in the analysis of the success of the program.

In summary, the literature review for this paper revealed few direct sources of information regarding the Air Force's FP 97 programme, especially any analysis of the degree of success or failure of the programme. The predominance of material available

discussed the various government policies and world events that led to the requirement for transformation. Examining a wide variety of research sources however did provide sufficient material to formulate and prove the thesis of this paper. The following chapter will discuss the primary causal factors behind the FP 97 programme.

CHAPTER 2. CAUSAL FACTORS AND CONTEXT

The transformation of the CAF as part of the greater CF transformation efforts of the 1990s was a direct result of drastic changes in the global environment. Security, economic, and political aspects all played a part in the evolving world community. During this time, the CF was under tremendous pressure from the government to become smaller, less expensive and more efficient while remaining operationally effective. These causal factors were not unique to Canada. Most Western militaries were facing similar challenges and struggling with diminishing resources and rapidly changing defence policies in the aftermath of the end of the Cold War.

Successive Canadian governments issued defence, foreign and fiscal policies that attempted to both recognize the changing security environment and balance the need for a capable military force to support Canadian objectives both domestically and internationally. In the 1990s, the Somalia Affair triggered a crisis in civil-military relations and, by 1995, the Liberal Government and the Canadian public had lost faith in the Canadian military and its senior leadership. This crisis and the ensuing lack of trust of the leadership of the CF enabled the prime minister and his staff to influence the manner in which force reduction decisions were made during the decade.

In an attempt to link the personal opinions of Prime Minister Chrétien with the drastic change in defence policy, as has been demonstrated throughout Canadian history, defence analyst Douglas Bland, writing in the late 1990s, characterized the government strategy with respect to Canadian defence policy as follows: "… Canada's policy for national defence tends to be whatever the prime minister of the day says it is … Their judgment … rests on two historic assumptions: there are no threats, and if there were any,

no strategy invented by Canadians could redress them."[8] The various defence and fiscal policies of the 1990s provided both assigned and implied tasks. Assigned tasks, such as reductions to specific capabilities, force sizes and resource levels, combined with implied tasks such as internal re-organizations to create efficiencies, would form key transformation actions in the Air Force's effort to comply with government direction. It is important to note that various government policies of the 1990s were aimed at the CF as a whole, with limited Army, Navy or Air Force specific direction. However, there was specific direction and major implications for the Air Force in the government policies of the 1990s that will be discussed in this essay.

The changes to the federal government policies of the 1990s were based upon several factors of which the five key ones affecting defence policy were: the end of the Cold War; the anticipated peace dividend; Canadian public opinion; Canadian defence policy and finally Canadian government fiscal restraint policies. LGen DeQuetteville, who was Commander of AIRCOM between 1996 and 1998, summarized well the challenges that the CF faced at the time when discussing the situation: "You had the [end of the] Cold War, the government's in huge deficit problems and you've got low public opinion … and an absence of any definable threat – the peace dividend."[9] This chapter will examine the five key factors that set the stage for the Air Force's FP 97 transformation program of the 1990s.

End of the Cold War

Until 1989, the focus of the Air Force was twofold – defend Canada domestically against the Russian manned bomber threat to North America, and support the Canadian

[8] Bland, Everything Military Officers Need To Know About Defence Policy-Making in Canada, 15-16.
[9] LGen (ret'd) Allan DeQuetteville interview with author, May 7, 2013.

commitment to the North Atlantic Treaty Organization (NATO) for the defence of Europe. The economic collapse of the Soviet Union and the Warsaw Pact that resulted in the end of the Cold War was dramatically advertised to the world by the fall of the Berlin Wall in 1989. The effective cessation of overt hostilities between the Warsaw Pact and the western world as a result of the end of the Cold War enabled a fundamental change in the scope and type of government-directed missions and roles for the Air Force and was the initial factor behind the Flight Plan 97 transformation program.

The first action taken in response to the end of the Cold War was the Conservative government decision to eliminate the Canadian commitment to maintain standing troops in Europe. In 1992, the Conservative government announced that the Canadian presence in Germany (Canadian Forces Europe (CFE)) would be eliminated, including Canada's North Atlantic Treaty Organization (NATO) commitments for land and air forces, and the corresponding equipment and personnel would repatriated to Canada in the early 1990s.[10] Announced in the Canadian defence policy statement issued in 1992, the implications for the Air Force were evident. The elimination of the bases and squadrons in Europe would create significant dollar savings, enable a reduction in both aircraft and personnel, and compel the Air Force to undertake a complete review of the necessity of the potential role of and requirement for a Canadian fighter capability.

As part of the federal government scrutiny of the entire CF, the justification to maintain a fighter capability was a significant challenge for the Air Force. LGen DeQuetteville recalled that during this time, Defence Minister Collenette was particularly interested in justifying the raison d'être of the CAF fighter fleets, and indeed in policy statements, he directed the Air Force to examine the impact of a reduction in the size of

[10] Department of National Defence, *Canadian Defence Policy* (Ottawa: DND Canada, 1992), 9.

the CF-18 fleet to between 40 and 68 operational airframes.[11] Given the federal government and public perception that the Soviet Union and Warsaw Pact were no longer an immediate threat, and that the CF-18 fleet existed only to repel a Soviet bomber attack, there was enormous pressure to justify a fighter aircraft capability. Given that the defence of North America against the Soviet threat was generally accepted raison d'être of the fighter force during the Cold War, after the Liberal government came to power, they (the Liberal government) issued "… a call for a fairly complete review of the whole fighter structure so the whole fighter force was under some duress."[12]

The predominant opinion of the government at the time was that with the collapse of the Soviet Union, Canada no longer needed neither an offensive military air capability to project force in support of Canadian government objectives, nor a defensive military air capability to protect Canada against foreign aggression. *Wounded*, the Senate report on the state of the CF in the 1990s explains the situation. "The dissolution of the Soviet Union obviously diminished the likelihood of Canada being attacked by missiles or bombers coming at us from over the North Pole. Likewise, the threat of submarine attacks off the East Coast has disappeared."[13] Even before the larger CF MCCRT initiative began, the Air Force was beginning to transform in an effort to remain viable, relevant and operationally capable as directed by the Mulroney government.

As the *1994 Defence White Paper* highlighted, "The focus of air planning and operations has shifted from missions driven primarily by the former Soviet threat to a

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[11] DeQuetteville interview.
[12] *Ibid*.
[13] House of Commons, Senate Committee on National Security and Defence. *Wounded: Canada's Military and the Legacy of Neglect.* (Ottawa: Senate of Canada, 2004), 59.

more balanced set of national and international priorities."[14] In concert with government policy and fiscal reductions, the changing nature of the global security environment caused a fundamental alteration in the role of the Air Force. The operational focus changed to emphasize international humanitarian missions in support of government foreign policy, accompanied by a increased priority on the "traditional" peace-keeping role of the CF. The perceived end of the Soviet threat supported the concept of a safer, more peaceful world with a much more limited role for the CAF and the CF as a whole, as well as the impression that defence spending could be drastically reduced and reallocated. *Wounded* makes particular note of this prevailing opinion:

> … while government and outside analysts realized that old threats to Canada persisted and new ones might well be in the works, professional and institutional judgment lost out to public opinion. Canadians relaxed when the Cold War ended. Most of us bought into the peace dividend mentality.[15]

The Peace Dividend

Economic and political theory generally defines the peace dividend as the reallocation of resources from national defence programs to non-defence related activities and programs, usually accompanied by a reduction in the defence budget. As such, the peace dividend crosses both fiscal and security arenas, and is a phenomenon associated with significant changes in the global security environment.

Until 1989, the focus of the CF was the defence of Canada and North America against the Soviet threat. David Detomasi, a professor of international business and political studies at Queen's University wrote: "During the Cold War defense [sic] planners also had the luxury of a clearly defined adversary … sufficient to support

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[14] DND, *1994 White Paper*, 36.
[15] House of Commons, *Wounded: Canada's Military and the Legacy of Neglect*, 15.

defense [sic] expenditures to a degree that was … unusual in peacetime experience. Defense [sic] direction … translated into defense dollars."[16] The collapse of the Soviet Union would have a drastic impact on defence funding.

During the 1990s, the end of the Cold War provided the Canadian government with a platform to champion significant reductions in defence spending. The *Canadian Defence Policy Statement* released by DND in April 1992 publicly stated "There is no external threat unique to Canada … "[17] It is important to note that the key word in the previous phrase is "unique". At no time did DND state that there was "no external threat to Canada". However, this nuance did not translate well for the government or for the Canadian public.

The Conservative government made an effort in 1992 to temper the prevailing tendency to overemphasize the effects of the peace dividend and to acknowledge the continuing external threats to Canada. Despite initiating significant reductions in the size and roles of the CF, Mulroney recognized that the changing global security environment did not necessarily provide greater security for Canada. Notwithstanding he fact that the classic state-on-state conflict of the first half of the century was now effectively a remote possibility, the emergence of non-conventional, asymmetric engagements due to regional and religious issues was creating global instability that threatened Canadian interests around the world. However, the majority of the Canadian public and the elected government did not consider these issues to be a threat to Canada despite acknowledging the fact in defence policy statements. Instead, the government began to recognize the emerging threat to Canada, and the resultant requirement to evolve the capabilities of the

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[16] David Detomasi, "The New Public Management and Defense Departments: The Case of Canada." *Defense and Security Analysis* Vol. 18, No. 1, (2002): 51.
[17] DND, *Canadian Defence Policy*, 5.

CF. DND noted the threat produced by the rapidly emerging conflicts as a result of growing religious fundamentalism and the resultant resort to violence, especially in the Third World, where disenfranchised populations saw a bleak future for themselves.[18] However, once the Liberals formed the government in 1993, the perception that there was no credible threat to Canada became enshrined in policy, and thus there were few obstacles to initiate drastic cost and capability reductions in the CF. In a 1996 article, as major transformation actions across the defence department were beginning, Detomasi observed that: "The Liberal government of Jean Chrétien was elected on a platform to reduce federal spending while preserving key social programs."[19] This platform was an obvious acknowledgement of the perceived peace dividend.

This peace dividend mindset was prevalent throughout Canadian society for the entire decade of the 1990s. As the Senate Committee on National Defence noted nearly a decade later, "Canadians made the assumption that we could get away with a cheap insurance policy, and the Government – determined to cut costs at all costs – was all too happy to oblige them."[20] A government banking on the peace dividend was strongly supported by Canadian public opinion in forming defence and fiscal policies that irrevocably transformed the CF. After all, the Liberals had been elected in 1993 on the promise of balancing the federal budget and reducing the deficit while preserving social programs. The intent to achieve savings though defence reductions was a central element of the government's strategy.

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[18] *Ibid*, 3.
[19] David Detomasi, "Re-engineering the Canadian Department of National Defence: Management and Command in the 1990s." *Defense and Security Analysis* Vol. 12, No. 3, 1996): 329.
[20] House of Commons, *Wounded: Canada's Military and the Legacy of Neglect*, 17.

Canadian Public Opinion

The third key factor behind the requirement for Air Force transformation was Canadian public opinion. All democratic governments react to the opinions of the public they serve and public opinion impacts government policies in many ways. There were three facets to the attitude of the Canadian public towards the CF: a negative opinion of the CF mainly due to the Somalia Affair; the myth of the CF as a military force primarily focused on peacekeeping not war-fighting capabilities; and massive public support for the government efforts to reduce the deficit with minimal impact on the average Canadian citizen.

There is no doubt that the Somalia affair was one of the worst episodes in CF history. While the Air Force had no direct role in the incident, there was little to no effort to differentiate the separate elements of the military, and as a result, the entire CF was painted with the same brush. As one of the most senior officers in the CF at the time, LGen DeQuetteville was privy to both the details and the impact of the Somalia affair on the CAF, especially the fact that the Canadian public held little regard for CF because of the incidents in Somalia.[21] As a result, there was a rapidly emerging challenge faced by the CAF to garner public and political support, especially given the high cost of maintaining a modern air force.

Many other respected academics have noted the significant effect the Somalia Affair had on both public opinion of the CF, and the effect on civil-military relations. In a 2002 analysis of the CF transformation efforts, Detomasi commented on the results of the Somalia Affair. “The facts of the Somalia case originally appeared to be straightforward,

[21] DeQuetteville interview.

if distasteful … [however] the ensuing public outcry convinced the Canadian government to create an official *Commission of Inquiry …*"[22]

The findings of the Somalia Commission served to further undermine Liberal confidence in the leadership of the CF as well as, and perhaps more importantly, reinforce the unfavourable opinion of the Canadian public. The result of this negative public opinion was that, unlike during the Afghanistan mission, in the 1990s there was no groundswell of public support for the military when the government began to force transformation through imposed capability, force level and funding reductions.

The second facet of public opinion was the popularized myth that the raison d'être of the CF was limited to peacekeeping, in the classic sense of the blue berets standing between two aggressive nations that were not actively fighting each other, as opposed to a war-fighting military whose mission was to defend Canada. The relatively minor (as compared to Afghanistan) participation of the Canadian Army in the First Gulf War of 1991, where the deployed land forces limited to the task of protecting the air bases of the deployed air force assets reinforces this perception. The types of missions assigned to the CF during the 1990s combined with the continuing diminishment of public awareness of a credible threat to Canada itself resulted in this perception of this limited role for the CF quickly becoming the prevalent opinion of the Canadian public and the federal government during the waning years of the 20th century. Both Government officials and academic think tanks mirrored this impression as outlined by international affairs analysts Brian Tomlin, Norman Hillmer and Fen Hampson. Discussing Canadian international policies during the decade they described the situation well when they wrote: "…Lloyd Axworthy … had long advocated a peacekeeping-centric defence policy … [The Canada

[22] Detomasi, *The New Public Management and Defense Departments: The Case of Canada*, 66-67.

21 Council] sought to steer the armed forces away from combat-capabilities … the CF should field forces suited to peacekeeping, the delivery of humanitarian aid …"[23] While the CF continued to argue against this attitude with some degree of success, the myth of the Canadian blue beret dominated public opinion of the CF through the decade, until the beginning of the Afghanistan War. Bland provided clear evidence of this fact in a 2000 survey of all Members of Parliament and Senators:

> … when asked "what has Canada's greatest contribution been to national defence in the last 50 years?" answered "peacekeeping". The Canadian defence effort since the end of the Second World War has been … geared to war-fighting. But the people don't believe that … The perception is more important than the facts.[24]

This view of the CF as a limited capability, peacekeeping focussed force supported the Liberal foreign policy of diplomacy over American-style military intervention. Given the emphasis on non-military solutions, the resulting transformation of the CF was inevitable.

The final facet of public opinion was the massive public support for Liberal government efforts to balance the federal budget and reduce the deficit, while maintaining social programs. Tomlin, Hillmer, and Hampson explain: "The Chrétien government was faced with a political climate that … saw defence spending as an unnecessary drain on already limited resources. Canadians first priorities were domestic ones."[25] The DND and the CF was (and remains) the largest discretionary budget of all federal departments and was therefore an easy target. Shortly after the Liberals published the *1994 Defence White Paper* in December, Canadian public opinion was supportive enough to allow the government to pursue their fiscal agenda at the expense of the CF.

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[23] Brian W. Tomlin, Norman Hillmer, and Fen Hampson. *Canada's International Policies: Agendas, Alternatives, and Politics.* Don Mills, Ontario: Oxford University Press, 2008, 144.
[24] Bland, *Everything Military Officers Need To Know About Defence Policy-Making in Canada*, 21.
[25] Tomlin, Hillmer, Hampson. *Canada's International Policies,* 127.

As a result: "… the decline in defence spending began in earnest. The government was well into its fight to eliminate deficit spending, which was … threatening to leave Canada an economic loser … This initiative … had widespread public and international support."[26]

Given the absence of any easily definable threat to Canada, as was present during the Cold War, combined with the disinterest the sitting Liberal government had in clearly communicating to the Canadian public the nature of the missions to which they were committing the CF, it was no surprise that the Canadian public believed a combat capable military was an unaffordable luxury.

> The new Liberal government understood that it could not justify cutting any other department or social services … Canadians could not be asked to weaken their health care and education programs while a large military structure facing no plausible threat was kept in place[27]

During the 1990s, the negative public opinion of the CF combined with Prime Minister Chrétien's (and his government's) displayed lack of respect for the military meant that there was virtually no public support to maintain the CF at the pre-1990s level of size and capability. The only solution that would allow the CF as a whole and specifically the Air Force to remain operationally viable was a drastic transformation driven by significant budget and personnel reductions.

Government Defence Policy

It is a popular misconception that the Chrétien Liberal government was solely responsible for the decline of the CF, the so-called decade of darkness. There can be no disputing the fact that the Liberal government defence policy of the 1990s was a major

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[26] House of Commons, *Wounded*, 15.
[27] Tomlin, Hillmer, Hampson. *Canada's International Policies*, 127.

factor in the "decline" of the CF and consequently the Air Force. However, Prime Minister Mulroney's Conservative government planted the seeds of change much earlier.

The Conservatives had begun as early as 1990 to recognize the need to transform the CF to meet the changing domestic and international realities of the new decade. The continuing reverberations of the end of the Cold War forced a re-examination of Canadian defence policy. The successful participation of the Air Force and the Canadian Navy in the First Gulf War had reinforced the understanding that Canada required an internationally deployable military capability, despite the fact that the Canadian Army was ill-equipped to deploy in a ground war in support of the international effort and was not part of the Canadian commitment to the coalition. "…the Persian Gulf War has demonstrated that conventional wars were not impossible in a post-Cold War world … Were the CF to lack units equipped to participate … Canada's reputation as a reliable military ally … would vanish."[28] However, political realities and domestic pressures began to intrude.

Despite the government's recognition of the requirement for a modern and capable military, by 1991 the modernization and expansion goals of the *1987 Defence White Paper* had effectively been abandoned. The Canadian defence policy statement in 1992 was the first document that directed the CF to transform into a smaller, more efficient and effective organization. This policy statement reinforced three basic themes that would remain consistent guidance for Air Force transformation during remainder of the decade. As articulated in the 1992 *Canadian Defence Policy* statement: "The two certainties in Canadian defence planning over the next decade will be international change and fiscal restraint. … Fiscal restraint means that the size of the Regular Forces

[28] *Ibid*, 118.

will decline. As that happens, some of the existing facilities will no longer be needed."[29] These three themes (international change, fiscal restraint and the downsizing of personnel, equipment and infrastructure) remained key aspects of the policies of the successive Liberal governments under Prime Minister Chrétien throughout the 1990s.

Upon becoming prime minister, Chrétien ordered a complete review of Canadian defence policy and consequently a review of the purpose, organization, funding and raison d'être of the CF. The results of this review were contained in the *1994 Defence White Paper*. One of the very first key statements in the new defence policy alludes to the decreasing importance of the CF and more specifically to the Air Force capabilities provided by the fighter force in the priorities of the Liberal government. Despite acknowledging the requirement to maintain a capable military force, the Chrétien Government was clearly focussed on reducing CF funding. The key factor considered by the government were the limited resources available for defence funding. Defence policy attempted to balance the two opposing requirements of reduced funding requiring difficult choices and trade-offs, and the need for a capable, flexible, multi-purpose military force able to perform the core capabilities as defined by the GoC.[30]

The *1994 Defence White Paper* went further than the previous Conservative defence policies in that it delineated specific actions that would be carried out, including specifying where and how much the military would be cut.

> Major cuts in headquarters and support activities will mean more resources devoted to combat forces and less to administrative overhead. … The department and forces will, by 1999, reduce by at least one-third the personnel and resources committed to headquarters functions.[31]

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[29] DND, *Canadian Defence Policy [1992]*, 12.
[30] DND, *1994 White Paper*, 3.
[31] *Ibid*, 31.

In addition to requiring reductions in the size of the forces, the Liberal defence policy shifted the emphasis of the CF towards a more army-centric force, at the expense of the air force and navy. The prevalent view of the politicians was that the focus of defence and foreign policy was to be primarily peacekeeping and therefore, a more robust army was required. Government policy explicitly stated the priority would be to maintain the army capability: "The relative weight of the naval, land and air establishments will be altered to allow for the transfer of more of the resources to where they are most needed – mainly to operational land forces."[32] As well as specifying reductions in headquarters, personnel and equipment, the new defence policy also provided guidance on the massive infrastructure holdings of the CF. The *1994 Defence White Paper* was directive in this regard specifying that: "More reductions can and will be accommodated, including further reductions in personnel, infrastructure and the capital program."[33]

While the government policy applied to the entire CF, the Air Force was singled out in the *1994 Defence White Paper* in one key area. "Expenditures on fighter forces and support will be reduced by at least 25% … retire the CF-5 fleet … cut the number of operational aircraft from 72 to between 48 and 60."[34] Martin Shadwick, Senior Research Fellow at the York Centre for International Security at York University noted: "It *is* to suggest that the Air Force has suffered more than its siblings in the post-Cold War strategic, political and fiscal environments. Part of the Air Force's problem is that is has been out-manoeuvred and out-politicked by its siblings…"[35] With respect to capability

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[32] *Ibid*, 6.
[33] *Ibid*, 9.
[34] *Ibid*, 35.
[35] Dr. Martin Shadwick, "The Vanishing Air Force?" *Canadian Military Journal* Vol. 1, No. 3 (Autumn 2000): 64. [italics in original].

reductions and funding cuts, the Air Force was squarely in the gun sight of the government.

Despite the significant changes to defence policy, mostly based on the perceived diminished post-Cold War threat, the Canadian government continued to commit the CF to a multitude of deployed missions. As Tomlin, Hillmer and Hampson noted: "…the government committed the CF to a wide variety of UN [United Nations] and NATO operations, including tougher and broader peacekeeping roles and the 1999 war in Kosovo."[36] These unceasing overseas missions placed severe strains on the entire CF, including stress on both personnel and equipment. Reductions in personnel resulted in more frequent deployments for the remaining CF members, and a lack of capital procurement combined with multiple deployments resulted in the rust-out of many of the Army's vehicle fleets. Additionally, despite funding reductions to maintain and modernize aircraft fleets, the requirement to support these missions from Canada resulted in a significant number flying hours expended on the air mobility fleets in support of international humanitarian and peacekeeping missions. Due to the requirement to balance operational priorities with available funding, it was inevitable that there would be a reduction in the capability to maintain, modernize and operate most of the other Air Force fleets, especially the fighter force.

The various government policies of the 1990s, both Conservative and Liberal, were attempts by the GoC to respond to important domestic and international pressures. The determination of Prime Minister Chrétien to balance the budget and reduce the deficit was the final and most critical factor in the initiation of the CF and Air Force specific transformation programs of the 1990s.

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[36] Tomlin, Hillmer, Hampson. *Canada's International Policies: Agendas, Alternatives, and Politics*, 109.

Government Fiscal Restraint Policy

Canadian defence policy is inextricably linked to government fiscal policy and is extremely susceptible to domestic and international economic pressures. Philippe Lagassé, then a senior fellow with the Canadian Defence and Foreign Affairs Institute, now an associate professor at the University of Ottawa noted in 2003: "Minimalist approaches to defence spending are a Canadian tradition … facing few direct threats, enjoying steady economic growth and being allied with two successive hegemons, Canada has had little incentive to generously fund defence."[37] This history of under-funding defence combined with the declining world economic outlook and rapidly changing international security concerns clearly indicated that the CF would be subject to reduced funding, in concert with all other federal departments.

By the early 1990s, Prime Minister Mulroney's Conservative government was becoming concerned with the increasing cost of the CF, as well as the ballooning government deficit. In addition to abandoning most of the objectives contained in the *1987 Defence White Paper*, the government began to cut the defence budget as the reality of the post-Cold War global security environment changed. "In 1989, the federal budget for defence was cut by $2.7 billion over five years and plans for military procurement were scrapped."[38] In 1992, the Conservatives went further and directed another cut to the defence budget. "With domestic opposition and budget deficits … Mulroney abandoned his support for higher defence expenditures … In 1991, the decision not to increase defence expenditures was transformed into another round of defence budget cuts."[39]

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[37] Philippe Lagassé, *Specialization and the Canadian Forces. Occasional Paper No. 40* (Ottawa: Carleton University Center for Security and Defence Studies, 2003), 4.
[38] Tomlin, Hillmer, Hampson. *Canada's International Policies: Agendas, Alternatives, and Politics*, 117.
[39] *Ibid,* 143.

The government was determined to justify the current level of defence spending. In a study of the MCCRT transformation of the 1990s, Lieutenant-Colonel (LCol) Michael Rostek stated: "As had occurred at the end of both World Wars, the end of the Cold War put Canada in a position where it began to question investment levels in its armed forces."[40] The election of Chrétien and the Liberal Party in 1993 intensified the pressure on the defence budget.

One of the main platforms of the Liberal government was to eliminate the deficit and balance the budget, and their focus on cost cutting was immediately apparent. In their analysis on international policy, Tomlin, Hillmer and Hampson noted that: "… these reductions would have to be imposed on every federal program and department … but as the only significant pool of discretionary spending the defence budget was especially vulnerable to cuts."[41] The authors go further and explain that the budget reductions proposed by Finance Minister Paul Martin were politically attractive due to the pressure to reduce funding and eliminate the deficit and resulted in a 23 percent reduction in defence fiscal allocations.[42] This reduced level of funding for DND and the CF would remain consistent throughout the remainder of the decade.

The reduction in the capital equipment budget was a key factor in the Air Force transformation efforts. Due to the large dollar figures allocated to capital equipment procurement, especially for the Air Force, the *1994 Defence White Paper* directed a dramatic cut to the capital equipment budget.

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[40] LCol Michael Rostek, "A Framework for Fundamental Change? The Management Command and Control Re-Engineering Initiative." *Canadian Military Journal* Vol. 5, No. 4 (Winter 2004-2005): 70.
[41] Tomlin, Hillmer, Hampson. *Canada's International Policies: Agendas, Alternatives, and Politics*, 108.
[42] Rostek, A Framework for Fundamental Change? The Management Command and Control Re-Engineering Initiative, 65.

> New equipment will be acquired only for purposes considered essential to maintaining core capabilities of the Canadian Forces, and will be suited to the widest range of defence roles … the Canadian Forces will operate fewer types of equipment … and purchase equipment that is easier to maintain. Planned acquisitions will be cut by at least 15 billion dollars over the next 15 years.[43]

Compared to the Army, Air Force equipment (aircraft, infrastructure) and the personnel training required to operate complex systems are comparatively expensive. The consequence was that the reduction in the capital equipment budget, combined with the Liberal government's intent to reallocate funding and personnel to the land forces for peacekeeping duties, resulted in a proportionally greater impact on the air force. In a 2004 examination of the effect of the 1990s fiscal policies on the CF, the Senate Committee on National Security and Defence reinforced the fact that the Air Force was the hardest hit in terms of funding and personnel cuts in the 1990s.[44] Describing the drastic impact of the *White Paper* directed cuts to the Air Force, LGen DeQuetteville explained that by removing "…$15 billion out of the capital budget … meant for the Air Force was that they [the decision makers in government] were only going to focus on Search and Rescue and PGM's [precision guided munitions] for the CF-18."[45]

Regardless of the missions assigned to the CF and the Air Force in particular, other than occasional extra funding provided for specific missions such as Somalia, Kosovo, and Operation (Op) Airbridge (the Sarajevo airlift), assigned defence missions generally have no impact on the level of defence funding. Historian Richard Gimblett contended that: "Defence budgets are determined by socio-political not military

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[43] DND, *1994 White Paper*,7.
[44] House of Commons, *Wounded: Canada's Military and the Legacy of Neglect*, 60.
[45] DeQuetteville interview.

imperatives."[46] During boom economic times with sufficient funding available to fund social programs, the government and the public pay very little attention to the CF. During challenging economic times when the government is forced to reduce funding levels to social programs the defence budget is an attractive target for the government. This was one of the prime catalysts behind the Air Force reductions of the 1990s.

The fiscal restraint policies of both the Conservative and Liberal governments during the 1990s had a drastic impact on the CF. This fact was recognized by the Conservative government in 2008 when the Canada First Defence Strategy remarked that: "Canadians live in a world characterized by volatility and unpredictability … The 1990s saw the emergence of difficult security challenges … during this period, governments dramatically under-invested in the Canadian Forces … "[47] This under-investment in the CF and specifically the Air Force was one of the key causal factors for the FP 97 initiative of the 1990s.

Conclusion

There were five key factors behind the CF and Air Force transformation programs of the 1990s. The end of the Cold War; the anticipated peace dividend; Canadian public opinion; Canadian defence policy and finally Canadian government fiscal restraint policies all contributed to the drastically altered defence environment and fundamental raison d'être of the CF. These factors combined to create an environment in which the Air Force had to completely re-evaluate itself, and undertake drastic transformation actions in order to remain capable, relevant and effective as the next chapter discusses.

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[46] Richard Gimblett, "The Canadian Way of War: Experience and Principles" in *Canadian Expeditionary Forces: Bison Paper 5,* ed. Allan English, 9-20 (Winnipeg: Centre for Defence and Security Studies, 2004), 14.

[47] DND, *Canada First Defence Strategy,* (Ottawa: DND Canada, 2008), 6.

CHAPTER 3. THE ACT OF TRANSFORMATION

> *A continuous and proactive process of developing and integrating innovative concepts, doctrines and capabilities in order to improve the effectiveness and interoperability of military forces.*[48]
>
> — Defence Terminology Bank, *"Transformation"*

The Air Force transformation efforts of the 1990s were a direct result of the five key factors discussed in the previous chapter: the end of the Cold War; the anticipated peace dividend; Canadian public opinion; Canadian defence policy and finally Canadian government fiscal restraint policies. In an analysis of the MCCRT initiative, Rostek reinforces the actuality that the 1990s was a period of unparalleled change for DND, the CF and consequently the Air Force.[49] These pressures caused the entire Canadian defence establishment to embark on an unprecedented transformation program.

This main departmental program to effect this evolution was coined the Management Command and Control Re-engineering (MCCR) program and the key players were called the MCCR Team. The Air Force initiative titled the Air Force Command and Control Re-engineering (AFCCR) program was managed by the corresponding AFCCR Team. Flight Plan 97 was the moniker assigned to the various activities designed to accomplish specific objectives under the larger AFCCRT initiative. The program was accomplished under the greater MCCRT umbrella, and in some instances had more ambitious objectives than those of the MCCRT. LGen Steve Lucas was CAS from 2005-2007, and during that time was he accountable to the GoC for the Air Force capabilities provided in support of domestic and global commitments. These

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[48] Defence Terminology Bank Record 28097, "Transformation," accessed 22 February 2013. http://terminology mil.ca.

[49] Rostek, *A Framework for Fundamental Change? The Management Command and Control Re-Engineering Initiative* , 65.

commitments included CAF missions in support of the United States led Global War on Terror. Discussing the goals of the transformation, he explains his view of LGen DeQuetteville's efforts of the 1990s: "… he saw a number things that emerged from that [MCCRT] and believed that the Air Force could benefit from something similar and in a number of instances he took it further than MCCRT … and to good effect too."[50] The transformation efforts had three main objectives in order to adhere to government direction on size reductions, while remaining operationally capable and relevant.

The first objective was to respond to and remain compliant with the government direction and changing defence and fiscal policies, as explained in the previous chapter. These policies, including the specific fleet and personnel reductions detailed and directed in the *1994 Defence White Paper* specifically targeted both headquarters size and numbers of personnel. The second objective was to gain efficiencies in the conduct of Air Force daily operations to compensate for the continuing reductions in funding allocations. LGen DeQuetteville recognized that the Air Force was in many ways an inefficient organization and that the increasing funding reductions could be somewhat mitigated by instilling better processes for managing Air Force resources.[51] The third objective was to remain operationally relevant and capable of conducting the missions assigned to the Air Force, or to support the missions assigned to the Army and Navy by the federal government albeit with a smaller capability pool. This meant redesigning force and readiness goals to accommodate the reduction in numbers of aircraft and personnel, as well as significantly reduced funding levels. Despite these reductions in Air Force funding levels, personnel cuts, and the requirement to retire large numbers of aircraft and

[50] LGen (ret'd) Steve Lucas, interview with author, June 23, 2013. All quotes from LGen Lucas are used with permission.
[51] DeQuetteville interview.

aircraft fleets, the mission of the Air Force remained essentially the same. As described in *Out of the Sun*, the air force doctrine published in 1989: "The role of Canada's Air Force is to generate and maintain combat capable, multi-purpose air forces…"[52] This core mission remains as the primary raison d'être of the Air Force today. The objective of evolving that Air Force to enable it to accomplish this mission drove the CAF efforts along four main lines of transformation: command and control, operational capabilities, personnel and infrastructure renewal. This chapter will describe in detail the various actions taken along each line of transformation.

Command and Control

The first line of transformation of the FP 97 program was the transformation of the command and control (C2) structure of the Air Force. This line encompassed changes at the strategic, operational and tactical levels of the Air Force, based around the reorganization of headquarters structures as directed by the government. Note that in this section, operational refers to the operational level of command, as opposed to the operational capabilities of the Air Force. The operational capabilities are addressed in the next section.

In a 2002 analysis of CF command and control, noted military analysts Brigadier-General (BGen) (ret'd) Joe Sharpe and Dr. Allan English observed: "In Canada, the perception existed within Treasury Board and some segments of Canadian society that significant savings could be made by eliminating waste caused by bureaucratization and administrative overlap in DND."[53] As a result, and in accordance with the Chrétien

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[52] Department of National Defence, *Out of the Sun. Aerospace Doctrine for the Canadian Forces* (Winnipeg: Craig Kelman & Associates: n.d), i.
[53] BGen (ret'd) G.E. Sharpe and Allan English, *Principles for Change in the Post-Cold War Command and Control of the Canadian Forces* (Winnipeg: Canadian Forces Leadership Institute, 2002), 12.

government's direction to eliminate one level of headquarters, command and control structures were viewed by many in the government and indeed in the military as the first area to target for both increased efficiencies and the resultant cost savings due to reduced personnel requirements. Based on these factors, through AFCCRT and FP 97 the Air Force initiated major command and control changes.

The intent of the C2 line of operation was to gain efficiencies in personnel numbers, to respond to specific government direction to become smaller, to eliminate one layer of headquarters, to improve the Air Force presence and capability at the strategic level, and to provide lower level commanders with appropriate authority to conduct missions assigned to them. These goals were complementary to, and synchronized with, the goals of the greater MCCRT initiative.

Discussing his objectives as Commander AIRCOM, LGen DeQuetteville remembers that one key target was to completely revamp and renew the structure of Air Command.[54]

> The primary guidance for the MCCRT was contained in the 1994 White Paper with additional guidance provided by senior management following the Dec 94 Merrickville meeting and the 1995 Budget. … The driving force for the MCCRT initiative was the need to reduce resources consumed by headquarters, infrastructure and wasteful business practices to ensure preservation of combat capability.[55]

Following the theme of the MCCRT initiative, the "AFCCRT was chartered to dramatically reduce headquarters personnel resources from a baseline defined by MCCRT in National Defence Headquarters (NDHQ)."[56] AFCCRT and FP 97

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[54] DeQuetteville interview.
[55] DND, *MCCRT Historical Report. Executive Summary,* 1.
[56] Department of National Defence, *Flight Plan 97 Executive Summary,* (Winnipeg: DND Canada, 1997), 2.

accomplished these objectives through transformation at the strategic, operational and tactical levels.

> AFCCRT developed new HQ constructs for both the Chief of the Air Staff (CAS) Group and 1 Canadian Air Division / Canadian NORAD Region (1 CAD/CANR) headquarters based on five core process as follows: strategic direction, force employment, force generation material, force generation personnel and corporate management. AIRCOM HQ and the four AIRCOM Group HQ are to be disbanded and the new structures, the CAS Group in Ottawa and 1 CAD/CANR HQ in Winnipeg, formed by 1 August 1997.[57]

While the strategic and operational level changes occurred simultaneously, the tactical level changes, namely the stand up of the Wing structure, had been initiated earlier in the decade. However, this initiative was incorporated into the transformed C2 structure of the Air Force and will therefore be discussed in this paper. This section will examine the transformation actions by command level, beginning with the strategic level alterations, followed by the operational level changes, and finally the tactical Wing-level metamorphosis.

The C2 transformation at the strategic level involved the stand down of AIRCOM Headquarters in Winnipeg, and the formation of the CAS organization at NDHQ in Ottawa. The primary reason for the decision to move the strategic activities to Ottawa was to remove the strategic staff command elements that were resident in AIRCOM from the requirement to oversee daily operations and to allow the CAS staff to focus on strategic issues. LGen DeQuetteville explains the difficulty he faced as Commander Air Command by being located in Winnipeg, one time zone behind Ottawa. “I would say that 95% of my day was taken up with strategic issues … I was in and out of Ottawa all the

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[57] Department of National Defence, *Master Implementation Plan for the Formation of the CAS Group* (Ottawa: DND Canada, 1997), 1.

time … it was just patently obvious to me that you had to be in Ottawa to exercise the strategic piece."[58]

Locating the CAS group at NDHQ in Ottawa placed the CAS in a position that would allow him interact at the strategic level with other CF and DND senior staff; a task that had proven difficult when the Commander Air Command was located in Winnipeg. These senior staff included the Chief of the Defence Staff, Vice Chief of the Defence Staff, Deputy Chief of the Defence Staff, Chief of Land Staff (CLS), Chief of Maritime Staff (CMS), and various senior civilian deputy ministers. Based on his experience trying to balance strategic and operational commitments from Winnipeg, LGen DeQuetteville was adamant that the strategic commander needed to be based in Ottawa, and allow the operational commander in Winnipeg to focus on running the missions assigned to the Air Force.[59] Of note, the transfer of strategic functions to Ottawa was not limited to the Air Force; both the CLS (St. Hubert) and CMS (Halifax) organizations were moved to Ottawa and stood up at NDHQ. The MCCRT directed that all Environment Chiefs (CLS, CMS, CAS) be located in Ottawa to focus on strategic issues. "ECSs will assume strategic responsibilities at NDHQ but will still retain command of operational formations, while devolving direct control of operations."[60] As a result, despite retaining the title Commander AIRCOM, the duties of the CAS, including the creation of a supporting staff were limited to a focus on the strategic level issues facing the Air Force, whereas the operational commander in Winnipeg was delegated authority to oversee the daily operations of the Air Force.[61] There was a very clear line drawn between the

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[58] DeQuetteville interview.
[59] DeQuetteville interview.
[60] Department of National Defence, *MCCRT Update to MND (PowerPoint),* (Ottawa: DND Canada, 1995).
[61] DND, *Master Implementation Plan for the Formation of the CAS Group,* Foreword.

responsibilities of the strategic level commander in Ottawa and the operational level commander in Winnipeg.

The second facet of the transformation of Air Force C2 was the creation of 1 CAD / CANR in Winnipeg. In order to comply with 1994 *White Paper* direction to cut one level of headquarters, the various Air Force groups were disbanded and their headquarters functions moved to Winnipeg:

> 1 CAD/CANR HQ is to amalgamate operational level functions from current HQ: AIRCOM, 10 Tactical Air Group (10 TAG), Maritime Air Group (MAG), Air Transport Group (ATG), and Fighter Group (FG/CANR). Maritime Air Component (Atlantic) and Maritime Air Component (Pacific) are to form part of the operational structure.[62]

There were two objectives behind the creation of 1 CAD / CANR. The first objective was to encourage and enable the various Air Force operational communities effectively conduct joint and combined operations. Prior to the creation of 1 CAD / CANR, the different group headquarters were located at widely separated locations across the country: Fighter Group in North Bay, Air Transport Group in Trenton, Maritime Air Group in Halifax, 10 Tactical Air Group in St. Hubert, and Air Reserve Group co-located with Air Command in Winnipeg.

This decentralized command structure was not conducive to the effective planning and conduct of joint and/or combined tasks, exercises and operations. LGen DeQuetteville explained the underlying reason to amalgamate the various capabilities: "The five operational headquarters moved into one – we weren't training people in joint and combined operations … we had these little silos. Air Transport Group was good at running air transport operations, Fighter Group was great at running fighter operations,

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[62] DND, *Master Implementation Plan for the Stand-Up of 1 Canadian Air Division Headquarters/Canadian NORAD Region Headquarters* (Winnipeg: DND Canada, 1997), 1/9.

but if you mixed and matched nobody knew how to do it."[63] Amalgamating these functions into one headquarters was an attempt to mitigate the differences between the various functions, and recognition of the increasing requirement for combined operations, where two or more capabilities would be assigned to the same mission. The transformation of the operational level into 1 CAD / CANR was a highly visible action with the greatest impact on the Air Force, a fact that was highlighted in the MCCRT Historical Report written in 1997: "At the operational level, this resulted in considerable change at all locations, the most dramatic being the closure of the four air group HQs and their consolidation into one operational level headquarters in Winnipeg."[64]

The second objective was to empower the Commander 1 CAD to exercise operational command of the daily activities of the Air Force on behalf of the Chief of the Air Staff, who was dual-hatted as the Commander AIRCOM. While the CAS retained full command of operational formations, the focus in Ottawa was to be on the strategic level, whereas the focus in Winnipeg would be on operations. As explained in the 1 CAD / CANR MIP: "Comd 1 CAD is responsible to the CAS Group for meeting all assigned tasks and for the effective operation of 1 CAD."[65] The Commander 1 CAD was made accountable for the task of translating strategic guidance from Ottawa into operational level activities. "The operational level, 1 CAD/CANR HQ, develops guidance based on strategic direction and directs and coordinates the tactical formations and units … and the tactical level, the Wings and units, delivers the capability."[66] The creation of 1 CAD / CANR served to both limit the responsibility of the Comd 1 CAD / CANR to the

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[63] DeQuetteville interview.
[64] DND, *MCCRT Historical Report. Executive Summary,* 3.
[65] DND, *Master Implementation Plan for the Stand-Up of 1 Canadian Air Division Headquarters/Canadian NORAD Region Headquarters,* D-3/4.
[66] DND, *Master Implementation Plan for the Formation of the CAS Group*, B-1/2.

operational level and to increase the Commanders focus on the conduct of the daily operations of the Air Force.

The C2 transformation at the tactical level was accomplished by the creation of the Wing structure in the Air Force. As previously mentioned, this transformation was not entirely part of FP 97, but rather had been initiated earlier to resolve tactical level C2 issues. Describing the creation of the Air Force wings, LGen David Huddleston, Commander AIRCOM 1991 to 1993 describes the underlying strategy behind the initiative: "The introduction of the Wing structure is an effective and economical solution to the organizational and doctrinal deficiencies currently existing in Air Command."[67] The Wing structure was however incorporated into the FP 97 command and control transformation initiatives

The Wing structure was created by merging the support and operational functions on Air Force bases into a combined unit under a single commander. "In all, we have constituted 17 Wings, mostly by superimposing the wing structure over the base organization."[68] Unlike the Army and Navy, air operations are frequently conducted from the tactical unit's home base, with the result that support to and the conduct of air operations has been inextricably linked geographically. "… the Air Force by nature isn't dependent on geography. The Navy and the Army have to be – the Air Force by nature doesn't have to be."[69] The creation of the Wing structure was intended to enhance this unique relationship while ensuring a single focal point for both support to and conduct of operations. The air force direction (through a CANAIRGEN Canadian Air General

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[67] DND, CANFORGEN 025/93: Air Command Reorganization, Ottawa: DND Canada, 1993. Note this CANFORGEN is available in the Department of History and Heritage (DHH) Archives in Ottawa.
[68] Department of National Defence, *Commemorative Booklet: The Formation of Wings in Air Command* (Winnipeg: Air Command Headquarters, 1993), 2.
[69] DeQuetteville interview.

message) directing the creation of the wing states that this transformation would accomplish the following:

> Focus efforts on air operations while retaining responsibility for regional support;
> Place the commander of an Air Force installation solidly in the operational chain of command;
> Clearly establish the authority, responsibility and accountability of air commanders for both operations and support;
> Recognize that support is an essential and integral part of air ops; and
> Foster a team concept within Air Command.[70]

The most critical result of this superimposition of the Wing over the existing Air Force bases was that the Wing Commander was now directly in the chain of command of the resident tactical level units on the various Air Force bases. Prior to the creation of the Wing structure, the base commander was responsible for the facilities and support provided to the operational units, but was not in the operational chain of command. Tactical level operational units such as fighter, air mobility, maritime and tactical airlift squadrons reported directly to the appropriate group headquarters commander whereas support organizations such as base transport, administration, construction engineering and supply reported to the base commander who limited command authority over tactical level units. The intent of the Wing structure was to create a position with the authority and responsibility to both provide support for and to conduct operations at the tactical level. In an examination of CAF leadership and command, Allan English and Col (ret'd) John Westrop note:

> The objective was to create an organization in which one individual would be "double-hatted" as both the Wing Commander (WComd) and Base Commander (BComd), and that individual would have clear authority,

[70] DND, CANAIRGEN 15/93: Air Command Reorganization, Winnipeg: DND Canada, 1993. Note this CANAIRGEN is available in the Department of History and Heritage Archives in Ottawa.

> responsibility, and accountability for both the operational role of the wing, as well as for the continuing support role of the base.[71]

In summary, the C2 line of operation of the transformation efforts of the Air Force resulted in changes at all three levels of command: strategic, operational, and tactical. The creation of the CAS group, the formation of 1 CAD / CANR, the closure of all Air Force Group Headquarters, and the creation of the Wing structure were intended to create efficiencies in headquarters staffing levels, to clearly differentiate the roles of each level and to provide the requisite responsibility, authority and accountability at each level of command. These command and control transformations were critical to enable the Air Force to conduct the actions required in the operational transformation line of operations.

Operational Capabilities

Throughout the transformation efforts of the 1990s, LGen DeQuetteville orchestrated the programme based on one key understanding: in order to remain a viable, separate entity, the Air Force had to demonstrate that it could, as a whole, undertake and successfully complete multiple different sets of missions as assigned by the government. "These new imperatives require that the CAF be combat capable and able to respond to a wide variety of operational commitments around the world."[72] The challenge facing, commander AIRCOM between 1998 and 2000, the Air Force was to maintain the required operational capability in an environment of insufficient funding. Commenting in a study of Air Power in 2000, LGen Kinsman clearly articulated the challenge that the air force faced: "Between 1993-94 and 1997-98 the budget of the air force dropped some

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[71] Allan English and Col (ret'd) John Westrop, *Canadian Air Force Leadership and Command: The Human Dimension of Expeditionary Air Force Operations* (Ottawa, DND: Canada, 2007), 65.
[72] DND, *Out of the Sun*, i.

$275-million a year, or roughly 30 percent in our operating budget. That translates into fewer aircraft, fewer flying hours."[73] The key point of the air force transformation efforts of the 1990s, in addition to specifically targeting the number of fighter aircraft and capability of the remaining fighter fleet in the *1994 Defence White Paper*, was that the majority of the operational capability transformation actions were a direct result of reduced funding for the Air Force and attempts to mitigate the effects thereof.

While for the most part, the *1994 Defence White Paper* did not provide specific direction to the Air Force on operational fleets, it singled out the fighter fleet for reductions in fleet types, numbers of aircraft and consequently the capability of the CAF fighter aircraft fleet as follows: "Expenditures on fighter forces and support will be reduced by at least 25% through retirement of the CF-5 fleet … and by cutting the number of operational aircraft [CF-18] from 72 to between 48 and 60."[74] The primary mission for the CAF fighter force would be the NORAD commitment, with no foreseeable overseas deployment. James Fergusson is currently the Director of the Centre for Defence and Security Studies at the University of Manitoba, and has published numerous studies and articles on strategic and military issues. In a 2009 paper discussing the complexity of the bi-lateral defence agreement between the United States and Canada for the defence of North America, he observed the effect of the resource reductions: "Even with both nations facing spending cuts in the 1990s, NORAD costs also remained manageable … National assets dedicated to NORAD's missions could be reduced …"[75]

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[73] LGen David Kinsman, "The Future of the Canadian Air Force" in *Air Power at the Turn of the Millennium,* ed. David Rudd, Jim Hanson and André Beauregard 5-15 (Toronto: Canadian Institute of Strategic Studies, 2000), 6.
[74] DND, *1994 White Paper*, 9.
[75] James Fergusson, *Beneath the Radar: Change and Transformation in the Canada-U.S. North American Defence Relationship* (Calgary: Canadian Defence & Foreign Affairs Institute: 2009), 7.

The Air Force had no choice but to shrink the number of CF-18s in operational service as well as mothball the CF-5s, which had recently been modernized. However, the aircraft losses were not limited to the fighter force.

In addition to the reductions specified in the CF18 Fleet, virtually every Air Force community was driven to reduce the number of aircraft and shed capabilities in order to ameliorate the drastic funding reductions. While the *Aerospace Capability Framework* published in 2003 was intended as a roadmap for the future of the Air Force in the 2000s, it did note that the 1990s had been a period of turmoil and aircraft losses for the Air Force. "The restricted availability of funds throughout the 1990s led to a number of other Air Command fleet reductions during the period."[76] This reduction in the number and variety of aircraft produced a corresponding degradation to, and in some cases the complete loss of Air Force capabilities.

The Air Force suffered decreased capabilities spectrum of Air Force, despite government claims to the contrary. The list of capability reductions and/or losses is extensive. The reality is that diminished numbers of CF-18s and the retirement of the entire CF-5 fleet resulted in a produced a lessened offensive and defensive air capability. The retirement of the CC-137 Boeing, in addition to the elimination of a key strategic transport capability, resulted as well in the loss of the CF strategic air-to-air refuelling capability that enabled the rapid long-deployment of CF-18s. The retirement of the CH-147 Chinook helicopters caused a loss of medium to heavy lift rotary wing capability, which is now being re-acquired. The retirement of the pilot training fleets required contracted pilot training vehicles that affected the ability of the Air Force to produce pilots. As the *2008 CFDS* later acknowledged, "… serious and significant cuts to defence

[76] DND, *The Aerospace Capability Framework*, 43.

funding in the 1990s resulted in an overall degradation of the Force's equipment" with the Air Force eliminating almost half of its aircraft during a period of a few years.[77] Table 3.1 provides a comparison of the number of aircraft and fleets between 1989 and the early 2000s. This 50% reduction in the size of the Air Force aircraft inventory was the most visible result of the drastic funding cuts for the Air Force.

These reduced funding levels also required revolutionary adjustments in other operational areas. The Yearly Flying Rate (YFR) is the number of flying hours allocated to the Air Force to operate the various fleets of aircraft, and is calculated using the time a specific aircraft is actually airborne in pursuit of a training or operational mission. Operating a fleet of aircraft is a relatively expensive task, as compared to operating a fleet of land vehicles for example. YFR is assigned a cost per hour that includes factors such as the cost of consumables such as fuel, the cost of maintenance of the aircraft and the salaries of the aircrew. In the 1990s, YFR was significantly reduced because of the diminished funding levels, which quickly resulted in a rapidly declining ability of the Air Force to fund training and operational missions. The groundbreaking examination of the impact of the 1990s forced transformation conducted by the Senate Committee on National Security and Defence verified the impact when asserting that: "During the same period [1990-2000] the number of authorized annual flying hours has decreased from about 290,000 to about 120,000, a 59 per cent reduction."[78]

The effect of these reductions in fleets and YFR were compounded by the decision to cut the fiscal resources for capital equipment procurement as well as reducing funds for operations and maintenance. Through the delay and cancellation of projects for

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[77]DND, *Canada First Defence Strategy,* 15.
[78] House of Commons, *Wounded*, 66.

new aircraft and support equipment, the government further cut the CAF budget. According to LGen DeQuetteville, as a result the Air Force had to seek innovative solutions to mitigate to the removal of approximately $15 billion from the capital project budget to acquire and modernize rapidly ageing aircraft, with the understanding that the situation would not improve in the near future.[79] One of the most visible examples of this was the still controversial decision by Prime Minister Chrétien to cancel the EH-101 Maritime Helicopter, a decision that impacted the acquisition of new Search and Rescue (SAR) helicopters and is echoed today with the enduring CH-148 Cyclone maritime helicopter project.

The reductions in the capital budget did not completely halt all acquisitions. The CH-149 Cormorant, the purchase of five CC-130T Hercules air-to-air refuelling aircraft, the avionics modernization of the entire CC-130 fleet, and the initial stages of the incremental update program for the CP-140 Aurora are four examples of new equipment the Air Force received. However many of the Air Force aircraft fleets were quickly becoming obsolete. In a comparison of Canadian, New Zealand and Australian doctrine development, Aaron Jackson bluntly summarized the seriousness of the issue the Air Force was facing as it attempted to remain relevant and capable: "… the prospect [was] that the CF would be required to continue [operating] with obsolete equipment."[80]

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[79] DeQuetteville interview.
[80] Aaron P. Jackson, *Doctrine, Strategy and Military Culture: Military-Strategic Doctrine Development in Australia, Canada and New Zealand, 1987-2007* (Trenton, Ontario: Canadian Forces Aerospace Warfare Centre, 2013), 27.

Table 3.1 - Comparison of 1989 and Early 21st Century Air Forces

1989 Air Force	Early 21st Century Air Force
Fighters	**Fighters**
138 CF18 Multi-Role (96 Operational)	80 CF18 Multi-Role (48 Operational)
43 CF-5	
Patrol Aircraft	**Patrol Aircraft**
18 CP140 Aurora LRPA	16 CP140 Aurora LRPA
3 CP140A Arcturus	
19 CP121 Tracker MRPA	
Maritime Helicopter	**Maritime Helicopter**
33 CH124 Sea-King	29 CH124 Sea-King (28 new MH)
Land Aviation	**Land Aviation**
7 CH147 Chinook Heavy Lift Helicopter	75 CH146 Griffon
44 CH135 Medium Transport Helicopter	
63 CH136 Light Observation Helicopter	
Air Transport / AAR	**Air Transport / AAR**
5 CC137 Boeing 707 (2 AAR)	5 CC150 Polaris (2 AAR)
28 CC130 Hercules	32 CC130 Hercules (5 AAR)
10 CC144 Challenger	6 CT144 Challenger (4 Govt / 2 Mil)
2 CC142 Dash8	
7CC109 Cosmopolitan	
SAR	**SAR**
14 CH113 Labrador Helicopter	15 CH149 Cormorant Helicopter
15 CC115 Buffalo Fixed Wing Aircraft	6 CC115 Buffalo (then new FWSAR)
Combat Support	**Combat Support**
9 CH118 Iroquois Helicopters	10 CH146 Griffon Helicopters
6 CE144 Challengers	4 CT133 (AETE)
42 CT133 (ST, EW, DM)	
Training / Utility	**Training / Utility**
22 CT 134A Musketeer II	CFTS Contract
9 CH136 Kiowa	NFTC Contract
136 CT114 Tutor (Pilot Training and Snowbirds)	17 CT114 Tutor (Snowbirds)
	4 CT-142 Dash 8 (Navigator Training)
4 CT-142Dash 8 (Navigator Training)	4 CC-138 Twin Otter
7 CC-138 Twin Otter	
Military Personnel - 1989	**Military Personnel - 1989**
24,113	12,566

Source: DND, “The Aerospace Capability Framework”, Annex A, A1.

Despite the requirement to remain operationally viable while safeguarding the ability to generate combat capable forces, the Air Force was faced with rising operational costs associated with ageing aircraft with no significant procurement of new aircraft in the near future. As a result, the Air Force attempted to maintain the requisite capabilities by initiating smaller modernization programs for various fleets. Due to the lack of capital funding, the Air Force had to reallocate resources internally to fund these modernizations. LGen DeQuetteville explained: "…we needed to have a modernization agenda to shore up the operational posture but there was no way that was going to come out of capital funds, so we embarked on an agonizing process to try and steal money from O&M to modernize… "[81] These painful efforts were partially successful as several fleets including the CF-18, CC-130 and CH-124 Sea King all received at least some degree of modernization during the 1990s, as well as contracting some aircraft capabilities in training areas, such as electronic warfare training support.

The operational line of transformation of the AFCCRT and FP 97 initiatives was the Air Force response to the requirement to retain the capability to generate and deploy combat capable multi-purpose forces while mitigating the effects of drastically reduced funding levels for operations and maintenance activities, as well as the effective cessation of most major capital procurement projects. Transformational actions taken included the retirement of entire aircraft fleets, reduction in the number of aircraft, reduced YFR levels and incremental modernization programs for ageing aircraft. Coincident with the operational transformation efforts was the requirement to undertake actions to transform the Air Force personnel system.

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[81] DeQuetteville interview.

Personnel

The personnel line of transformation was the third portion to the FP 97 program of the 1990s. The Air Force was experiencing major cuts in personnel manning levels in the 1990s and as expected, morale plunged to an never before seen level during the decade. The *1994 Defence White Paper* was explicit in directing continued personnel cuts and the restructuring of career paths, including a lessening of the number of postings in order to garner increased fiscal savings for the government.[82] These personnel cuts combined with the federal government's intent to bolster the Canadian Army meant that the Air Force was in a drastic situation regarding manning levels. English and Westrop noted the critical situation that the Air Force faced at the time: "… the CF personnel establishment was cut substantially, with Air Command disproportionally affected … a 45 percent reduction in Air Command personnel … nearly 80 percent of the total environmental command reduction."[83] The mandated personnel reductions were exacerbated by the continuing loss of pilots and technicians to the civilian airline industry in the 1990s. An aggressive force reduction program that provided substantial incentives to personnel who chose to leave the CF to pursue a civilian career reinforced this crisis. According to LGen DeQuetteville, the problem was: "The other key piece of our operational posture was the whole pilot retention thing … we were in a world of hurt in the C-130 world and the CF-18 world. In terms of experienced Captains, we were losing

[82] DND, *1994 White Paper*, 7.
[83] English and Westrop, *Canadian Air Force Leadership and Command,* 63.

them in droves to the airlines …"[84] The long-term impact of these reductions would reverberate throughout the decade and well into the 2000s.

Two key initiatives were undertaken in an attempt to mitigate the personnel issues. The first was an attempt to improve the pilot training to increase production and compensate for the loss of pilots to the civilian airline industry. Improving the pilot training system would continue to be a focus of the Air Force for the remainder of the decade. The major concern for Air Force leadership was that as pilot attrition increased to more than double the pilot training production capability, the impact was substantial as the departing pilots were in many cases among the most experienced and integral to the ability of the CAF safely and effectively conduct missions.[85]

The second initiative was to reduce the number of Air Force technician trades, the Military Occupation Classification (MOC) 500 initiative. The reduction in support personnel was causing major difficulties in the support posture of the Air Force. LGen DeQuetteville, commenting on the complexity of the challenge facing the Air Force support community at the time: " … what we had to do was get our support posture in line with the reduced size of our Air Force … One was MOC 500 and the fact that we had 13 trades at that time …"[86] This was compared to the civilian airline industry that had only two aviation technician trades. The initial intent of the MOC 500 program was to reduce the 13 technician trades down to two in order to increase the flexibility of the much smaller technician force in the Air Force. Combined with the funding reductions

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[84] DeQuetteville interview.
[85] House of Commons, Standing Committee on National Defence and Veterans' Affairs, *Minutes of Proceedings,* no. 16, Thursday December 4, 1997, 1545.
[86] DeQuetteville interview.

and retirement of Air Force fleets, the personnel reductions created a significant morale problem in the Air Force.

In the 1990s, the perception of the senior leadership was that morale was at an all time low. In addition to personnel reductions, incentive pay and even cost of living increases for CF members were frozen for several years and, in many occupations, promotions effectively ground to a halt. In addition to these government actions, which affected individual CF members, the Liberal government's decision to virtually cease all capital procurement exacerbated the rapidly declining morale of CF personnel. Discussing the cancellation of the new submarines, new fighter aircraft and new main battle tanks promised in the *1987 White Paper*, Jackson asserts: "For the CF, the immediate result of the cancellation was a major blow to morale, which had been temporarily boosted by the prospect of finally receiving a much-needed equipment update."[87] LGen DeQuetteville expanded on this observation to include several other factors:

> We were in terrible shape in the mid-nineties as a consequence of all these pressures … the budget cuts FRP (Force Reduction Plan), the morale [of the Air Force personnel plummeted to an all time low]; we where losing pilots to the airlines, we were cutting back pay, terms of service, everything was just really terrible … we're getting beat up in the press … the public opinion – people where looking down their noses at anybody in uniform, and it was just killing us.[88]

The portion of the Flight Plan 97 program designed to improve the morale of Air Force personnel, a central element of the Air Force transformation initiative, was titled Flight Plan for Life. "Flight Plan for Life was an air force package of quality of life initiatives within a national level program to try to improve the quality of life of all

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[87] Jackson, *Doctrine, Strategy and Military Culture, 1987-2007,* 27.
[88] DeQuetteville interview.

members of the air force team …"[89] The Air Force team conducted interviews and town halls at every Air Force base and installation across the country. Their mandate from LGen DeQuetteville was to make achievable recommendations that the Air Force could accomplish to enhance the quality of life and improve morale.

While issues such as pay levels and terms of service were beyond the ability of the Air Force to address, many smaller programs came out of Flight Plan for Life. One example was the improvement of professional development opportunities for Air Force personnel, especially non-commissioned members. A second example was to provide Wing Commanders with the financial resources and associated authorities to address morale and quality of life issues at the tactical level. "We started to take money out of our Air Command budget and push it down."[90] LGen DeQuetteville explains which empowered Wing Commanders to reallocate some operational funding to areas they deemed important for personnel-related concerns to improve morale at the tactical level.[91]

Despite the fact that the Air Force was limited in the actions that it could unilaterally take to improve quality of life and morale, the buy-in of Air Force personnel to the transformation effort was critical. The most successful aspect of Flight Plan for Life was the engagement of Air Force personnel at all levels of the Air Force to allow them to raise issues and potential solutions to the Air Force leadership. Discussing the results of the personnel aspects of the Flight Plan 97 transformation, LGen Lucas, who was a colonel at the time, remembers that he "was quite impressed … most notably in the area of trying to engage the members of the air force to a greater extent than they had

[89] House of Commons, *Minutes of Proceedings*, 1540.
[90] DeQuetteville interview.
[91] *Ibid*.

been in the past. There was a lot of untapped potential lying out there that was not contributing as much as it could."[92]

Infrastructure

The final set of actions taken during the 1990s was the infrastructure line of transformation. By the early 1990s, the government had recognized that the infrastructure costs to the CF consumed a significant portion of both funding and resources allocated to DND. In response to the direction on funding cuts, personnel reduction and the disbanding of one layer of headquarters, the Air Force began a program of reducing its infrastructure holdings. Recalling the situation, LGen DeQuetteville recognized that he recognized that the Air Force infrastructure holdings and associated costs were too large for the reduced size of the Air Force."[93]

The greater MCCRT initiative attempted to rationalize and reduce the number of CF bases and installations, and was relatively successful; approximately half of the CF facilities were closed during the 1990s in an effort to rein in infrastructure costs. In the Compendium of Changes to the Canadian Forces report, the Minister of National Defence in 1997 recognized that: "… infrastructure costs will be significantly reduced as the number of CF facilities declines. We had 52 bases, stations and detachments in 1994. By 1999, we will have dropped to 24."[94] In concert with this effort, the Air Force attempted to rationalize Air Force installations in order to maximize operational efficiency.

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[92] Lucas, interview.
[93] DeQuetteville interview.
[94] Department of National Defence, *Compendium of Changes in the Canadian Forces and the DND,* Ottawa: DND Canada, 1997). 6.

LGen DeQuetteville saw the amalgamation of the previous group headquarters into 1 CAD / CANR in Winnipeg as an enabler to further reducing infrastructure holdings. His intent was to close installations that had either limited operational capability, or those whose functions could be assumed by another Air Force base with relative ease. He recalled that there were two notable examples of this. "I called into question North Bay – we did not need North Bay … The other one was Shearwater – the runway had been closed and the infrastructure was totally derelict."[95] The government did not however allow the closing of either North Bay or Shearwater. The Air Force did manage to divest itself of some stations, bases, facilities and buildings, however fewer than desires end due to political considerations. However the effort to close those bases such as North Bay, Goose Bay and Shearwater in order to align operational requirements with infrastructure this transformation initiative would fail.

The challenge facing the Air Force, and the CF as a whole, when attempting to reduce infrastructure was the political fallout associated with base and station closures. LGen DeQuetteville explained the challenges facing those responsible with creating a base and infrastructure reduction plan as: "… you're conflicted between the direction to cut budgets on one hand, but you can't make the rational infrastructure decision. The politicians will tell you … they want you to close the places that don't have political impact for them."[96] Due to the conflict between operational efficiency and political expediency, many of the Air Force initiatives, and indeed the greater CF attempts at reducing infrastructure were unsuccessful, although the Air Force did manage to close many of the radar warning stations in the far north and a small number of Air Force bases,

[95] DeQuetteville interview.
[96] *Ibid*.

including 18 Wing Edmonton. In 1994, making a prescient statement that sums up the situation of the 1990s, Bland observes that: "In recent years, DND has been able to close some stations … However, other bases, which some officials admit are redundant to the operational needs of the CF, remain active."[97] The best illustration of this dichotomy between operational necessity and political pressures was and remains 5 Wing Goose Bay. With the effective discontinuance of NATO (British and German) flying training in Labrador, there is currently no overriding operational reason for the CF to continue to preserve 5 Wing as an operational Air Force installation. However, political considerations require the continued support of the CF base and the Air Force wing, despite the negligible operational benefits and at the cost of diverting funding to the maintenance of the facility for purely political reasons. In the mid-2000s excessive infrastructure remained a significant issue for the Air Force since despite a 50% reduction in personnel and aircraft strength, through the 1990s, infrastructure was reduced by only 20%.[98] The infrastructure line of transformation would remain the least effective of all of the Air Force transformation efforts.

Conclusion

During the 1990s, in order to remain operationally viable and capable, the CF and specifically the Air Force embarked on a transformation program in response to a variety of political, financial and societal forces. The Air Force transformation efforts under AFCCRT and FP 97 had four lines of transformation. The two most visible lines, C2 and operational capability drastically changed the face of the CAF. In addition, while not as

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[97] Douglas Bland, A Strategy of Choice: Preparing the Canadian Armed Forces for the 21st Century. *Canadian Foreign Policy* Vol. 2, No. 1, (Spring 1994): 119.
[98] LGen Ken Pennie, "Transforming Canada's Air Force: Vectors for the Futureasd." *Canadian Military Journal* Vol. 5, No. 4 (Winter 2004-2005): 39.

obvious to the Canadian public as the reduction in aircraft fleets, the impact of the massive reduction in personnel and reduction of AF infrastructure continue to reverberate through the Air Force today as the CAF continues to deal with both personnel experience and succession planning issues as well as an infrastructure inventory that remains excessive. While the transformation exercise of the 1990s was not completely successful, it did ensure the CAF retained the capability to generate and deploy multi-purpose, combat capable forces. In 2004, looking back on the 1990s, the Senate Committee on National Security and Defence summed up the actions that took place:

> Nearly every component of the Air Force has been diminished. In the mid-1990s the Air Force funnelled five functional headquarters into one operational headquarters, cut flying hours in all its aircraft fleets, reduced its force of trained technicians and closed 5 major air bases.[99]

The profoundly changed Canadian Air Force that emerged from the turbulent 1990s was radically different from all previous iterations. The following chapter will examine the degree of success and the failures of the transformation efforts of FP 97.

[99] House of Commons, *Wounded: Canada's Military and the Legacy of Neglect*, 59.

CHAPTER 4. TRANSFORMATION RESULTS AND LESSONS LEARNED

During the 1990s, in response to government direction, the Air Force undertook a major transformation program centred on four main areas: organizational change centred around command and control, an operational capability evolution, declining personnel numbers, and infrastructure reductions. The Air Force that emerged from the transformation was significantly smaller yet remained operationally effective and capable of competently and professionally carrying out the tasks assigned to it by the political leaders of Canada. As was discussed in the literature review in Chapter 1, no holistic study of the degree of success of the AFCCRT and FP 97 actions has been completed, nor has a formal lessons learned examination been carried out to date. However, the relative success of the transformation program can be inferred from the ability of the Air Force to complete the tasks assigned throughout the 1990s and the following decade. This chapter will discuss both the successes of the transformation efforts of the 1990s, as well as those areas where the objectives were either not completely achieved, or indeed the transformation efforts failed, based on the demonstrated and continued ability of the Air Force to generate, deploy and maintain combat capable forces.

Organization

Organizational transformation occurred at all three levels of the Air Force: strategic, operational and tactical. The success or failure of these actions will be examined in two main areas: the accomplishment of specific transformation tasks, and the ability of the three levels to effectively exercise command and control at the various levels.

At the strategic level, the physical task of standing up the CAS in Ottawa organization was fully realized. The summary report on FP 97 states that "AFCCRT was highly successful. It delivered the CAS (Chief of the Air Staff) and 1 CAD (Canadian Air Division) structures on time."[100] Most importantly, this transition was completed without any significant negative impact on the daily operational mission of the Air Force. "The transition from Air Command with subordinate Air Groups to a strategic level headquarters with a single operational level headquarters was carried out without an apparent break in continuity of command."[101]

The movement of the CAS to Ottawa facilitated a focus on the strategic level issues facing the Air Force in concert with other CF and departmental senior staff. Engagement with the Army and Navy was critical to ensure that all branches of the CF understood and supported the Air Force efforts to remain viable and effective. As a result of this, the ability of the CAS to engage with the CLS and CMS in Ottawa and clearly enunciate the capabilities of the Air Force was instrumental in ensuring the support of the other elements. In the view of LGen Lucas, this effort was remarkably effective: "A lot of the success the Air Force realized in the last decades is that we have demonstrated to the Army and Navy that we can actually provide them with services at least as well as if not better than they could provide to themselves."[102]

In addition to concentrating the provision of strategic guidance to the Air Force in a single location, the most visible responsibility of the Air Staff was, and remains capital procurement issues. The concentration of a strategic level staff in Ottawa, working to support all Air Force capabilities while balancing the conflicting priorities and demands

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[100] DND, *Flight Plan 97: Summary of Experience,* (Winnipeg: DND Canada, n.d.), 3.
[101] DND, *Air Staff Functional Review* (Ottawa: DND Canada, 1998), i.
[102] Lucas interview.

of the other elements allowed the Air Force to effectively provide the required support while pursuing a significant modernization program. Despite the significant and continuing pressures on the capital procurement budget throughout the 1990s and into the 2000s, the Air Force was relatively successful in acquiring both funding for modernization of multiple fleets, and the acquisition of new capabilities. The most visible of these successes was the rapid acquisition and deployment of the CC-177 Globemaster and the CC-130J Hercules; capital projects that were all completed in record time. In addition, the concurrent fielding of loaned (from the United States) CH-147D Chinooks in Afghanistan while simultaneously purchasing the state of the art CH-147F Chinooks illustrates the agility of the Air Force in successfully achieving objectives that span the spectrum of strategic activities through tactical level missions. While it is true that capital procurement is an activity involving multiple government departments, and generally advances only with strong government support and determination, project initiation and requirements definition are the responsibility of the Air Staff and in these cases was testament to the Air Staff capabilities in Ottawa, despite recent controversies such as the potential F-35 acquisition.

Discussing the capability of the Air Staff a decade after its creation in Ottawa, and using the new Chinooks as a barometer of the effectiveness of the new organization, LGen Lucas recalled that: "In less than one year we re-acquired Chinooks, mounted them, fielded them, and set an exceptional standard in theatre. I don't know of another organization that could do that."[103] While there were also failures at the strategic level, such as the continuing Maritime Helicopter Project and Fixed Wing Search and Rescue Project sagas, AFCCRT was successful in creating a flexible and dynamic organization

[103] *Ibid*.

able to effectively address Air Force strategic issues, fully synchronized with the strategic ministerial, CF and departmental staff. LGen DeQuetteville summarized the end result of this important organizational change as follows: **"**Everyone at the macro level would acknowledge the headquarters changes had to be done and now the Chief of the Air Staff and his staff are focused on the strategic level."[104]

At the operational level, 1 CAD / CANR HQ was also successfully created, rising from the ashes of Air Command Headquarters and the Group Headquarters. The amalgamation of the various Air Force groups into a single organization in Winnipeg was again accomplished without significant negative operational consequences, and the group headquarters at various locations around the country were closed. To address the tactical requirements of the army and navy, various tactical organizations such as 1 Wing in Kingston, and maritime air components in both Halifax and Esquimalt (MAC(A) and MAC(P)) were also formed to facilitate the tactical level integration with the other two CF elements. Commander 1 CAD was provided with the organization and staff to enable a concentration on translating strategic guidance from Ottawa into the planning and execution of assigned missions. Speaking of his time as Comd 1 CAD / CANR, LGen Lucas expressed the opinion that despite some limitations, the creation of 1 CAD / CANR was successful and key to the continued operational success of the Air Force.[105]

Throughout the 1990s and continuing today, the operational tempo of the Air Force has been extremely high. 1 CAD / CANR has continuously and successfully exercised command and control over the operational and tactical level units involved in these operations on a consistent basis. The variety of experience from the various

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[104] DeQuetteville interview.
[105] Lucas interview.

operational communities resident in the 1 CAD staff facilitate the effective planning and conduct of joint and combined operations, creating significant efficiencies in the allocation of Air Force resources world wide in support of government objectives. Looking back on the extremely difficult decisions he made in the 1990s to dismantle the operational groups, and the Air Force accomplishments of the past 15 years, LGen DeQuetteville observed that: "At the macro level I don't think we had a choice and I think it was a success because we were able to prosecute the Afghanistans, the CAOCs, the Libyas. We've been able to do a lot of things we could never do before."[106] Often the first choice to international crises or domestic situations called upon by the federal government, whether deployed as the only response or in support of the Army or Navy, the oft-repeated successes of the Air Force in successfully mounting short-notice operations is a clear validation of the CAS and 1 CAD / CANR concept resulting from Flight Plan 97.

However, there are two areas where the operational transformation was not completely successful. Firstly, the combination of 1 CAD and CANR into a single operational headquarters under a single commander has, at times, proven to be less than ideal. Whereas 1 CAD is responsible to the CF chain of command to carry out operational missions as assigned by the GoC, the CANR chain of command is responsible to NORAD headquarters, commanded by a United States Air Force commander, and is charged with the defence of North America. It is obvious that these two differing missions can create challenges and conflicts in the priority of the operational headquarters. The same commander and staff are responsible for two widely varying mission sets, with two differing chains of command. The potential for conflicts in

[106] DeQuetteville interview.

priority between NORAD missions and other CF operational missions is enormous, due to insufficient staff and resources to separately and concurrently plan and execute both missions at the headquarters level. While the action to delegate the responsibility to a single commander was necessary due to resource reductions, the result has the potential to force the Commander to set priorities between NORAD and GoC missions.

The Air Force officer career succession plan was a second area that was negatively impacted by the transformation. Due to the technical nature of Air Force officer aircrew occupations, primarily pilots, the overwhelming majority of Air Force officers spend the first five to ten years of their career learning to master the employment of their assigned weapon system, with limited opportunities to command other personnel. Compared to the army and navy, where the primary role for junior officers is commanding troops, aircrew in the CAF are generally at the rank of captain and above before being eligible for command opportunities. This disparity in officer employment in the CF becomes more skewed at the senior officer level.

As a result of the closing of squadrons and the disbandment of these capability Groups, there are comparatively few command positions for senior officers inside the Air Force. This results in a diminished capability to train officers for the most senior command positions in the CF, given the joint nature of the current force construct. Air Force Wings are commanded by a colonel, and until FP 97, a BGen commanded the various capability Groups. In a paper written for the National Security Program when he was a student, now Major-General, then Colonel Michael Hood, questions whether the current Air Force construct provide sufficient command positions for at the BGen and above level to adequately prepare Air Force officers (primarily aircrew) for the senior

command appointments in the current joint construct of the CF.[107] The Air Force has since attempted to mitigate this situation by the creation of 2 Canadian Air Division, which is commanded by a BGen, yet the challenge of developing senior leaders in the Air Force continues. Despite these two arguably minor issues, the AFCCRT transformation of the operational level of command was successful.

The creation of the Wing structure, the tactical level transformation, was for the most part completely successful. Each Air Force Wing was superimposed over an existing base, and the Wing Commanders were provided with the appropriate levels of accountability, responsibility and authority to conduct the missions assigned to the Wing. The Wing Commander is responsible to ensure the efficient and effective provision of the required facilities and support to the missions for which he is responsible. Tactical level units continue to be responsible and accountable to the Wing Commander, who is in turn responsible to the Commander 1 CAD to complete all assigned missions. Despite the fact that the Air Force has closed 4 Wings (2 Wing Toronto, 7 Wing Ottawa, 11 Wing St. Hubert and 18 Wing Edmonton), and has since re-established 2 Wing at Bagotville as the Air Force Air Expeditionary Wing, the imposition of the Wing Structure in the Air Force was an effective and successful program. Wing Commanders are fully engaged in the conduct of the missions assigned to the tactical level units resident on the Wing, and are empowered to allocate resources accordingly. All three levels of transformation (strategic, operational and tactical) were critical to the success of the Air Force to maintain a relevant operational capability.

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[107] Michael J. Hood, "Why Canadian Airmen Are Not Commanding." *Canadian Military Journal* Vol. 11, No. 3 (Summer 2011): 42.

Operational Capability

The operational capability of the Air Force remained essential to the GoC throughout the 1990s and the 2000s, in spite of suffering severe force reductions and resource cuts because of government determination to balance the budget and eliminate the deficit. In *Wounded*, the Senate Committee on National Security and Defence noted that: "Despite the financial pounding it has taken from the federal government since 1994, Canada's Air Force continues to be an essential element of national security and defence ..."[108] An examination of the number and types of missions conducted by the Air Force during and after the 1990s will demonstrate that through AFCCRT the Air Force has effectively remained relevant and operationally capable.

Despite the reductions in aircraft numbers and personnel, the Air Force was capably transformed into a flexible and efficient organization. In 2003, the *Aerospace Capability Framework* stated: "It is not a full spectrum air force … However it is capable of relatively responsive and rapid power projections, presence and precision engagement …"[109] This was proven by every Air Force capability on operational missions throughout the 1990s and 2000s. Every fleet of aircraft was deployed nationally and internationally, on multiple occasions, on both Canadian-only missions and as part of a coalition of nations. " … The Government of Canada saw fit to deploy the Canadian forces to all kinds of emergency situations within Canada at a time when foreign deployments were leaving the country at a more ferocious pace that at any time since the Korean War.

[108] House of Commons, *Wounded*, 58.
[109] DND, *The Aerospace Capability Framework*, 33.

Rwanda. Bosnia. Somalia. East Timor. Kosovo. Eritrea. Haiti. Afghanistan."[110] In every case, the Air Force demonstrated an exceptional and professional operational capability.

During the 1990s, the majority of the missions for the fighter fleet were domestic NORAD taskings while, initially, under significant government pressure to validate the requirement for an offensive capability. LGen DeQuetteville explained his strategy as follows: "I worked hard to get us introduced to Kosovo [Kosovo air campaign of 1999] and all of that was about PGM's [precision-guided munitions] … getting those assets invited politically and then the public opinion helped sway Chrétien and then we got a modernization program for the CF-18."[111] Despite the reductions in the number of fighters that occurred in the 1990s, and the limited funding for both aircrew training and any type of modernization program beyond just PGMs, the Air Force competency in completing assigned missions was demonstrated throughout the decade. However, the Air Force was rapidly losing ground as compared to international partners. Lagassé comments that despite the fact that Canada's commitment to NATO and the professionalism of the Canadian aviators were widely respected: "During the Kosovo campaign, Canada's CF-18s were shown to be behind most NATO fighters' technology."[112] The CAF continued to demonstrate this distinguished performance to our allies on international operations, despite facing continuing challenges due to the Liberal government's refusal to provide funding for modernization and the acquisition of new equipment.

An analysis of the Canadian contribution to the Kosovo air campaign conducted by LCol David L. Bashow and several co-authors indicated that: "Such confidence and

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[110] House of Commons, *Wounded: Canada's Military and the Legacy of Neglect*, 13.
[111] DeQuetteville interview.
[112] Lagassé, *Specialization and the Canadian Forces. Occasional Paper No. 40,* 24.

faith was placed in Canadian aircrew professionalism and expertise that … Canadians were often selected to lead the strike 'package' …"[113] While continuing to demonstrate a capability to conduct NORAD operations in the face of a renewed Soviet long-range bomber presence off the coast of Canada, the CF-18s echoed this performance in the 2011 air campaign in Libya. These examples of the post-transformation operational capability of the Air Force are not limited to the CF-18 fleet.

Since 1994, the CAF air mobility fleets have been continually deployed around the globe on a multitude of operational missions. Primarily conducted by the C-130 Hercules fleet, with strategic transport provided by the CC-150 Airbus until the 2008 acquisition of the C-177 Globemaster, air mobility has been both a key enabler for larger CF missions, as well as a critical component in the GoC international commitments. Canada's commitment to multiple UN sponsored humanitarian missions, including Sarajevo, Haiti, Honduras, and Rwanda were made possible by the air mobility fleets and in many instances, the deployment of one or two C-130 Hercules was the sole commitment. After the 1994 closure of Canadian Forces Base (CFB) Lahr, Canada had no forward staging base outside of North America. *Wounded*, the Senate report of the 1990s on the state of the CF, noted the challenge of international missions facing the CF: "The requirement for airlift … has grown enormously … Canada closed its forward bases in Germany. Now nearly everything gets shipped from North America."[114] Consequently, the majority of CF missions in the past two decades relied on air mobility for deployment, sustainment and redeployment. While this is not a new situation, the increase in international missions supported directly from Canada has required the GoC to either

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[113] LCol David Bashow, *et al.* "Mission Ready: Canada's Role in the Kosovo Air Campaign." *Canadian Military Journal* Vol. 1, No.1 (Spring 2000): 58.
[114] House of Commons, *Wounded: Canada's Military and the Legacy of Neglect*, 60.

contract strategic airlift or rely on allies, primary the United States, for support due to the limited number of CAF Air Mobility aircraft.

Throughout the 1990s, the air mobility capability of the Air Force was stretched to the limit. Ageing C-130 Hercules aircraft, a limited strategic cargo transport capability, increasing international deployments, and conflicting priorities between domestic Search and Rescue and international operational commitments placed an enormous amount of pressure on the air mobility fleet. This situation was exacerbated after the events of September 11, 2001 (9/11), when the Canadian government committed to the NATO mission in Afghanistan, the largest contingent of troops and equipment since the Korean War. Air mobility successfully deployed and sustained the CF in Afghanistan continuously for over 10 years, including stationing C-130s in theatre for virtually the entire decade. The addition of the C-17 Globemaster and the C-130J Hercules to the air mobility fleet is a testament to the recognition of the criticality of this capability to the CF, as well as to the consummate service provided to Canada post-AFCCRT. All other Air Force capabilities also successfully emerged from the 1990s transformation more efficient and operational.

During the 1990s and 2000s, CH-124 Sea King helicopters and CP-140 Aurora aircraft provided the maritime air capability to the CF. Both aircraft were continuously deployed on domestic and international operations. Despite their age, Sea Kings were embarked on virtually every mission undertaken by the Canadian Navy, including multiple deployments to the Middle East that continue today, while mitigating the effects of obsolete aircraft systems and rapidly ageing airframes. While in the midst of a modernization program, the CP-140 deployed on a variety of missions, including

multiple Middle East deployments in support of Op Apollo (Canada's mission in Afghanistan) was well as in support of the 2011 Libya operation, demonstrating new and evolving capabilities. The tactical aviation fleet of CH-146 Griffons was perpetually deployed across Canada in support of operations such as the G8 / G20 conferences and the Vancouver Olympics, as well as internationally including Afghanistan, in concert (since 2008) with the CH-147D Chinook. The CAF Search and Rescue fleets of CC-130 Hercules, CC-115 Buffalo, CH-149 Cormorant and CH-146 Griffon continue to maintain a 24/7/365 standby and unceasingly deploy on search and rescue operations.

The Air Force was forced to undertake a massive transformation of its operational capability during the 1990s. Reduced funding, personnel decreases, retiring fleets and cuts to training hours all affected the ability of the Air Force to generate and deploy combat capable forces. The transformation resulted in a smaller but more focussed and capable Air Force. In *Out of the Sun*, LGen DeQuetteville summed up the results as: "The air force has successfully undergone significant restructuring and cultural change. We are now an air force that recognizes the need for cultural change. One that has successfully moved from a static posture to one that is, by its very nature, deployable."[115] The changes were unparalleled, yet the Air Force successfully remained relevant, viable and operationally capable. Despite the loss of a great number of aircraft, fleets and personnel, the operational AFCCRT transformation of the Air Force was clearly a success, albeit with several lessons learned that are relevant to the Air Force today. These are discussed in the next section.

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[115] DND, *Out of the Sun. Aerospace Doctrine for the Canadian Forces*, i.

Lessons Learned

Organizationally and operationally, the Air Force's ability to successfully complete every mission assigned to it since the early 1990s provides evidence that the AFCCRT and FP 97 transformation was successful. It is important to note that no formal lessons learned process was applied to the AFCCRT and FP 97 initiatives, nor was one applied to the greater MCCRT initiative of the 1990s. Further, there is no literary evidence that any overall assessment of the programs that were undertaken, the effectiveness of those programs, and more importantly an analysis of the relevance of those programs to the Air Force of the next decade was completed.[116] As a result, this section will mainly discuss the observations of LGen DeQuetteville, the architect of AFCCRT and FP 97. In his position as the last Commander AIRCOM in Winnipeg and the first CAS in Ottawa post-transformation, and with the benefit of having continued to closely follow the evolution of the Air Force this past decade, he is uniquely situated to discuss the lessons learned from the 1990s.

The first lesson learned discussed by LGen DeQuetteville was the requirement for the Air Force to remain capable and relevant. He stated: "… you have to protect the relevancy. You've got to show the Air Force can answer the bell politically. Let's ask some hard questions … maybe we just need to do this totally differently to stay relevant."[117] The massive changes in the global security environment, economic situation and rapidly evolving technology require an organization that is both able to evolve

[116] There were several Chief of Review Services (CRS) and MCCR reviews conducted in the late 1990s, but the author could find no evidence that ant of those reviewed the air force transformation of the mid-1990s. Neither LGen DeQuetteville or LGen Lucas indicated they were aware of reviews or analysis conducted on this major transformation.
[117] DeQuetteville interview.

rapidly and to capitalize on its advantages. This is critically important for the comparatively small (as opposed to the United States) Air Force.

The ability to capitalize on a niche capability is key to the continued success of the Air Force. Due to funding and size limitations, the CAF is unable to maintain every possible air power capability, unlike our primary ally, the United States Air Force (USAF), however it must remain responsive to the evolving global security environment. Discussing the changing roles of the Air Force, Lagassé states: "the Canadian Air Force must be measured against the transformational aspirations of the USAF. Like the USA and USN, the USAF sees … survivability, speed and precision as the ends of its transformational efforts."[118] The ability to demonstrate relevancy and operational capability remains critical to the continued survival of the Air Force in the coming years as technology continues to advance at an unforeseen pace, combined with increasingly sophisticated non-state threats. The operational capability of the CAF inextricably linked to the ability to sustain, justify and evolve resources the GoC assigns to the Air Force.

The second lesson learned described by LGen DeQuetteville is in reference to the tendency of the government mainly as a result of public opinion, to base capital purchases mainly on the "sticker price". As he cautions: "… be aware of too many small fleets. One of the things we were trying to do … was rationalize our fleet structure and get away from the fours and fives that all have a logistic tail and a training tail."[119] It is well known that outside of a naval vessel, military aircraft are generally the single largest cost item to purchase and operate in the inventory of the CF. The cost of a fleet of aircraft seems astronomical to the Canadian public and, as a result, it is attractive to every

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[118] Lagassé, *Specialization and the Canadian Forces. Occasional Paper No. 40*, 33.
[119] DeQuetteville interview.

government to purchase the absolute minimum number of aircraft required. In doing so however, the Air Force ends up with a reduced capability and increased operating costs, simply because the sticker price appears reasonable to the voting public.

For example, 15 (now 14) CH-149 Cormorant Search and Rescue (SAR) helicopters were intended to replace the entire fleet of CH-113 Labrador SAR helicopters Canada wide. The number purchased was insufficient for the capability required and there are now only Cormorants based on the East and West coasts, with less capable CH-146 Griffons based at Winnipeg and Trenton. While four C-177 Globemasters based out of 8 Wing Trenton provide a major strategic airlift capability, the requirement for periodic maintenance and unforecast unserviceabilities means that the fleet is not nearly sufficient to fulfil the CF requirements. The current discussion on the massive cost of the F-35 Lighting fighter shows that the controversy of cost versus capability continues. The often overlooked issue as mentioned by LGen DeQuetteville is that each fleet has an associated logistics and support tail. Whether the fleet consists of four aircraft or 400 aircraft, there is a requirement for maintenance, parts, hangar space, ground support equipment and support personnel. This focus on the sticker cost discounts the fact that the greater number of fleets employed by the Air Force and consequently the higher the cost of the logistical tail.

The third lesson learned discussed by LGen DeQuetteville involves the personnel structure of the Air Force. The drastic personnel cuts of the 1990s resulted in serious repercussions for the Air Force. Firstly, personnel ratio to aircraft numbers is not a one-to-one ratio; experience, training and motivation are all critical factors. Unlike the Army and Navy, a relatively small percentage of Air Force personnel, usually aircrew, actually

conduct aerospace operations, while a significantly larger number is required to generate the capability.[120] Discussing the personnel cuts of the 1990s, LGen DeQuetteville highlights the challenge that typically arises with fleet and aircraft reductions, as took place during the 1990s: "Along with the reduction of fleets comes an associated reduction in personnel … to significantly reduce fleets for present day operations and then expect them to be fully manned and trained for future operations is not as simple as it sounds."[121] The major issue that developed with the reductions during the 1990s is that the personnel who left the Air Force were for the most part mid-level supervisors, with 5 to 15 years experience. Very few junior personnel just starting their careers and few senior personnel with only a few years left to serve chose to take the Force Reduction Plan (FRP), resulting in a massive exodus of the mid-level supervisory personnel key to the operational capability of the Air Force.

This resultant skewing of the personnel structure of the Air Force had two severe impacts. Firstly, the cost savings were not as great as was initially forecast due to the demographic of releasing personnel. The personnel that released under the Force Reduction Plan (FRP) were often the mid-level personnel with 10-20 years of service and many of the remaining personnel were senior supervisors at higher salary levels. As a result, the costs savings were not nearly as great as forecast, and the resulting demographic would continue to impact the Air Force throughout the following decades.[122] While personnel cost savings were the most visible result of the personnel reductions of the 1990s, the critical issue was the loss of experience of the mid-level

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[120] Colonel Brett Cairns, "Aerospace Power and Leadership Perspectives." *Canadian Military Journal* Vol. 3, No.1 (Spring 2002): 40.
[121] Wheeler, *What Happened to the Force in Canada's Air Force*, 11.
[122] DeQuetteville interview.

supervisors. LGen Dequetteville also echoed the prevailing opinion that the major loss to the Air Force was mid-level to low-level (in terms of years of service) personnel with at best a very few replacements as a result of the limited numbers of Air Force recruits as the CAF grappled with the requirement to reduce personnel numbers.[123] The consequence was a significant experience gap in the Air Force, most pronounced in the aircraft technician trades.

This problem was exacerbated by significant worldwide growth in the commercial airline industry, with aggressive recruiting programs for experienced military pilots and aircraft technicians that did not relent until after the events of 9/11. Large numbers of senior personnel were retiring in the late 1990s and early 2000s, and due to FRP, no experienced replacements were available to be promoted. Technicians on the flight line were inexperienced, through no fault of their own, without appropriate supervision, due to the personnel reductions of the 1990s. The Air Force grappled with this issue well into the next century. These personnel issues were related to the failure of the Air Force to capitalize on the Total Force concept.

Total Force refers to a concept whereby the Reserve Force is fully integrated into the daily operations of the Air Force. The Canadian Army has proven the feasibility of this model, as shown by the successful integration of the Army reserve forces into the Afghanistan war. The AFCCRT attempted to exploit this concept but has been, and continues to be, relatively unsuccessful. Unlike the United States, no legislation exists in Canada that will guarantee a part-time reservist his civilian job will be available if the member must be activated for full time service for an extended time. Additionally, in the CF model, reservists must volunteer for full-time service, including deployments as there

[123] DeQuetteville interview.

is no regulations that compel a reservist to accept full-time service. Exacerbated by the fact that the extremely technical nature of Air Force trades requires a significant training commitment, demanding extended periods of service, it has proven difficult for the Air Force, unlike the Army or even the Navy, to capitalise on opportunities to increase the employment of the Reserve Force. "I don't think the power of total force was ever realized in the Air Force to the extent it could be. I still think there's great potential for the employment of part-time people in all trades." [124] Despite the fact that the evolving global and domestic environment required significant transformation actions, these changes lead to the last lesson learned.

The final lesson learned is that change is hard, especially the drastic changes mandated by AFCCRT. The 1990s was a period of major transformation for the CF and the Air Force. Reflecting on the episode of the 1990s, LGen DeQuetteville remarked that: "… one of the lessons I would take out of Flight Plan 97 is that … cultural change is hard … it's a generational thing – it can't be done in two years."[125] Cultural change was required in order to enable the Air Force to remain relevant, viable and operationally capable, however as a rule, people naturally resist change. The culture of the Air Force is no different and the changes imposed on the Air Force during the 1990s caused significant angst for Air Force personnel and negatively affected morale. However, in the midst of transformation, the requirement for cultural change is critical to the success of the initiative. Sharpe and English, both recognized as Canadian authorities on military culture, comment critically that: "Most failures in C2 organizational changes can be

[124] *Ibid*.
[125] *Ibid*.

traced to failures to modify the culture to accept the changes …"[126] Fortunately the Air Force was able to overcome this challenge, and emerged from the 1990s as a vibrant, viable, flexible and operationally capable organization ready to accomplish any and all missions assigned to it by the elected government.

The AFCCRT and FP 97 transformation of the 1990s, carried out under the umbrella of the greater MCCRT transformation was for the most part a successful initiative. While not every objective was fully achieved, throughout the 1990s, the 2000s and continuing today, the Air Force has demonstrated that it is a flexible, responsive and capable organization, operationally prepared to successfully plan and conduct any mission assigned, up to and including combat missions. More than a decade after the completion of the AFCCRT and FP 97 programs, the CAF is a responsive, flexible and effective air force. The CAF has shown the capability to succeed in generating combat-capable air forces, trained an prepared to support the Army and Navy, as well as prosecute Air Force missions as assigned by the Government of Canada. Despite significant reductions in aircraft fleets, aircraft numbers, personnel, infrastructure and funding, the CAF has effectively evolved into a 21st Century air force. "It is not a full spectrum air force … However it is capable of relatively responsive and rapid power projections, presence and precision engagement …"[127]

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[126] Sharpe and English, *Principles for Change in the Post-Cold War,* xvi.
[127] DND, *The Aerospace Capability Framework*, 33.

CHAPTER 5. CONCLUSION

The decade of the 1990s was a period of unprecedented change for Canada and a period of turmoil for the CF. Due to a myriad of factors, the Air Force was required to undertake a radical transformation program that affected the entire organization and every capability of Canadian Air Force. Despite the massive changes experienced by the CAF, the transformation program was ultimately successful, resulting in a flexible, responsive and capable Air Force, able to support Canadian government objectives at home and throughout the world.

There were five key factors were behind driving force behind the transformation programs of the 1990s: the end of the Cold War, the resulting peace dividend, Canadian public opinion, federal government defence policy government fiscal restraint policy. The demise of the Soviet threat became a rallying call for the government, supported by Canadian public opinion, to reduce the funding levels for the Canadian military. This was exacerbated by the global economic recession and the determination of successive Canadian governments to balance to federal budget. Due to the high cost of training aircrew and technicians, and the extremely high expense of operating aircraft, the Air Force absorbed the lion's share of personnel and funding cuts during the decade. The Air Force initiated the AFCCRT transformation program also known as FP 97, in order to mitigate the effects of the changing government policy while remaining relevant and operationally capable of responding to the increasing operational tempo.

Organizationally, the entire C2 system of the Air Force was re-engineered. Winnipeg-based AIRCOM HQ was re-roled and its strategic functions were moved to Ottawa and absorbed into the new CAS organization in order to allow the Commander to

focus on strategic issues, including expensive capital procurement. The various capability groups were amalgamated into 1 CAD / CANR HQ to enable combined and joint operations, and the Wing structure was superimposed over the CF air bases to realign the chain of command and appropriate assign responsibility, accountability and authority to the Wing Commanders. Operationally, major changes were also accomplished during the 1990s.

During the 1990s, the Air Force retired over half of the aircraft in its inventory. Entire aircraft fleets, including the CF-5 Freedom Fighter, the CH-147 Chinook, the CH-113 Labrador and many other fleets were retired. Operational numbers of aircraft such as the CT-114 Tutor and CF-18 Hornet were reduced to levels that required innovative solutions to maintain the operational capability. Capital procurement projects for replacement aircraft and capabilities were delayed or cancelled outright, causing the Air Force to seek innovative solutions to modernize ageing fleets of aircraft in order to remain combat capable. By the end of the decade, the Air Force inventory was 50% smaller than it was in 1989. The number and type of aircraft were not the only reductions to the Air Force however.

Personnel reductions and pressure on infrastructure also required the Air Force to seek resolutions to mitigate the effects while maintaining capability. Significant personnel cuts and declining morale required the Air Force to seek innovative solutions to maintain operational capability with a reduced workforce. Measures taken included the MOC 500 technician trade program, programs to improve personnel retention, specifically pilots, and most importantly an attempt to engage Air Force personnel in the transformation process. Infrastructure costs were reduced through the closing of several

bases and locations; however, political pressures resulted in fewer base closures than desired.

The aim of this thesis was to assess the effectiveness of the Air Force transformation of the 1990s, initiated under the umbrella of the MCCRT, and known as AFCCRT and Flight Plan 97. As was shown, there is no doubt that the transformation efforts of the 1990s were effective and successful in creating a streamlined, efficient and relevant Air Force, capable of delivering multi-purpose, combat capable forces to the Government of Canada. Organizationally, in 2014, the transformed chain of command is able to focus its efforts at the appropriate levels, exercising the required authority, responsibility and accountability to accomplish the mission of the Air Force. Operationally, the Air Force continues to provide the government and the CF with a flexible, deployable capability, able to successfully complete all assigned missions despite emerging from the 1990s 50% smaller. The Air Force officially recognized the success of the program in *Strategic Vectors*: "Although today's Air Force is half the size it was then, its dedicated personnel have aggressively adjusted to 1990s resource reductions and adapted well to a significantly altered strategic environment."[128] While several lessons were learned during the AFCCRT initiative, the FP 97 transformation program resulted in an efficient, relevant and capable Air Force, well positioned for success in the 21st century.

LGen Lucas sums up the results of the transformation eloquently when he states: "Now we didn't hit a home run on every one. Some things worked better than others, but by and large we ended up with a more engaged air force. We ended up … much smaller

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[128] Department of National Defence, A-GA-007-000/AF-004, *Strategic Vectors. The Air Force Transformation Vision* (Ottawa: DND Canada, 2004), 2.

obviously, but very capable."[129] As a result of the AFCCRT and FP 97 initiatives, the Air Force emerged from the 1990s as a competent, professional, effective and multi-purpose combat capable force, demonstrating professionalism and operational capability around the world.

> In 1989 we had over 20 fleets … Ten years later we have 12 fleets…we will probably have nine fleets of aircraft early in the new millennium … yet in all of that I maintain that our operational capability will be greater at the end of the process.[130]

[129] Lucas interview.
[130] Kinsman, *The Future of the Canadian Air Force*, 8.

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