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SWORDS, CLUNKS & WIDOWMAKERS

THE TUMULTUOUS LIFE OF THE RCAF'S ORIGINAL 1 CANADIAN AIR DIVISION

Ray Stouffer

National Defence Défense nationale

Canada

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Editor's note: In the Air Force, aircraft are often given nicknames. Often the nickname is obvious, such as the "Sword" for the F-86 Sabre. At other times, it may be derived from a perception, no matter the truth of the perception, of the inherent danger associated with an aircraft, such as dubbing the CF-104 Starfighter the "Widowmaker," as 110 of them were lost to accident during their tenure with the Royal Canadian Air Force. And finally, there may be an affectionate nickname applied to an aircraft that brought home a feeling of safety, as when a "Clunk" is heard as the front landing gear retracts into the wheel well of the CF-100 Canuck after take-off. During the heyday of 1 Canadian Air Division in Europe, the Sword, Clunk and Widowmaker were main parts of Canada's contribution to the defence of Europe.

Chapter 1

INTRODUCTION

Canadian military history remains a paradox. On the one hand, military forces have always been an important part of Canada's history. On the other hand, the amount of written work on the country's military remains a small fraction of books and articles available in the social sciences. For those wishing to read about air power in its Canadian application, the availability of published sources is scarcer still. As if nothing of military value ever happened prior to the turn of the 20th century or after 1945, books on the Canadian military have narrowly focused on the two world wars. At the same time, what has been published is an uneven portrayal of the three military services. The majority of these works are about the Canadian Army and, to a lesser extent, the Royal Canadian Navy (RCN). With the major exception of a pair of volumes of official histories of the Royal Canadian Air Force,[1] the reader would be hard pressed to find more than a handful of books dealing with the evolution and wartime roles of the Royal Canadian Air Force (RCAF) and biographies of senior Canadian air force leaders. There is even more frustration for someone looking for recent published works that assess the impact of Canada's foreign policy on its military in the post-war years and beyond. There is no scholarly work that looks closely at the development of Canadian air power during the cold war.

There are numerous books that describe the aircraft used by the cold-war RCAF as well as the squadrons and wings in which they were employed. Several of these books also cover the development of Canada's military aircraft industry in the post-war years.[2] Even so, what we are left with, as one prominent Canadian military historian lamented years ago, are "works focusing on airmen, aircraft, squadrons and battles ... at the expense of those on policy, doctrine, strategy, and air power and society."[3] There has yet to be a historical account of what Canadian airmen had to say about the relationship between air power and foreign policy in the post-war period. It is unclear to what extent these thoughts were shaped by national policy or service interests. Further, there has been little or no analysis of the influence exerted upon the RCAF by the air-power doctrines of other Western countries immediately prior to and during the cold war. Consequently, the phenomenon of air power in the Canadian context has been described in very general ways and has been overshadowed by the post-war domination of American air-power theory and nuclear strategy.[4]

By overlooking the roles, doctrine, and operations of the RCAF during the period in question, the contributions of Canadian airmen, like their brothers in the surface forces, tend to be minimized and subordinated to the political and economic benefits derived by Canada as a consequence of having contributed forces to its two peacetime alliances: the North Atlantic Treaty Organization (NATO) and the North American Aerospace Defence Command (NORAD). It has been a national tradition to justify Canada's military contributions to collective defence by virtue of the fact that they enabled the country to have a voice in the higher councils within these alliances and permitted dialogue with the alliance membership that would not have been possible had Canada not provided military forces.[5]

1. W. A. B. Douglas, *The Creation of a National Air Force: The Official History of the Royal Canadian Air Force, Volume II* (Ottawa: Department of Supply Services Canada, 1996); Brereton Greenhous and others, *The Crucible of War, 1939–1945: The Official History of the Royal Canadian Air Force, Volume III* (Toronto: University of Toronto Press, 1994).

2. David L. Bashow, *Starfighter: A Loving Retrospective of the CF-104 Era in Canadian Fighter Aviation, 1961–1986* (Stoney Creek: Fortress Publications, 1990); Bob Baglow, *Canucks Unlimited: Royal Canadian Air Force CF-100 Squadrons and Aircraft, 1952–1963* (Ottawa: Canuck Publication Limited, 1985); Larry Milberry, *The Canadian Sabre* (Toronto: CANAV Books, 1986), and *Sixty Years: The RCAF and the CF Air Command, 1924–1984* (Toronto: CANAV Books, 1984); Glen Berg, *Scrambling for Dollars: Resource Allocation and the Politics of Canadian Fighter Procurement 1943–1983* (master's thesis, Royal Military College of Canada, 1993); Randall Wakelam, *Flights of Fancy: RCAF Fighter Procurement 1945–1954* (master's thesis, Royal Military College of Canada, 1997).

3. John H. Ferris, "The Air Force Brat's View of History: Recent Writing and the Royal Air Force, 1918–1960," *The International History Review* XX, No. 1 (March 1998): 119.

4. There are several excellent exceptions. Andrew Richter, *Avoiding Armageddon: Canadian Military Strategy and Nuclear-weapons, 1950–63* (Vancouver: UBC Press, 2002). Peter Haydon, *The 1962 Cuban Missile Crisis: Canadian Involvement Revisited* (Toronto: Canadian Printco Limited, 1993); Sean M. Maloney, *Canada and UN Peacekeeping: Cold War by Other Means, 1945–1970* (St. Catharines: Vanwell Publishing Limited, 2002); and Sean M. Maloney, *Learning to Love the Bomb: Canada's Nuclear Weapons During the Cold War* (Washington: Potomac Books, 2007).

5. Joel J. Sokolsky, "A Seat at the Table: Canada and Its Alliances," in *Canada's Defence: Perspectives on Policy in the Twentieth Century*, ed. B. D. Hunt and R. G. Haycock (Toronto: Copp Clark Pitman, 1993), 147.

The main objective of this book is, therefore, to begin filling this historical void. To this end, this author has chosen the study of what was the most coveted Canadian air force command in the early cold-war era. This was the RCAF's No. 1 Air Division, Canada's air contribution to NATO's central European theatre from 1952 to 1970. At the height of its existence in the late 1950s, the Air Division consisted of a headquarters (HQ) and four wings, each with three squadrons of modern jet fighters. The Air Division's units were dispersed throughout the historical and beautiful regions of Alsace-Lorraine in eastern France and the Black Forest in southwestern Germany. During the early cold war, the Air Division was the tour of choice for Canadian airmen. Its existence went a long way toward making the 1950s the "halcyon days" of the RCAF. To write a book on No. 1 Air Division is, therefore, long overdue. It is also a privilege. This book has been possible, in large part, because sources previously restricted to historians were made available exclusively to this author.

A study of the Air Division reveals much of what is missing in existing works on the cold-war RCAF. First and foremost, this is a book on air power. In broad terms, it spends more time on how airmen exploited, organized, and directed this military capability than how it was employed. It explains why Canadian airmen chose specific air-power capabilities that had to function in a predetermined organization. It provides the reader with a glimpse into the cultural and professional background of Canadian airmen that explains, in part, the motivation of the RCAF during the early cold war. By concentrating on what Canadian airmen did and why, beyond what aircraft they flew, this book marks a significant departure from the existing historiography. More specifically, this book covers the operational lifespan of the Air Division and discusses its military utility to NATO and congruence with Canadian foreign policy. Emphasis is placed upon the opinions, decisions, and actions taken by the senior leadership of the RCAF and its civilian superiors with respect to the evolution of Canadian cold war air-power choices.

As detailed below, this study raises a number of previously unknown facts about the RCAF's years in Europe. It also comes to several conclusions that are, in part, sensitive and surprising. The main argument raised in this book is that No. 1 Air Division meant much more to the RCAF than a collection of wings and jet fighters. The Air Division was an expression of nationalism. The national cohesiveness of the organization was more important to Canadian airmen than the air-power roles and aircraft chosen. The latter were but important means to an institutional end. Consequently, air-power choices for the RCAF were not entirely driven by national and alliance direction. In planning the operational needs of the Air Division, senior Canadian airmen were able to match air power and institutional priorities so as to operate as an independent national force within a multinational military alliance.

While the principal story to be told is the nationalistic and institutional value of the Air Division for senior Canadian airmen, this work leads to a number of assertions and conclusions that are not limited to air-power theory and the designs of the RCAF. It sheds light on the seriousness of the military threat during the early cold war and the responses of Canadian governments to meet it. It confirms the dominance of the RCAF over the Canadian Army and RCN during this period because of the military and political benefits of air power. It elaborates upon and explains the political importance of the Air Division to Canadian politicians. It is also a study of civil-military relations. Lastly, if not most significantly, this book is about Canadian airmen. By closely looking at their role in creating and directing the Air Division in the shadow of the early cold war, this book attests to their professionalism, courage, and dedication in planning for an air battle that likely would have gone nuclear.

The actions of Canadian airmen were shaped by their brief service history. For this reason, this book looks briefly at the interwar and wartime experience of the RCAF before describing the Air Division years in more detail. If the RCAF learned the lessons of government parsimony from the Depression years, they never forgot the command and organizational limits imposed upon them by the Royal Air Force (RAF) during the Second World War. They remained bitter over

the fact that for much of the war they had to operate under RAF administrative rules. While the RCAF had no choice in this matter due to a lack of trained personnel, Canadian airmen who had to live under these conditions learned an enduring lesson: having to be administered by a foreign personnel support system was an affront to national sovereignty.[6] Canadian airmen, similar to their American and British counterparts, also convinced themselves that institutional survival on a national level meant adopting air-power roles that guaranteed independence of the Army and Navy. Those roles that best supported national-security aims were of secondary interest.

While the RCAF was established as a separate entity on April 1, 1924, true independence came later. Administrative control over the RCAF remained in the hands of the Canadian Army until the Chief of the Air Staff position was established in 1937. With its dramatic expansion and support to all combat theatres during the Second World War, the RCAF's future as a separate military service was further solidified. Even so, the war taught the RCAF that its independence relative to its sister services was not matched by its national autonomy within the Allied operational command structure. With the creation of No. 6 Group and No. 83 Group and the high percentage of Canadian representation in both of these wartime organizations, Canadian airmen laid claim to having two national air force organizations during the war. The reality was that both groups were under the operational control and authority of the RAF. As a result of this wartime experience, an important objective of Canadian airmen in the establishment of the Air Division was to maximize RCAF autonomy within NATO's Central Region.

If the RAF and United States Air Force (USAF) continued to fight interservice battles within their militaries, they dominated the air strategies of NATO. RCAF autonomy was assured nationally but not within the alliance. Douglas Bland concludes that, in defence matters, Canadian officers "lacked confidence in Canada's legitimate right to act as a sovereign nation."[7] This was not the case when it came to the creation of the Air Division. The actions of the RCAF were for the most part driven by the importance of establishing and maintaining a Canadian identity within the North Atlantic Alliance. This was made possible mainly because the careers of several senior and influential RCAF officers spanned the 30-year period from the Depression to the 1960s. Being the senior leaders of the RCAF in the 1950s and early 1960s, they built the Air Division and realized their institutional goals from the lessons learned as junior and middle-ranking officers in the 1930s/1940s. While such historical linkage no doubt contributed to service bias, the parochialism of airmen cannot detract from their ability and competence. The success in establishing the Air Division in Europe in a timely manner with a credible air-power role owed much to these airmen who had accumulated operational and staff experience in the heady days of the Second World War as well as during the lean years of the interwar and immediate post-war periods.

Senior RCAF officers understood the relationship between air-power roles and institutional independence. They also appreciated the link between air power and political support. Early on, strategic bombing satisfied both requirements. Canadian airmen, influenced by American and British interwar doctrine, had convinced their political leaders that this application of air power guaranteed the best military results. The implication was that such an outcome was only possible by operating independent of surface forces. The problem for these Western airmen was that the Second World War raised the profile of all categories of air power. Tactical air power supporting the Allied armies and navies was no less instrumental in defeating the enemy than strategic bombing. In the event, the RAF and USAF successfully championed the latter role, and their strategic-bomber forces dominated their post-war air forces. This marked the major point of departure for the RCAF from its two main wartime allies when it was determined that Canada could not sustain a peacetime strategic-bombing capability.

In the post-war period, the threat to Western Europe and North America by bombers from the Soviet Union equipped with nuclear and then thermonuclear bombs placed a premium on air defence.

6. Alan English, *The Cream of the Crop: Canadian Aircrew 1939–1945* (Kingston: McGill-Queen's University Press, 1996), 152–53.

7. Douglas L. Bland, *Chiefs of Defence: Government and the Unified Command of the Canadian Armed Forces* (Toronto: Brown Book Company Limited, 1995), 12.

While the latter role replaced strategic bombing in the new post-war RCAF, air power did not lose its preferred status in the eyes of Canadian politicians. In addition to the understanding that air defence was the only means with which to protect the country from air attack, its protection of the United States (US) nuclear deterrent was initially seen as a contribution to maintaining world peace by securing the US strategic retaliatory capability. The air-defence role in the Air Division, first carried out by the daytime F-86 and then joined by the all-weather / night-capable CF-100 (the "Clunk"), also proved opportune for the RCAF. First, it included the vital responsibility of protecting USAF tactical nuclear forces in NATO's Central Region. Second, if Canadian airmen were less enthusiastic about a defensive role, they understood that limiting the Air Division to one mission maximized operational and, therefore, national cohesiveness within the alliance.

While they comprehended the institutional value of air defence, every commander of the Air Division, veterans of the wartime No. 6 Group, wanted to see the return of the strategic bombing mission they were previously denied in the post-war era. Their wishes came true in the early 1960s with the introduction of the CF-104 equipped for nuclear strike. A popular air-power role in wartime and now practiced in peacetime, the coveted bombing mission had come full circle. Canadians in Europe were assigned a bombing role that at the time was believed to be militarily more effective than the air-defence role it replaced. Further, its importance to Supreme Allied Commander, Europe's (SACEUR's) nuclear-strike plan ensured that the Air Division's future as an integral national air force within the alliance looked bright.

Unfortunately for the RCAF, the institutional goals achieved with an Air Division built upon the foundation of wartime air-power lessons learned came to an end just when it had achieved its post-war pinnacle. This outcome was partially due to American political direction, as the US wished to see a more flexible role in Europe that was less dependent on nuclear forces by increasing emphasis on a conventional capability. The main reason was the loss of national political support for the nuclear role and the aircraft that carried it out. Canadian politicians asserted their authority by insisting that the Air Division's preferred air-power role of nuclear strike be replaced by conventional ground attack.

In discussing the evolution of cold-war air power, this book makes clear the RCAF's prominence relative to the Canadian Army and RCN. During this period, Canadian political leaders saw air power as the most reliable and cost-effective military capability. Most importantly, it was the best option with which to protect Western Europe and North America from attack by strategic bombers of the Soviet Union. Air power was key in two forms. Air attack was to be deterred with the existence of the retaliatory capability of US strategic nuclear bombers. If such deterrence failed, air-defence fighters were the only means with which to engage and destroy enemy bombers intent on the destruction of Canadian cities and infrastructure.

This is not to say that the RCAF's popularity remained unquestioned. By the late 1950s and early 1960s, there were government and public concerns about their air force. Just when the country's post-war economic boom ended and government spending needed to be reined in, there were questions raised over the RCAF's rising operations and capital costs. Many Canadians and informed officials doubted the RCAF's need for nuclear-weapons and questioned its military relevancy with the introduction of intercontinental ballistic missiles (ICBMs). Even so, the RCAF's priority relative to the other military services did not change measurably because air power remained the cornerstone of Canada's two alliances.

For their part, Canadian politicians became believers in the military and political virtues of air power. They saw the existence of the Air Division as an important component of Canadian cold-war foreign policy. Echoing the words of Donald Masters, they understood that "the maintenance, deployment, and exercise of military force are part of the conduct of foreign policy."[8] Similar to airmen, these politicians saw air power, as projected through the establishment of the Air Division,

8. Donald Masters, *Canada in World Affairs: 1953–1955* (Toronto: Oxford University Press, 1959), 129.

as a most useful symbol of national autonomy within the North Atlantic Alliance. At the same time, the RCAF's presence in Europe meant much more to successive Canadian governments. It was a means with which to gain political leverage. It allowed Canada access to the lucrative economic development of Western Europe and a say in the strategic direction of the alliance. It also provided Canada sufficient credibility within the alliance to minimize the military, economic and political control of its more powerful members, particularly the US. While much of this is true, this book challenges the strongly held view expressed in the existing national-security historiography that the importance of the Air Division to Canadian civilians was limited to the associated political and economic benefits. Throughout its existence, the military capability of No. 1 Air Division was second to none and one much appreciated by the military and civilian leadership of the member countries of the North Atlantic Alliance. Sadly for the RCAF, by the last decade of the Air Division's existence, this perception was not shared by the Canadian government.

The Canadian government dramatically overcame its initial reluctance in the late 1940s to commit standing military forces to NATO. Like their military subordinates, the civilian leadership believed that the military threat to Western Europe and Canada itself was real and that only a strong military response bolstered the will of the alliance and deterred further aggression by the Soviet Union. Tangible proof of the St. Laurent Government's commitment to this foreign policy was the creation of peacetime forces in being. This was an unprecedented but expensive and politically risky proposition. On the other hand, the military value of the Air Division diminished in the eyes of Canadian civilian leaders during its last decade of existence. Consequently, as was the case for the RCAF in general, after the period 1952–55, during which the Canadian military underwent a spectacular peacetime expansion, the Air Division lost the confidence of its politicians. A major restraint to RCAF operations in Europe was the government-imposed ceiling on the number of personnel that could be stationed in the Air Division. Another challenge was continuing operations as funding was incrementally reduced.

While the Canadian government exploited the creation of the Air Division to assert national autonomy, these attempts were often problematic. The contribution of an air division and army brigade to NATO's Central Region was the price for Canada's membership in a peacetime alliance founded on the principle of collective defence. As a junior member of two wartime alliances earlier in the 20th century, Canadian political leaders had insisted on paying for their military contributions in an effort to assert national autonomy and ensure that the country was paying its fair share toward alliance defence. As summarized by Desmond Morton: "Cash flow was the avenue of influence .... Because Canada was helping to pay for the music [it had the right] to criticise the orchestra."[9] NATO was a peacetime alliance, but successive Canadian cold-war governments shared the concerns of their wartime predecessors of being a lesser member of a large alliance. Canadian politicians, therefore, continued to insist that their country pay its share of alliance defence. But when it came to the establishment of the Air Division, the Canadian government did not do so.

As pointed out below, Canadian politicians had more success in asserting their authority over the RCAF than they did in influencing the affairs of NATO. The St. Laurent Government agreed to NATO's decision to use tactical nuclear-weapons even though the Liberal Party was never comfortable with such a policy. During the period 1951–55, before West Germany joined NATO, the alliance position was that Canadian forces stationed in that country were considered occupational forces and subject to the rules of the Occupation Statute. Ever mindful of the limits of its parliamentary mandate, the Canadian government insisted that its forces were sent back to Europe strictly in support of NATO and that they were not to be employed in any occupation function or subject to occupation rules. Nevertheless, to ensure its forces were not subject to German law, the Canadian government had no legal alternative than to have them employed under the Occupation Statute. The end result was a disingenuous Canadian policy that did not entirely satisfy the Germans and needlessly angered the Allies.

9. Desmond Morton, "Junior But Sovereign Allies," in *Canada's Defence*, 34.

Since this book looks closely at the interactions of senior RCAF officers with national and alliance military and civilian officials, there is considerable discussion about civil-military relations. Not surprisingly, throughout the history of the Air Division, Canadian politicians asserted civilian authority and control over the military—its own and those in the North Atlantic Alliance. Facing the overarching fears of a global nuclear war, the Canadian government insisted on the final say in the rules of engagement (ROE) that were to be used by the RCAF in Europe. They were to be consulted before SACEUR authorized the release and use of nuclear-weapons by Air Division squadrons. As much as these were legitimate national concerns, their resolution was problematic. Furthermore, the RCAF in Europe was caught between national and alliance military objectives. Nevertheless, Canadian politicians were not always successful in thwarting the designs of senior Canadian airmen.

While the RCAF had freedom of action at the tactical level and, to some extent, at the operational level of command, civilian authority dominated at the national strategic stage. Until defeated in the spring of 1963, the Diefenbaker-led Conservative Party denied the RCAF the nuclear warheads promised four years earlier for the Bomarc ground-to-air missile, the CF-101 Voodoo air-defence fighter, and the CF-104 Starfighter. While the Pearson-led Liberal Party allowed the use of nukes for the Canadian military, the new government's commitment to such weapons was short-lived. Worse for the RCAF and the future of the Air Division, Defence Minister Hellyer initiated the termination of the strike role for the CF-104 in Europe. This political direction was a painful blow to Canadian airmen. It precipitated the downfall of the Air Division and the offensive bombing role for the RCAF in Europe at a time when the RCAF was terminated as a separate service. Consequently, by the time the Air Division was disbanded in 1970, Canadian airmen not only were without a Canadian air force, but also had lost an operational command with which they had, for almost two decades, sustained their institutional goals. Further, it marked the end of an era during which the RCAF had profited politically from the popularity of air power that had shaped the country's choices in military capabilities since the early post-war years. The air force no longer had the right of direct access to the minister and so was no longer in the same strong position to make its pitch to its political masters.

One last but important theme that stands out in the history of the RCAF Air Division and Canadian cold war air-power choices, concerns Canadian airmen themselves. The fact that they were able to sustain the popularity of air power and to exploit its military and political benefits for more than three decades owed much to their professionalism and dedication. In addition to proving their courage and leadership skills under combat conditions, they had the experience of working with large wartime air-force formations that have never existed since in peacetime. They also understood what it meant to face an enemy that threatened their country. These wartime veterans had experienced the glory days of an air force that had grown to more than a quarter of a million total personnel, with 48 squadrons overseas alone. Yet despite these impressive numbers, they were frustrated by their inability to lead an autonomous Canadian air force during the war. These experiences, good and bad, were thus carried over into the cold-war years by RCAF veterans. It is noteworthy that every air officer commanding the Air Division before unification was a veteran of the Second World War. The emotions these senior airmen experienced and the decisions they made during the rise and fall of No. 1 Air Division that they commanded, therefore, need to be understood in the context of the expectations and lessons learned from their wartime roles.

Chapter 2

AIR POWER AND THE POST-WAR THREAT

In the aftermath of the Second World War, two related features of defence policy characterized the actions of the nations of Western Europe, Canada and the US. First, these countries placed great faith in the newly created United Nations (UN) as the central institution to establish and organize world peace. Second, as a consequence of having an organization that theoretically promoted and enforced peace through collective international action, in addition to the need to return to peacetime economies, these countries saw no need to retain large standing militaries. The demobilization of the forces of the Western Allies was swift and dramatic. By August 1946, American forces in Europe had been reduced from over 3 million to fewer than 400,000. British forces dwindled down from 1.3 million to less than 500,000.[1] To the chagrin of the British government, the remaining Canadian forces that had served as part of the Allied Occupation Force in Germany, including 18,000 land forces and 10 RCAF squadrons, were repatriated to Canada between April and November 1946.[2] Thus, the Canadian military overseas peak establishment of almost 400,000 in 1944 in Europe completely disappeared less than two years later.

A desperate Clement Atlee, the post-war British Labour prime minister, appealed to Canada's sense of commonwealth duty to keep its forces in Europe. But the Liberal Party in Canada, led by Mackenzie King, had always eschewed the concept of "one voice and one army for the Empire."[3] Furthermore, those Canadians who remained in Europe as occupation forces saw no reason to stay and wanted to go home to their families and begin new lives. Atlee's pleas to Canada fell on deaf ears. The need to bring home their troops was, therefore, a priority for the Allies. There was one major exception.

While their Western wartime allies were quickly demobilizing their overseas forces, the Soviets retained a large proportion of their military in Europe. The Union of Soviet Socialist Republics (USSR) also continued its armament production at a wartime level. Western estimates of Soviet troop strength varied greatly between 100 and 200 divisions. Even so, it was clear that the West was facing a potentially significant military threat from the Soviets due to their numerically superior ground and tactical air forces in Europe.[4] The Western Allies were thus confronted by a strategic dilemma. If a growing Soviet threat was materializing, how were they to deal with this danger in light of their own force reductions? Moreover, how were they to confront a major, and for many in the West, popular, wartime ally? And was the USSR not a post-war power committed to world peace through the UN?

Western hope in the success of the UN depended on the cooperation of the Soviet Union. In addition to the Americans, British, French and Chinese, the Soviets formed the permanent membership of the Security Council, holding the power of veto over any UN decision. If Western options were, therefore, limited in dealing with the USSR through UN channels, they had fewer options dealing with Soviet forces in Europe. By the time the Western Allies and the public recognized the strategic military implications of this post-war military threat, the West was in no position to maintain its forces at the same high level even if it had wanted to. Although concerned, its citizens no longer supported wartime force levels in peacetime that came at the expense of their economic growth and post-war recovery.[5]

For Western military planners, the answer to their dilemma was air power. In lieu of large and expensive standing armies, the West would confront the Soviet military threat with cheaper—but better trained and equipped—air forces. More specifically, the growing worries in the West over

1. Lord Ismay, *NATO, the First Five Years 1949–1954* (Amsterdam: Bosch-Utrecht Printers, 1955), 4.
2. Mary Halloran, "Canada and the Origins of the Post-War Commitment," in *Canada and NATO: Uneasy Past, Uncertain Future*, ed. Margaret O. MacMillan and David S. Sorenson (Waterloo: University of Waterloo Press, 1990), 1.
3. Ibid., 2.
4. Ismay, 4.
5. Ibid., 4–6.

the imbalance in military forces in Europe were tempered with the understanding that the US was still the only country that had the atomic bomb and the means with which to deliver it. American actions at the time reflected their atomic monopoly.

In August 1946, two unarmed American C-47 transports were shot down over Yugoslavia by communist pilots. The American State Department wanted to retaliate with the use of air power, but Major General Lauris Norstad advised them that the US was too weak to risk a war. Nevertheless, on November 13, 1946, six B-29 strategic bombers flew from their bases in the US to Frankfurt, Germany. Over the next 12 days, they flew along the borders of Soviet-occupied territory to "survey airfields to determine their suitability for B-29 operations."[6] The newly established Strategic Air Command (SAC) was quite weak in atomic striking power, but the USSR did not know this. The implications were clear enough for the Soviet Union. The Americans at that moment were the only nuclear power, and in the B-29, they had a delivery system with which to inflict great destruction upon their enemies. Only a year earlier at Hiroshima and Nagasaki, the US had shown the resolve to use both. Even if the Americans were bluffing, this demonstration of force early on in the post-war period underscored that air power, specifically the threat of strategic atomic bombing, underpinned Western security.

RCAF air-power experience

By the conclusion of the Second World War, air power had also become an important military option for Canada. To fully appreciate how this came about, it is necessary to briefly turn back to the late interwar period. In the shadow of the Depression years, the application of contemporary air-power theory by the RCAF was hindered by a lack of funding. There were ceilings on manpower and few aircraft to work with. While unemployed men from the hated relief camps built airfields across the country, there were insufficient personnel to man them, and small budgets precluded even a minimal amount of training. Institutional progress was also difficult for Canadian airmen, as the RCAF remained administratively subordinate to the Canadian Army until the creation of the Chief of the Air Staff (CAS) position in 1937.[7]

While RCAF expansion and operations were limited in the late interwar years, airmen were able to keep abreast of developments in air power. As was the case for the Canadian Army and RCN, the RCAF relied heavily upon its British service counterpart for the latest doctrine and training opportunities. For the most part this was accomplished by having select RCAF officers attend the RAF Staff College course and remain in Britain on exchange tours. Since many of these Canadian officers filled the expanding RCAF staff and training structure following their return from overseas, RAF air-power doctrine heavily influenced interwar RCAF planning. If the interwar dominance of the Canadian Army prevented the RCAF from completely ignoring tactical air support, Canadian airmen became heavily influenced by the RAF's penchant for strategic bombing.[8]

A succession of limited defence budgets during this period did not permit much of an operational capability. Even so, as tensions increased steadily in Europe by the late 1930s, RCAF staff officers planned for war and how best Canadians could exploit air power within realistic political and economic limitations. At the operational level, Canadian airmen modified their priorities somewhat. While strategic bombing remained the most popular combat role, the RCAF rationalized that an aerial offensive striking force had to be complemented by effective and modern air defences. Despite working with meagre funds, the RCAF looked for a balanced air force in the years leading up to the Second World War.[9]

Unfortunately for Canadian defence, the reality was that on the eve of the war the RCAF had on strength a mere 20 squadrons, including 8 Regular and 12 Auxiliary. None were at their

6. Robert Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force, 1961–1984*, Vol. I, 216.

7. Douglas, *The Creation of a National Air Force*.

8. Ibid., 120–22. The views expressed by one student returning from Britain in 1931, Flight Lieutenant G. R. Howsam, were typical of the times and demonstrated the influence of RAF instruction. While fighters were necessary, bombers were clearly the prime weapons: "In the last resort air power is one of the instruments whereby a nation is guarded, but without air bombardment an air force becomes ancillary to the other services. Abolish air bombardment and there is no air power, no air striking force, no air defence and no air menace."

9. Douglas, *The Creation of a National Air Force*, 145–51.

full complement of aircraft and personnel. Furthermore, all but one of these squadrons were equipped with obsolescent aircraft. On the surface, it was evident that Canada did not possess a very credible air-power capability in August of 1939. Fortunately for the future of the RCAF, this initial operational setback was overcome, in large part, due to contingency plans drawn up by dedicated staff officers that laid the foundations for a wartime air force. In addition to satisfying its large domestic air training programme, these plans made possible Canada's wartime build-up of overseas forces. At its peak in 1944, the RCAF had 48 squadrons in the European and Far-Eastern theatres of war.[10] While this outcome can be credited to RCAF staff officers, it needs to be stressed that their efforts were realized in the shadow of a government intent on avoiding any military commitment, especially one that would send Canadians overseas. Consequently, these plans were not made public. Political considerations, specifically those pertaining to national unity and Quebec, required Prime Minister King to publicly eschew any overseas military commitments. If by the late 1930s King privately hoped war in Europe could be avoided, he needed to prepare the Canadian public if his wishes proved otherwise. Air power, what little he knew about this capability, fit his strategy of a limited commitment. If there is no evidence that King read the works of strategic bombing advocates like Giulio Douhet, Billy Mitchell and Hugh Trenchard, he embraced any military concept whose understood lethality deterred war or, if war did occur, could bring it to a quick conclusion and avoid the human carnage of the previous world war.[11] King shared the view of his British counterpart, Stanley Baldwin, in that building up an air force was an attractive, cost-effective alternative to raising large naval and ground forces.[12] In an indirect manner, King's early wartime decision to commit his country to the British Commonwealth Air Training Plan (BCATP) exemplified this policy. By giving priority to an air force role, albeit a training one, the prime minister set in motion a politically more prudent plan than one that immediately committed bigger naval and land forces to Europe with the potential for large numbers of casualties.

By the conclusion of the Second World War, the RCAF had accumulated considerable experience in all major air-power roles. Of the 48 squadrons the RCAF had overseas by 1944, 15 were in Bomber Command, 18 were with the 2nd Tactical Air Force (2nd TAF), 5 in Fighter Command, and 5 in Coastal Command. There were also 3 RCAF transport squadrons, one operating on the Western Front and two in Burma. The remaining two squadrons were sent overseas late in the war. Borrowed for the most part from its allies, the RCAF had written doctrine for offensive air operations that included tactical air support, antisubmarine warfare (ASW), and strategic bombing. It also had doctrine for defensive air operations, resulting from wartime experience in air defence using fighter aircraft and radar.[13]

Particularly relevant to this book were the wartime frustrations of Canadian airmen regarding their lack of success in achieving command of larger air force formations. Like their Army and Navy counterparts, they convinced themselves that with such opportunities came more senior rank and national control over their men. Closely linked to the RCAF's extensive overseas wartime operational experience was the national political objective of ensuring that Canadian squadrons and personnel were led, to the extent that operational and administrative needs allowed, by Canadian officers.[14] This policy of "Canadianization" partially explains the popularity of Canada's contributions to the strategic-bombing campaign in Europe. The creation of the Canadian-led No. 6 Group as part of the RAF's Bomber Command was the ultimate realization

10. Jeff Noakes, "Air Force Architect: Air Marshal Wilfred Austin Curtis, Chief of the Air Staff, 1947–1953," in *Warrior Chiefs: Perspectives on Senior Canadian Military Leaders*, ed. Bernd Horn and Steve Harris (Toronto: Dundurn Press, 2001), 241–42.

11. During the early interwar years, these three air force officers challenged the traditional dominant roles of the navy and army and recommended that the air force be an independent military service whose primary role was to be strategic bombing. Any country that had such a capability would have less of a need for surface forces since the threats or effects of strategic bombing would invoke such fear among civilian populations that they would force their governments to sue for peace. Air Chief Marshal Trenchard, Chief of the Air Staff, RAF 1920–1929, ensured that strategic bombing dominated RAF doctrine to the Second World War.

12. Following his visit to London and talks with Prime Minister Stanley Baldwin in October 1936, King shared the British prime minister's views that "attention should be given mostly to the air force; that while Canada might be the last country to be attacked, the air force would be most helpful of any in case of attack." See Douglas, *The Creation of a National Air Force*, 131–34.

13. Evidence of this can be found in several sources. See "Wartime Role of RCAF," first drafted following CAS Conference on March 24, 1948, by Air Commodore Godwin, Deputy Air Member for Air Plans – Plans (D/AMAP/P), record group (RG) 24, Volume 6175, Library and Archives Canada (LAC). This author also has possession of an RCAF tactical-air-support doctrine manual from the Canadian Joint Air Training Centre, based at Rivers, Manitoba.

14. Brereton Greenhous and others, *The Crucible of War*, 44–76.

of this national policy. The end result, however, was disappointment. While senior command positions were indeed offered to the RCAF by their participation in these two formations, those Canadians associated with their build-up remained bitter by what they felt were British designs to limit Canadian nationalistic ambitions.

Canadian airmen were undoubtedly content with being part of a national bomber group through which they executed what they believed was the most important air-power contribution to the defeat of the enemy. On a larger level, Canadian participation in the Allied bomber offensive against Germany was considered to be the quickest way to end the war. This positive experience reinforced the belief of Canadian airmen in the primacy of strategic bombing, one that they would retain during the post-war years. Nevertheless, senior Canadian airmen never forgot that they and their political leaders had to fight RAF obstruction to get a nationally led bomber group in the first place. Their main obstacle was Air Chief Marshal Harris, the Air Officer Commanding-in-Chief (AOC-in-C) of RAF Bomber Command. Oddly, having served in a South African regiment during the First World War, he had no interest in supporting Commonwealth demands for more national representation in Bomber Command. Early on, Harris found the idea of a Canadian bomber group completely unacceptable. As far as he was concerned, bomber squadrons led by Commonwealth, or by what he referred to as "coloured troops," would be "most unfortunate."[15] His reasoning was that the British were better educated and more amenable to discipline than Commonwealth aircrew. Senior command within Bomber Command should, therefore, go to British-born RAF officers. The RCAF was also convinced that when it came to re-equipping his command with the latest heavy bombers like the Lancaster, Harris gave the Canadians the lowest priority.[16]

If the RCAF overseas felt their interests were ignored by the British, the nationalism of Canadian airmen did not extend to their Army brothers. This fact was made clear during the brief history of No. 83 Group, the RCAF's second larger wartime formation. As part of the RAF's 2nd TAF, No. 83 Group was created in June 1943 to provide tactical air support to the ground formations of the Allied Expeditionary Force. More specifically, it was to be an all-Canadian unit providing support to the First Canadian Army in the June 1944 Allied invasion of Normandy. As it turned out, No. 83 Group ended up supporting the Second British Army, and No. 84 Group (with no Canadian air units) supported the First Canadian Army.[17] One would think that in this case the RCAF would have once more blamed the British for not allowing them to support a Canadian land formation. The truth was just the reverse. For institutional reasons Canadian members of No. 83 Group were concerned that they would be switched to supporting First Canadian Army and, therefore, be removed from providing crucial air support to Second British Army, the primary invasion assault force.

While No. 83 Group became an operational, organizational, and logistical model for the Air Division years later, the RCAF eschewed any role that saw it in direct support of a Canadian land formation. Canadian airmen viewed such an outcome as a potential danger to service independence by having to respond to Army direction. There was no doubt that post-war RCAF planners relied upon the organizational blueprint provided by No. 83 Group. It had two Canadian sectors, or divisional headquarters, that commanded three wings each with three squadrons. The inherent mobility and tactical communications capability of No. 83 Group was a most useful planning guide when, early in the development stages of the Air Division, it was not clear if the wings needed to be deployable.[18] Its planning utility aside, the lesson learned for the RCAF from its past with No. 83 Group was the need to support formations that best entrenched its institutional needs. Their idea of promoting a national presence in a large alliance was a narrow one, in that it did not include the Canadian Army. This view did not change in the cold war.

15. Ibid., 77–78.
16. Ibid., 525. *The Official History* argues that Harris rightfully assigned new aircraft based upon seniority. This policy obviously favoured the longer-serving RAF squadrons.
17. Ibid., 270–72.
18. Ibid., 269–72.

When the air-power roles of No. 1 Air Division were being decided in 1951, there were no plans to provide direct support to the Canadian Army Brigade in Germany. The main reason for this organizational construct was because Canadian land forces were part of the British Army of the Rhine. Canadian airmen were convinced from their wartime experience that the British had stood in the way of Canadian opportunities to assert their national presence within the wartime alliance; therefore, the RCAF had no intention of supporting the Canadian Army Brigade in Germany because they were concerned such a role jeopardized their independence as a military service.

Two senior Canadian airmen that felt this way were H. B. Godwin and K. L. B. Hodson. Hodson was the commander of the Kenley Fighter Wing in 1943, and then became the commander of No. 126 Wing, 2nd TAF in 1943–44. He was most concerned that his wing would support the First Canadian Army. As the Director of Air Staff in the RCAF Overseas Headquarters, Godwin was involved in the staff planning for No. 83 Group. As a senior staff officer, he was also in a position to witness first-hand British obstruction to the RCAF's wishes for better equipment and nationalization of its squadrons.[19] Both Hodson and Godwin rose to the rank of air vice-marshal (A/V/M), and both became important contributors to the organization and leadership of No. 1 Air Division. Godwin commanded the division between 1955 and 1958. From his job in Strategic Planning in the Air Staff in 1952, Hodson became the Chief of Staff for the Air Division Planning Team and, therefore, had significant input into how the Air Division was initially organized. While the wartime command and staff employment of these two senior Canadian airmen gave them valuable experience for their post-war roles in the Air Division, these same experiences were contributing factors as the RCAF resisted supporting the Canadian Army Brigade and operating under RAF command in NATO.

The post-war RCAF

Planning for the post-war RCAF commenced prior to the end of hostilities. By 1943, Canadian airmen were thinking about what a post-war world would look like and how best to organize a peacetime air force. Airmen working in the Air Staff gave input to the Working Committee on Post-Hostilities Problems. This committee was put together by the King Government to provide plans that would steer the country clear of the human upheaval and economic depression that followed the First World War. The key was to plan for a smooth transition from war to peace. Airmen and their counterparts from the other Canadian services shared the concerns of their political masters over the social effects of demobilization, but the military was more preoccupied about national defence in light of the advancements in military technology during the war.[20]

A memorandum prepared by the Advisory Committee on Post-Hostilities Problems for the Cabinet Defence Committee (CDC) on July 6, 1944, argued that Canadian defence policy could no longer be considered in isolation.[21] There were three important lines of approach to the consideration of Canadian military policy after the war. First was Canadian participation in the static defence of the North American continent. Second was the Canadian relationship to the defence of the British Commonwealth and especially of Great Britain. Lastly were the military obligations that were to be assumed by Canada as a member of the new world security organization. Long-range planning had to be based upon an appreciation of the dangers of attack in the case of static defence of the country proper and of the probable enemies in the case of a general war.[22]

Several years before the end of the war, two strategic issues had risen to the forefront of Canadian defence policy. First, advances in the range of strategic bombers and weapon payloads put an end to the invulnerability of North America from attack. In light of meeting a possible attack by the

19. Samuel Kostenuk and John Griffin, *RCAF: Squadron Histories and Aircraft, 1924–1968* (Toronto: Samuel Stevens Hakkert & Company, 1977), 211–19.

20. Advisory Committee on Post-Hostilities Problems, secret memorandum to CDC, dated July 6, 1944, RG 24, Series E–1–b, Vol 6172, File 15–48–8, LAC.

21. The Cabinet Defence Committee was an interdepartmental committee that passed on defence requirements and recommendations to Cabinet—similar to the role of the Privy Council Office today. See "The Formulation of Canadian Defence Policy, 1945–1964," File 79/17, Volume I, 16–18, Directorate of History and Heritage (DHH).

22. Advisory Committee on Post-Hostilities Problems, secret memorandum to CDC, dated July 6, 1944, RG 24, Series E–1–b, Vol 6172, File 15–48–8, LAC.

Soviet Union, national defence could no longer be planned in isolation from US strategic-defence assessments. This made the continuation of the US–Canadian Permanent Joint Board on Defence (PJBD) a definite post-war requirement. The PJBD was created in August 1940 between President Roosevelt and Prime Minister King at a time when continental defence was of great concern because of the belief that England would fall to the Germans. As the war progressed, however, its role diminished as the Allies took the war to Germany and Japan, and the threat to North America by both the Germans and Japanese was no longer a serious concern.

The second strategic worry for defence planners was the growing wartime strength and post-war territorial ambitions of the Soviet Union. Before the war ended, therefore, Canadian defence officials looked upon a major wartime ally as a potential future enemy. But this threat from the USSR to Canada's post-war national security was regarded at the time as an indirect one, resulting from a Soviet–American conflict that placed Canada geographically between the two superpowers. Canadian planners believed that war between the Americans and Soviets was at least 10 years distant. The CDC concluded that even if tensions were to become acute between the USSR and the US, the problems of recovery and development in the USSR were so great that the possibility of warfare between these two great powers during the next decade was determined to be extremely remote.[23]

At a meeting of the CDC on September 21, 1944, the Advisory Committee on Post-Hostilities presented its post-war strategic forecast in a document called "Post War Summary – Conclusions." First, with or without world security obligations, Canada was going to be required to carry a greater peacetime defence commitment than ever before. Second, keeping the peace between the Soviet Union and the US was in the direct interests of Canada. Last, because of the new vulnerability of the North American continent and quite apart from any obligations under a world security organization, Canada had to accept increased defence responsibilities and maintain much larger armed forces than before the war.[24]

On May 16, 1944, the CAS authorized the creation of the RCAF Post War Organization Committee with the mandate to "develop and prepare proposals for the organization, operation and administration of the post war RCAF, including Regular, Auxiliary, and Reserve."[25] Its first chairman was Air Commodore (A/C) H. L. Campbell, future Air Officer Commanding (AOC) No. 1 Air Division. One of the methods employed by this committee to prepare its recommendations was to solicit inputs from senior officers employed throughout the various RCAF commands.

Air Vice-Marshal Walsh, Air Member, Canadian Joint Staff (AMCJS), London, echoed the conclusions of Air Staff analysts. He wrote that the future potentialities of air power as a means of aggression put an end to Canada's traditional geographical security. Canada's post-war defence needed to include static air defences of major cities and industrial areas as well as mobile defence forces that could interdict enemy airborne attacks in the country's north. Walsh also stressed the need for an indigenous aircraft and aero engine industry.[26] Air Vice-Marshal A. Ferrier, Air Member for Aircraft Engineering, stated that Canada needed to maintain an air force larger than was the case in the pre-war period as a deterrent to any future aggressor. Air power had "to contribute largely to a visible armed force."[27] Group Captain (G/C) D. A. R. Bradshaw, Commanding Officer of the Boundary Bay No. 5 Operational Training Unit (OTU), and another future AOC of the Air Division, recommended a balanced air force. He wanted an air force of 50,000 personnel with an aircraft establishment that included medium and heavy bombers, fighters, flying boats, and transport aircraft. He also recommended that the air force operate in conjunction with the army in tactical-air-support operations and that the heavy bombers be employed in strategic operations that would include Navy and Army input.[28]

23. Cabinet Defence Committee letter to Secretary Joint Staff Washington, dated July 26, 1944, RG 24, Series E–1–b, Volume 6172, File 15–48–8, LAC.
24. Cabinet Defence Committee document "Post War Summary – Conclusions," dated September 21, 1944, RG 24, Series E–1–b, Volume 6172, File 15–48–8, LAC.
25. Post War Organization Committee—RCAF, dated May 16, 1944, RG 24, Volume 5224, Folder 1, LAC.
26. Letter from A/V/M Walsh to RCAF Post War Organization Committee, dated June 20, 1944, RG 24, Volume 5224, Folder 1, LAC.
27. Input from A/V/M A. Ferrier, Air Member for Aircraft Engineering, for the RCAF Post War Organization Committee, undated, RG 24, Volume 5224, Folder 1, LAC.
28. Input from Group Captain Bradshaw for the RCAF Post War Organization Committee, undated, RG 24, Volume 5224, Folder 1, LAC.

There were several common themes in these comments. First, Canadian airmen believed strongly that the widespread and crucial use of air power in the Second World War had made this military option indispensable in future warfare. Second, its wartime emphasis on strategic bombing needed to be reconsidered. The RCAF had to adopt a balanced air force in its post-war structure. It had to pursue a more flexible application of air power so that it could operate both independently in the strategic-bomber role and in support of naval and land forces. Lastly, the war had demonstrated two strategic lessons. Air power had become a two-edged sword. While improved aircraft and weapon-systems' technology increased the capabilities of offensive strategic bombing, they also permitted a potential enemy to threaten the Canadian homeland. The war had also taught Canadian airmen the need for an integral national aircraft and aircraft engine industry, as depending upon external sources for these supplies placed unacceptable restrictions on the country's ability to realize its air-power potential.

By December 1944, these opinions and recommendations with respect to the country's future air-power choices were synthesized by the RCAF Post War Organization Committee and sent to Cabinet through the CDC. Senior Canadian airmen argued that as a minimum, for the Canadian government to fulfil its responsibility for national security, it must maintain an air force of sufficient strength and readiness to uphold national policies and interests in concert with the Navy and Army. To accomplish this, the RCAF sought to establish a requisite number of Regular squadrons and to ensure a trained immediate reserve of Auxiliary squadrons. The Air Force also had to provide effective training for the reserve branches of the force to permit personnel to undertake increased responsibilities in the event of any emergency expansion. Nor was the training limited to wartime experience, as the post-war RCAF needed to be prepared to meet radical changes in warfare brought about by the introduction of atomic energy and guided missiles as offensive weapons of tremendous destructive power. Finally, at a time when the specific roles of all Canadian armed forces were unknown, it was necessary to plan the future of the RCAF to ensure its adaptability to developments as they occurred.[29]

While the RCAF pondered its future at the national level in the immediate post-war period, it was trying to understand its role at the international level. Years before the conclusion of the Second World War, Canadian defence planners correctly predicted that a post-war UN organization would be created, requiring member countries to provide military forces to be used collectively against an aggressor.[30] These same defence planners also predicted that the Canadian military would support the post-war recovery in war-ravaged Europe. This idea was stillborn with the King Government's decision to repatriate the remaining Canadian forces from Europe by the end of 1946. Even so, in the immediate post-war years, the Canadian military believed that part of its post-war raison d'être was to support the UN. The question was, to what extent? The RCAF was optimistic that air power would retain its wartime importance in the minds of UN planners. After all, Article 45 of the UN Charter stated that "members shall hold immediately available national air force contingents for combined international enforcement action."[31]

Between 1945 and 1949, the Canadian government actively participated in discussions proposing the creation of a multinational UN force to include a Canadian military contribution. If, as explained below, these discussions became increasingly cynical in light of growing East-West tensions, it needs to be emphasized that early on in this period Canadian leaders had not yet abandoned their wartime hopes for the UN as a body to promote global security. In contrast to the Americans, they wanted their military to partake in a UN forum that would demilitarize and collectively control atomic energy, and this thrust shaped national policy. There was to be no development and use of atomic weapons for the country's military, despite the associated technical and scientific skills Canadians had developed over the course of the war.[32] To Canadian airmen, this direction made the continuation of a wartime strategic-bombing force unlikely. Why have such a force if the most destructive weapons were not provided?

29. Memorandum to Cabinet entitled "Proposals for Post War Royal Canadian Air Force," dated December 10, 1944, RG 24, Volume 5225, LAC.
30. Advisory Committee on Post Hostilities Problems memorandum to CDC dated July 6, 1944, RG 24 Series E–1–b, Volume 6172, File 15–48–8, LAC.
31. Ibid.
32. Letter from the secretary to Cabinet to Chairman, Chiefs of Staff (COS) Committee, dated January 5, 1946, following the Cabinet meeting January 3, 1946, in which Cabinet approved the appointment of delegates to General Assembly as proposed by the prime minister. These delegates would sponsor a Canadian resolution for appointment of a commission on atomic questions, RG 24, Series E–1–b, Volume 6172, File 15–48–8, LAC.

If a post-war bombing role appeared improbable, the RCAF was more concerned about the anticipated post-war retrenchment and its effect upon a viable national peacetime air force. In 1945, it was far from clear to what extent post-war demobilization of the military and country's wartime economy were going to destabilize the country's economic and social structure. The Liberal Government had gone to the polls in the 1945 federal election with two promises: short-term financial support that allowed veterans to reintegrate into society better than was the case after the First World War and a long-term goal of national social assistance. The RCAF, as did the Canadian Army and RCN, feared that maintaining a post-war military was not a priority of Mackenzie King.[33] Would the Canadian military return to its pathetic pre-war state?

This worst-case scenario did not occur, but the government's initial blueprint for a post-war military did not leave senior officers overly optimistic about their future. In the same month that the Second World War came to a conclusion, the King Government announced its plans for the RCN, Canadian Army, and the RCAF. Cabinet, on September 28, 1945, approved a post-war military strength of less than 50,000. For planning purposes, the RCAF Regular Force strength was pegged at 15,000 to 20,000. This fell far short of the RCAF's recommended minimum peace strength of Canada's air force.[34]

Airmen wanted a Regular Force of 20,000 that reflected a balanced air force consisting of 10 operational squadrons, 8 composite flights and the necessary headquarters, commands, training, maintenance, and ancillary units and formations. These squadrons were to include bomber reconnaissance, transport, photographic, fighter reconnaissance, fighter bomber, and air observation. There was to be an Auxiliary component 10,000 strong, comprising initially 19 squadrons, with an additional 9 squadrons at some future date. These squadrons were to include fighter, fighter reconnaissance, and fighter-bomber aircraft. A third component, the RCAF Reserve, was to have a strength of 25,000, consisting of ex-members of the RCAF Regular, Auxiliary, Reserve, and Special Reserve who were still eligible for active service. There was to be a role for qualified RCAF Air Cadets and members of university undergraduate training schemes as well as a plan to train select civilian flyers and personnel so they could adapt from their normal occupation to a service trade in the event of a national emergency. This "minimum" peacetime force was to cost $57,000,000; not an insignificant sum, considering that the Canadian military's last peacetime budget in 1939 was $35,000,000.[35]

Confirmation that the Canadian government was not going to authorize a large peacetime air force came on October 4, 1945, when Colin Gibson, the Minister of National Defence (MND) for Air, addressed the House of Commons on the proposed organization of the RCAF. While this announcement concerned Canadian airmen, they were encouraged by the minister's views on the future importance of air power relative to sea and land power. Gibson enunciated the position of the King Government that in light of the many unknowns on the world stage, it would be imprudent to come up with a definitive defence policy at that time. With respect to the air force, he outlined a very broad and general organization that would include bomber, fighter, and transport squadrons within Regular, Auxiliary, and Reserve forces. He was clear, however, on the future of the RCAF relative to the Army and Navy in that "whatever its eventual equipment and role, the Air Force would play a major part in the defence of Canada during the years to come ..., the production of the atomic bomb will have far reaching effects on the whole science of war ... [so that] it will undoubtedly increase the relative importance of air power."[36]

Gibson's speech made no secret that the military was to return to its traditional peacetime structure characterized by a dependence upon part-time reserves at the expense of regular forces. On the other hand, he acknowledged the growing strategic air threat against the country. In referring to atomic

33. Minutes of Meeting of Advisory Committee on Post Hostilities Problems, dated July 31, 1945. RG 24, Series E–1–b, Volume 6172, File 15–48–8, LAC. See also, interview of Air Marshal Dunlap (Retired), "Dunlap Replies to Questions from Dr. Alec Douglas," dated March 18 and April 23, 1981, 32, File 88/188, DHH.

34. Memorandum to Cabinet entitled "Proposals for Post War Royal Canadian Air Force," dated December 10, 1945, RG 24, Volume 5225, LAC.

35. Ibid.

36. Canada, *House of Commons Debates*, 2nd Session, 1945, I, 765, quoted in James Eayrs, *In Defence of Canada, Vol III: Peacemaking and Deterrence* (Toronto: University of Toronto Press, 1972), 86–87.

weapons and the need for national air defence, the minister recognized that such weapons in the future, coupled with long-range bombers, could be a threat to Canada. Unfortunately for Canadian airmen, Gibson's sanguine remarks about the wide-ranging air-power roles predicted for their service were both misleading and disingenuous in light of the eventual size and structure of the post-war RCAF. There was growing frustration by Air Staff planners in trying to come up with a peacetime air force in the absence of clear government policy other than the need to downsize the forces.[37]

The news got worse for the RCAF in the spring of 1946. By April of that year, the RCAF was undergoing massive demobilization toward an anticipated steady state of 27,462 personnel. The government-authorized unit establishments were drawn up during the month of July based upon what the RCAF understood. Then it was learned that Cabinet lowered the authorized ceiling of the RCAF to 16,100, inclusive of all components. The result was a paltry Regular Force of two bomber reconnaissance squadrons, two transport squadrons, and one squadron each of fighter reconnaissance, fighter bomber, photographic, and air observation post (AOP) as well as the necessary headquarters, training, and administrative units. If these numbers came as a shock to airmen, their future plans took a further hit when the government decided that for the fiscal year 1947–48, the RCAF was not to exceed 75 per cent of the total personnel required for the reduced establishment.[38]

To his credit, the CAS, Air Marshal (A/M) Leckie, put aside his own personal frustrations with government policy and made the best out of what he was given for a post-war air force. On a broad level, he wanted the RCAF to meet its primary function of maintaining an air force in sufficient strength and readiness to uphold national policies and interests and, in concert with the Army and Navy, to guard Canada from attack. The challenge was satisfying such a policy guideline in light of changes in government policy and rapid improvements in weaponry and munitions.[39] In the more immediate time frame, Leckie understood the importance of not placing too many unreasonable demands upon a Liberal Government that eschewed large militaries and international commitments. While an air force with few Regular Force squadrons severely limited his flexibility in maintaining a cadre air force, it was part of a peacetime military that appealed to the parsimony of the King Government. The CAS had learned from the interwar lessons of his American counterparts like Hap Arnold and Carl Spaatz the need to please one's political masters if one wanted to promote the air force over the surface forces and to maximize limited funding in peacetime.[40]

Leckie comprehended that in order to maintain a core air force that could be expanded in times of crisis or war he needed to adhere to several priorities. An important one was staff. Similar to the experience of General Hans von Seeckt, who had to compensate for manpower restrictions imposed on his post First World War German General Staff, Leckie concentrated on retaining the best wartime senior officers for staff planning in a minuscule air force. Notably, two of these officers were G/Cs Hodson and Godwin. To provide some semblance of professional officer training, Leckie managed to run two shortened RCAF Staff College courses in 1946.[41] One of the directing staff at these two courses was none other than Hodson. He, and one of his students, Squadron Leader Chester Hull, another wartime RCAF operational wing and station commander, later worked together in the Plans Division of the Air Staff prior to taking on senior appointments in the Air Division.

Leckie's efforts to convince officers to remain in the RCAF were overshadowed by further roadblocks to his plan for a viable post-war Air Force. Initially, there was little incentive for

37. Air Marshal C. R. Dunlap (Retired), who became the Chief of the Air Staff in 1962, reflected the frustrations of airmen during this period by commenting: "I can't remember precisely when we received guidance from the government, generally from the Canadian government you receive very slim guidance ... [except that] the forces were to be smaller and less expensive." Interview of Air Marshal Dunlap (Retired), "Dunlap Replies to Questions from Dr. Alec Douglas," dated March 18 and April 23, 1981, 32–34, File 88/188, DHH.

38. Canada, Department of National Defence, *Report of the Department for the Fiscal Year Ending March 31, 1947* (Ottawa: Supply and Services Canada, 1947), 43.

39. In the introduction to his first post-war peacetime plan for the RCAF, "Plan B: Post War Plan for the Royal Canadian Air Force," dated April 1946, Leckie writes: "It has been necessary to plan initially for an orthodox force, but it has been borne in mind that changes will have to be made as technological advancements in aircraft, weapons and the utilization of atomic energy, demand ... ." Chapter 1, paras 1.01–1.04, File 188.004 (D44), DHH.

40. Leckie's instincts proved right. James Eayrs writes that: "Claxton, the MND after December 1946, admired the tenacity with which Leckie defended the interests of his Service, and admired no less the loyalty with which Leckie carried out the policies he disagreed with ... ." Eayrs, *The Defence of Canada, Vol III*, 59.

41. RCAF Staff College Courses were normally of a 10-month duration. Given the immediate post-war personnel reductions, the two courses run in 1946 were six months in duration. Interview with Lieutenant-General (LGen) Chester Hull (Retired), Belleville, Ontario, June 4, 2004.

veteran airmen to stay in the Air Force or for new recruits to join. The RCAF scales of pay could not compete with the rising salaries of the growing post-war private sector. Consequently, by March 31, 1947, the total strength of the RCAF was 12,627, which was well short of the 16,100 allowed by Parliament.[42] Second, on October 1, 1946, the RCAF reverted to a peacetime footing. Reversions in rank were effected to the extent that many officers relinquished commissions and were re-attested as airmen with ranks commensurate with experience and training. All airmen ranks at this date were confirmed as substantive. Officers' ranks were promulgated on a provisional basis, pending final approval of establishments.[43]

If he could not stem the exodus of trained personnel from the RCAF, A/M Leckie convinced his superiors to not completely abandon a national aircraft and engine industry. In similar circumstances that faced the early interwar American Chief of the Air Service, Major General Mason Patrick, Leckie understood that even in tough times the Air Force needed to have access to the industrial sector to sustain momentum in the aircraft industry.[44] In 1946, despite the objections by the other two services' chiefs who felt such a plan unaffordable, Leckie was successful in getting the government to proceed with the design and development of a jet fighter built especially for Canadian requirements. Concurrent with this project was the development of the Orenda jet engine at A. V. Roe Canada Limited, in Malton, Ontario. These would eventually be married up to become the Canadian-built CF-100 all-weather jet fighter.[45]

The development of the CF-100 met both strategic and operational needs. It ensured that the RCAF had a national supply of aircraft needed to perform its main mission of defending the country from enemy strategic bombers. This integral capability rectified a wartime air-power deficiency, as the Canadian government had been unable to get a guaranteed supply of aircraft and/or engines from either the British or Americans. From an operational point of view, the CF-100 was built with two engines that gave it sufficient range over Canadian and American territory where airports were quite distant. Furthermore, the provision of a two-man cockpit divided the complex duties of air interception over North American airspace.[46] The problem, as detailed below, was that the CF-100 and its engine were just in the design stages and full production was years away. As it turned out, the CF-100 would not enter operational service until the early 1950s, but—fortunately for the RCAF—its interim solution, the acquisition of the F-86 Sabre, turned out to be a most fortuitous decision.

On September 1, 1947, A/M W. A. Curtis replaced Leckie as CAS. The new head of the RCAF inherited an air force that remained at less than the authorized strength, with few Regular Force squadrons. Like his predecessor, Curtis concentrated on areas that he could control and that would facilitate force expansion in times of war. This included planning for a peacetime and wartime air force.

Within the Air Staff, the formulation of long-term plans for defence was the responsibility of the Director of Air Plans. His main task was to make plans to cover the transitional stage from peace to war. The Air Plans Division was divided into two branches, Plans and Organization. Within the Plans branch there were three directorates: peace plans, emergency plans, and scientific plans. The last-named directorate was established in 1947 to develop and correlate scientific aspects of plans for both peace and periods of emergency. By 1947, the Plans branch was studying problems likely to be encountered during mobilization in any emergency, including the defence of Canada in conjunction with the other services and the provision of any RCAF component allocated as part of an international military force for operation under the direction of the UN.[47]

42. This total included 2,140 officers and 10,487 airmen. In fact, numbering 3,015, there were more civilians than officers in the 1947 RCAF. Canada, Department of National Defence, *Report of the Department for the Fiscal Year Ending March 31, 1948* (Ottawa: Supply and Services Canada, 1948), 53.

43. Chester Hull, who left the war as a group captain and who had been the Station Commander at Leeming, England, commanding two RCAF bomber squadrons in late 1945, "reverted" to squadron leader as a student at the RCAF Staff College. Interview with LGen Chester Hull (Ret'd), Belleville, Ontario, June 4, 2004.

44. Futrell, Vol. I, 39–40.

45. Eayrs, *The Defence of Canada, Vol III*, 102–3.

46. Joseph T. Jockel, *No Boundaries Upstairs: Canada, the United States, and the Origins of North American Air Defence, 1945–1958* (Vancouver: University of British Columbia Press, 1987), 39–40.

47. Canada, Department of National Defence, "Report of the Department for the Fiscal Year Ending March 31, 1948" (Ottawa: Supply and Services Canada, 1948), 44.

Previous studies dealing with the post-war RCAF concentrated on the series of plans for a peacetime air force, concluding that the emphasis in these plans was upon air-defence fighters.[48] This view is too narrow and misleading. In order to understand how Canadian airmen viewed subsequent air-power choices during the cold war, it is important to look at RCAF plans for peacetime and war. The air-power roles outlined in the early cold-war plans for wartime reflected a much more balanced air force that included strategic bombing and the need for tactical air forces to support land operations in a European conflict.

In its strategic planning document, "A Long Range Plan for the RCAF," drafted in February 1947, the RCAF looked at how to build up the Air Force from a peacetime to a wartime force.[49] This plan was underpinned by two key assumptions. First, that Canada took on full responsibility for the defence of its assigned territory in the Basic Security Plan. Second, the US took over certain regional aspects involving air defence and air warning. The Basic Security Plan was jointly approved by the US and Canadian governments in February 1947. It allowed for the continuation of joint US–Canadian military dialogue, as established during the war, and encouraged the joint development and use of military equipment and mutual access to both countries' military bases.[50] But this plan was by no means a formal defence pact. Mackenzie King, recalling the threat to Canada's sovereignty with the presence in Canada of US military forces during the Second World War, did not want to see the American military returning to his country on a permanent basis.[51]

The "Long Range Plan for the RCAF" called for three phases. Phase I provided the nucleus in peacetime from which the force required for basic security was built up within a prescribed warning period. It consisted of 52 squadrons, including 24 Regular and 28 Auxiliary, and 44 radar units. It totalled 74,580 personnel, of which 38,680 were Regular Force members. Phase II provided the force required for basic security, or the first stages of war. It included 62 squadrons and 44 radar units, manned by 118,000 personnel. Phase III provided a balanced wartime force. This called for the expansion of the basic security force to include those elements required to provide a strategic offensive force, tactical support for a Canadian Expeditionary Force, and a maritime force for protection off the Canadian coasts. Ultimately, it was to include 62 squadrons, 53 radar units, and a total of 259,500 personnel.[52]

In retrospect, the weakness of Phase III was that it assumed that the next war would last at least three to four years, allowing industry time to ramp up full aircraft production to meet the varied needs of the RCAF. This was evidently based upon the experiences of the previous world war and did not consider that a future nuclear conflict was not likely to last long. The assumptions that underpinned Phase III planning were also shaped by early views of nuclear war. Available atomic weapons in SAC were limited in number and explosive force to the extent that senior Canadian airmen looked at the atomic bomb as just another weapon of war.[53]

The primary commitments of the RCAF in the event of war were spelled out in a document called "The Wartime Role of the RCAF," dated March 24, 1948. They included the defence of Canada; the immediate provisioning of an overseas force comprising those groups of interceptors, bombers, or other aircraft that may be urgently required to assist Canada's allies; and the provision of an air striking force that included strategic bombers and an expeditionary tactical air force.[54] Underlining the point made earlier that the post-war RCAF planned for more than just an air-defence role, the Air Staff drafted a plan late in 1951 that included an overseas establishment of 36 and 39 fighter and heavy bomber squadrons respectively (900 and 597 aircraft) as well as 1 main headquarters, 7 divisional headquarters, and 25 wing headquarters. The plan called for a total of 298,250 personnel.[55]

48. See Wakelam.
49. "A Long Range Plan for the RCAF," first draft, February 27, 1947, RG 24, Volume 6175, LAC.
50. Ibid.
51. Douglas Bland, *Canada's National Defence, Volume I, Defence Policy* (Kingston: School of Policy Studies, 1997), 51–55.
52. "A Long Range Plan for the RCAF," first draft written on February 27, 1947, RG 24, Volume 6175, LAC.
53. Leckie minute to Commander D. K. MacTavish, Secretary, Advisory Committee on Post-Hostilities Problems, October 31, 1944, RG 24, Series E–1–b, Volume 6172, File 15–48–8, LAC.
54. "Wartime Role of RCAF," first drafted following CAS Conference on March 24, 1948, by Air Commodore Godwin, D/AMAP/P, RG 24, Volume 6175, LAC.
55. "RCAF Ultimate War Plan," first drafted in the Air Staff November 27, 1951, revised by Director of Air Plans May 15, 1952, RG 24, Volume 6177, LAC.

Air Force planning accounted for transition from war to peace, and it anticipated that there would be a need for a balanced air force employing all traditional air-power roles. But the actual force structure was to be dictated by the planned peacetime structure. In a presentation to an Air Members meeting held in April 1949, the Air Member for Air Plans (AMAP), A/V/M C. R. Dunlap, explained the economic realities facing the RCAF:

> Ideally, the evolution of the RCAF in peacetime should be such that, in the event of a future emergency, the air forces available for the defence of Canada will meet the actual threat as it develops. In light of available intelligence, however, it has become obvious that the economy of Canada will not support an air force in peacetime, which would be capable of meeting the probable scale of attack immediately on the outbreak of a major war. It is only possible, therefore, to provide the most suitable Mobilization potential within peacetime economy that will meet the threat in the shortest possible time after an emergency has been declared.[56]

Cognizant of the limitations of Canada's peacetime economy, Dunlap outlined the planned peacetime build-up of the RCAF that contained an optimum mix of Regular and Reserve squadrons; this became "Plan F." It provided for 20 Regular and 12 Reserve squadrons, most of which were to be at half strength. A reserve of operational aircraft was to be included to bring these squadrons up to full strength at the outbreak of war.[57]

The financial limitations put upon a peacetime air force notwithstanding, the strategic-bombing role did not entirely disappear. In subsequent minutes of Air Members meetings held that year, senior airmen wanted the war plans to reflect the introduction of strategic bombers. Both Curtis and A/V/M A. L. James, Air Member for Technical Services, insisted that a strategic-bombing capability be included in Phase II mobilization planning. It was also believed that the associated training and operations flown by the aircrew of the maritime patrol Lancaster provided a basis from which to expand to a wartime strategic-bombing capability. Although the Lancaster was employed in the ASW role, the need for long-range navigation and bombing training was not much different from that required by strategic-bombing crews.[58]

RCAF post-war equipment choices

It is one thing to have good planning and good personnel in a limited-size air force, but ultimately, airmen need to sustain a semblance of air operations. To accomplish this, the RCAF needed aircraft and aircraft support equipment that in turn necessitated an equipment acquisition plan. While an account of the RCAF's choices for aircraft is useful toward a partial understanding of what Canadian airmen wanted later on for the Air Division, the details of this plan reveal what air-power roles Canadian airmen were looking for against the backdrop of stringent economic times the RCAF confronted between 1945 and 1950.

By war's end, the Canadian government had accumulated considerable financial credits with the British as a result of the release of Canadian-owned aircraft and equipment in the United Kingdom (UK)—from disbanded RCAF squadrons after V-E (Victory in Europe) Day—handed over to the Air Ministry. This fact, coupled with the reality that the Canadian government was going to drastically curtail defence spending in the immediate post-war years, dictated that any purchase of aircraft was going to be from the UK, applied against Canada's favourable balance of payments. Airmen were reminded by Treasury Board that any future aircraft procurement was going to be subject to more traditional governmental controls that had become less stringent because of the exigencies of war: Air Marshal Leckie had to determine what roles he contemplated for his post-war air force, what aircraft were surplus to RAF needs and how many he could obtain.[59]

56. Presentation by A/V/M Dunlap to Air Members Meeting entitled "RCAF Long Range War Plan: Concept," dated April 6, 1949, RG 24, Volume 6175, LAC.

57. Ibid.

58. Item 522, Minutes of 77th Meeting of Air Members held May 25, 1949, File 73/1223, Volume 1820, DHH.

59. Letter from Treasury Board to H. F. Gordon, Deputy Minister for the Department of National Defence for Air, dated September 6, 1945, RG 24, Series E–1–b, Volume 6172, File 15–48–8, LAC.

In October 1945, A/V/M Slemon, then chairman of the RCAF Post-War Planning Committee, sent a message to the RCAF Overseas Headquarters outlining the need for 120 Mosquito fighter bombers and 200 Spitfires, including reconnaissance and photo-reconnaissance versions. In a subsequent message the next month, Slemon requested confirmation from the Air Ministry and British Treasury Board officials of the exact amount of financial credits owed Canada. His concern was that should these credits be insufficient, the RCAF would have to reconsider the number of aircraft obtained from the UK.[60] As it turned out, the Air Staff informed RCAF Overseas Headquarters that their aircraft needs had changed in light of anticipated government reductions in force structure. The RAF was subsequently requested to supply 12 Mosquitoes and 137 Spitfires for the RCAF's planned Regular and Auxiliary Force squadrons, whose total personnel were still awaiting Cabinet approval in January 1946. These figures were for a three-year period that included wastage and reserves.[61]

While the request for Mosquitoes and Spitfires suggests that the Air Staff wanted to sustain an offensive and defensive fighter force and a tactical-air-support capability, it is difficult to determine exactly what Leckie had in mind for his post-war air force. One indication came from his correspondence with the RCAF Overseas Headquarters in late 1945. Leckie was insistent that those RCAF squadrons that were in Europe as part of the occupation forces remain there until at least July 1946. He wanted to maintain a mix of four day-fighter, two heavy bomber, and two medium-range transport squadrons overseas. Even so, it is debatable if these numbers formed the basis of Leckie's post-war Air Force, given that RCAF operations with such a mix of air-power roles could only have been sustained in Europe. The CDC approved Leckie's recommendations on November 12, 1945, but upon his return two days later from Europe, the prime minister informed Cabinet that he was going to withdraw all Canadian forces by the following spring.[62]

Even if the CAS wanted the overseas RCAF as the basis of his post-war Air Force, there were other indications that his force capability options were going to be limited. Earlier in September 1945, an internal Air Staff memorandum prepared for the CAS referred to the existence of 118 Very Long Range (VLR) Liberators, of which 68 were purchased through lend-lease and the remainder through Canadian funds during the war. The memorandum stated "their use in the post-war RCAF is not envisaged with the exception of a small number retained in No. 168 VLR Transport Squadron."[63] Here was one example where the Air Staff rejected the opportunity to sustain a peacetime strategic-bombing force with VLR Liberators that had already been paid for. In a less convincing manner, since he provided no corroborating detail, A/M Dunlap stated that by 1945 a peacetime strategic-bombing role was considered too costly.[64] In addition to the prohibitive expense of a strategic-bombing capability, the small authorized size of the post-war RCAF could not sustain the manpower needs for such a role and, by the late 1940s, the primary role of the RCAF had become continental air defence.[65]

In January 1946, the RCAF Overseas Headquarters informed the Air Staff that they had $3,900,000 in credits with the UK. But air planners were already modifying their needs. For several reasons, the plan was amended to request the UK provide Vampire jet fighters instead of Spitfires. There were a number of technical and supply problems encountered with the Spitfire. There were difficulties in getting spare engines and propellers as well as poor serviceability rates. Also, the Mk XIVs were not standardized, having different wing tips, tanks, and fuel systems as well as three different types of fuselages and four different types of fuel systems. In addition, the Griffin engines needed many modifications and were not satisfactory.[66] As well, air planners

60. RCAF Post War Planning Committee message sent to RCAF Overseas Headquarters, November 6, 1945, RG 24, Series E–1–c, Accession 1983–84/167, Box 6283, File 1038–180, LAC.

61. Ibid.

62. RG 24, Series E–1–b, Volume 6172, File 15–48–8, LAC.

63. Air Staff memorandum from the Director of Plans and Operations, September 4, 1945, RG 24, Series E–1–b, Volume 6172, File 15–48–8, LAC. Interesting is that the RCAF chose to use the Lancaster as opposed to these Liberators for their post-war antisubmarine (A/S) forces. The latter had proven themselves as an excellent antisubmarine warfare platform during the last two years of the war.

64. Interview of Air Marshal Dunlap (Retired), 32–34.

65. By fiscal year (FY) 1949–50, RCAF equipment plans called for mostly air-defence fighters. The exception was one squadron of P–51s (F–51s) needed for tactical air support. RG 24, Series E–1–c, Accession 1983–84/167, Box 6284, LAC.

66. Memorandum from the Director Air Strategic Plans (DSAP) to CAS, February 19, 1946 entitled "Post War Aircraft Requirements," RG 24, Series E–1–c, Accession 1983–84/167, Box 6283, File 1038–180, LAC.

argued that since flying rates were to be held to a minimum in 1946 there was no urgent reason to put into service a piston-powered fighter when a more modern jet-powered version could be available a year later.[67] Vampires were known to be in production, and the Air Staff determined that they could be available to the RCAF by 1947. Since the CF-100 was not going to be operational earlier than 1952, Canada needed an interim air-defence jet fighter. The Air Staff recommended that Canada cancel the request to return Spitfires to Canada and negotiate for 189 Vampires plus the necessary spares against credits of $3,965,773. For Canadian purposes, the aircraft was to be fitted with additional tanks to give it an air range of 1,500 miles [2,424 kilometres] at 30,000 feet [9,144 metres]. The idea was that these numbers would have provided initial equipment, wastage, and workshop reserve for one Regular Force and seven Auxiliary Force squadrons for a period of three years. The post-war plan would then have called for 15 Auxiliary squadrons of which 7 would be Vampires, 6 Mosquitoes, and 2 Mitchells. The Regular Force Tactical Wing was to consist of one Vampire squadron and one Mosquito squadron.[68]

One big problem with this plan was that the British Treasury did not accept the RCAF's credit calculations. Canadian airmen thought that with the disbandment of 126 Wing (Canadian occupational forces in Germany) in the summer of 1946, including 411, 412, 416 and 443 Squadrons, the 64 Mk XIV Spitfires of these units could be returned to the Air Ministry for additional credit. But the RCAF Overseas Headquarters was informed by the Air Ministry in May 1946 that these aircraft would be surplus to RAF needs; therefore, they would not constitute additional credits.[69] Moreover, the British Treasury did not feel that the change of RCAF plans from an "exchange" of surplus war aircraft to getting a "credit" toward contract for Vampires was a legitimate one.[70]

Luckily for the RCAF, the Air Ministry did not want to hold up Canadian aircraft orders for Vampires and pressed the Treasury for a final decision. In September 1946, Treasury agreed that the total credit to the RCAF came to $2,193,000 for provision of aircraft and equipment from British production. Of this, $93,000 was allocated for the provision of Auster (AOP) aircraft and modifications to Mosquitoes, leaving $2,100,000 for 85 Vampires.[71] The problem with this outcome for A/M Leckie was the reduced numbers of jet fighters now available for the RCAF.

By early 1947, the CAS was planning for a Regular Force fighter squadron of 12 aircraft, 7 Auxiliary squadrons of 56 aircraft, and 15 aircraft for miscellaneous units. He also planned for attrition for three years as well as workshop and pipeline reserves, which required a further 68 aircraft, for a total of 151 Vampires. After securing 85 Vampires against credit, there remained a shortfall of 66 aircraft. The Air Staff became so desperate for these remaining fighters that they wanted national funding for 66 of the less capable but cheaper Meteor IV jet aircraft.[72]

Another problem that the CAS faced was being able to match up aircraft with doctrine. One air-power component that the Air Staff wanted to sustain was a tactical air force. In 1947, the RCAF defined this component as follows:

> In the theatre of operations where ground forces are operating, normally there will be a tactical air force. This air force will gain the necessary degree of air superiority, prevent the movement of hostile troops and supplies into the theatre of operations or within the theatre, and participate in a combined effort of the air and ground forces, to gain objectives on an immediate front of the ground forces. This air force is composed of three types of aircraft, fighter reconnaissance, fighter bomber and light bomber.[73]

67. Ibid.
68. Ibid.
69. Letter from Air Ministry to AOC-in-C, RCAF Overseas Headquarters, May 13, 1946, RG 24, Series E–1–c, Accession 1983–84/167, Box 6283, File 1038–180, LAC.
70. Letter from Mr. Raymond Bell, Office of High Commissioner for the UK in Ottawa, to R. B. Bryce, Department of Finance, June 11, 1946, RG 24 Series E–1–c Accession 1983–84/167, Box 6283, File 1038–180, LAC.
71. Internal Brief for Air Members, September 6, 1946, RG 24, Series E–1–c, Accession 1983–84/167, Box 6283, File 1038–180, LAC.
72. Internal CAS memorandum undated, RG 24, Series E–1–c, Accession 1983–84/167, Box 6283, File 1038–180, LAC.
73. Letter from A/V/M Curtis, Assistant Chief of the Air Staff (A/CAS), to MND, March 15, 1947, RG 24, Series E–1–c, Accession 1983–84/167, Box 6283, File 1038–180, LAC.

The RCAF had created No. 20 Tactical Wing as its peacetime organization that met the above requirements, except that, for peacetime training, the roles of fighter bomber and fighter reconnaissance were amalgamated in a single squadron—417 Fighter Reconnaissance Squadron. The Mosquito was to have carried out the fighter-bomber role, and the light-bomber role was being performed by war surplus Mitchells. However, like the original plan that saw the British supply the RCAF with Spitfires for its post-war air force, the plan to accept Mosquitoes also foundered for a variety of reasons. These aircraft needed extensive modifications that would have cost $15,000 per aircraft. They had a high operating cost of $78 an hour, needed a large number of personnel support (22 aircrew / 68 ground crew), and their wooden airframes made for a short lifespan. Therefore, on March 25, 1947, the Air Staff declared surplus all Mosquitoes except 60 for wartime storage. Consequently, this left the Harvard trainer as the sole aircraft for tactical-air-support training purposes. But it had neither the speed, range, nor armament capabilities for this role.[74]

The answer was to look to the US for a suitable aircraft type. In the fall of 1947 the Air Staff learned that 50 Mustang P-51 D/H aircraft were available at $10,000 a copy plus a further $10,000 for spares per aircraft from surplus US stocks. They recommended that Canada purchase 30 Mustangs against credits of $5 million with the US government.[75] Cabinet approved this proposal on March 27, 1947. Having found a source for these aircraft and associated spares was one thing, but having them released by the US government was quite another matter.

The US State Department had introduced stringent guidelines that made it extremely difficult for American producers of military hardware to export to foreign nations.[76] To the consternation of the RCAF, the delivery of the 30 Mustangs was not completed until the early spring of 1948. Added to these deliveries were the first of the 85 Vampires and 36 Auster aircraft from the UK. The Canadian government also purchased 20 Firefly IVs and 27 Seafury piston-powered carrier combat aircraft from the UK for the RCN's carrier the MAGNIFICENT. The total defence budget for fiscal year 1948/49 had risen to a respectable $375 million. But a good chunk of these funds was being spent on air power for the RCAF and RCN. On June 24, 1948, the MND, Brooke Claxton, announced in Parliament "this year we shall be spending more on [the] air force and fleet air arm than on either the navy or army."[77] Presumably, the MND understood that the "fleet air arm" (in fact the Royal Canadian Naval Air Service) was part of the RCN. In any event, the important point is the emphasis upon air power relative to the army and naval surface forces in the Canadian context. While naval air power was an important part of this discussion in the late 1940s, this application of air power would become overshadowed by the roles carried out by the RCAF only a few years later.

It has been written that with these aircraft purchases the RCAF "was poised for take-off."[78] While things certainly looked brighter for the RCAF in 1948 following three years of restricted budgets, manpower ceilings and few operational aircraft, the heady days of dominating the defence budgets were still in the future. The RCAF was allocated $74 million out of a total defence budget of $240 million in 1947. This rose to $124 million out of a total of $375 million the following fiscal year. These funds were needed to satisfy the RCAF's increasing range of defence responsibilities. Most importantly, the RCAF was to be the primary line of defence against air attack, and in conjunction with the surface forces, air power was to be a key factor in securing the lines of communication in the North Atlantic and preventing enemy incursions into the north. Additionally, and a key consideration with Canada's future air contributions to NATO's Central European front, the RCAF was also to be capable of organizing a tactical air force for deployment to Europe.[79]

74. Ibid.
75. Ibid.
76. Air Staff memorandum from Air Member for Technical Services (AMTS) to the Acting Deputy Minister, December 8, 1947, RG 24, Series E–1–c, Accession 1983–84/167, Box 6283, File 1038–180, LAC.
77. Canada, *House of Commons Debates*, 1947, VI, 5785, quoted in Eayrs, *The Defence of Canada, Vol III*, 101. The RCAF's portion of the budget for FY 1948/49 was $143 million. See Department of National Defence. *Canada's Defence Programme, 1948–49* (Ottawa: DND Canada, April, 1954), 17.
78. Eayrs, *The Defence of Canada, Vol III*, 101.
79. Cabinet Document D–150, October 27, 1947, "Armed Forces Programme for 1948–49," RG 24, Volume 2750, LAC.

Its share of the defence budgets notwithstanding, the RCAF's total strength in 1948 had not improved since the previous year and was still about 4,000 short of the allowable ceiling of 16,100. Due to the frustrating inability to both obtain recruits and stem the exodus of those leaving the air force, there was serious consideration given to curtailing the force even further if the existing manpower shortages were not rectified. Of particular concern was the loss of personnel, or wastage rate. It led to a disproportionate percentage of the total resources of the RCAF being devoted to the training of replacement personnel, and consequently, insufficient funds remained for operations.[80] By the end of 1948, the RCAF had but three Regular Force fighter squadrons in operation. The RCAF's first post-war jet-fighter unit equipped with Vampires, 410 (F) Squadron, was not stood up until December. The other two Regular Force fighter squadrons, 417 and 444, were equipped with Mustangs, Austers, and Harvards to sustain a cadre of tactical-air-support training capability for the three services at Rivers, Manitoba. These aircraft were hardly considered front-line aircraft and were prone to lengthy periods of unserviceability due to a lack of maintenance personnel and spare parts.

There was little improvement to this sorry state of affairs the next year. Due to flying accidents, the RCAF was already down to 75 Vampires. Of these, 44 were in flying shape, and only 42 were available for operations and training, once more due to a lack of maintenance personnel and spares. Total holdings of Mustangs were 28, of which 10 were flying. Of these, 8 were available for operations, with the remainder awaiting overhaul. In fact, out of the 30 purchased in 1947, only 16 were predicted to be available for operations post 1949.[81] Remarkably, these statistics did not appear to concern the MND, who was quite content with the state of his air force. With the handful of Mustangs and Mitchell light bombers (406 and 418 Auxiliary Squadrons at Saskatoon and Edmonton), Claxton claimed that the RCAF had "valuable units from which to draw the nucleus of larger forces should the situation demand it."[82] He even went as far as suggesting that with these units the RCAF "was to keep abreast of modern trends and developments in the art of bombing—an art brought to such perfection by Canadian airmen over German cities."[83]

The problem was that the defence minister's concept of national defence was shaped by the traditional Canadian policy of small regular forces that served as a nucleus upon which a larger force would be built using reserves during war. Based upon his own comments made to the public in the late 1940s, Claxton acknowledged the potential for a strategic attack against North America by long-range bombers from the USSR. He also placed the country's air power as the primary military defence against such an attack. What the minister had was a means-capability gap, with a perceived air threat to national security not being matched by the requisite number of aircraft. This threat would become even more serious after the USSR exploded its first atomic bomb in the late summer of 1949. A lesson that the minister would learn soon enough was that the nuclear threat demanded regular forces in being.

By the late 1940s, air power not only underpinned Western hopes for world security, but also had risen to the forefront of Canadian defence capability priorities. In the latter context, air power was at once the primary threat and means of defence. Air-defence fighter jets best countered the growing strategic threat to the Canadian homeland by long-range bombers. In the broader context of Western defence and as mentioned earlier, air power was the military advantage with which to confront the growing bellicosity of the USSR, which was backed by large standing forces in Europe. Faith in the UN as a body to collectively confront challenges to world peace remained within the ranks of Western leaders and diplomats, especially Canadian. But such hopes progressively eroded and were replaced by a growing demand in Western Europe for political, economic, and military solutions to the Soviet threat to peace in that region.

From the spring of 1948 onwards, there remained little hope that Soviet aggression in Europe could be held in check through collective action in the UN. In correspondence to the CAS in the

80. Ibid.

81. Internal CAS memorandum from OR 2–2 to the Director of Operations Research entitled "State of RCAF Fighter Aircraft," dated October 24, 1949, RG 24, Series E–1–c, Accession 1983–84/167 Box 6284, LAC.

82. Canada, *House of Commons Debates*, 1947, VI, 5785, quoted in Eayrs, *The Defence of Canada, Vol III*, 101.

83. Ibid.

fall of 1948, A/C Dunlap's comments on the future of the UN Military Staff Committee provide a good indication of the growing disillusionment of senior Canadian airmen with the UN and the futility of providing military forces to that organization in light of the changed circumstances since the heady expectations of 1945:

> It seems to me that in a world divided into two camps and split on ideological grounds there is little point in pursuing the original goal of having a U.N. Security Force ... . In reality the conditions today bear no resemblance to those which obtained the inception of the U.N.O [United Nations Organization]. It is recognized that most of the armed strife throughout the world is Communist in origin ... . While the USSR and the Western world continue on their present divergent courses it seems more realistic to attempt to maintain the peace of the world by blocking the spread of Communism ... .[84]

In terms of Canadian air power, there were several parallel developments between what occurred in the late 1930s to those a decade later.

Following years of severe peacetime force reductions, the RCAF was confronted by a growing strategic threat to world peace. Any thoughts of keeping the world a peaceful place by the collective approach of a world body, be it the League of Nations or the UN, were crushed under the boots of fascist Germany or by the threat posed by the hundreds of Soviet divisions in Europe. As was the case in the late 1930s, however, the woeful state of the RCAF in terms of total manpower, infrastructure, and operational capabilities was offset by the existence of excellent contingency plans. Nevertheless, there were two significant advantages that post-war Canadian airmen held over their interwar counterparts. First, given the experience of the Second World War and the post-war existence of atomic bombs, air power enjoyed a higher national political preference. By 1948, there were small incremental steps toward rearmament in the Canadian military, and the bulk of such meagre sums were going to the RCAF. Second, the post-war Air Staff had retained an excellent cadre of highly motivated and competent staff officers that had served in both operational and staff positions during the war. Not only did the RCAF have two excellent post-war leaders in Leckie and Curtis, they had a large pool of potential Air Force leaders for the cold-war era.

The idea of a Canadian military contribution to the UN was still actively discussed within the Chiefs of Staff Committee well into 1949. That year, Lester Pearson, the Under-Secretary of State for External Affairs, still wanted the military's recommendations with respect to supporting a UN guard force.[85] Even so, these actions masked another foreign-policy initiative. If Canadian leaders never completely abandoned their faith in the UN and its mandate for keeping world peace, they concurrently would become key figures in the creation of a Western military alliance to arrest the Soviet threat—the North Atlantic Treaty Organization.

84. Dunlap memorandum to CAS, entitled "The Future of the UN Military Committee, September 7, 1948," RG 24, Series E–1–b, Volume 6172, File 15–48–8, LAC.

85. Minutes of COS Committee Meeting, April 10, 1949, RG 24, Series E–1–b, Volume 6172, File 15–48–8, LAC.

Chapter 3

NATO AND THE RISE OF AIR POWER

More than a half-century ago, Robert Spencer, a Canadian historian, wrote that April 4, 1949, the date that Canada joined 11 other countries in signing the North Atlantic Treaty "can still be ranked as the most significant date in the development of Canada's postwar foreign policy. For through that brief ceremony Canada was for the first time in her peacetime history committed to a precise and formal military alliance."[1] While those Canadians who took part in the creation of this treaty placed more emphasis on its political and economic advantages as opposed to its military dimensions, in terms of Canada's national-security history, the significance of its commitment to this peacetime alliance has not diminished today.

A review of the birth of NATO and its foreign-policy implications for Canada is warranted to fully comprehend the circumstances that led to the creation of No. 1 Air Division. It is important to understand the transition from post-war demobilization to one of rearmament and collective security in the West. During the period from the Second World War to the cold war, Canada became a member of the North Atlantic Alliance and played a key role in convincing a reluctant US to come on board as well. While Canada, like Western Europe, needed the economic and military potential of the US to underpin the alliance, they felt that, as a member of NATO, American independent action could be controlled; always a Canadian foreign-policy dilemma, Canadian leaders also understood that alliance membership demanded their contribution of a peacetime military force. In doing so, Canada made a dramatic departure from previous national foreign and defence policy.

As seen in the previous chapter, the ascendancy of air power in the Canadian context placed the RCAF in a favourable position in the late 1940s. This evolution was concurrent to the demands for a Western military alliance. Canadian politicians, therefore, shared the views of their Western counterparts that air forces were a critical military component of forces in being. This recognition led to the decision by the Canadian government to contribute an Air Division to the integrated forces of the North Atlantic Alliance. It also led to the rise of the RCAF as the dominant military service in Canada. While the Canadian government contributed land and air components to NATO's Central Region, the Air Division became a far more important symbol of nationalism that served both the political needs of Canadian leaders and institutional goals of the RCAF.

The Treaty of Brussels and the creation of the North Atlantic Alliance

The origins of the North Atlantic Treaty were based on several interrelated post-war developments. The most important of these was the failure of the UN to achieve its stated purpose of maintaining world order. It was closely followed by the recognition that post-war Soviet actions to extend its territory and power over Europe, while short of resorting to open warfare with the West, needed a determined and collective response. Important as well were the post-war positions of the Soviet Union and the US relative to Britain and continental Europe.[2]

The emergence of the Soviet Union from the Second World War as a dominant power was in stark contrast to the countries of Western Europe that were socially and economically weakened after six years of war. The rapid post-war economic and military decline of the UK marked the beginning of the end of its status as a major power that for hundreds of years gave it a say in European affairs. The withdrawal of American wartime lend-lease assistance exacerbated Britain's economic predicament. Consequently, British leaders, even if they wished to, no longer had the means to provide assistance to the immediate post-war recovery of continental Europe. Unable to stem Soviet economic and military expansion in Europe, Britain and the other stricken countries of Western Europe placed increasing pressure upon the world's other post-war power, the US, to not return to its tradition of isolation but to come to their assistance.[3]

1. Robert A. Spencer, "Triangle Into Treaty: Canada and the Origins of NATO," *International Journal,* 14 (Spring 1959): 87.
2. Ibid., 88.
3. Ibid.

This came to pass primarily because of the perceived threat posed by the Soviet Union. A peacetime American commitment came about mostly due to Soviet aggression largely seen as not only a source of danger to American interests in Europe, but also a potential threat to the continental US. American concerns found common ground with Western European nations and spurred the efforts of politicians on both sides of the Atlantic who shared a common fear that communism was a menace to world peace and stability. They agreed that communism needed to be contained by a collective alliance other than the UN.

American commitment to a peacetime alliance owed much to the combined efforts of President Truman; his Secretary of State, George C. Marshall; and Senator Vandenberg, the leading Republican on the Senate Foreign Relations Committee. The "Truman Doctrine," announced to the American public on March 12, 1947, became an overarching voice of support for all those European countries threatened by Soviet aggression. Its objective was containment of communism throughout Europe and the rest of the world. Adding substance to the president's doctrine was Marshall's "European Recovery Programme," which became the basis for the "Marshall Plan." First announced at a speech at Harvard on June 5, 1947, the American Secretary of State felt that it was in the interests of the US to come to the assistance of Europe. He made it clear that American help was not to be on a nation-to-nation basis and that it was incumbent upon the European leaders to coordinate their needs.[4] While the Truman Doctrine and Marshall Plan were important first steps, American entry into the North Atlantic Alliance was not assured until the Vandenberg Resolution was passed by the US Senate on June 11, 1948. This piece of legislation confirmed that it was in the interests of the US to contribute to the maintenance of peace by making clear its determination to "exercise the right of individual or collective self-defence under Article 51 of the UN Charter should any armed attack occur affecting its national security."[5] Equally significant was that this legislation permitted the president to circumvent Soviet obstructionism by entering into collective security alliances that were not subject to the authority of the UN Security Council.[6]

While Western Europe understood that the price for American support was the need to assume a coordinated approach to increase its military forces and economic recovery programme, such a demand proved difficult to satisfy. Increasing military forces meant less funding for their post-war economic recovery and social programmes. Nevertheless, Western Europe reconsidered its need for military spending and sought a collective defence scheme in light of continued Soviet threats. The last straw was the Soviet-sponsored coup against Czechoslovakian democracy on February 25, 1948. Soon after, the USSR threatened the sovereignty of Norway by "demanding" a mutual defence pact. In addition to overt and covert aggression by the USSR, their representatives became completely uncooperative and obstructive at the UN. Moreover, it was proving impossible to reach agreement with the USSR on any international issue, especially over the future of occupied Germany.[7] At the height of this crisis, on March 4, 1948, representatives of Belgium, France, Luxembourg, the Netherlands, and the UK met in Brussels to discuss a treaty of mutual assistance. On March 17, 1948, these countries signed the Treaty of Brussels. The foundations of this alliance were the Dunkirk Treaty of March 1947, in which Britain and France agreed to cooperate in defence matters, and the Rio Treaty between the US and the Latin-American countries that had established a collective defence arrangement aimed against any aggressor.[8]

In an immediate sense, the Treaty of Brussels sent a clear signal to the Soviets that further aggression was to be met with a collective military response. In what would form the basis of Article V of the future North Atlantic Treaty, Article IV of the Brussels Treaty implied that any attack against one member would be considered an attack on the alliance in general and would be met collectively. In the longer run, organization and terms of reference outlined in the Brussels' Treaty became the blueprint for, and allowed a seamless transition to, the North Atlantic Alliance.

4. Don Cook, *Forging the Alliance: NATO, 1945–50* (New York: Arbor House / William Morrow, 1989), 84.
5. Quoted in Ismay, Appendix III, 171.
6. Ibid.
7. Ibid.
8. Ibid., 28–33.

Fundamentally, the Treaty of Brussels created a joint defensive system while strengthening European economic and cultural ties. It established a Consultative Council that consisted of the countries' foreign ministers. Reporting to this supreme body was a Western Union Defence Committee comprising the five defence ministers, supported by a Chiefs of Staff Committee and a Permanent Military Committee. The integrated forces of each country became the Western Union Defence Organization under the direction of a Commanders-in-Chief Committee. The latter organization's first permanent military chairman was the highly popular wartime hero, Field Marshal Montgomery.[9] This organization became the basis for the military structure of NATO, and senior commanders like Montgomery filled several of the initial important military positions within the North Atlantic Alliance. The first priority of the Military Committee was to take stock of the military and industrial capacities of the member states. This exercise was quickly extended to "other sources," meaning those of the US and Canada.[10]

Unfortunately for Western Europe, the signing of the Treaty of Brussels did not immediately bring Soviet "bullying" to a stop. Partially as a result of the Treaty's signing, and partially in response to the successful implementation of the Marshall Plan on June 23, 1948, the USSR blocked all Western rail and road movement to the city of Berlin. For the next 323 days, the beleaguered residents of Berlin, cut off from outside supplies, faced certain starvation and isolation. Fortunately for them and Western solidarity, they were successfully sustained by an incredible airlift operation carried out for the most part by transport aircraft of the RAF and USAF.[11] In the end, air power saved Berliners and forced the Soviets to back down. Even so, Western leaders understood that the Berlin Airlift crisis could have precipitated a war with the USSR.

These events had not gone unnoticed in Canada and had the effect of galvanizing support for action to stop Soviet aggression. In fact, comments made by the Canadian government with regard to the USSR became uncharacteristically harsh. Mackenzie King had always been circumspect when it came to foreign affairs for fear that a publicly stated position may be quoted afterwards as government policy. It was, therefore, at once surprising and out of character when he made candid remarks about communism. At the National Liberal Federation meeting on January 20, 1948, King stated that "communism is no less a tyranny than Naziism ... the world is in an appallingly dangerous condition."[12]

Certainly the suicide of the Czechoslovakian foreign minister, Jan Masaryk, on March 10, 1948, (widely believed to have been "arranged" by the occupying Soviet forces) was a shock to the Canadian leader, and according to King's assistant, Jack Pickersgill, Masaryk's death became a watershed in how the prime minister looked at Soviet intentions and Canada's external responsibilities. Afterwards, King felt that the USSR could not be trusted and that no strategy of negotiation was going to stop it from overthrowing Western European countries.[13] Louis St. Laurent, King's successor as prime minister in December 1948, made a series of speeches that were critical of the Soviet Union. He accused their leaders of trying to frighten the American people out of providing economic aid in order to pave the way for the expansion of communist power in Western Europe. He then later referred to the Soviet Union as a totalitarian and secret-police-ridden state.[14]

Mackenzie King had years earlier held suspicions about the USSR and had doubted the UN's ability to prevent the world from being divided along capitalist/communist lines. The Second World War had barely come to a conclusion when the defection of a Soviet cipher clerk, Igor Gouzenko, in Ottawa in September 1945, revealed the existence of an extensive wartime Soviet spy network in Canada and the US. In the aftermath of the Gouzenko revelations, which remained unknown to the general public until the following spring, the prime minister wrote in his diary: "the United Nations

9. Douglas L. Bland, *The Military Committee of the North Atlantic Alliance: A Study of Structure and Strategy* (New York: Praeger Publishers, 1991), 98–107.
10. Ibid., 95–98.
11. Futrell, Vol. I, 235–37.
12. H. E. Kidd Papers, M23, G9, Volume 8, LAC.
13. J. W. Pickersgill and D. F. Forster, *The Mackenzie King Record, Volume 4, 1947–1948* (Toronto: University of Toronto Press, 1970), 190–94.
14. Spencer, "Triangle Into Treaty," 91.

is as dead after three months as the League of Nations Covenant after fifteen years."[15] He privately shared the views of the Canadian military, which had considered the USSR as a possible future threat to Canadian security before the war had been concluded. Senior members of the Department of External Affairs were also concerned. Their main fear, heightened during the Berlin Airlift, was a global war precipitated by a combination of aggression by the USSR and an American response emboldened by its atomic monopoly. If Canada was prepared to confront Soviet aggression, such sentiments were overridden by the necessity to encourage peaceful relations between the two major post-war powers if another war was to be avoided.[16]

On the day that the Brussels Treaty was signed, both the Canadian and US governments took important steps toward supporting the treaty and, thus, made the transatlantic link that was key to bolstering the new European economic and defence alliance. Preparing the way for the subsequent successful Vandenberg Resolution the following June, President Truman told the American Congress: "I am sure that the determination of the free countries of Europe to protect themselves will be matched by an equal determination on our part to help them."[17]

In addition to taking note of the Brussels Treaty, the Canadian Cabinet observed that the president's message to Congress had "included recommendations for the early adoption of the European Recovery Programme, for passing of universal military training legislation and for the temporary re-enactment of selective service in order to bring US Armed Forces up to strength."[18] The message was clear enough to King and his Cabinet; the Americans had embarked upon a military and economic commitment to Western Europe. Consequently, the prime minister informed the Canadian public that his government welcomed both the signing of the Western European Union Treaty and President Truman's support for this agreement. He also expressed the intention of committing Canada toward collective security by the development of regional pacts under the UN Charter.[19] In perhaps one of his less appreciated political decisions, Mackenzie King, in the year of his retirement from politics no less, initiated his country's commitment to a peacetime alliance, the North Atlantic Treaty.

Canadian political efforts between April 1948 and April 1949 were concentrated toward extending the Brussels Treaty to encompass the North Atlantic region. Canadian leaders deserve credit for their important contribution toward the establishment of NATO and for their key role in gaining American participation, without which there would have been no alliance. In the weeks preceding the Vandenberg Resolution, "number[s] of major speeches were made by Canadian officials in the United States"[20] that emphasized the advantages of American commitment to an alliance. They also deserve credit for convincing all Canadian political parties, and the country at large, that the treaty was in Canada's interest. During the second half of 1948, the three major political parties endorsed Canada's commitment to the alliance at their respective national conventions, and membership in the North Atlantic Treaty was easily ratified by Parliament on April 29, 1949. [21]

To the chagrin of the Canadian military, a foreign policy based upon confronting Soviet aggression through a collective defensive union did not immediately translate to an increase in defence spending. In the House of Commons in June 1948, Claxton stated that, while the Soviet Union was the only country that posed a threat to Canadian national security, any attack on the country would result incidentally from a world war and would in all likelihood be of a diversionary nature. Claxton emphasized that, since Canada was not in a position to fight a major war unilaterally, its defence policy was based on the assumption that its armed forces would only be used in association with those

15. Secret and Confidential Diary Relating to Russian Espionage Activities, September 6 to October 21, 1945, King Diaries, manuscript group (M.G.) 26J 13, LAC.

16. Department of External Affairs (DEA) policy paper written by Escott Reid, August 30, 1947, see Donald Page, ed., *Documents on Canadian External Relations, Volume 13* (Ottawa: Department of Supply and Services Canada, 1994), 289.

17. Quoted in Ismay, 9.

18. Extract from Cabinet Conclusions, March 17, 1948, see Hector Mackenzie, ed., *Documents on Canadian External Relations, Volume 14* (Ottawa: Department of Supply and Services Canada, 1994), 289.

19. Ibid.

20. Spencer, "Triangle Into Treaty," 93.

21. Robert Spencer, *Canada in World Affairs: From the UN to NATO, 1946–1949* (Toronto: University of Toronto Press, 1959), 254–62.

of friendly countries. Aggression by the USSR had driven the nations of the West toward a closer union; consequently an objective of defence policy was "to work out, with other free nations, plans for joint defence based on self-help and mutual aid as part of a combined effort to preserve peace and to restrain aggression."[22] Missing in Claxton's speech was any comment about the specific military means with which to satisfy this defence policy.External Affairs shared the defence minister's views. During the summer of 1948, Escott Reid, second-in-command in the Department of External Affairs, asked his boss, Lester Pearson, if the creation of the alliance would be followed by an increase in the defence expenditures of Canada and of the other North Atlantic countries. Pearson replied that "he saw no reason for this; under the alliance, national armed forces would become part of a balanced force; there would be joint planning; all this would increase the efficiency of the allied forces—that, and not an increase in defence expenditures, was all that was required."[23]

In the following spring, Reid established, through his contacts at the US State Department, that the quick tempo of defence planning by the Brussels Treaty powers was not matched by any intention to increase military spending nor to raise large standing militaries.[24] However, when these countries (as well as Italy, Iceland, Portugal, Denmark, Norway, the US, and Canada) signed the North Atlantic Treaty on April 4, 1949, they agreed to the principles of Article 3, which stated in part that "the Parties, separately and jointly, by means of continuous and effective self-help and mutual aid, will maintain and develop their individual and collective capacity to resist armed attack."[25] In other words, ignoring the need to improve national defences was not an option for the treaty countries. In Canada's defence, her lack of urgency in bolstering her armed forces was shared by most of the alliance's membership. Moreover, as explained below, Canada did make incremental improvements to her military. Even so, her rearmament, which favoured the RCAF, was meant to provide defence of air attack on Canada proper and to promote a national aerospace industry. A public commitment to providing forces to NATO in Europe was several years away.

Early NATO defence policy and organization

On the eve of the signing of the North Atlantic Treaty, Alliance members were of the opinion that consolidation of economic, as opposed to military, strength was sufficient to deter further aggression by the Soviet Union. Thanks in large part to the influence of the US State Department's key policy planner, George Kennan, the American attitude toward the need for Europe to take on increased defence commitments had lessened considerably. Although the American government expected some increase in the defence expenditures of the Brussels Treaty powers, it was also agreed that the economic recoveries of these countries "were not to be sacrificed to rearmament and must continue to be given a clear priority."[26] Underpinning such faith in a "butter over guns" policy was the American belief, shared by the leaders of Western Europe, in the deterrence provided by the nuclear-capable bombers of the SAC.

While the allure of air power as a cheap—but effective— military deterrent to Soviet forces in Europe was pervasive, it was unclear how air forces were to completely substitute for land forces. Looking back to this period, Escott Reid pointed out the problem with unquestioned reliance on strategic air power:

> The United States monopoly of the atomic bomb in 1948 was certainly a deterrent; but if it failed to deter the Soviet Union, it would not protect Western Europe from occupation by Soviet armies. In the event of war the Soviet Union would, presumably, occupy Western Europe and hold it as a hostage ... [moreover] the determination of the North Atlantic countries not to divert to defence resources that were needed for economic recovery was not affected by the explosion of an atomic bomb by the Soviet Union at the end of August, 1949, nor by the conclusion, reached six months later, that the Soviet Union might by July, 1954, be capable of launching a major atomic attack.[27]

22. Ibid., 260. Quote from *House of Commons Debates*, June 19, 1948, Vol. VI, 5551.
23. Escott Reid, *Time of Fear and Hope: The Making of the North Atlantic Treaty, 1947–1949* (Toronto: McClelland and Stewart Limited, 1977), 234.
24. Ibid., 235.
25. Quoted in James Eayrs, *In Defence of Canada, Vol IV: Growing Up Allied* (Toronto: University of Toronto Press, 1980), 190.
26. Reid, 235. Quote from Washington Embassy to Department of External Affairs, March 3, 1949, WA 564, NASP, File 283(a), part 3.
27. Ibid., 236.

Given the initial American policy of pushing the Europeans to increase their defence spending, it was ironic that with the signing of the North Atlantic Treaty and the Soviet threat to Berlin, the American administration felt that the menace posed by the Soviet Union had been sufficiently checked and announced that it was to reduce its defence budget. Consequently, it was Western Europe, living in the reality that its military forces were no match for the USSR, "who were pushing and pleading for a reluctant America to move in, take over and dominate."[28] Their pleas did not immediately move the Americans to action. In the spring of 1950, almost a full year after the creation of the alliance, an External Affairs officer commented after having attended several alliance meetings that "neither the United States nor the United Kingdoms have any intention of increasing their budgets for the North Atlantic Defence."[29]

This is not to suggest that the American administration had completely forsaken its commitment to Western Europe and the Articles of the North Atlantic Treaty. Of particular importance to Europe was President Truman's Mutual Defense Assistance (MDA) Act that was sent to Congress on July 25, 1949. It was not clear if the President's Act was going to be endorsed, but once more, actions by the USSR were instrumental in convincing Congress to ratify another important piece of cold-war legislation. On September 22, 1949, acting upon several confirmed sources of intelligence, the North Atlantic Council announced that the USSR had successfully exploded its first atomic device. Less than two weeks later, Congress approved the MDA Act on October 6, 1949.[30]

Concurrent to the passing of this important American legislation were developments in the establishment of an alliance organizational framework. In the first North Atlantic Council session held in Washington on September 17, 1949, all the member countries ratified the treaty. The Council of Foreign Ministers created a Defence Committee of Defence Ministers responsible for drawing up coordinated defence plans for the North Atlantic area. It also set up a military committee, consisting of the chiefs of staff of member countries that were responsible for advising the council in military matters, and five regional planning groups to develop plans for their respective geographical areas. In what was to be a controversial move, the council established a standing group comprising representatives of Britain, France and the US that was to act as the military committee's executive body. The nine non-members of the Standing Group were not comfortable that alliance policy was dictated by the "big three" and later on, became angered and frustrated when the Standing Group dictated member states' force contributions without first seeking the approval of each affected government.[31]

From the beginning, American assistance to Europe was tied to German rearmament. An important consideration in US policy was that its future in NATO, and specifically any consideration of stationing permanent peacetime forces in Western Europe, was predicated on the integration of West Germany and its military forces into the alliance. From an American point of view, this strategy had several advantages. Germany was geopolitically vital to alliance defence; therefore, it was in NATO's interests to counteract efforts by the USSR to bring the Germans under communist control through propaganda and intimidation. As important, the Germans had the potential to raise 10–15 divisions for the security of the Western Union and NATO. Such a contribution would obviate the need for the Americans to raise larger land forces for Europe, which was a politically risky proposition.[32]

The problem with this particular American policy was that their arguments in favour of rearming the Germans deeply troubled the European members, especially France, which had twice already in the 20th century experienced the consequences of a militarized Germany. As will be discussed later, this concern would lead to the French proposal to create the European Defence Community (EDC), in which German membership and military growth would come under a multinational command. French concerns over the future of West Germany notwithstanding, it agreed to a

28. Cook, 224.
29. Reid, *Time of Fear and Hope*, 236. Quote from Canadian Embassy (Paris) to Department of External Affairs, March 29, 1950, Tel. 220, NASP, File 283(a), part 9.
30. Edward Fursdon, *The European Defence Community: A History* (New York: St Martin's Press, 1980), 45.
31. Ibid., 45–46. For a detailed analysis of the Standing Group see Bland, *The Military Committee*, 113–65.
32. Cook, 245–49.

process by which the three Western zones of occupation in Germany became a sovereign state. Fed up and frustrated after four years of obstruction by the USSR in inter-zonal cooperation, France, the UK, and the US joined their occupation zones and then separated them from that of the Soviet Union. This action allowed for the creation of the German Federal Republic in September 1949.

Canada terminated its legal state of war with Germany in July 1951, and shortly after established normal diplomatic relations.[33] Being aware of these foreign-policy concerns is important in understanding Canada's conduct in the creation and administration of No. 1 Air Division. Franco-American disagreement over the future of West Germany as a member of NATO, as well as Canada's relationship to the occupational powers, impacted where the RCAF bases were to be located. They also dictated ROE for its pilots. During the fall of 1949 and early spring of 1950, the Canadian government wrestled over its options with respect to providing a defence contribution to the alliance. Considerable pressure to do so was coming from within the government and from external sources.

Before and after the approval of the MDA Act by Congress, the American administration expected a similar initiative from the Canadian government so as to assure the American public that the US was not the only North American country supporting Western Europe.[34] Claxton, having visited Europe in December 1949, brought back the desperate pleas of Western European leaders for immediate military aid. The MND—supported by several External Affairs officials, including the Canadian Ambassador in Washington, Hume Wrong, and the High Commissioner in London, Dana Wilgress—urged a Canadian contribution. Canada's earlier efforts to convince the US to commit to the alliance in the first place would have appeared less sincere if Canadians themselves had not made a concrete contribution to the alliance in the form of mutual aid.[35]

The counterarguments against increases in defence expenditures, including mutual aid, came mostly from the Minister of Finance, Douglas Abbott, and his deputy, W. C. Clark. They reminded members of the CDC and Cabinet that the only way that the government could support a national unemployment system and increased defence spending was to raise taxes, not a popular option for the Liberals just a year after being returned to power. Furthermore, there was concern that the expected post-war recession was about to set in.[36]

In response to these fears, supporters of a Canadian mutual aid contribution pointed out that there were economic advantages to be gained. Shipping surpluses of agricultural products and minerals would reduce national stockpiles while creating more jobs for Canadians. At the same time, stocks of wartime clothing and equipment could be given to the Europeans as mutual aid and then replaced with newer stocks. Another important strategic and economic advantage of providing mutual aid was the stimulation of a national arms industry. Even at the height of defence spending for the expanding Canadian military between 1952–55, demands upon industry were insufficient to sustain a national armament industry that would be available in wartime. Canada had to find external customers to sell or give away arms to in order to keep such industries viable. One example was the Canadair plant in Montreal, where F-86 Sabre production would have tapered off by 1952 in the absence of demand overseas.[37]

The St. Laurent Government would, in the future, commit to a Canadian mutual-aid programme that would average $300 million per year. Not only was this aid substantial in financial terms, but it included the delivery of modern aircraft, vehicles, weapons and communications systems to NATO member countries.[38] Even so, on the first anniversary of the signing of the North Atlantic Treaty, the reality was that Canada's alliance contribution was limited to an offer to train 250 army and air force officers from Western Europe.[39]

33. RG 24, Claxton Papers, Volume 108, LAC.
34. Eayrs, *In Defence of Canada, Vol IV*, 191–92.
35. Ibid., 195–96.
36. For a good description of the Liberal Party's concerns over the expected post-war recession and recovery plans, see Alvin Finkel, "Paradise Postponed: A Re-examination of the Green Book Proposals of 1945," *Journal of the Canadian Historical Association* 4, No. 1 (1993): 120–42.
37. Eayrs, *In Defence of Canada, Vol IV*, 197.
38. For a good summary of Canada's Mutual Aid Programme see Greg Donaghy, ed., *Documents on Canadian External Relations,* Volume 20 (Ottawa: Department of Supply and Services Canada, 1997), 465–501.
39. See Brooke Claxton in Canada, *House of Commons Debates*, Fourth Session, Volume I (Ottawa: King's Printers, 1951), 93–94.

Forces in being and the ascendancy of the RCAF

During the spring and early summer of 1950, the St. Laurent Government publicly denied any thought of providing direct materiel aid and Canadian forces to Europe under the control of the alliance. Yet the debates in the House of Commons during that period reveal a growing consensus between both the Liberals and opposition Conservatives over the need to make a significant change to Canada's defence policy. This agreement was mainly centred on the need for Canada to make air power a national defence priority.[40] The corollary to this demand was the need for the country to adopt a defence policy that allowed for large specialized peacetime forces in being. This was a major departure from traditional Canadian defence policy that had planned for the cadre of regular forces during peacetime to be augmented by mobilized reserves during war.

Regular forces in being had to be adopted because Canadian politicians came to the same conclusion as their Western European counterparts—that future wars would not allow time for the mobilization of their militaries after hostilities commenced. NATO, to be successful, could not count on the mobilization of Western militaries to successfully liberate the European continent following occupation by the Soviet Union. NATO needed to deter, or prevent, a Soviet invasion from occurring in the first place. Lester Pearson made this point in the House by stressing: "North Atlantic strategy cannot mean, and our agreement does not imply a strategy of liberation after destruction and occupation ..., there could be no hope for Europe in that strategy, because the next time there may well be nothing to liberate."[41] While the Secretary of State for Foreign Affairs acknowledged that such a strategy carried a heavy price, he argued that the cost would be offset by the alliance principle of pooling collective balanced forces as the basis for defence.

The opposition supported Pearson's arguments for raising large forces in being. In his reply to the Foreign Affairs Minister's comments, the Conservative Member of Parliament (MP) and future Defence Minister, Douglas Harkness, stated: "If we in Canada have a definite commitment to put that strategy [of preventing the invasion of Western European countries] into effect ... this means that we must have forces which could be thrown into the struggle immediately."[42] Harkness went on to advocate a clear endorsement of air power and a central role for the RCAF within such a defence policy: "In the future we must have forces which can be dispatched immediately at once ... [and] the only forces [with which this can be done] would be air forces ... therefore, to a much greater extent than we have done up to the moment we would have to concentrate upon the development of our air arm."[43] Liberals shared this view.

In the House of Commons on June 9, 1950, only weeks before the invasion of South Korea by North Korean communist forces, Claxton acknowledged that air power was to play a dominant role in the future of the country's defence. He also confirmed the Liberal Party's acceptance of the need for larger standing forces to prevent an invasion by the USSR of Western Europe. Still, a policy underpinned by forces in being, and one that relied heavily on air power, did not necessarily mean the government had immediate plans to substantially increase the size of the Canadian military:

> Certainly from the point of view of immediate activity in the event of an emergency, in a war as far away as we hope the centre of activities would be, the air force will play a big role. On that account we are putting the emphasis we are on the air force, as regards both organizing squadrons and equipment ... [yet] the time when that is likely to produce major changes in the allocation of forces within Canada is not yet upon us.[44]

Claxton also did not entirely dismiss the need for land and naval forces. Ever the politician, as a defence minister who represented the interests of all three services and not wanting to antagonize those in the House who represented ridings that profited from Army and Navy establishments,

40. Claxton in Canada, *House of Commons Debates*, Second Session, Volume IV (Ottawa: King's Printers, 1950), 3413.
41. Lester B. Pearson quoted by Douglas Harkness, in Canada, *House of Commons Debates*, Second Session, Volume IV (Ottawa: King's Printers, 1950), 3356.
42. Ibid.
43. Ibid.
44. Claxton in Canada, *House of Commons Debates*, Second Session, Volume IV (Ottawa: King's Printers, 1950), 3413.

Claxton added that "it was much too early to say that the role [of air power] can be played to the complete exclusion of anything else."[45] While politically necessary, the defence minister's remarks masked the growing emphasis on air power. Within a year of this speech, the RCAF's participation in NATO's integrated forces would take up more than two thirds of the total defence budget.[46] If this outcome was not clear in May 1950, Claxton's speech hinted at the idea of a significant Canadian air contribution in Europe. Another event that was not anticipated, but one that was instrumental in NATO countries finally building up their militaries occurred the next month in the Far East.

James Eayrs has written that "the attack by North Korea on the Republic of Korea transformed the mood of NATO members, much as the Nazi assault on Western Europe ten years earlier had shaken the surviving democracies out of their inertia and complacency ... apathy changed, almost overnight, to a concern."[47] While there is no doubt that the beginning of the Korean War marked a watershed in the development of NATO as a true military organization, convincing the Liberal Government that the country needed to do more to bolster the alliance, Canada's initial response, at least publicly, remained a cautious one. Months after the North Korean attack on September 13, 1950, St. Laurent told the House that "the Government of Canada at this time is not considering the raising of Canadian forces to dispatch to Europe as a deterrent to aggression in Europe, and has not before it any such suggestions from any of the governments of the North Atlantic treaty nations."[48] This statement was made with the knowledge that NATO was precariously short of combat aircraft of all types; a dangerous predicament if the alliance's forward strategy was to be underpinned by air power. When the North Atlantic Council met at New York on September 15, 1950, the topic of air-power needs came up, but the Canadian representative, Lester Pearson, gave no indication that Canada was considering any dispatch of air forces overseas.[49] However, the St. Laurent Government's public reluctance to commit air forces to NATO belied what actions were being taken toward such a commitment. Even less was known about RCAF plans at the time. As detailed below, Canadian airmen were already in the process of sending units overseas.

If the prime minister was concerned about the political and financial cost of having to raise and support large ground forces for NATO, he was persuaded that air forces were a more militarily effective and cheaper alternative. The man that convinced St. Laurent of this argument was his close advisor, Jack Pickersgill. The prime minister, therefore, agreed with NATO's conclusion that air power brought "more bang for the buck." Since air power was more technology-oriented and less dependent on "grunt" power, St. Laurent believed that air forces provided more combat capability using fewer personnel. At the national level, the prime minister was convinced that Canadians were an "air minded" country and that air power served the country's civilian as well as military needs.[50] In November 1950, Pickersgill wrote St. Laurent arguing that:

> The combined pressure of public opinion at home and in the United States is going to make it necessary for us in 1951 to increase substantially our forces in being, ... as an effective component of an integrated force designed to deter aggression, it is hard to escape the conclusion that the intelligent course would be to concentrate on enlargement and acceleration as far as possible of the Air Force, and to revise our defence planning as rapidly as possible with a view to giving priority to determining planning rather than that to planning for actual combat once a war has started.[51]

45. Ibid.

46. Meaning $950 million out of a total defence budget of $1.45 billion. Claxton in Canada, *House of Commons Debates*, First Session, Volume I (Ottawa: King's Printers, 1951), 95.

47. Eayrs, *In Defence of Canada, Vol IV*, 199.

48. See Louis St. Laurent in Canada, *House of Commons Debates*, Third Session, Volume I (Ottawa: King's Printers, 1950–51), 680.

49. Fursdon, 78–86. This author gives the impression that Pearson, although sympathetic to the needs of the alliance, remained noncommittal throughout the New York meetings.

50. Eayrs, *In Defence of Canada, Vol IV*, 219.

51. Ibid. Quote from Pickersgill memorandum to St. Laurent entitled "Re Canada's Position in North Atlantic Treaty Organization," dated September 22, 1950, DEA files, 50107–D–30.

It has been argued that the Prime Minster and Cabinet were sufficiently impressed by this reasoning that it underpinned the government's decision in February 1951 to commit 11 RCAF squadrons to NATO's integrated force by 1954.[52] But evidence suggests that the genesis of this commitment came much earlier.

Senior RCAF officers had concluded before the creation of the North Atlantic Alliance that the international situation was deteriorating rapidly and that, consequently, they needed to accelerate planning and the acquisition of modern combat aircraft. The 85 Vampire jet fighters purchased from the UK were never meant to be more than a stopgap measure for the re-equipment of the RCAF until more modern aircraft became available. They were intended to be an introduction to jet aircraft and were not selected on the basis of meeting the long-term needs of the Air Force. The problem was that the CF-100 (then still referred to as the XC-100) was not going to be available in time to meet the needs of an expanding RCAF that required a modern jet fighter no later than the 1950–51 time frame. Air planners calculated that the deteriorating international situation called for an Air Force with four Regular Force fighter squadrons by 1951. Ultimately, the RCAF wanted to produce 300 all-weather and 256 day fighters.[53]

The limited capability of the Vampire was not the only concern of the Air Staff. For operational and strategic reasons, they needed a day fighter built in Canada, based upon an American design. Once operational, the CF-100 met the country's all-weather needs, but it was felt that the daylight fighter had to be capable of joint operations with USAF. It was believed that building this day fighter in Canada to American—as opposed to British—specifications would be more practical since Canadian industry was designed closer to American standards. For these reasons and because the RCAF determined that it was, operationally, a superior jet fighter to the British Vampire, the Air Staff recommended that Canada purchase 56 North American F-86 Sabres, followed by the manufacture of a further 200 by the Canadian aircraft industry.[54] The Liberal Government approved these recommendations, and in November 1948, A/M Curtis, the CAS, and C. D. Howe personally travelled to Washington and visited North American Aviation (the US company that built the F-86) to arrange for the purchase and authority to have the Sabre built under licence at the Canadair plant in Montreal.

While the purchase of the F-86 satisfied the operational needs of the RCAF, the approval to build this fighter jet under licence in Montreal was good politics by the Liberal Government. Securing votes in Quebec at the federal level was vital for the party's future. Furthermore, as mentioned earlier, sustaining a national aircraft industry could only be guaranteed with foreign sales and/or through mutual aid. In other words, with the creation of NATO, Canada was in a position to support her commitment with the provision of military equipment like modern fighter jets as opposed to the more risky policy of sending military forces to Europe. This explains the apparent contradiction between buying fighter aircraft for the RCAF and the subsequent cautious public commitment to NATO forces several years later. This is not to say that the Liberals ignored military arguments. Before there was any consideration at the political level of sending forces overseas, Canada's leaders understood that the Sabre was an excellent air-defence capability against Soviet strategic threats to the country.

The purchase of the F-86 also set in motion a trend that has not diminished today. It marked the beginning of an enduring close relationship between the RCAF and USAF and the American aircraft industry. Subsequent RCAF–USAF discussions led to increasing doctrinal and materiel integration. As explained later, this combination would largely determine the RCAF's choice to operate within an American, and not British, air force in NATO. Lastly, the selection of the Sabre was an early example of RCAF leadership understanding of the economic and political realities of national industrial benefit as much as the operational needs of their institution. Curtis' close ties to senior American Air Force officers and the President of North American Aviation, himself,

52. Eayrs, *In Defence of Canada, Vol IV*, 220.
53. Item 464, paragraph (6), Minutes of 67th Meeting of Air Members, dated February 14, 1949, page 3, File 1820, DHH.
54. Ibid.

facilitated the negotiations for the Sabre. But Curtis was also a close friend of the president of De Havilland Aviation in Toronto, who had expected to receive a government contract to build the Vampire under licence.[55]

The slow process toward a Canadian air-power commitment to Europe

In the fall of 1950, the Liberal Government was considerably more cautious than the RCAF in its approach to making an air-power commitment to Western Europe. Minutes of the CDC reveal that by late October, the government was merely considering the dispatch of a fighter squadron to the UK. This explains why it continued to deny to the Canadian public that there were any specific commitments of Canadian forces to NATO.[56] In contrast, the RCAF was pressing ahead with more concrete plans.

On October 6, 1950, senior members of the Air Staff examined the possibility of an overseas deployment of 421 Squadron to RAF Station Odiham to operate RAF-equipped Vampires as well as the subsequent transfer of RCAF Sabre squadrons to the UK beginning in late 1951. The detailed nature of these discussions suggests that they were well beyond the initial stage, yet it is unclear to what extent the government was aware that the RCAF was making such preparations. Minutes of a Chiefs of Staff Committee (CSC) meeting at the time indicate that the government acknowledged that the military threat to Western Europe required forces in being but stressed that no specific commitments had been made.[57] It is apparent that the government's public statements with respect to the provision of military forces to NATO were inconsistent with what was being planned by the RCAF.

The Air Staff had been unilaterally considering a European deployment as early as the summer of 1949. On August 10, 1949, Claxton briefed the Cabinet on the recommendations made by the CSC with respect to sending Canadian forces to Europe. The CSC, which included the CAS, was against sending forces overseas and preferred to operate with the US on a regional basis for the defence of North America.[58] Yet only a week earlier, the CAS had met twice with his senior staff to discuss the deployment of a wing of three fighter squadrons to Europe.[59]

The seriousness of this proposal has been questioned in light of the subsequent Air Staff documentation requesting the expansion of its fighter forces that focused on the air defence of North America and made no mention of a European commitment.[60] But the fact that the Air Staff was making detailed plans for such a deployment a year later suggests that airmen had not abandoned this plan. It also was consistent with contingency planning, carried out by the Air Staff, that included the dispatch of an overseas tactical air component.

Another motivating factor for senior Canadian airmen to commit squadrons to Europe was their close working relationship with their USAF counterparts. The Korean War removed American ambivalence toward a military commitment to NATO. Consequently, by the late summer of 1950 they embarked upon a rapid rearmament programme that stressed the immediate build-up of air power in NATO's central European front.[61] If Canadian airmen were initially reluctant to deploy air forces overseas, it was because USAF saw the primary threat being against North America. However, once the Americans were committed to deploying forces to Europe, it was logical for the RCAF to plan for the same since they shared common doctrine and were beginning to equip their day-fighter squadrons with a common aircraft type, the F-86 Sabre.

55. Interview of Air Marshal Dunlap (Retired), 32–34. "Dunlap Replies to Questions from Dr. Alec Douglas," dated March 18 and April 23, 1981, pages 16–17, File 88/188, DHH. This point is missed in Eayrs, *The Defence of Canada, Vol III*, 59.

56. See Minutes of 67th Meeting of the Cabinet Defence Committee, paragraph 13(e), held October 12, 1950, File 73/1223, Raymont Papers, Box 65, Volume 1324, DHH.

57. This fact was made clear by the Secretary to Cabinet, Norman Robertson, see Minutes of the 473rd Meeting of Chiefs of Staff Committee, Item III, paragraph 3, held September 20, 1950, File 79/429, Volume 3, DHH.

58. Minutes of Cabinet Meeting, August 10, 1949, RG 2, A5a, Volume 2644, LAC.

59. Minutes of 83rd Meeting of Air Members, August 3, 1949, and 84th Meeting of Air Members, August 5, 1949, File 73/1223, Raymont Papers, Volume 1821, DHH.

60. See Wakelam, 112.

61. Futrell, Vol. I, 304–6.

By late October 1950, the Canadian government reversed its policy toward providing forces and equipment to bolster NATO's European front. In Washington on October 30, 1950, Claxton told the NATO Defence Committee that "if the United States were to take part in an integrated force in Europe, Canadians would too, subject to parliamentary approval … ."[62] Reinforcing the Canadian government's determination to act was its worrisome assessment of NATO's military capability that fall.

On the European continent the members of the Atlantic Alliance had fewer than 14 divisions and less than 1,000 aircraft. The quality of these divisions varied both in training and equipment, and few were at wartime strength. Attempts were made by the Western European Defence Organization, led by Field Marshal Montgomery, to establish control over these forces under a single authority and make arrangements for their effective command in case of war. Command and control was difficult in that a large percentage of these forces were part of the Allied Occupation Force. As such, not only were these forces allocated for a specific purpose, the Allied forces in Germany and Austria were deployed based upon administrative as opposed to operational criteria:

> The three zones of Western Germany, American, British and French, had been demarcated as zones of occupation, not zones of defence—with the result that the line running from the Elbe down to Austria was not a defensive line in any sense of the word. One or two examples will illustrate this: the British troops were supplied through Hamburg, about an hour's drive down the autobahn from Lubeck, itself only 10 minutes from the Russian garrison. The only British armoured division was placed slightly behind its main base, and the British infantry division behind the armour. It is difficult to imagine dispositions that could be more unsuitable for operations in the event of an aggression. The American forces were just as badly placed. Their line of supply ran from Bremen parallel to the direction from which attack might come, and right through the British zone. Nor were the French forces prepared for anything beyond the administration of German territory.[63]

In effect, Montgomery had about 8 full divisions for the immediate defence of the Rhine facing an estimated 25 divisions from the USSR, supported by 6,000 aircraft available for immediate attack. These forces were backed by a further 155 divisions and 13,000 aircraft in the Soviet Union. In contrast to the West, enemy forces were at wartime strength and under a centralized command.[64]

On December 28, 1950, the CDC and Cabinet accepted the NATO Standing Group recommendations to assign a brigade group (one third of a division) and 11 squadrons of aircraft to NATO's integrated forces. This commitment was over and above the Army special force that was being raised for Korea. Parliament was informed of these significant military allocations on January 30, 1951. The MND announced that unprecedented defence budgets totalling $5 billion were required over a three-year period to finance the equipment and expansion of a peacetime force in being to approximately 115,000 as well as direct support to NATO through the mutual aid programme.[65] Important to Canadian airmen was that Claxton's speech once more placed the RCAF at the forefront of the government's military priorities. The MND made it clear that air power would dominate Canada's forces. He also revealed to Parliament that the RCAF had already dispatched a fighter squadron to England and that more were to be deployed later in the year:

> Canada's most substantial contribution in the planned force in being will be our air force participation. Air power is especially needed. One squadron is already undergoing operational training in England. This squadron is to be joined by two others to form a wing and these squadrons will be made available to the supreme commander [of the Integrated Forces] ... . [Eventually] we intend to have an air division of eleven squadrons at full strength, equipped with F-86E and Canuck [CF-100s] aircraft.[66]

62. Eayrs, *In Defence of Canada, Vol IV*, 209. Quote from Ambassador to Washington to Secretary of State, External Affairs, October 30, 1950, (telegram), DEA files, 50030–B–40.
63. Ismay, 29–30.
64. Ibid., 29.
65. Claxton in Canada, *House of Commons Debates*, Fourth Session, Volume I (Ottawa: King's Printers, 1951), 90–92.
66. Ibid., 95.

The defence minister pointed out that the RCAF was to be built up to 40 Regular and Auxiliary squadrons for the defence of North America and NATO's central European theatre. As such, the personnel required would exceed those of the Canadian Army. Furthermore, the RCAF would be allocated as much of the total defence budget as the other two services combined.[67]

By the early spring of 1951, therefore, it was noteworthy that a Canadian government, traditionally loath to show any public interest in its military, championed the virtues of air power as the most critical component of peacetime forces in being. Significant as well, in light of Canadian history, was the Canadian government's commitment of military forces to a peacetime alliance in Europe; forces that included an air division. The fact that the topic of air power was being deliberated in Parliament that spring, on a passionate level not commonly witnessed, suggests that Canada's political leaders had accepted the need for a more robust military generally and a modern and extensive air force specifically.

Charles Gavan "Chubby" Power, the hard-drinking wartime MND for Air, challenged his fellow MPs to embrace this new military force for the country. He understood that his impartiality in this subject would be questioned based upon his previous association with the RCAF; nevertheless, his emotive address to Parliament had an effect:

> I expect to be accused of being prejudiced, but I put myself on the side of the angels, geographically speaking—I favour the Royal Canadian Air Force ... . [T]he reasons I have for supporting an air program are that Canadians for some reason or other have a great reputation as air warriors; that Canada has earned a reputation for its capacity to train air crew; that the program [the Government's defence expenditures] calls for Canadian squadrons, manned by Canadians and supplied with Canadian equipment from Canadian factories.[68]

Power also argued that the air component planned for NATO's integrated force was a better plan than allocating a land component:

> With respect to the psychological effect on our allies and on our enemies, which is given as one of the great reasons why we should send forces to Europe, the greater mobility of the air arm and the fact that there will be a large number of men engaged in servicing and in flying eleven squadrons would result in their making their presence felt equally with and perhaps more than an equivalent or similar number of the other arms of the services.[69]

Lastly, Power commented on what air-power roles were to be expected in Europe for the RCAF. He assumed, erroneously, as it turned out, that the air division would include fighters, interceptors, reconnaissance, and transport. In his defence, and as explained in the next chapter, Power was making the same assumptions that the planners in the Air Staff were, given the absence of more detailed direction from NATO.

Similar to Canadian airmen, Power related an air division to the tactical air-power roles carried out by the RCAF as part of the wartime RAF 2nd TAF. He lamented the fact that there would be no RCAF strategic-bomber force like that of No. 6 Group of the previous war. The costs were too dear, and such a role would be left to the US:

> A group similar in size and equipment to No. 6 Canadian bomber group in the last war would cost in initial equipment alone anything from $1,500 million to $2 billion. Therefore we are precluded by the very thought and consideration of the cost of any such contribution of heavy bombers ... . I am told that an individual heavy bomber costs anywhere from $5 million to $6 million. Therefore a squadron composed of twenty bombers would cost in equipment alone $100 million. Therefore the task of strategic bombing of the enemy will, as I understand it, be left to the air force of the United States ... .[70]

67. Ibid., 96.
68. Address by Charles Gavan Power, MP for Quebec South, to the House, February 5, 1951, in Canada, *House of Commons Debates*, Fourth Session, Volume I (Ottawa: King's Printers, 1951), 144.
69. Ibid.
70. Ibid., 145.

The stage was set for the detailed planning and establishment of the Air Division in Europe.

While Canadian airmen had achieved unprecedented government support in the prioritization and funding of air power, it was unclear how much political leeway they would have in executing their plans. It may have been increasingly clear that Canadian politicians had embraced air power as the most important military option for national defence, but it remained uncertain if this recognition and support extended to airmen themselves. Jean-François Pouliot, MP for Temiscouata, summed up this paradox April 24, 1951, in the House:

> At the present time in a country the size of ours, with more than three thousand miles [4,828 kilometres] of land between two oceans, the best defence is the air force ... . [T]he air force has made tremendous progress here in Canada, and it is still progressing all the time under the able direction of the Minister of National Defence [Mr. Claxton] and of the intelligent brass hats. *They are all not bright, but some of them are* [italics added]. My honourable friend will admit it and that is defence.[71]

71. Jean-François Pouliot, MP for Temiscouata, April 24, 1951, in Canada, *House of Commons Debates*, Fourth Session, Volume III (Ottawa: King's Printers, 1951), 2337.

Chapter 4

BIRTH OF AN AIR DIVISION

On February 1, 1951, Cabinet approved the request for a Canadian contribution of 11 squadrons to NATO's integrated force. The composition of these squadrons was initially to include three interceptor squadrons of 25 F-86E jet fighters per squadron, seven fighter-bomber squadrons totalling 112 aircraft, and one fighter reconnaissance squadron of 16 aircraft.[1] Four days later, the MND announced the government's decision to the House of Commons. It was now left to Canadian airmen and public servants to carry out the detailed planning and negotiations for the deployment and installation of the RCAF wings assigned to the Air Division.

This chapter describes in detail the challenges that confronted Canadians in putting the Air Division in place between 1951 and 1955. Planning for the establishment of this organization was difficult because of the many unknowns. Where were the wings to be established and who was the final authority to assign location? When exactly were the wings needed? What air-power roles were to be carried out by the RCAF in Europe, and was there a limit on the size of the Air Division? What were the command and control arrangements, and did they infringe upon Canadian political authority? Were there opportunities for senior command positions for RCAF officers within the NATO air organization based upon its air contribution? If there were, did the Canadian government support the military's wishes to obtain coveted senior alliance command appointments? Lastly, what were the funding arrangements?

While the main focus of this chapter is to describe how the RCAF and Canadian government overcame most political and cultural hurdles in building No. 1 Air Division, their actions and commentary also tell us much about motivation and intentions. Fundamentally, the Air Division was an expression of Canadian sovereignty for both the RCAF and Canada's government. However, Canadian airmen and politicians differed in how this was to be achieved.

Any expectation by the Canadian government that it would be able to influence alliance strategy and, therefore, establish some semblance of sovereignty was largely dependent upon its military contribution and financial commitment. From the nation's experiences in the two world wars, Canadian political leaders had been persuaded that the strategy of "paying its way" had successfully contributed to the establishment of national autonomy within wartime alliances dominated by stronger powers. Several examples come to mind. From the outset of the First World War, the Borden Government insisted that all military expenses be paid for by Parliament. During the Second World War, the King Government wanted the majority of RCAF aircrew commissioned as officers, contrary to RAF policy. As such, the Canadian government paid the difference in salaries.[2] The substantial cost of providing an army brigade and air division to the Central Region of NATO was a continuation of this policy. More specifically, Canada's political leaders needed to establish the country's credibility at a national level and within the alliance by having the Air Division up and running before 1954. By this date, Western defence planners determined the USSR would be in a position to attack Western Europe.[3] Not to be forgotten, this contribution was in addition to the air, sea and land forces Canada dispatched to support UN forces in Korea.

Canadian politicians succeeded in their objective, even though 1 Wing did not move to the continent until the winter of 1954–55. On the other hand, the government was less enthusiastic in meeting its financial obligation associated with its peacetime alliance military commitment than was the case during the world wars. To some extent this was not their fault, as they could not have anticipated all the cultural and political exigencies associated with the placement and

1. DEA Defence Liaison Division memorandum, entitled "Further Information on Canadian Force Contributions to NATO," dated November 5, 1954, DEA Files, 50107–D–40, quoted in Eayrs, *In Defence of Canada, Vol IV: Growing Up Allied*, 190.

2. See Morton, "Junior but Sovereign Allies," 34; and Greenhous and others, 94–95.

3. See extract from Minutes of Cabinet Defence Committee, dated May 29, 1951, in Greg Donaghy, ed., *Documents on Canadian External Relations,* Volume 17 (Ottawa: Department of Supply and Services Canada, 1996), 689–93.

construction of airfields in France and Germany. Canada's political leaders were not about to write blank cheques to secure the benefits of a peacetime military commitment. Further, Canada's position with respect to the legal status of its forces stationed in Germany raised questions in the alliance as to Canada's true financial and operational commitments. The insistence of Canadian leaders that they were in Europe strictly in support of NATO placed it at loggerheads with the Western occupation powers. This national policy also imposed serious operational limits on the Air Division that frustrated Canadian pilots and NATO air commanders alike.

With regard to Canadian airmen, their planning assumptions were shaped to a large extent by their accumulated experiences, good and bad, from the interwar period and the Second World War. Their professionalism and dedication were no doubt based upon having learned how to work in an atmosphere of government parsimony during peacetime, as was the case during the interwar years, and having led air forces in combat during the war. Underpinning these strong personal attributes was an excellent knowledge of air-power theory and how it applied to RCAF organization, equipment choices, and doctrine. Frustrated during the early planning stages of the Air Division because of the lack of direction from NATO, these airmen were compelled to make assumptions about force structure and what air-power roles were to be fulfilled. In this atmosphere, the majority of influential senior airmen, veterans of the previous war and now staff officers in the Air Staff, looked back to the organization of the RAF 2nd TAF as the planning model. Other key factors that motivated these airmen during their planning were ensuring they were not being shut out of senior air command and staff positions as well as asserting a national identity within the alliance structure. The successful build-up of No. 1 Air Division in such a short time frame was not possible without the combined efforts and cooperation of Canadian politicians, senior public servants, and airmen. Civilians deserve much credit in assisting the RCAF planning team in Europe.

Beginnings of an air division

The RCAF's success in establishing the Air Division in a relatively short time frame owed much to the fact that it had completed arrangements for the deployment of the first wing six months before the Canadian government had publicly announced its air commitment to the integrated force. In fact, 421 Squadron, flying RAF supplied Vampires, was in the UK by mid-January 1951, a month before there was any public knowledge of a Canadian overseas commitment, let alone deployment. Concurrent to 421 Squadron's planned move to RAF Station Odiham, the RCAF had made concrete plans with UK officials for the dispatch of three RCAF Sabre squadrons to RAF Station North Luffenham between the fall of 1951 and early spring of 1952.[4] These arrangements involved highly visible deployments of RCAF units overseas, requiring the concurrence of the British and Canadian governments. Since the St. Laurent Government had not informed the public of such commitments, it seems evident that the RCAF had taken certain liberties in making such concrete plans.

At a CDC meeting held on October 12, 1950, the members recommended that, at the upcoming meeting of representatives of the defence ministers in Washington, the Canadian representative announce that "Canada was planning to send a squadron of fighter aircraft to the UK for operational training in 1951, to be followed possibly by two more in the same year—these to be relieved on a rotational basis."[5] To the understanding of the government, these planned RCAF deployments were originally limited to an opportunity for its pilots to obtain operational experience in jet-fighter tactics with the RAF. The idea that the Sabre squadrons dispatched to the UK were to form the first wing of the Air Division came after the government's announcement to the House in February 1951.[6]

4. See Minutes of 118th Meeting of Air Members, Item 690, held October 5, 1950, and the Minutes of Special Air Members Meeting with Sir John Slessor, CAS, RAF, held on October 11, 1950, File 73/1223, Raymont Papers, Volume 1821, DHH.

5. See Minutes of 67th Meeting of the Cabinet Defence Committee, paragraph 13(e), held October 12, 1950, File 73/1223, Raymont Papers, Box 65, Volume 1324, DHH.

6. See draft Organization Order 6 for 1 Fighter Wing—RCAF, dated July 1, 1951, which stated in part: "An agreement was reached between the RAF and RCAF to base RCAF Squadrons in the United Kingdom to facilitate the operational training of those Squadrons. 421 (F) Squadron was the forerunner of this arrangement and has operated with the RAF at Odiham. Now, however, the concept has changed and the movement overseas of three F-86 Squadrons is planned to take place within the 1951–52 year. These squadrons will be based at North Luffenham and a Wing headquarters will be formed in support of these squadrons. The Wing HQ and squadrons based in the UK will proceed to Continental Europe late in 1952 as the first RCAF contribution to the Integrated forces of NATO." RG 24, Accession 1983–84/216, Box 304, National Archives of Canada.

Notwithstanding this apparent case of serendipity, the intended commitment of a Canadian air contribution to NATO was known outside national circles well before the spring of 1951. In October 1950, the UK deployments were discussed within the Air Staff. Present at one of these meetings was no less a figure than the CAS for the RAF, Marshal of the RAF, Sir John Slessor. The minutes of this meeting indicate that Slessor was previously informed about a possible Canadian air contribution to NATO, suggesting that he was briefed at an earlier date by the RCAF or through Canadian and/or British government channels. The British CAS welcomed the idea that an RCAF wing be deployed to the UK, but preferred that it ultimately be sent to the European continent because of its critical shortage of fighters.[7] He added that it was important for the RCAF to immediately begin planning this deployment because of myriad logistical and operational matters that needed to be settled before such a group could be physically set up and integrated into an overall Western European Defence Plan:

> It was essential to know definitely what the RCAF intentions were in order to plan the rate of build-up and make provisions for adequate aerodrome facilities. The runways on many existing fighter bases, both in the UK and on the continent, would have to be lengthened to be suitable for F-86 operations. By establishing a wing in the UK first and then building up to a group on the continent the whole scheme would be simplified considerably.[8]

At a previous Air Members meeting that month, the RCAF CAS directed that a team of officers proceed to the UK to complete arrangements with the RAF for the move of RCAF squadrons to that country. This team, consisting of G/Cs E. A. McNabb, S. G. Gowan, and V. S. J. Millard, was in the UK from October 24 to November 15, 1950. During this period, detailed arrangements were finalized with the British Air Ministry, the AOC-in-C Fighter Command, and the station commanders of North Luffenham and Odiham.[9]

Once the Air Staff understood that the Sabre squadrons planned for the UK were to form the first wing of the Air Division in Europe, Sabre movements and planned operations became a priority over the temporary tour of 421 Squadron that was to expire in December 1951. For several reasons, the Air Staff had to separate the two deployments. Odiham had no room for Sabre operations, and North Luffenham was not available for Vampires flown by the RCAF. 421 Squadron operated Vampire V aircraft as a fully operational fighter unit at Odiham, but they had to share this base with two of the remaining three Vampire squadrons in RAF Fighter Command. This station was required by the RAF for continuous operation of Vampires and was, therefore, not available for assignment to the RCAF wing. Any thought of moving the Vampire-equipped 421 Squadron to North Luffenham was a non-starter because the base was to be taken over by Fighter Command from Transport Command and was not available for fighter operations until the beginning of September 1951. Furthermore, 421 Squadron was to return to Canada at the end of 1950, so there was no point in moving to North Luffenham before this time.[10]

While of limited duration, Canadian air planners understood that 421 Squadron's tour at Odiham was most beneficial to the RCAF. The year of flying over the UK and Western Europe proved invaluable for RCAF fighter pilots that were new to jet operations. They benefited from the instruction provided by the RAF pilots of 54 and 247 RAF (Fighter) Squadrons, both considered as first-rate Vampire units. 421 Squadron participated in the regular RAF training programme, amounting to 180 hours per year per pilot. Some 42 different exercises took place, including an armament camp.[11] Although the squadron's war veterans were familiar with the poor weather and confined airspaces that characterized air operations over Europe, these factors added to the experiences of the squadron "pipeliners," new pilots assigned to their first operational squadron.

7. Minutes of Special Air Members Meeting with Sir John Slessor, CAS, RAF, held on October 11, 1950, File 73/1223, Raymont Papers, Volume 1821, DHH.

8. Ibid.

9. Minutes of 118th Meeting of Air Members, Item 690, held October 5, 1950, RG 24, Accession 1983–84/216, Box 3102, LAC.

10. Draft Organization Order 6 for 1 Fighter Wing—RCAF, dated July 1, 1951, RG 24, Accession 1983–84/216, Box 3041, LAC.

11. Briefing on "Trip to UK and France," by Air Commodore Clements, Minutes of the 147th Meeting of Air Members, Item 834, held January 30, 1952, File 73/1223, Raymont Papers, Volume 1821, DHH.

Odiham had excellent operational and administrative facilities and was ideally located close to London with frequent train and bus service (see Figure 4-1). It was one of the choicest units in Fighter Command.[12]

Figure 4-1. Location of RCAF Stations in the United Kingdom 1951–1955

There were important lessons learned from 421 Squadron's tour in the UK. As proven years later during future Air Division operations, there was the need for clear rules regarding command and control of Canadian aircraft and pilots operating under foreign direction. The CAS directed in October 1950 that operational control of 421 Squadron was vested in AOC-in-C Fighter Command. However, the squadron was not to be moved out of the "domestic" RAF sphere without prior clearance from Air Force Headquarters (AFHQ) through the AMCJS London. This restriction did not exclude the short-term temporary movement of the squadron to RAF bases in the UK for gun camps.[13]

Despite these basic rules, A/M Curtis pondered other command and control scenarios that could have proven politically sensitive:

> A very clear definition is required of any other restrictions limiting the employment of 421 Squadron in the event of an emergency. What authority is vested in AOC-in-C Fighter Command to use 421 Squadron in active defence of the UK under conditions of a sudden attack prior to a declaration of war by the Canadian Parliament?
>
> It is recommended that specific direction be issued to CO 421 Squadron authorizing him to commit his resources immediately to the AOC-in-C Fighter Command for operational employment against an attacking force. The AOC-in-C Fighter Command should be made fully aware of the position on this vital matter.[14]

12. Ibid.
13. Ibid.
14. Report on the Deployment of RCAF Fighter Squadrons in the UK, dated October 30, 1950, RG 24, Accession 1983–84/216, Box 3102, LAC.

The CAS proved to be prescient. His successors and future AOCs of the Air Division were often confronted with issues of alliance command and control of Canadian military forces and ROE that Canadian leaders felt bypassed civilian political authority. It was also important to Curtis that the RCAF demonstrated control over its personnel in order to assert national authority while working under RAF command.

Air Division planning assumptions

While 421 Squadron was gaining operational experience at Odiham and plans were being made to dispatch three Sabre squadrons to the UK to form 1 Fighter Wing, the Air Staff was grappling with more fundamental issues with respect to the establishment of the Air Division. In the absence of clear direction from NATO, air planners had to make several assumptions about what the Air Division would look like, its end state force composition, the support concept, and what air-power roles were to be assigned. Once they had received firm direction with respect to these matters, they needed to know where the RCAF bases were to be located on the continent. They also needed to know the expected nature of the threat, especially the enemy's air-power capability.

At this time, the Air Staff was fortunate to have A/C H. B. Godwin as the Air Member for Air Plans – Plans (AMAP/P). Based upon his extensive experience with tactical fighter operations in Europe during the Second World War, Godwin wrote a comprehensive study in March 1951 in which he outlined the issues and made suggestions with respect to Air Division operations and logistics. Godwin's wartime exposure to tactical air power heavily influenced the Air Staff's early planning assumption that the Air Division was to be structured as a tactical air force. Important, as well, was that this planning concept in the early months of 1951 was to dictate the types of air-power roles the RCAF was to carry out in Western Europe.

Godwin began with a general overview of the enemy's war-making capability and strategic aims. He felt that by mid-1954 the economy of the USSR would be able to support a prolonged war. There were several objectives to be gained by launching such a war at that time. Intelligence sources outlined a scenario in which the Soviet Union would overrun Europe and the Middle East before the US and Canada could ramp up their militaries to repel these attacks. Once in possession of these regions, the Soviet Union would be in an impregnable position from which North America could be weakened by communist infiltration, economic warfare, and continued military action.[15]

With respect to the Soviet Air Force, Godwin was most concerned about their tactical air forces:

> The backbone of the Soviet Air power is its Military Air Force. Evidence of Army thinking and control in Russian Air Force matters is manifested in the high priority, which has been allotted to the building of a strong military force. As a result, the Soviet Air Force is unbalanced, with a comparatively weak strategic-bomber force but a mobile, highly trained well-equipped tactical force capable of striking with tremendous force. The function of this tactical force is primarily to provide close support for the army, hence it is flexible in organization and is trained to operate from hastily prepared forward air fields. It is estimated that by 1954 a large percentage of the pilots will have had up to 4 years experience on jets. As for the aircraft, the MIG [Mikoyan-Gurevich] fighters have proven to be at least the equals of US aircraft in Korea and by 1954 they should be completely modified and available in quality. At least 50% of the Soviet Air Force should be jet equipped by 1954 and it is conceivable that all aircraft supporting the push to the English channel would be jet powered. The total estimated strength of the Soviet Military Force in 1954 is 6,450 aircraft of all types.[16]

Godwin stressed that this force had to be destroyed by the combined air forces of the Western alliance if Russian aggression was to be stopped. To achieve this plan, the integrated air forces operating under the Supreme Headquarters Allied Powers Europe (SHAPE) had to accomplish three tasks.

15. "Study of the Employment of RCAF Forces in Europe," written by Air Commodore H. B. Godwin, AMAP/P, dated March 10, 1951, RG 24, Volume 6167, File 1, LAC.

16. Ibid.

The alliance had to gain and maintain air supremacy over and behind the combat zone by destroying enemy aircraft in the air and on the ground. They had to slow down and reduce the strength of the Russian attack by interdiction designed to isolate the combat area, and lastly, they had to provide the necessary cover and support for the operation of land armies defending the eastern frontier region.[17]

With respect to equipping the RCAF in Europe, Godwin preferred a multirole tactical fighter that would give the Air Division commander maximum flexibility in meeting the Soviet air and ground threat. However, if the decision was to employ a single-role fighter, it had to be capable of achieving air superiority within the theatre of combat:

> In making an RCAF contribution to SHAPE it is apparent that we should provide aircraft and crews capable of carrying out air-to-air combat, close support and recce [reconnaissance]. The ideal situation is where one type of aircraft is suitable for all three purposes thus lending maximum flexibility to the force and greatly simplifying the logistic and maintenance problems. Where there is no aircraft capable of employment in all three roles a decision must be reached regarding the priority of the tasks which the aircraft will be required to do. Before aircraft can be used on close support or interdiction missions it will be necessary to have a degree of air superiority which although only local would allow these missions to be flown without exorbitant loss at the hands of enemy fighters. It follows then that the prime requirement for aircraft assigned to SHAPE must be that they are capable of assisting in the gaining of air superiority by destroying enemy aircraft in the air. Therefore capabilities as an air-to-air fighter must take precedence over capabilities as a close support or recce aircraft.[18]

Godwin warned that if the above line of reasoning was not followed in the planning stages and aircraft were assigned to SHAPE that were not suitable air-to-air fighters and capable of defending themselves, the allied air commander would be faced with deploying a portion of his fighter force to provide cover for those squadrons unable to adequately defend themselves. This would minimize the fighting effectiveness of the whole force and rob it of its flexibility.[19]

Godwin's grasp of operational issues was matched by his understanding of the logistical challenges that faced the Air Division. His recommendations not only reflected his wartime experience with support to tactical air operations but also demonstrated that he had preliminary discussions with NATO staff officers dealing with alliance logistics doctrine:

> Ideally the aircraft and equipments of national contributions to the integrated force should be such that a common supply line could be established to support the operational effort. However, since the contributions in aircraft and equipment by each country will not be of standard types, a logistical support system will be required by each country to the extent necessary to provide and repair the non-standard items. Such items as ammunition, fuel and rations may be supplied by a supply system common to all. The RCAF force will be equipped, in the main, with items manufactured in Canada, and while we are standardizing our equipments with those of the Americans there will still be major differences, (e.g., Jet engines). The size of the RCAF contribution to the integrated force and the number and volume of non-standard items required by that force justify the establishment of an RCAF supply, repair and maintenance organization. The logistical problems would be greatly simplified if our force were as homogeneous as possible.[20]

While subsequent events would show that Godwin's predictions on logistic support to air operations were not entirely accurate, his main point—dealing with the need to establish a common supply of key items such as ammunition, fuel, and rations—was implemented. Another key recommendation that was adopted was the need for the RCAF to establish an in-theatre supply base.

17. Ibid.
18. Ibid.
19. Ibid.
20. Ibid.

Godwin also dealt with command and control. These comments were important in that they once more reflected his wartime experience as well as more recent experience gained from the Korean War. Noteworthy was his insistence that Canadian air forces retain more of a national identity than was the case during the Second World War. This required the establishment of a self-supporting organization large enough for national operational control that precluded the Canadian forces being broken up and placed under the authority of other national alliance air forces. Also important was that this discussion addressed the RCAF's air-power choices:

> Every effort must be made to keep the force homogeneous. If more than one type of squadron comprises the contribution to SHAPE, say interceptors (anti-bombers), ground support and recce, it will probably result in the force being split, with the ground support and recce squadrons being integrated into tactical groups under command of another power and the interceptor squadrons allotted to base defence possibly for the protection of key centres in rear areas. Hence our force would be dispersed in penny pockets, thereby losing its entity, lessening our control and reducing the magnitude of the RCAF effort in the eyes of the world. The fighting effectiveness of a tactical force depends greatly upon the degree of control which can be exercised over it. This control embraces the installation of radars, for detection of enemy aircraft and the control of our own, as well as air-to-ground communications. In the recent fighting in Korea it was painfully evident that only the US Marine Air Force was capable of directing tactical aircraft on to targets during the first six months of the fighting. This has been attributed to the fact that the Marine pilots trained and operated under their own system of control. In the interests of efficiency it is obvious that the control system should, whenever possible, be manned with personnel of the same service as the aircrew of the aircraft it is controlling. Operations under these conditions would eliminate the difficulty arising from any differences of language or operational procedure and technique that could easily occur in the integrated force under SHAPE.[21]

Godwin wrote further that in a war with the USSR there would be no time to make adjustments in the tactical air control system such as occurred in Korea. To generate a maximum sortie rate, alliance air forces had to operate proficiently from the very beginning of the conflict. To be prepared to operate as a fighting unit, any force approaching a tactical group in size (Godwin placed this at 10 or more squadrons) had to train and operate within its own tactical control system organic to the force. In this way, the force would at once be mobile and fight as a compact unit under one commander responsible for the operation of the control system as well as the aircraft. Important in all this discussion was that implementation of these concepts would aid the force in preserving its Canadian identity.[22]

This staff paper written by Godwin is noteworthy for several reasons. Many of his suggestions were implemented during the establishment of the Air Division. His thoughts confirm a pattern in which Canadian airmen applied the air-power lessons learned in the past. As such, professional experience that originated during the interwar and matured during the Second World War was put to good use in the early cold war. His staff work demonstrated Godwin's obvious candidacy as a future commander of the Air Division. Lastly, Godwin's staff paper demonstrated that senior Canadian airmen had a comprehensive understanding of air-power concepts independent of the Americans, British, or other NATO airmen.

The detailed direction that RCAF planners were expecting from SHAPE was slow to come. In large part this was due to the huge amount of work that had to be coordinated and executed by the alliance's new military headquarters. The North Atlantic Council gave the authority for the creation of SHAPE and the designation of General of the Army, Dwight D. Eisenhower, as the first SACEUR, on December 18, 1950. When Eisenhower assumed command of Allied Command Europe (ACE) on April 2, 1951, SHAPE's staff officers—specifically those working in the Advanced Planning Group led by the Chief of Staff, Lieutenant General Gruenther—had to prioritize their challenging workload. This included the operation of a multinational and multilingual

21. Ibid.
22. Ibid.

military headquarters in peacetime. If air power was a priority, SHAPE planners needed first to reorganize and coordinate the existing Western forces from an administrative occupation force to one that could face forces from the USSR in combat.[23]

Canadian airmen recognized that SHAPE had its hands full with other alliance priorities. Even so, the lack of information coming out of the latter headquarters, given the fact that the RCAF had no direct contact with SHAPE staff in the early spring of 1951, contributed to the uncertainty in AFHQ over the expected role of the Air Division. Not knowing what the final direction was to be from higher headquarters, A/M Curtis directed his staff to plan for a dual role that would include interceptors and a tactical air force. He felt that bilateral representations regarding base facilities and financial arrangements needed to be made as soon as possible to the British and other European countries rather than waiting for the Standing Group to make the decisions.[24]

More specifically, the Air Staff needed answers from SHAPE to several questions. What higher headquarters was the RCAF force to be responsible to operationally? What aerodrome facilities, including length of runway and hangar accommodation, were likely to be allocated, and who was to provide airfield maintenance? What was the plan for movement of casualties and supplies, and would the RCAF be required to provide an air-transport force to SHAPE? Would the RCAF be required to provide static defence? Was the RCAF to adopt the British or American control communications organization? Was a standard type of radar to be used by SHAPE forces, and what equipment would the RCAF be required to provide in support of its commitments? To what extent, if any, would Canada be required to provide personnel to man the overall radar control system? What navigation and landing aids were to be employed by SHAPE, and what would the RCAF be required to supply? Was a standard identification, friend or foe (IFF) to be adopted by SHAPE?

There were other reasons why the lack of direct contact with SHAPE planners worried some senior members of the Air Staff. For national and institutional reasons, they wanted to avoid being shut out of the decision-making processes. They were clearly still bitter from having experienced this shortcoming during the Second World War. Again, Godwin expressed these feelings:

> [P]reliminary planing for the employment of the Air Division with SHAPE [points] to a growing need for personnel contact with SHAPE at a very high level to decide matters of major policy which cannot be resolved by AFHQ alone. Planning must be based from the very beginning on SHAPE requirements in order to eliminate the need for costly adjustments later. In the last war the RCAF was denied operational command and control experience commensurate with the operational forces put in the field. Strong representation on this subject to SHAPE at an early date could ensure reasonable RCAF command and control opportunities ... .[25]

Godwin's boss, A/V/M James, supported and forwarded his subordinate's views to Curtis. He added that the RCAF needed to place a staff officer at SHAPE to ensure that the Air Staff was kept constantly informed about alliance air policy decisions. This was a more effective and practical arrangement than relying upon the Chairman of the Canadian Joint Staff, London (CJS [L]) as the point of contact. While the latter represented Canada on the Military Representatives Staff, someone with specialist air force knowledge was needed in SHAPE as a full time point of contact and liaison between that headquarters and Canada.[26] Unfortunately for the RCAF, General Foulkes, the chairman of the CSC, did not initially support their ambition for a say in the higher direction of alliance air policy. He argued that "since Canada possessed relatively few senior officers it was considered wise not to seek senior staff appointments in SHAPE, or in the [European and Atlantic commands] of the alliance."[27] Foulkes would change his view on this matter later on, and the RCAF would eventually succeed in getting senior staff positions in SHAPE and at the tactical air force headquarters.

23. Colonel Robert K. Sawyer, "Bulwark of 'Defence': A Lesson in Cooperation," in *SHAPE and Allied Command Europe, 1951–1971: Twenty Years in the Service of Peace and Security* (Brussels: Imprimerie Bietlot Frères, 1972), 23–27.

24. Minutes of the 127th Air Members Meeting, dated March 29, 1951, RG 24, Volume 6167, File 1, LAC.

25. Undated minute entitled "Need for RCAF Participation in SHAPE," to the AMAP from Air Commodore H. B. Godwin, Acting AMAP/P, RG 24, Volume 6167, File 1, LAC.

26. Memorandum from A/V/M A. L. James, AMAP, to CAS dated April 10, 1951, RG 24, Volume 6167, File 1, LAC.

27. See minutes of Chiefs of Staff Committee Meeting No. 487 held March 14, 1951, RG 24, Volume 6167, File 1, LAC.

At the time, Foulkes and the defence minister were more interested in what the end state RCAF contribution was going to look like. The CAS advised the chairman of the CSC that it was his understanding from discussions with SHAPE that the RCAF Air Division was to include 11 fighter squadrons of F-86E Sabres, with 3 Squadrons at 25 aircraft and 8 at 16 aircraft per squadron. The concept was to build a mobile fighter division that was self-contained and self-supporting. It was to be trained and equipped for the primary role of daytime air-to-air fighting and a secondary role of ground support, including air reconnaissance.[28] This response from Curtis to Foulkes revealed two facts. First, in March 1951, the CAS had little to add to what Claxton understood was to be the shape of the RCAF air contribution to the integrated force. Second, Curtis believed that the Air Division was going to be a multirole tactical air force.

Foulkes advised Curtis that the MND did not approve the proposed organization of 5,678 all ranks for the Air Division. Claxton felt that it included an unnecessarily large number of administrative and headquarters units. Foulkes was instructed by the MND to see if the RCAF could integrate their maintenance and support system in Europe with USAF to keep personnel numbers to a minimum, at least for the initial stages of the build-up.[29] Curtis explained that when the original organization for the RCAF Air Division had been drawn up, SHAPE had not yet been activated, and it was not possible to determine the degree to which the Canadian contribution should be self-supporting. It had been assumed that the RCAF Air Division, while observing the principle of economy of force, was to be organized to permit the maximum utilization of the principles of concentration of force, mobility, and flexibility. A consideration of these principles led to the decision that the RCAF Air Division should be organized along the lines of the wartime 2nd TAF.[30]

Well into the spring of 1951, the Air Staff continued planning the Air Division based upon the structure of a tactical air force. With no concrete direction from SHAPE, staff officers planning the telecommunications requirements for 1951–52 planned for just such an organization for the integrated force:

> As you know, we assumed a tactical air division of 11 Squadrons, self-contained as to combat elements and ground services, modelled after the manner of a British 2nd TAF group in World War 2. The concept given differs in only one major respect—the primary role of groups in 2nd TAF in Europe was ground support, air superiority in the tactical areas having already been gained, thus air-to-air fighting relegated to a secondary role. These roles are reversed in the [present] concept ... .[31]

Another senior member of the CAS staff sent a letter to the AMCJS London requesting that information be obtained from the RAF regarding details on the operations and support of a tactical air force to assist in the planning for the RCAF Air Division's No. 1 Fighter Wing in the UK:

> The RCAF will be sending a fighter group to the UK to operate under SHAPE in the defence of Europe. It is not yet known whether the RCAF will be operating with the RAF or the USAF. In order to assist in planning and to obtain the benefit of the experience gained by the RAF, it is requested that full detailed information, including organization charts, special instructions, etc., for RAF operations on the continent, especially those dealing with the logistical support aspect, be obtained and forwarded to AFHQ as soon as possible. As a basis to work from, you could review the "Supply Organization Chart for the 2nd Tactical Air Force" that was in effect during the Second World War.[32]

28. Memorandum from Air Marshal Curtis to Chairman, Chiefs of Staff Committee, entitled "Organization, Tactics, Training and Procedures, NATO Countries Represented at SHAPE," dated March 1951, RG 24, Volume 6167, File 1, LAC.

29. Memorandum to CAS from Foulkes, dated March 31, 1951, RG 24, Volume 6167, File 1, LAC.

30. Curtis reply to Foulkes regarding the size of the Air Division, dated April 9, 1951, RG 24, Volume 6167, File 1, LAC.

31. Internal Air Staff Minute to the Chief of Telecommunications from Group Captain E. A. D. Hutton, Deputy Telecommunications Operations, dated April 21, 1951, RG 24, Volume 6167, File 1, LAC.

32. Letter from Air Commodore R. A. London, CAS staff, to Air Member, Canadian Joint Staff London, dated April 9, 1951, RG 24, Volume 6167, File 1, LAC.

While the assumption within the Air Staff that the basis for the establishment of the Air Division should be that of a tactical air force organization was widespread, there were dissenters.

Air Vice-Marshal Miller, the Air Member for Operations and Training (AMOT), queried the reconnaissance role, since the F-86E had a "very doubtful value as a reconnaissance aeroplane."[33] The AMOT presented the problems that would be involved in converting an interceptor fighter force into tactical forces. He argued that the Air Division would require specialized training and equipment to assume a secondary role as a tactical force. It was doubtful whether the F-86E could assume the role of a tactical aircraft even if the field commander could locate aerodrome space near enough to the front line. He recommended that USAF be queried on the suitability of the F-86 as a tactical fighter, as well as the need to get more direction from SHAPE as to their expectations for the RCAF's role in a tactical air force.[34]

Interestingly, this discussion was premised upon the assumption within the Air Staff that the F-86 was to be replaced by the CF-100 once the latter had been produced in sufficient numbers to equip squadrons for the air-defence role in Canada and as a multipurpose fighter for the Air Division, including tactical air support. In fact, since the photo-reconnaissance role was still being considered for the Air Division in the spring of 1951, the CAS wanted a number of CF-100 aircraft to be reconnaissance capable and RCAF personnel to be trained in support. Curtis believed that at some future date the Air Division would be split into three day-interceptor squadrons, six fighter-bomber squadrons, and one photo-reconnaissance squadron.[35] Even so, this role was doubtful from the beginning because the Air Plans staff stated that there was no plan on paper for the establishment in the RCAF of a photo-reconnaissance squadron before 1954. Moreover, no "operational requirement" had been written covering conversion of the CF-100 or F-86 to this role.[36]

Between April 30 and May 3, 1951, the Chiefs of Air Staffs of the UK, US, and Canada held a series of meetings in Washington to finally hammer out the details of alliance air forces. As it turned out, Canadian airmen were initially left without answers since the proposed number of squadrons that Canada was to provide was unacceptable to its civilian leaders. If the recommendations of these three senior alliance airmen were meant to resolve the perceived gap in NATO air-power capabilities and enemy strength, the expectation that Canada double its air contribution was unrealistic. In addition to the 11 fighter squadrons for the integrated force, Canada was to add another air division of 12 light-bomber squadrons totalling 192 aircraft and a further 172 aircraft in reserve.[37] The political angst this decision created in Canadian political circles should have been obvious to Curtis given that previously, on April 17, 1951, the CDC had not specifically authorized CAS to make any additional commitments "as the funds for the Canadian 1951–52 defence and mutual aid programme were fully earmarked."[38]

At a meeting of the CDC on May 29, 1951, the members discussed what direction was to be given to the CAS prior to his departure for meetings in Paris where the results of the Washington decisions were to be finalized. The Minister of Finance reiterated his concerns that any increase to the defence budget would be at the expense of the government's social welfare programme. C. D. Howe, the Minister of Defence Production, wanted Curtis to explain at the Paris meeting that there was no possibility in the immediate term for an increase in air resources from Canada since the defence programme was frozen for a year.

If the prime minister was concerned about funding an additional air division, he was more worried about meeting the expected date of completion in 1954. St. Laurent feared that the failure of NATO to achieve such force goals would be more devastating for alliance morale than implementing a less ambitious programme. As it turned out, he deferred to the judgement of External Affairs,

33. Memorandum from A/V/M F. R. Miller, Air Member for Operations and Training, to AMAP, dated March 15, 1951, RG 24, Volume 6167, File 1, LAC.

34. Minutes of the 127th Air Members Meeting, dated March 29, 1951, RG 24, Volume 6167, File 1, LAC.

35. See memorandum from Executive Assistant to the Chief ot the Air Staff (EA CAS), Squadron Leader F. H. Darragh, to AMAP, AMOT and AMTS, dated April 11, 1951, RG 24, Volume 6167, File 1, LAC.

36. Internal Air Staff minute, dated April 1951, RG 24, Volume 6167, File 1, LAC.

37. See Donaghy, *Documents on Canadian External Relations*, Vol 17, 690.

38. Ibid., 689.

Pearson's contempt for the Standing Group notwithstanding.[39] With some prescience, Pearson's Under Secretary, Norman Robertson, brought up the point that this episode raised the philosophical question for Canada: "What is enough as far as Canada's maximum military contribution to NATO is concerned?" Lastly, the defence minister was concerned that in addition to the obvious deleterious effects this commitment would have on the country's economic health and industrial capacity, the RCAF would not be able to recruit the necessary increase in specialist air technicians to support a second air division.[40]

In the end, the Canadian government did not accept this additional air contribution. This fact was made very clear to Curtis prior to his attendance in Paris in June 1951.[41] To Claxton's great dismay, Generals Norstad and Eisenhower as well as NATO's Standing Group repeated the same demands upon Canada to provide a second air division. Claxton was angry:

> Our Air Force, though not our government, had been represented in these discussions and I believe took an active part in them. They resulted in allotting to Canada an additional bomber wing, which would have brought our contribution to NATO to something close to one thousand aircraft [this number included all RCAF aircraft committed to NATO including maritime patrol, all reserve aircraft, as well as aircraft paid by Canada under Mutual Aid] ... nothing but the unbridled enthusiasm of our airmen could have produced such a result. I was exceedingly annoyed when I heard about it and made our Air Force go right back to the Paris group and say they had acted entirely without instruction and that we would not be adding any aircraft whatever. While I found the action of our own Air Force annoying, this whole episode I am sure was an attempt by the Chiefs of Air Staff to do an end-run around the NATO Military Command so as to bring about pressure for a substantial increase in the overall aircraft strength, even though this might be at the expense of what had been generally agreed as a proper contribution to our balanced international force.[42]

Claxton's criticism of Curtis, written years later in his memoirs, seemed heavy-handed in light of what transpired at the time. Air Marshal Curtis stated that his attendance at Washington and Paris was in direct response to a request from General Eisenhower to have a CAS from a non-member country of the Standing Group involved in the discussions on means of closing the gap in air forces. Ironically, SACEUR shared the frustrations of Claxton and Pearson with the work of the Standing Group and wanted recommendations made directly to him. Curtis did not deal with NATO's Military Committee, let alone the Council, and, therefore, had no means by which he could influence decisions on force structure. Even so, other senior Canadian government officials shared Claxton's suspicions. A. D. P. Heeney, the Permanent Representative of Canada to the North Atlantic Council, feared that the "military ... were operating in a watertight compartment, insulated from the Council and making plans which, by any realistic assessment, they were quite incapable of fulfilling."[43]

This episode left Curtis with no doubt about the maximum size of the RCAF Air Division in Europe. As implied in Claxton's comments, the CAS also had to recognize that his air-power tasks and responsibilities to NATO were not limited to those of the Air Division. Air defence of North America and protecting the sea lines of communication in the North Atlantic were an important aspect of alliance planning. In addition to the 12 Squadrons that Canada contributed to NATO's integrated force, it also provided 9 fighter squadrons for North American air defence and 2 squadrons of maritime patrol aircraft as part of its alliance commitments.[44] The most sobering argument that dismissed the practicality of a second air division was cost. The initial "Washington" plan called for a total RCAF manning of 13,661 personnel in Europe. This far exceeded the RCAF's Plan "H" (its maximum peacetime force) of 5,341.[45]

39. See Minutes of Cabinet Defence Committee, dated May 29, 1951, Donaghy, *Documents on Canadian External Relations*, Vol 17, 691–93.
40. Ibid.
41. Ibid., 694.
42. Claxton memoirs, 1290, quoted in Eayrs, *In Defence of Canada*, 223.
43. Quoted in Eayrs, *In Defence of Canada*, 223.
44. See "The Annual Report of the Royal Canadian Air Force for the Fiscal Year 1 April 1952 to 31 March 1953" (Ottawa: DND Canada, 1953), 59.
45. Ibid.

With direction from above clearly limiting the size of the RCAF's contribution to NATO's Central Region to one air division, the Air Staff moved on to the discussion of employment of aircraft. The Air Members' committee was of the opinion that "as the RCAF was not predominant in any field, it should concentrate on one type of role."[46] The CAS stated "that the RCAF was more or less committed to the fighter roles and, therefore, might have to place some, if not all, of its aircraft under one tactical air force command."[47] The Air Members' committee suggested that the RCAF be placed under a fighter command responsible for the air defence of a large portion of Western Europe. The danger with this suggestion was that NATO air-defence doctrine was based upon national areas of responsibility, and if the RCAF failed in this task, it could result in an embarrassing dispute between Canada and an alliance member. However, they agreed on two important factors that could not be ignored in the final selection of the RCAF's air-power role(s) for the Air Division. These were the rotation of aircrews and optimum aircraft logistics and maintenance:

> It was desirable to restrict the RCAF role in Europe to one similar to the RCAF role in Canada; namely fighter defence. Rotation of air crew who had been trained for a light bomber role in Europe would be most difficult and would require retraining of the aircrew on their return to Canada. The CAS was of the opinion that the RCAF should not enter the light bomber field unless it was absolutely necessary. [With regard to] aircraft maintenance and logistical problems ..., unless the RCAF component in Europe was concentrated under one air command, the servicing of aircraft and the supply question could become serious problems.[48]

If the Air Staff appeared in favour of an air-defence role, alternatives were still under consideration. As per the idea of assuming responsibility for a geographic air-defence zone in Europe, both the positive and negative aspects of these other options were presented.

Godwin pointed out that the plan of the Commander-in-Chief, Allied Air Forces, Central Europe (AAFCE), General Norstad, envisaged the Canadians working as far as possible with Americans employing light bombers and fighter bombers. This option had two desirable implications. The RCAF would not be responsible for the air defence of a specific country and would be part of the "fluid forces" of a tactical air force. While Godwin was clearly in favour of entering into the light-bomber field using an aircraft such as the Canberra, he reminded the Air Members that adopting such an air-power role would require a policy decision. He added that this option was problematic for other reasons. The RCAF would be forced to exchange some of its F-86Es for American-built F-86Fs (fighter-bomber version of the Sabre), thereby delaying delivery of the former to RCAF squadrons.[49] Politically and militarily, this option was also questionable because experience from the previous war and the Korean War had demonstrated that the fighter-bomber role carried about three times the attrition rate of interceptors, thus higher casualty rates, and required a larger ground component. During the same period that the future structure of the Air Division was being discussed at the national level, Curtis sent several of his planning staff to Europe to get more answers about Canada's air-power roles from NATO. Between May 1–12, 1951, A/V/M Smith and G/Cs C. A. Cook and K. A. Hodson visited SHAPE and the AAFCE headquarters. At SHAPE, they met with the Chief of Staff, Lieutenant General Gruenther, US Army; the Air Deputy, Air Chief Marshal Sir Hugh Saunders, RAF; the Deputy Chief of Staff, A/V/M Huddleston, RAF; and the Assistant Chief of Staff for Logistics, Major General Heavey, U.S. Army. At AAFCE, they held discussions with the commander, Lieutenant General Norstad, USAF; his Chief of Staff, A/V/M Brook, RAF; and Major General de Chassey, French Army, responsible for air plans and policy. The Canadians had the opportunity, therefore, to obtain the views from the most senior and responsible officers in air matters then in NATO.[50]

It was learned that the alliance concept called for AAFCE to comprise two or three tactical air forces and one air-defence command. The air-defence picture was to carry over from Western Union

46. Minutes of the 129th Meeting of Air Members, Item 740, held May 9, 1951, File 73/1223, Raymont Papers, Volume 1822, DHH.
47. Ibid.
48. Ibid.
49. Minute from Air Commodore Godwin, D/AMAP/P to AMAP, dated 8 May 1951, RG 24, Volume 6167, File 1, LAC.
50. Visit report to CAS from A/V/M Smith, dated May 14, 1951, RG 24, Volume 6167, File 1, LAC.

planning in which certain sections of the continent were to be defended by national air-defence forces. An attempt was being made to absorb these forces within SHAPE. The tactical air forces were held responsible for air defence of their areas which were, roughly speaking, east of the Rhine River, whereas the air-defence command was responsible for the air defence of the area lying between those of the tactical air forces and a baseline running through Le Havre–Dijon.[51]

Norstad expressed the view that war in Europe was to include an air battle of very considerable proportions. Since the F-86E had been developed as an interceptor aircraft, he considered its use primarily in that role, with whatever capability the aircraft possessed for ground attack being considered as a useful adjunct. He hoped that no modifications were incorporated that might decrease the air-fighting potential of the aircraft. The air-defence picture was confused at this time, but since it was based primarily on the concept of national forces defending their own areas, it was taken for granted that the RCAF Air Division was to join either the US or British tactical air forces. The mission of these tactical air forces was the defence of the central European area. This entailed as a main objective the provision of full and continuous support of the Allied Army, Central Europe, in the course of which the first duty was to gain and maintain air superiority over the central European area and the approaches thereto.[52]

Norstad also outlined key NATO doctrine. A cardinal principle of the allied position in Europe then (as it remains today) was that operational and administrative (including logistics and training) responsibilities were divided. This was unavoidable because the various national forces that contributed to SHAPE all had different legal arrangements and different equipment. As a result, operational control was centralized at SHAPE, but administration was a national matter and was of little concern to SHAPE except insofar as certain minimum operating standards were met. Norstad acknowledged that the weakness with this concept was the lack of overall standardization of equipment or integration of supply lines initiated by SHAPE. The onus was on the individual nations to standardize their equipment with those of other member countries as far as they were willing, through the medium of the Military Standardization Agency (MSA), and integrate supply lines as they saw fit.[53]

It did not take long before the problems of NATO standardization and integration were made known to the Canadian public. Feedback came in January 1952 from A/V/M John Plant, the Assistant Chief of Air Staff, Logistics and Personnel, AAFCE. Plant was an RCAF officer filling a senior NATO staff position. He gave a candid, if not popular, interview to international correspondents from a NATO air base that was hosting air forces from six NATO countries, including the US, Canada, the UK, France, Holland, and Belgium. To the chagrin of his military bosses and Canadian civilian authorities intent on portraying alliance solidarity and operational capability, Plant reported that the exercise had revealed serious interoperability problems. He pointed out there was a lack of standardization and adapting equipment used by air forces of different national languages and customs. He stated that the aircraft servicing problems alone were so difficult that a Canadian Sabre jet could not land at a Dutch air base and be sure of getting back in the air again. To Plant's credit, he qualified his concerns with the comment that progress was being made to correct the problem. "From a logistical point of view, standardization is unquestionably the biggest job the North Atlantic forces have to face ... . [B]ut junior officers had indicated that progress was underway and interoperability problems were being overcome in areas of fuelling and starting aircraft and problems of oxygen, pneumatics and hydraulics from any of the six countries by using various adaptors."[54] As it turned out, lack of standardization in equipment plagued the alliance throughout its existence. While incremental improvements were made, logisticians were continuously challenged to provide timely and reliable support to guarantee NATO's combat effectiveness as a multinational alliance.[55]

51. Ibid.
52. Ibid.
53. Ibid.
54. "Problems of Supply Integration," *Montreal Gazette*, January 19, 1952, RG 24, Claxton Papers, Volume 109, LAC.
55. See B. S. Keirstead, *Canada in World Affairs: September 1951 – October 1953* (Toronto: Oxford University Press, 1956), 165–72; and Ronald S. Ritchie, "Problems of a Defence Policy for Canada," *International Journal* 14 (Summer 1959): 206–7.

Based upon the extant NATO concept of the separation of operations and support, A/V/M Smith and his team were informed by SHAPE that while the RCAF was responsible for developing its own supply and maintenance organization, it was able to integrate this function in whatever manner it could arrange. The RCAF had to provide for its own equipment, adapting it as far as possible to that of the tactical air force with whom it was affiliated. In what would prove to be a large factor in the RCAF choosing to operate with the Americans, the message to Canadian airmen was to operate with an ally that used the same equipment so that operations and logistical support could be integrated. At wing level, Smith and his staff were told that the RCAF was responsible for day-to-day squadron training. While on occasion squadrons were to be put under SHAPE control for large-scale exercises, the bulk of the training was to be solely an RCAF concern.[56]

In what would become a most contentious matter, the Canadian airmen were given a briefing on how NATO was going to assign airfields to alliance air forces. They were to be funded under the NATO infrastructure programme, which, in essence, was a pool of money created through the contributions of all member countries. This process had been inherited from the Western Union Defence Organization. In 1951, SACEUR had only a few airfields at his disposal. Consequently, at least half of NATO's infrastructure programmes for a number of years were for the construction of airfields.[57]

It was learned that AAFCE had already initiated work on RCAF airfield requirements. Even so, there was a need for RCAF representation in this headquarters to facilitate communications and liaison between Canadian officials and those representing the countries providing the airfields. Once approved by NATO, it was necessary for Canada to negotiate a bilateral agreement with the host country. This could only be accomplished if an RCAF airfield requirements team was on site to carry out the necessary transactions. The host country was to provide the land and certain facilities within its means. SHAPE provided infrastructure funding to ensure that each airfield was built or modified to certain minimum operating requirements. It was up to the user nation to pay for any additions required to bring the base to acceptable national standards.[58]

1 Wing takes shape in the UK

Luckily for the RCAF, the challenges and frustrations they were to face in locating and building airfields on the European continent were not encountered in establishing 1 Fighter Wing at North Luffenham. By July 1951, arrangements were proceeding satisfactorily for the transfer of RAF Station North Luffenham to the RCAF and for the formation of 1 Fighter Wing Headquarters RCAF, scheduled for October 1, 1951. North Luffenham eventually accommodated three RCAF (F-86) squadrons. The first, 410 Squadron, began flying operations in the UK on November 15, 1951. The first commander of this wing was G/C E. B. Hale; he was ordered by the CAS to proceed to the UK on July 20, 1951. This date was considerably earlier than that set for the actual advance party that was scheduled to arrive in the UK on September 1, 1951. The idea was to give Hale the opportunity, and time, to iron out the numerous details involved in the transfer of North Luffenham to the RCAF and the setting up of the wing headquarters. In addition, should any special action be required of AFHQ, Hale was in a position to advise. Air Marshal Curtis was adamant that the wing in the UK maintain a high degree of operational efficiency. Equally important, for morale purposes, every effort was to be made to ensure a high standard of conditions of service for all RCAF personnel.[59]

North Luffenham fulfilled a definite geographical role in the fighter defence of the UK. Consequently, as long as the Canadian air wing operated out of Britain, it came directly under the control of the Commander-in-Chief Fighter Command, RAF. Administratively, the wing was independent of the RAF. This was necessary because the administrative elements were to form the basis of the division headquarters that was to be stationed on the European continent. In the matter of discipline, however, the Air Member, CJS(L) was given certain powers of an AOC so

56. Visit report to CAS from A/V/M Smith, dated May 14, 1951, RG 24, Volume 6167, File 1, LAC.
57. Sawyer, 36–37.
58. Ibid.
59. Letter from Air Marshal Curtis to Air Member, Canadian Joint Staff, July 13, 1951, RG 24, Accession 1983–84/216, Box 3041, LAC.

disciplinary matters beyond the jurisdiction of the wing commander could be dealt with within the UK. This was a continuation of the arrangement in effect for personnel of 421 Squadron in Odiham. Ultimately, this arrangement gave the Air Member, CJS(L) the necessary control of RCAF personnel in Britain.[60]

The main party of 410 Squadron departed RCAF Station St. Hubert, Quebec, on October 19, 1951, but did not arrive in North Luffenham until November 13. The reason for this lengthy deployment was because the main party and aircraft were sent overseas on the aircraft carrier HMCS MAGNIFICENT departing from Norfolk, Virginia. The Canadian government arranged with the US Navy to prepare the Sabres for the sea voyage. Pressed for time, the squadron had to deliver their jets to this huge US Navy base over the course of several weeks, prior to the departure date. In the event, the "cocooning" job proved to be less than adequate, since RCAF technicians spent many hours at North Luffenham polishing off the corrosion from the sea salt.[61] Evidently, this problem did not cause planners to change their mode of transatlantic transportation. 441 Squadron was delivered in the same manner, except it departed from Halifax and arrived in the UK on February 28, 1952. However, when it was 439 Squadron's turn to go overseas, the RCAF decided to allow the unit to fly its jets to Britain. As a result, between May 30 and June 14, 1952, 439 Squadron "leapfrogged" to North Luffenham, with stopovers at Goose Bay, Labrador; Bluie West 1 in Greenland; Keflavik, Iceland; and Prestwick, Scotland. The success of this deployment established a precedent that was to be followed by the RCAF wings that completed the Air Division over the course of the next year. More important to both the RCAF and Canadian government officials in the summer of 1952 was that 1 RCAF (Fighter) Wing was operational and integrated into the air defence of Great Britain.[62]

Media coverage of the return of the RCAF to Britain was extremely positive. Britain's diminished post-war status had not eroded the sentimental attachment Canadians felt for the mother country. Even so, the British press alluded to their country's decline in defence matters in their comparisons of RAF and RCAF equipment. In contrast to the RCAF, the RAF did not, in the immediate term, obtain Sabres, which were the best fighters in the West in the early 1950s. Perhaps not appreciated by the national media, British defence strategy was based both on its poor economic state and on its intelligence that placed peak Soviet air-power production years away. As such, they took the risk of equipping the RAF with less-capable Vampires and Meteors as an interim measure until the more modern (but, as it turned out, inferior—performance-wise—than the Sabre) Swift and Hunter jet fighters were to be introduced in the 1954–55 time frame.[63] This policy decision was amended when the RAF procured Canadian-built Sabres under the mutual aid programme. The following quote reflects British envy and perhaps bitterness over the fact that a "colony" was better equipped militarily than the mother country:

> The Maple Leaf ensign of the Royal Canadian Air Force was broken from the flagstaff of North Luffenham airfield yesterday ... and the "Canucks" were back in Britain for the first time since June 1946. At the airfield, near Stamford, the Canadian High Commissioner, Mr Dana Wilgress and Air Chief Marshal Sir Ralph Cochrane took the salute at a ceremonial parade to mark the RCAF's return ... . [I]t was good to see the Canadian fliers here again. It is even better to see their planes. For the Canadians brought with them better fighters than we have in the RAF. They are US-designed F86 Sabres—the only planes which can take on the Russian MIGs on level terms. And so yesterday's ceremony was more than a family reunion. For the first time an Empire air force has come to Britain's aid with more modern equipment than anything we can produce here.[64]

60. Ibid.

61. Ken Roberts, "RCAF Air Division," *Airforce*, XII (October–December 1988), 20. Roberts was employed as a public affairs officer at the Air Division Headquarters in Paris and Metz from its beginnings in the winter of 1952 until the completion of the air division on the continent in April 1955.

62. For details of this remarkable accomplishment and the subsequent "leapfrogs," read Milberry, *The Canadian Sabre*, 103–19.

63. Special Air Members Meeting, Item 904, held May 29, 1952, File 73/1223, Raymont Papers, Volume 1823, DHH. In addition to the production of modern jet fighters that were to be available to RAF squadrons by 1955, the British government also committed to a nuclear strategic-bomber programme independent of the US. This initiative led to the production of the "V" Bomber force of Valiants, Victors and Vulcans. See M. J. Armitage, Air Marshal, and R. A. Mason, Air Commodore, *Air Power in the Nuclear Age, 1945–84: Theory and Practice*, (London: MacMillan Publishers, 1983), 193–95.

64. Group Captain Hugh Dundas, "The RCAF Returns to Britain," *Daily Express*, November 16, 1951, Claxton Papers, RG 24, Volume 110, LAC.

In his address to a joint ceremonial parade of Canadian and British airmen on November 15, 1951, Dana Wilgress pointed out that North Luffenham was the first Canadian air force station in Britain since June 1946. Ever sensitive to Canadian politics, the Canadian High Commissioner reminded his audience that the RCAF was in the UK for the defence of the whole North Atlantic community, not just of the British Islands. He added that Canada intended to carry out its obligations to NATO with more bases to be built for the remaining RCAF wings on the European continent to operate as an integral part of forces under General Eisenhower.[65]

Construction of RCAF bases on the continent and the RCAF planning team

The selection and construction of the RCAF air bases in France and Germany proved to be the most challenging tasks for Canadian airmen. A *Life Magazine* article read by the Air Staff in July 1951 spurred them on to consider the needs to get their bases established on the continent and portended the nature of difficulties they were to encounter:

> The second critical military problem is summed up in a graceless word, *infrastructure* [italics in original], now incorporated into international jargon of SHAPE. Infrastructure signifies all the housekeeping matters entailed in maintaining armies in being. Delay in infrastructure has been evident in all the Allied countries, partly because of disagreements over division of costs, but in France particularly the laxness has bordered on disgrace. About 100 air bases have to be built in West Europe, the bulk of them in France, and work has hardly begun. France, being a country of small properties, the building of an air base with a two-mile [three-kilometre] runway can entail buying or requisitioning property from as many as 100 landowners. Admittedly that was a ticklish job for a weak government on the verge of national elections, but the consensus at SHAPE is that France has done less than the expectable minimum. At one time U.S. Air Force reinforcements, now on their way to France, were going to be routed to Britain, because no French housing was available to them. As it is, they will go to France—and will live under canvas. Before the weather gets cold and wet, housing will have to be provided or there will be an angry barrage of attacks from the floor of the U.S. Congress.[66]

This article demonstrates, at an early date in alliance history, American frustration and impatience with the French. This administrative dispute over air base construction fuelled existing Franco-American animosity and misunderstanding. Fundamentally, the Americans could not understand France's cultural and domestic political complexities. As an example, they were insensitive to France's concerns over the future of West German rearmament and reunification. For its part, France was reluctant to acknowledge US economic and military assistance and was never completely comfortable with US strategic policy. This Franco-American feud was most unfortunate for existing and future alliance solidarity.[67]

The RCAF understood both the urgency and necessity of cooperating with the French if they were to move to their assigned airfields in a timely fashion. A senior member of the Air Staff wrote: "to stress the importance of coming to grips immediately with [RCAF] infrastructure problems in continental Europe ... not a day should be lost if we intend to locate RCAF units on the continent according to plan [that] gives us barely more than one year's time."[68] The RCAF was to complete four continental air bases by 1954, with the first wing to be made available by September 1952.[69]

In an internal Air Staff memorandum, G/C Luke explained that the small number of RCAF officers currently employed under General Norstad at AAFCE was too busy to look after national needs. The solution was the establishment of a small team of RCAF personnel to make an immediate start

65. *The Times of London*, November 16, 1951, special correspondent at Stamford, Claxton Papers, RG 24, Volume 110, LAC.
66. Article in *Life Magazine*, July 16, 1951, RG 24, Accession 1983–84/216, Box 1278, LAC.
67. For details on this matter, read Keirstead, 85–101; and Fursdon, 78–100.
68. Memorandum from Group Captain E. C. Luke, Chief of Logistics Planning, to Deputy Air Member for Technical Services, dated July 20, 1951, RG 24, Accession 1983–84/216, Box 1278, LAC.
69. Ibid.

with a detailed development of national infrastructure requirements based upon a local assessment. While this team would work independently of SHAPE and AAFCE, its members would continue to liase with these two headquarters. Specific practical recommendations were needed that covered the "how, where, when, and who." The RCAF also needed to know how much of the construction was to be charged to Canada. This team was to be available to coordinate the work, inspect and report progress, and cope with bottlenecks. Once it had completed its initial planning functions, the team would be absorbed into the RCAF Air Division Headquarters when it formed.[70] As it turned out, the CAS, at a meeting of the Air Members on October 24, 1951, accepted Luke's recommendations. They became the genesis of the RCAF Air Division (Europe) Planning Team that was formally established on December 27, 1951.[71]

The chief of staff for the planning team was G/C Hodson, who was a logical candidate based upon his wartime experience commanding an RCAF wing in the RAF's 2nd TAF. In addition to his operational background in tactical air support, Hodson was also an experienced post-war RCAF staff officer specializing in strategic planning. Once the Canadian government had announced its commitment to the Air Division, Hodson's focus centred on RCAF operations in Europe. As mentioned above, he had attended the briefings in SHAPE and AAFCE in May 1951 with A/V/M Smith.

The functions of the planning team under Hodson's direction were four-fold: to assist a specialist team working for the Canadian Ambassador to France to undertake the negotiations for the first RCAF base, to study AAFCE operating procedures and organization and advise AFHQ in order that the development of the Air Division proceeded according to NATO guidelines, to arrange with USAF for the necessary integration of the maintenance and logistic services, and to plan for the physical establishment of RCAF units on the continent. On matters involving governmental policy, the planning team reported to National Defence through the Chairman, CJS(L). On operational, organizational and administrative matters concerning the Air Division, the planning team reported directly to AFHQ.[72]

The eventual success in getting first three—and then all four—wings of the Air Division established in France and Germany was a result of teamwork by National Defence, External Affairs and Defence Production. Besides Hodson and his team as well as the Canadian Joint Staff in London, specific credit must go to several senior public servants. They include George Vanier and T. C. Davis, the Canadian ambassadors to France and Germany, and Dana Wilgress. To the latter group one can add Albert Deschamps, the Director, European Operations, Defence Construction (1951) Limited (DCL). This Crown company, a branch of the Department of Defence Production, contracted him.

Hodson arrived in Paris in early January 1952 and set up a temporary headquarters on the Avenue Montaigue, located just off the Champs-Elysees and next door to the most fashionable Paris dress shops. These elegant quarters that had once served as a palatial home were supposedly chosen based upon availability as opposed to an RCAF penchant for elegance. Lacking North American heating standards, these classy digs provided little protection against the damp and cold European winters.[73]

Hodson understood that the RCAF was to be assigned four wings: two in eastern France and two in southwestern Germany. Ambassador Vanier had already been authorized to enter into negotiations with the French government for the RCAF wing at Grostenquin, located in Lorraine. However, Hodson was also briefed on the other three airfields recommended by SHAPE for RCAF occupancy. They were located at Thionville, France, as well as Pferdsfeld[74] and Zweibrucken in Germany (see Figure 4-2). He lost little time in visiting these airfields. He was anxious to confirm that they met both SHAPE and Canadian standards.

70. Ibid.
71. Minutes of the 139th Meeting of Air Members, Item 793, held October 24, 1951, File 73/1223, Raymont Papers, Volume 1822, DHH.
72. Implementation Directive 74 – RCAF Air Division (Europe) Planning Team, dated December 27, 1951, RG 24, Volume 6167, File 2, LAC.
73. R. V. Dodds, "A Decade Under NATO Flag," *Roundel* 14, No. 7 (September 1962): 10.
74. The German spelling "Pferdsfeld" is maintained in this publication except where it appears in quoted passages with the Anglicized spelling "Pherdsfeld."

Figure 4-2. Proposed RCAF air wing locations 1952

Also in the back of Hodson's mind was what A/M Curtis had told him before his departure for Europe. The CAS emphasized that tight timelines demanded that the planning team take into account from the beginning the overall picture of Canada's basic commitment to four airfields in Europe rather than only the first specific field at Grostenquin. In order to avoid delays, the CAS wanted Hodson to concentrate on the technical issues and leave the diplomatic negotiations to External Affairs officials.[75]

Demonstrating both energy and resourcefulness, Hodson managed to visit all four proposed sites as well as Headquarters AAFCE by the end of January 1952. Before the month was up, he also found the time to dispatch a series of letters to the Air Staff in which he described personnel matters, updated negotiations and briefed the latest concept of fighter operations for the RCAF in NATO. In his first letter, Hodson wrote very colourful but somewhat naive descriptions of the French and German cultures as well as the physical characteristics of the countryside in which the bases were found. He concluded simply "things are different here":

> Zweibrucken is the only field, at the moment, near a large city. Pherdsfeld is in country very similar to the Caledon hills, north of Toronto, and sits right on top of a hill. It is 15 miles [24 kilometres] up a winding road from the nearest town of Bad Kreuznach (25,000). Grostenquin is forty miles [64 kilometres] from Metz which is a reasonable city of 70,000. But there is very little around the aerodrome. Lorraine is a rich agricultural province with the mining basin of the Moselle Valley added. But Lorraine villages have to be seen to be believed. The richest farmer has the largest pile of manure steaming outside his front door. Chickens walk in and out of the house and the women draw water from the single village pump. There are some very large farm houses around Grostenquin, but when I asked the French engineer if it would be possible to billet people in these houses, he assured me most vehemently that our people would not like it ... .[76]

75. Memorandum from Curtis to Foulkes dated December 17, 1951, RG 24, Accession 1983–84/216, Box 1278, LAC.
76. Letter from Group Captain Hodson, Chief Staff Officer, RCAF Air Division (Europe) Planning Team, to CAS, entitled "RCAF Air Division – Europe – Personnel Matters, dated January 28, 1952, RG 24 Volume 6167, File 2, LAC.

Hodson did provide useful recommendations with respect to making Canadian personnel more comfortable in these foreign countries. He also gave his version of local politics. His impression was that the French admired the Canadians and were pleased to see them. Hodson stated that northeast France was conservative, including the miners, and contained little communist sentiment. He saw no difficulties for the integration of Canadian airmen in the French regions where the RCAF bases were being built. In contrast to his views on the French, Hodson wrote that he was not qualified to assess the situation in Germany, except that "the American report is that the Germans are most correct in every way."[77]

While the personal welfare of Canadian servicemen was clearly important to Hodson, it was interesting that he did not see his wartime experience with respect to the care of servicemen as necessarily being a template for those serving overseas in peacetime:

> Officers and airmen should get some language training and should arrive with a book of words. They should be carefully briefed as to their mission. France and Germany are very politically minded. It is not too soon to consider following the Canadian Army pattern in regard to personnel indoctrination. A practical way of doing this would be to have the base commander or the senior administrative officer who have presumably been over here with an advance party and have explored their area return to Canada and brief their personnel. However, the main point would seem to be that a strong effort must be made to provide wholesome activities for personnel on the base. That was AMPs [Air Member for Personnel] policy when I left Canada. What I have seen strengthens the requirement for such a policy. Along with the physical equipment for sports and recreational activities goes the requirement for officers with imagination who can make a lot of what they can find in the country. Experience in the last war showed that resourceful Canadians could get along in most places although we had powerful support from the Auxiliary Services, food parcels and cigarettes. But it is hard, again, to forecast the reaction of the peacetime airman.[78]

He made an impassioned plea for Canada to forsake the British military support organization (Navy, Army and Air Force Institutes [NAAFI]) and, instead, integrate the Canadian military with the American personnel exchange (PX) system. This was a direct result of the poor quality of support Canadian forces had received from NAAFI during the Second World War. On the other hand, Hodson could not have been serious when he argued that the availability of American candy bars was integral to the overall US-Canadian doctrine of maximizing common supply lines:

> Rumour here has it that the Canadian Armed Forces Institute will not set upon the Continent and that we are approaching the NAAFI to take care of us. You will immediately hasten to say that the NAAFI is much improved over performance shown in the last war. It would need to be. But what happens in the event of another war? Our strongest argument for joining an American formation here has been the common Atlantic supply line. Violation of that argument, even in the matter of chocolate bars, weakens our overall position. May I be assured that every consideration has been given to requesting the use of the American PX?[79]

On a more serious note, Hodson's insistence that the RCAF in Europe not be subordinated to the British military personnel support system was another lesson learned from the Second World War. Early on in that conflict, the RCAF overseas had to rely upon the RAF for personnel support, including pay, administration, and health care. In several cases, notably the treatment of aircrew suffering from the mental stresses of combat flying, the RAF's choice of disciplining individual aircrew as opposed to treatment was a bitter memory for RCAF veterans.[80] The second recommendation that was accepted and became an integral part of Air Division life after 1952 was the authority for service members to bring over their families and the removal of restrictions to employ female military personnel overseas in Europe. Hodson stated that "with the possible

77. Ibid.
78. Ibid.
79. Ibid.
80. English, *The Cream of the Crop*, 81–102.

exception of Zweibrucken, and even here the language barrier argues for its inclusion, all our bases can be classified as isolated ... . In my personal experience, the best way to keep an isolated station contented and on a sane, healthy basis, is to include Service women and dependents."[81]

Canadian concerns over the timely construction of RCAF airfields quickly added to pressures exerted on G/C Hodson. Wilgress passed on political direction from External Affairs:

> Our primary purpose is to ensure that any airfield which the RCAF may be required to use should conform, in operating facilities at least, to RCAF operating standards. As there can be no assurance that the RCAF will operate only from airfields initially assigned to it, we would prefer to see suitable operating facilities provided at all airfields being developed under the infrastructure programme in order that we may be protected against a possible future redistribution which would assign us to an airfield not meeting RCAF operating requirements.[82]

The Canadian media was also expressing concern:

> General Eisenhower's military planners had just completed a comprehensive survey and report on NATO airfields after 90 days of work ... problems in completing report included the fact that the member countries had not even made final troop commitments yet ... public criticism of the Europeans, notably the French, for "dragging their feet" on air base construction ... . General Alfred Gruenther, Eisenhower's COS [Chief of Staff], was quoted as saying that land for the majority of the 50 bases planned for France had yet to be bought by the French government ... plan is to use existing airfields and construct new ones, but even the former need runways to be extended to 8,000 feet [2,438 metres] ... . European aviation engineers point to the political power of Europe's organized peasantry as roadblocks to the construction of airfields and that it takes 18 months for negotiations ... .[83]

Hodson acknowledged the RCAF was at the mercy of the vagaries of the French construction industry. After all, the NATO Forces Act gave France sole responsibility for the construction of the Canadian bases on its soil. But with the help of Deschamps from DCL, Hodson instituted Canadian controls over the building progress. As a minimum, the French were to submit, before starting work, their proposed time schedule and their estimate of their ability to provide the materials, labour, and contracting facilities needed. They were also to provide weekly progress reports. Furthermore, there was to be Canadian oversight of the projects and joint (Canadian/French) discussion on the progress made as well as ways and means of overcoming delays.[84]

Initial RCAF concept and area of operations

Of major interest to the CAS and the Air Staff was the update on the AAFCE proposed airpower roles as well as the command and control arrangements for the RCAF in Europe. The AAFCE plan called for the RCAF to operate under the TAF, which was an allied tactical air headquarters twinned with the US 1Air Force. Both organizations were to be commanded by Major General Strother, USAF. TAF was to be built around 1 Air Force Staff, with the addition of French and Canadian personnel. TAF had been assigned two areas; the northern area concerned the RCAF. This area lay eastward of a baseline joining Beauraing (on the Franco-Belgian border south of Namur) and St. Dizier, and between lines running from Beauraing through Bonn and from St. Dizier through Speyer (also on the Rhine). The eastern end remained open (see Figure 4-3). The four RCAF bases as well as a number of US F-86 and F-84 bases were located in this area.[85]

81. Ibid.
82. DEA message to the High Commissioner for Canada, London, England, entitled "Council Deputies Consideration of Airfield Operating Standards," dated January 21, 1952, RG 24, Claxton Papers, Volume 109, LAC.
83. "Problems in Getting NATO Airfields," *The Globe and Mail*, January 28, 1952, RG 24, Claxton Papers, Volume 107, LAC.
84. Letter from Hodson to CAS, January 28, 1952, RG 24, Volume 6167, File 2, LAC.
85. Letter from Hodson to CAS, January 30, 1952, RG 24, Volume 6167, File 2, LAC.

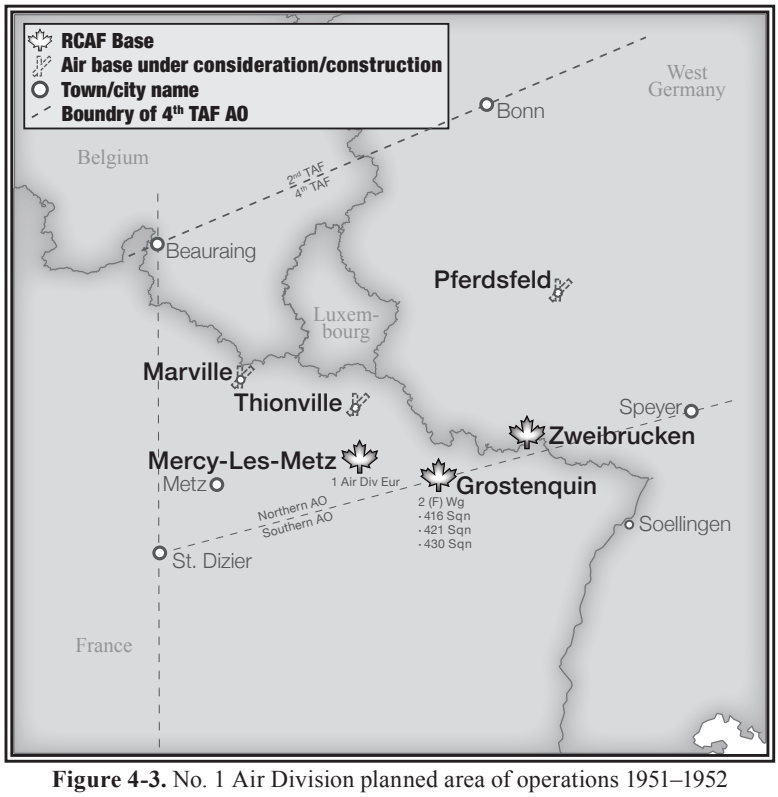

Figure 4-3. No. 1 Air Division planned area of operations 1951–1952

AAFCE's tactical concept was for the F-84 to strafe enemy airfields, while the F-86 was to be used for air defence and bomber escort. For this reason, the F-86 airfields were spread over the TAF area of operations at 60-mile [96-kilometre] intervals, spaced as evenly as aerodrome availability permitted. To Hodson, it appeared that the AAFCE planners had selected these airfields as a map exercise without actually walking the ground. It was strongly reminiscent of AFHQ planners' plotting of radar sites in Canada.[86]

Hodson confirmed previous suspicions held at AFHQ that USAF viewed national and alliance air-power priorities differently. The Americans told him that the US F-86 squadrons allocated to the TAF area were not wholly available to AAFCE because they were primarily to protect US bomber bases in the UK. The Americans obviously wanted maximum protection for their tactical and strategic bombers in Europe. This priority became even more critical when both US bomber forces had a nuclear capability. American staff officers in AAFCE were already becoming frustrated with conflicting NATO and USAF air-power priorities. Particularly annoying to American airmen working in AAFCE was not always being kept informed as to the intentions of US forces in Europe.[87]

As it turned out, American airmen in Europe would forever be caught in the middle of national and alliance doctrinal differences. This had much to do with an intra-service struggle between strategic-bomber barons and fighter-bomber pilots. It quickly became apparent to NATO planners that it was in the best interests of the alliance to assign priority to the protection of its US tactical nuclear forces as it was to protect US strategic nuclear forces. This was to become a priority for the RCAF Air Division as well.[88]

AAFCE planners wanted to make the RCAF Air Division responsible for the air defence of the TAF area with US squadrons assisting when available. There was to be some requirement for bomber escort work, which Hodson welcomed. Noteworthy for the RCAF was that AAFCE planners did

86. Ibid.
87. Ibid.
88. Ibid.

not assign the Canadians a ground-support role at this time. In fact, no such role was contemplated for the RCAF before 1954. Given this direction, Hodson made three recommendations: the RCAF should concentrate on the air-defence role, it should add equipment such as long-range tanks that were needed for escort work, and it should forget about the ground-attack role for the next 12 months. By that time, the Canadians would be working within TAF with the option to plan realistically for entry into the ground-attack field.[89]

Group Captain Hodson also received a good idea about command and control within TAF from its USAF commander, Major General Strother. Since it impacted on national sovereignty, Hodson was well aware that this subject was important to CAS and to Canadian political leaders. Strother assured Hodson that very considerable control was to be delegated to the AOC of the RCAF Air Division because of the homogeneous nature of the air-defence assignment, which was almost entirely RCAF.[90] This was music to Hodson's ears. Strother had confirmed that the RCAF would be assigned a senior command and control responsibility that senior Canadian airmen had been looking for, but had never achieved, in the previous war. Hodson consequently recommended to CAS that Canadians needed to exploit this opportunity to the utmost. To ensure the RCAF had national input at headquarters, he reminded the Air Staff that Canadians were expected to contribute heavily to both the TAF headquarters and its tactical air control centre (TACC). The RCAF had already made a start toward this end by designating G/C Cox, RCAF, to be employed at this tactical headquarters so that he could work out within that organization the details of RCAF operational requirements.[91]

Another important tactical issue that needed to be addressed was airfield defence. In the opinion of G/C Johns, a senior construction engineering staff officer who joined Hodson in Europe, a minimum of 36 anti-aircraft gun positions, covering a wide circle, were required for each RCAF airfield. Johns added that the forward location and the terrain of the proposed RCAF wings left them vulnerable to low-level attacks. Such attack profiles were not detectable by RCAF radar then available. Even so, while Johns concluded that the possibility of major destruction by unopposed low-level attack could not be ignored, he stressed that this threat could be considerably lessened by vigorous anti-aircraft defence.[92]

AAFCE planners felt that a force of 500–600 men was essential to guard each base and that the provision of such a force was a national responsibility. Hodson rightfully concluded that neither the French nor American Armies assigned to the TAF area of operations would provide this protection. These land formations were already stretched to the limit to support their own national air units. Consequently, Hodson felt that there was no other recourse than to appeal to the Canadian Army for help in this regard. He knew such a course would not be popular but felt that some satisfaction could be derived from having the "Army work for the RCAF." In any event, this matter had to be resolved.[93]

Limiting the air-power roles of the RCAF Air Division to air defence and escort were approved by CAS in a letter sent to Hodson dated February 19, 1952. However, in this letter the CAS did not rule out the option of performing other roles in the future.[94] Hodson also got answers to his queries regarding personnel in a letter from A/C Wray, future AOC of the Air Division. All formations were informed of the serious lack of accommodation for dependents overseas and the importance of leaving dependents in Canada until suitable accommodation had been obtained. Wray also indicated that AFHQ was supportive of Hodson's argument that the tour length of RCAF personnel in Europe could be extended to three years or more if they could bring their dependents with them. This policy resolved the logistical and operational problems associated with the need to rotate unaccompanied personnel after a one-year tour.[95]

89. Ibid.
90. Ibid.
91. Ibid.
92. Memorandum from Group Captain C. F. Johns, Deputy Chief of Construction Engineering (D/C/CE), to AMTS, December 17, 1951, RG 24, Volume 6167, File 1, LAC.
93. Ibid.
94. Letter from Air Marshal Curtis to Group Captain Hodson, February 19, 1952, RG 24, Volume 6167, File 2, LAC.
95. Letter to Hodson from Air Commodore Wray, for CAS, 21 February 1952, RG 24, Volume 6167, File 2, LAC.

The "Lisbon" Force goals

In early 1952, the Air Staff learned that the government had authorized a change to the composition of the RCAF Air Division. At a Cabinet meeting on January 17, 1952, it was decided to increase the number of squadrons committed to NATO by 1954 from 11 to 12, with the initial number of Sabres per squadron set at 16 as opposed to 25. This "increase in forces" that, in reality, still kept the number of fighters for NATO at 192 for at least a year, was announced to the North Atlantic Council at its meeting in Lisbon on February 20, 1952.[96] This meeting marked a watershed within the North Atlantic Alliance for several reasons. At the political level, there was agreement on a plan that would see West Germany contribute forces to the alliance through the proposed EDC. This plan satisfied a key American demand that the future deployment of US forces in Europe hinged upon the Germans being allowed to contribute forces to the alliance. It also allayed French concerns over the rearmament of Germany by placing the latter within a European command. Another political success was the accession of Greece and Turkey to the North Atlantic Treaty on February 18, 1952.[97] These significant achievements were, unfortunately for the alliance, overshadowed by concerns over the ability of NATO countries to meet the ambitious force levels previously agreed upon in the Medium Term Defence Plan for 1954.[98]

The European members, including "power houses" France and the UK, admitted that the proposed force levels were unrealistic and that funding for the necessary defence and industrial expansion would imperil their economic recovery. To the chagrin of the Americans wanting maximum defence spending by all members, assisted by US and Canadian mutual aid, it was agreed that NATO did not have the ability to furnish 90 divisions and 20,000 combat aircraft by 1954. Consequently, the alliance limited its post-Lisbon announcements to the expected force goals to be built up by the end of 1952. These were to include a considerably more modest 50 divisions, 4,000 aircraft and "strong naval forces."[99]

On leaving Lisbon, Canadian representatives were satisfied that, unlike most other member countries, Canada had maintained its promised contribution to the alliance force levels; subsequent discussions in Parliament and in the national media demonstrated that not all Canadians shared this position. Those more informed on defence matters understood that even the reduced force levels announced at Lisbon were totally unrealistic. Just to meet the announced total ground forces alone would have required an additional 25 divisions. This begged the obvious question as to which member country would provide them. The *Globe and Mail* answered "not from France, which has been allowed to cut its quota from 14 to 12 divisions, ... not from West Germany, which, with the utmost speed, can hardly have any troops ready until 1953, ... not from the United States or Britain, judging from their announced military plans."[100]

In Parliament, criticism of the Lisbon force goals came unsurprisingly from the Conservatives. The Conservative Party and its loyal media criticized the Liberal Government for spending too little on both its alliance commitments and for the defence of North America. They argued that Liberal defence spending limits were the consequence of running a defence department that was inefficient and rife with patronage. In contrast to the Conservatives, the Cooperative Commonwealth Federation and French Canadian MPs felt that NATO had exaggerated the threat and that the member countries needed to reduce defence spending in favour of bolstering national social welfare programmes.[101] In the end, this criticism of foreign policy that ran the entire length of the political spectrum did not mean much to a Liberal Party with a parliamentary majority. As explained later on, however, the force goals set in Lisbon were relevant because they would mark the limits of Canada's subsequent land and air contributions to NATO's Central Region.

96. Eayrs, *In Defence of Canada, Vol IV*, 220–24.

97. See NATO texts of "Final Communiques," Volume I, 1949–1974 (Brussels: NATO Information Service, 1975), 68. As it turned out, the idea of the EDC died in 1954 when the French government did not ratify it. The irony of France's refusal to endorse the EDC was that it opened the door for the accession of West Germany to the North Atlantic Alliance in 1955 and the integration of its military forces within NATO.

98. Fursdon, 127–43.

99. Ismay, 47.

100. Editorial, *The Globe and Mail*, March 15, 1952, quoted in Masters, 154.

101. Masters, 155–59.

While the projected force levels established at Lisbon were never achieved, Canadians would never cease questioning the size and nature of their military contribution in Europe. At the national political level in the early 1950s, the preferred military capability in NATO was air power. On April 3, 1952, Brooke Claxton reminded Parliament that much needed to be done to ensure the security of Western Europe, but he added that the alliance was making great strides to reduce this concern, thanks in large part to the growth of NATO air power. Claxton quoted General Eisenhower, who referred to air power as the dominant factor in a war. "That was the reason," the defence minister concluded, "why in the Canadian programme we put the greatest emphasis, and spend by far the greatest proportion of the defence dollar, on the air force."[102]

If Canadian airmen were comforted about such a political endorsement, they were more immediately preoccupied at Lisbon to come up with a plan to build the Air Division within the planned time frame. The Canadian delegation at Lisbon briefed their latest schedule for the RCAF occupancy of the four wings in Europe. Their plan left little time, in that the RCAF intended to deploy three squadrons to Grostenquin in September 1952. This was less than six months away. The next deployments were to the two proposed German sites: Zweibrucken in March 1953, followed by Pferdsfeld in August 1953. The last deployment was to be to Thionville, near the French-Belgian border, in March 1954, following the move of 1 Wing from North Luffenham.

The two airfields in France—Grostenquin and Thionville—were to be funded by NATO infrastructure funds. However, National Defence wanted the Canadian delegation to confirm how the air fields planned for Germany were going to be paid for and by whom. Since Germany was still a country "under occupation" and paying reparation costs from the Second World War, the NATO infrastructure funding formula did not apply. The RCAF delegation at Lisbon was also instructed by the Secretary to the CSC to bring to the attention of SHAPE officials the problems that the RCAF planning team had identified with respect to the suitability of Pferdsfeld as an RCAF air field and to establish possible alternatives:

> Before accepting the airfield at Pherdsfeld the RCAF would like assurance that SHAPE has recognized the operational limitations of the airfield at Pherdsfeld located as it is on top of a hill and subject to low cloud conditions; and that SHAPE is aware of the practical difficulties in improving this airfield to SHAPE standards. If the RCAF does not accept Pherdsfeld what alternative sites could be made available and what are the implications in each alternate site?[103]

Over the course of the next year, these two subjects, the funding formula for the RCAF air fields in Germany and the location of the second RCAF airfield in that country, would occupy a considerable amount of time of Canadian airmen, senior public servants, and politicians. For several reasons, it is useful to follow the deliberations regarding these issues. First, they reveal the reluctance on the part of the Canadian government to pay its share of costs for maintaining military forces in Europe. Second, the location and funding of RCAF airfields in Germany were related to the sensitive issue of the status of Canada's military forces in Germany while the latter were subject to the authority of the Allied High Commission and the Occupation Statute until the Germans joined NATO in 1955.

The legal status of Canadian forces in Europe

The issue of the official status of Canadian forces assigned to NATO's integrated force was one of extreme sensitivity for Canada, the West German government, the occupation powers, and the remaining Western European members of NATO. Canadian policy required a clear distinction between occupation duties and legitimate tasks in support of the alliance. Preparing for the arrival of the Canadian Brigade in Germany in October 1951, Lieutenant-General Simonds, Canadian Chief of the General Staff (CGS), reassured German Chancellor Dr. Adenauer that Canadian troops were to be stationed in Germany under NATO auspices to strengthen the defence of Western Europe and were not to take part in occupation duties. Simonds also stressed that the financial

102. Quoted in Eayrs, *In Defence of Canada, Vol IV*, 225.
103. Message from the Secretary CSC to Canadian Delegation in Lisbon, dated February 20, 1952, RG 24, Claxton Papers, Volume 107, LAC.

arrangements were to ensure that the cost of maintaining Canadian troops was to be borne in full by Canada and was not in any way to be a burden to the German economy.[104]

Problems developed when Adenauer, with the interests of his people in mind, saw in the Canadian case an opportunity to end his country's occupation by countries with which it shared the same goal of defending Western Europe from communist domination. Adenauer viewed the status of Canadian forces differently from those of France, the UK, and the US. To the German leader, the latter were in Germany under the Occupation Statute, while the Canadian troops were there strictly as part of NATO forces. The French and Americans were quite angry with this development and were most concerned that the German government would use the Canadian example to remove their obligations as an occupied country. They specifically insisted that the control over movement of occupying forces be left out of German authority.[105]

Prior to the dispatch of the first elements of the Army Brigade, the Canadian government wanted confirmation from the Allied High Commission that Canadian forces would not have any occupation duties and would not add to occupation costs. The Canadians also wanted assurances that they would be notified of any planned changes to the Army Brigade's assigned NATO role and location. On the other hand, the Canadian government also wanted confirmation that Canadian forces, Army and Air Force, stationed in Germany would be immune from German law.[106] The latter request was made with the understanding that its approval could only be granted under the Occupation Statute. In other words, the Canadian government did not want to be seen as an occupying power in Germany, yet it wanted guarantees of legal protection that could only come by being one. This paradox was reflected in correspondence between Lester Pearson and the Canadian Ambassador to Germany:

> This [message is] to confirm that the 27 CIB [Canadian Infantry Brigade] Group will from the time of its arrival in Europe form part of the Integrated Force under General Eisenhower and will be placed in Germany with the concurrence of the Allied High Commission at present competent defence authority in Germany ... their activities will be limited to defence purposes under the North Atlantic Treaty and their presence will not add to the occupation costs ... . UK High Commissioner legal position regarding Canadian forces [is that they] would have same "immunities" as Occupying Powers without being referred to as occupying power because the Occupation Statute includes "auxiliary contingents" of other Powers serving with the Occupying Powers.[107]

Notwithstanding the desire that their forces stationed in Germany be considered solely as part of NATO, Canadian officials had to accept the fact that its forces were there under the authority of the Occupation Statute. However, such an admission would have been difficult to explain to the Canadian public that was previously told by its government that its forces were deployed to Europe strictly as part of the collective deterrence provided by the North Atlantic Alliance. Unfortunately for the Liberal Government, its ambiguous status in Germany would raise more problems in the future.

If the legal status of Canadian forces in Germany was a national dilemma, Canada's approach angered her allies. The occupational powers were embarrassed by media reports portraying them as exploiting the Germans while the Canadians were described as cooperative customers who paid their bills to their German hosts:

> The Canadian troops are the first NATO troops actually to "pay their way," right down to the casual purchase of petrol. The British and American forces, as occupying Powers, have been requisitioning accommodation and training areas from the Germans over the past six years and have paid for these facilities and for food and supplies with what the civilian population calls "cheap marks." The phrase refers to the special rate of forty to the pound, as against the legal rate of twelve, making occupation costs in effect a levy on the Budget of the Federal Republic.

104. Message from Simonds to the Chairman of the CSC (through Canadian Ambassador in Paris), "Status of Canadian Forces deploying to Germany as part of NATO Integrated Force," dated October 12, 1951, RG 24, Claxton Papers, Volume 107, LAC.

105. Ibid.

106. Message from A. D. P. Heeney to Canadian Ambassador in Bonn, October 15, 1951, RG 24, Claxton Papers, Volume 107, LAC.

107. Message from the Secretary of State for External Affairs to Canadian Ambassador to Germany, October 30, 1951, RG 24, Claxton Papers, Volume 107, LAC.

> The Canadians are making all purchases at twelve marks to the pound or four to the dollar and have adopted a policy of buying as much as possible in Germany and bringing in the minimum from Canada, first for goodwill reasons and secondly as an aid to maintaining the German dollar balance. Claxton's policy was one of promoting friendship with the German people.[108]

In contrast to the UK government, the Canadian government no doubt enjoyed such coverage. Even so, the image that the Liberals wanted portrayed, that Canada was "paying its way" for alliance defence costs, was a chimera.

The position of the Allied High Commission was that NATO costs in Germany were part of the occupation costs paid by that country and not partitioned as part of infrastructure costs. For their part, the Germans wanted the costs to be part of their contributions to the proposed EDC.[109] With respect to the required development for RCAF air fields on the Continent or in the UK, correspondence between Lester Pearson and Dana Wilgress in March 1952 clearly showed that the Canadian government was willing to pay for ongoing maintenance and supply but had no intention of paying the construction costs:

> Position regarding construction of RCAF airfields ... we take view that it is up to SHAPE to ensure cooperation of French and other governments to ensure that we have airfields and necessary accommodation by planned date ... airfields in Germany should be provided up to minimum SHAPE standards without expense to us ... as regards North Luffenham, Cabinet takes view that cost of rehabilitating airfield and accommodation and any new construction should be borne by the RAF as this is a permanent installation and of use to them ... we should pay for all costs of maintenance and all supplies.[110]

The external affairs minister repeated this policy to T. C. Davis in July 1952:

> Canada has undertaken to pay the maintenance costs of its forces stationed in Germany but it is the view of the Canadian government that we should receive equal treatment with other nations in the provision of capital facilities and that allocations from the occupation and defence budgets for these purposes should be made accordingly. [Deutsche mark (DM)] 24 million to be made available for the construction of the Zweibrucken airfield set aside from the French allocation from the Occupation Budget.[111]

The concern of External Affairs was that the occupation period was to end on October 31, 1952, after which there would have been no further occupation funding for Canadian construction.[112]

The RCAF bases on the European continent take shape

By the late summer of 1952, G/C Hodson and his planning team were satisfied on the progress made with respect to Grostenquin and were confident that it was to be available for No. 2 RCAF Fighter Wing in October 1952. At Zweibrucken, construction was going ahead satisfactorily following confirmation that the cost of DM 30 million was coming out of the French portion of the occupation budget. There was little doubt that its availability for RCAF operations by April 1953 was in any jeopardy.

The problems for Hodson were that Pferdsfeld was unacceptable to the RCAF and the proposed site in the Thionville area was not ideal. Therefore, two new suitable airfields had to be located. At that time, his staff was looking at possible sites in Luxembourg and Germany. Concurrently, the Canadian ambassador in Bonn made representations to the Allied High Commission for funds in the amount of DM 30 million for a second RCAF wing in Germany. Ambassador Davis needed

108. "Canadian Brigade Pays Its Way in Germany – Emphasis on Defence not Occupation," *Manchester Guardian*, January 12, 1952, RG 24, Claxton Papers, Volume 107, LAC.
109. Memorandum to Claxton from the Deputy Minister, Department of National Defence, March 10, 1952, RG 24, Claxton Papers, Volume 107, LAC.
110. Letter from Pearson to High Commissioner for Canada in UK, dated March 13, 1952, RG 24, Claxton Papers, Volume 107, LAC.
111. Letter from the Secretary of State for External Affairs to Canadian Ambassador in Bonn, dated July 14, 1952, RG 24, Accession 1983–84/227, Box 21723, LAC.
112. Ibid.

to get this funding before the anticipated occupation period was terminated.[113] On September 22, 1952, Hodson, promoted to air commodore, advised CAS that the proposed site in the Heiderscheidt area of Luxembourg was not viable because it would take two years to build and thus be very expensive; furthermore, it was not operationally sound. There was a drop of 2,000 feet [609 metres] from the site to the railhead 2 miles [3.2 kilometres] away, making it difficult and costly to build a connecting fuel pipeline. Hodson recommended that the RCAF look at the offer of Marville in the Montmedy-Longuyon area, which, interestingly, was near Thionville.[114]

What turned out to be the most difficult decision was the selection of the second site for the Air Division in the French-occupied zone in Germany. It was quite ironic that the final selection would be Baden-Soellingen, clearly the best-built airfield and located in one of the most beautiful areas of the country. It was nestled between the Rhine River and Black Forest mountain area of southwest Germany. It also ended up as the only remaining airfield in which Canada retained fighter squadrons in NATO when the last of these forces were withdrawn in 1993. Yet in 1952, its occupation was never intended to be more than temporary until another airfield further north was completed because SHAPE planners felt that Baden was located too far south of TAF's area of operations.[115]

From the point of view of the Canadian government, operational concerns for the second RCAF airfield in Germany took a back seat to their attempts to get SHAPE to assign Canada a site in time to have it funded from occupation costs. In July 1952, the popular site was at Buchel, near Koblenz. At the same time, Canadian officials were also aware that the French were working on airfields at Baden-Soellingen, Lahr-Offenburg, and Freiburg-Bremgarten.[116] These latter sites were located within 50 miles [80 kilometres] of each other in the Rhine Valley of southwest Germany. A message sent by General Foulkes to Bud Drury, the Deputy Minister of National Defence, following the chairman of the CSC's meetings with Generals Gruenther and Norstad in August 1952, sheds some light on how the Baden-Soellingen option came into the picture:

> Subsequent to my meeting with Gruenther and Norstad, [Air Vice-Marshal] Smith and Hodson had informal discussions with SHAPE infrastructure experts to point out to them all the problems surrounding the Buchel project. During this discussion Smith raised the alternative site at Soellingen near Baden-Baden. This airfield, we have discovered unofficially, is more than 50% complete and as far as can be determined at this time all funds for its completion are already available. The chief French engineer Mr Stahl has indicated that this field is probably the best of all the airfields being built in the French occupied zone. You can see from its location that it is slightly south of the general RCAF airfield complex. AAFCE have been endeavouring to get F-86 airfield more northerly to fill what is considered to be a gap. It was pointed out however to SHAPE representatives that with no airfield available now in the northern sector it would seem preferable to have three squadrons stationed slightly south at Baden-Baden rather than locate these same three squadrons in the northern sector.[117]

In the same message, Foulkes was clearly attempting to use the financial argument to convince the Deputy Minister to have the Canadian government press SHAPE to assign Baden-Soellingen to the RCAF regardless of the operational concerns of that headquarters:

> It may be that SHAPE operational people will not agree to the re-allocation of this field to Canada. Hodson assures me that from an Air Force point of view the field would be satisfactory in so far as the RCAF is concerned and I have advised Smith that if the allocation is not made for the RCAF he has to press this matter with Gruenther. In summary, if Soellingen Baden-Baden could be made available to the RCAF we would be certain of at least three completed airfields by August 1953. The airfield in Luxembourg if it proves acceptable will probably take some eighteen

113. Memorandum to the Cabinet Defence Committee from the CAS entitled "Update on RCAF Airfields," dated August 22, 1952, RG 24, Accession 1983–84/227, Box 21723, LAC.
114. Update on RCAF Air Fields from Air Commodore Hodson to Air Marshal Curtis, dated September 22, 1952, RG 24, Accession 1983–84/227, Box 21723, LAC.
115. Ibid.
116. Letter from External Affairs to Deputy Minister, Department of National Defence, July 21, 1952, RG 24, Accession 1983–84/227, Box 21723, LAC.
117. Message from Foulkes to Drury, August 1, 1952, RG 24, Accession 1983–84/227, Box 21723, LAC.

> months to complete and would not therefore be available until the spring of 1954. Also from a Canadian financial point of view the allocation of a field in Germany more than half completed and financed from occupation budget would seem a satisfactory solution ... please advise CAS.[118]

If the chairman of the CSC's insistence on getting Baden-Soellingen for the Air Division represented the preference of the Canadian military, as of August 7, 1952, SHAPE's position had not changed. It directed that the RCAF is assigned the airfield to be constructed at Buchel. Feeling that Baden-Soellingen was no longer an option and with the understanding that there were problems with the Buchel site, Air Marshal Curtis gave Hodson new instructions. The latter was to have SHAPE authorize detailed site surveys in the areas located between Dreckenach and Moselsuerch, southwest of Koblenz, and between Mauchenheim and Freimersheim, southwest of Alzey, both in the French zone of occupation.[119]

SHAPE had two operational concerns with Baden-Soellingen as a permanent NATO airfield. In addition to it being located outside of TAF's northern area of operations, the fact that it was situated east of the Rhine in southwest Germany made it vulnerable geographically in wartime. All other NATO airfields planned for that region were forward operating bases. As such, aircraft temporarily stationed on these bases were to deploy west of the Rhine immediately after D-Day. The RCAF would, thus, be the only NATO air unit left east of the Rhine.[120] Even so, in a message sent to Paris and Ottawa dated August 9, 1952, SHAPE indicated that it was willing to accept Baden-Soellingen as a temporary airfield for the RCAF if two conditions were satisfied. The French government would have to agree, and the RCAF would have to vacate this site once a more suitable airfield was found. The reason for SHAPE's amended position was that, notwithstanding operational concerns, it wanted the RCAF to have all four wings available to AAFCE by the late summer of 1953.[121]

SHAPE'S plan was accepted by Canada on September 9, 1952, with the necessary financial negotiations to be arranged subsequently.[122] Canadian officials remained careful in their approach with regards to the Baden-Soellingen airfield:

> It is the view of this Department that, for the time being, we should continue to plan on the basis that a second permanent airfield for the RCAF in Germany has still to be found and financed. Although the Air Force would be well satisfied to remain at Baden-Soelllingen on a permanent basis, it is considered unwise to press for permanent allocation, at least until SHAPE has officially stated that this airfield has been temporarily allocated for our use. It is possible that any effort toward obtaining permanent allocation of Baden-Soellingen at this time might result in SHAPE not allocating this airfield to us at all, even on a temporary basis, and we would lose any chance that we might later have of getting this airfield permanently. On the other hand, after the temporary allocation has been formalized and the time when our occupation of the airfield is a little nearer, there is a good possibility that SHAPE and AAFCE plans might be altered sufficiently to permit permanent allocation to the RCAF; after all this airfield is only 15–20 miles [24–32 kilometres] outside of the present ATAF area.[123]

From the perspective of T. C. Davis, a strong argument in favour of taking over Baden-Soellingen was that it would preclude the unpopular task of having to ask for additional funding from the occupation budget. Furthermore, he had no confidence that the airfield option in Luxembourg was going to pan out.[124]

While the RCAF remained uncertain over the future status of Baden-Soellingen and the availability date of Marville for 1 Wing, another milestone for No. 1 Air Division was achieved

118. Ibid.
119. Message sent on behalf of Air Marshal Curtis from Wing Commander Darraugh, EA CAS, to Air Commodore Hodson, dated August 15, 1952, RG 24, Accession 1983–84/227, Box 21723, LAC.
120. Message from the Permanent Canadian Representative to the North Atlantic Council, Paris, to External Affairs, dated February 6, 1953, RG 24, Accession 1983–84/227, Box 21723, LAC.
121. Message from SHAPE to Paris and Ottawa dated August 9, 1952, RG 24, Accession 1983–84/227, Box 21723, LAC.
122. Message from Chairman CJS(L) to Foulkes and Hodson, dated September 9, 1952, RG 24, Accession 1983–84/227, Box 21723, LAC.
123. Letter to the Under Secretary of State for External Affairs from Mr. Drury, September 19, 1952, RG 24, Accession 1983–84/227, Box 21723, LAC.
124. Message from the Canadian Ambassador to Germany to External Affairs, September 22, 1952, RG 24, Accession 1983–84/227, Box 21723, LAC.

with the official opening of No. 2 (Fighter) Wing at Grostenquin on October 11, 1952. The advance parties had arrived between August 15 and September 1, 1952. Yet A/C Hodson did not want the main body and the three squadrons to depart Canada until the middle of October to allow for construction to be completed. In what would turn out to be problematic for the personnel of 2 Wing, Hodson's advice was ignored. After a transatlantic voyage that had originated in St. Hubert on September 28, 1952, 416, 421, and 430 Squadrons touched down on October 11. The Canadian pilots took in their new surroundings with mixed feelings. While they were met by a host of Canadian, French, and American dignitaries, this high-profile reception committee came on a base that still had no hangars, primitive and unheated quarters, contaminated fuel, and runways that were so slippery that they required resurfacing.[125] A month later, the base roads were still under construction and the hangar shops were not ready. Since the central heating plant was not operating, personnel had to endure their first winter resorting to the use of auxiliary heaters. For those who had to live in Grostenquin during the winter of 1952–53, the most striking and memorable challenge was the mud. It was so bad that wooden walkways were built and rubber boots were authorized footwear![126]

Just prior to the opening ceremonies at Grostenquin, another significant milestone occurred on October 1, 1952, when No. 1 Air Division Europe officially stood up as an operational component of TAF. The first AOC was Air Vice-Marshal Hugh Campbell. He arrived in Paris and took over the Air Division on December 11, 1952. Campbell remained in Paris until the permanent site for his headquarters was available. Contracts had been let for this site at Mercy-Les-Metz in September 1952. Metz was in the centre of Lorraine, not far from the First World War battlefield at Verdun. While the expected occupancy for the Air Division Headquarters had been planned for December, the move did not take place until April 1953.

In the meantime, more progress was made with the remaining wings. On October 22, 1952, SHAPE notified Canadian authorities they could enter into bilateral negotiations for the Marville site in the Thionville area, the future home of 1 Wing. Air Commodore Hodson was informed by CAS staff to instruct the Canadian ambassador in Paris to begin negotiations with the French for RCAF occupancy of this base by August 1953.[127] By the end of 1952, therefore, the RCAF had two wings in place at North Luffenham and Grostenquin and was ready to deploy 3 Wing to Zweibrucken in April 1953.

The Zweibrucken airfield originated as a Western Union project. It was then allocated to USAF for further development, and, subsequently, when under NATO jurisdiction, was earmarked for Canada. The target date for the opening of 3 Fighter Wing Headquarters at Zweibucken was February 1, 1953. A personnel build-up plan was developed similar to the programme adopted for 2 Fighter Wing with the wing commander, administration and operations officers arriving with the advance party in January 1953. In light of the experience at 2 Wing, Air Commodore Hodson felt that the forecasted opening date for 3 Wing was unrealistic. On November 24, 1952, therefore, he amended the plan so that 413, 427 and 434 Squadrons would not arrive before May 1, 1953. Greater emphasis was given to technical and supply trades necessary for the maintenance support of flying and to get supervisory personnel on ground as early as possible.[128] In the event, the three squadrons still arrived early on April 7, 1953. They would have arrived even earlier if it had not been for terrible weather conditions experienced during the crossing. The wing had departed Uplands (Ottawa) on March 7, meaning it took a full month to make the transatlantic crossing. This prompted one pilot to comment: "It took us just a little longer than Columbus!"[129]

125. Minutes of the 167th Meeting of Air Members, Item 41, held November 19, 1952, File 73/1223, Raymont Papers, Volume 1823, DHH.
126. For a colourful description by a Canadian airman who experienced these bleak conditions at Grostenquin, see Norman Avery, "Grostenquin Revisited," *Roundel* 16, No. 10 (December 1964): 23–25.
127. SHAPE Message to External Affairs, October 22, 1952, G 24, Accession 1983–84/216, Box 1278, LAC.
128. Letter from Air Commodore Hodson to CAS, August 18, 1952, RG 24, Accession 1983–84/216, Box 3041, LAC.
129. Quoted in Milberry, *The Canadian Sabre,* 266.

In the meantime, plans for Baden-Soellingen were proceeding on schedule, albeit with the understanding that it was still considered a temporary home for 4 Wing. In April 1953, T. C. Davis was under the impression that Koblenz was preferred over Baden-Soellingen. He needed direction from his superiors:

> I would appreciate your views on how much I should be pressing the French military to get on with the requisitioning of Koblenz. Our decision in this is no doubt related to the interest which we may have in settling down in our strategically best location as against the present existence at Soellingen and the disinclination to move from Soellingen very soon after settling down.[130]

While the Canadian Ambassador was making a persuasive argument, the opinion of the Air Staff was to place operational criteria ahead of administrative convenience. The Chief of Plans and Intelligence stated: "I feel that under this circumstance we should press for Koblenz."[131]

The fact that the Air Staff had earlier pressed for Baden-Soellingen, the position taken by the Chief of Plans and Intelligence, appears odd. The explanation was funding. The RCAF wanted the French to press the Germans to begin work on Koblenz because Davis was given a guarantee from the Americans and the French that this airfield was to be funded from occupation costs. The RCAF believed that this was likely the last one so funded since the Germans were to be contributing to the EDC rather than paying occupation costs with the ratification of the latter organization.[132] This issue also became a sensitive one between the French, Germans, and Americans.

For months, the French had been arguing with the Germans over the location of this airfield. The French were bent on getting land from the Germans at Moselsurch, some 20 kilometres south-southwest of Koblenz along the Moselle. The Germans wanted to use a big plateau on the Moselle upriver near Buchel, arguing that land was less valuable for agricultural purposes in the Buchel area. Because it was wooded country and up on a plateau, construction would have been extremely difficult and, if the airfield was built on this high ground, aircraft maintenance and servicing would have been a nightmare. The French also felt that by making payments for defence within the EDC the Germans were being let off the hook for outstanding occupation costs. The French, therefore, expected the Germans to pay the difference, estimated at DM 1250 million. The Americans opposed the French demands on the grounds that it was politically impracticable and that such heavy-handedness would be exploited by those Germans opposed to the ratification of the EDC. Failure to achieve the latter would have prevented the introduction and use of German ground forces by the North Atlantic Alliance, an important American objective.[133]

The matter reached a head in May 1953. Frustrated by the lack of movement in getting the Germans to build an urgently needed airfield, SHAPE directed that the field should be located at Moselsurch. The French, therefore, requisitioned for 500 hectares (some 1200 acres of land) at this site. The problem was that this piece of land was in the constituency of the Minister President of Rhineland-Palatinate. This action was little to his liking. From the difficulties experienced in their own country, the French should have been more sensitive to local resistance to the requisitioning of land for the construction of NATO airfields. The fact that in this instance the land being requisitioned belonged to a provincial premier should have made the French even more cautious in their approach. Accusing the French of running an "occupation dictatorship," the German premier appealed to Adenauer to intervene. The German chancellor sent a letter of protest to SACEUR, General Ridgway, and appealed to his friend Eisenhower, now the American president. As a result of Adenauer's efforts, SHAPE directed the French to back off from their actions.[134]

130. Message from the Canadian Ambassador in Bonn to External Affairs, April 15, 1953, RG 24, Accession 1983–84/216, Box 1278, File 110–102, Volume 3, LAC.

131. Minute to Ambassador's message from Chief of Plans and Intelligence, April 24, 1953, RG 24, Accession 1983–84/216, Box 1278, File 110–102, Volume 3, LAC.

132. Message from the Canadian Ambassador in Bonn to External Affairs, dated April 28, 1953, RG 24, Accession 1983–84/216, Box 1278, File 110–102, Volume 3, LAC.

133. Message from Davis to External Affairs, March 4, 1953, RG 24, Accession 1983–84/216, Box 21723, Volume 2, LAC.

134. Update from Davis to External Affairs, subject: "Airfield site at Moselsurch," dated June 1953, RG 24, Accession 1983–84/216, Box 21723, Volume 2, LAC.

These events were relevant to the RCAF. Ambassador Davis was angry that SHAPE had portrayed the French as the villains in this matter. He was also concerned that a precedent had been established that would see the Germans resist any further requisitioning of their lands for the construction of airfields. Such an outcome would imperil the chances for a second RCAF base in Germany: "If the allies back down at this late stage, not only will it be a great loss of face to them but they will have created a most dangerous precedent … . The inevitable result will be that no alternative field will be secured, as facts of this case will become known, owners of any alternative property will follow the same course."[135] But as the Chairman, CJS(L) noted in a message sent to General Foulkes, this decision opened the door for SHAPE's approval of alternative sites by which, of course, he had Baden-Soellingen in mind: "There is an excellent chance in view of the current political situation that General Ridgway will accede to Adenauer's request and will direct his staff and the interested agencies to study the possibility of using one of the existing bases instead of building a new one."[136]

By August 1953, the RCAF was committed to sending 414, 422, and 444 Squadrons to Baden-Soellingen later that month. Yet uncertainty over the status of that base remained, as reflected in a message sent by T. C. Davis to External Affairs:

> Without knowing your view on whether a ceremony of any sort is necessary or not or what sort of affair it should be, we have thought it best not to discuss the matter with the French High Commission (or the Germans) here at this stage. In this connection we were also mindful of the uncertainty which still exists about whether or not the RCAF is to stay at Soellingen.[137]

On August 27, the three squadrons of 4 Wing departed Uplands for Baden-Soellingen. On that same day, Davis advised External Affairs that the French foreign minister had told the RCAF representative in Paris that an agreement had been signed allowing the RCAF to remain permanently at Baden-Soellingen. The Canadian Ambassador in Bonn apparently could not confirm this information because the next day he sent yet another message to his superiors in Ottawa:

> Air Vice Marshal Campbell [AOC No. 1 Air Division] phoned and wants to get ceremonies for taking over Baden Soellingen under way. He says no need to wait for permanent committal of airfield and if not by time of function permanently committed then function will be temporary committal. We are preparing list of guests and sending to him and he will get busy with arrangements ... functions will be simple ... merely hand over to me for Canada of field by Francois Poncet and committal by Campbell of force ... please hasten advice if this is in order as he is highly desirous of making firm plans at once.[138]

This uncertainty was also reflected in comments made to the deputy defence minister by the new CAS, Air Marshal C. R. Slemon, on August 31. "It is agreed that an official ceremony of this nature might be premature inasmuch as some uncertainty still exists about permanent tenancy by the RCAF at this airfield, therefore [the] idea was to keep the ceremony fairly low key ... in any event the first question to be solved is the permanent allocation of Baden-Soellingen to the RCAF."[139]

On September 4, 1953, the three squadrons of 4 Fighter Wing arrived at Baden-Soellingen and were warmly received by a delegation of Canadian, American, French, and German officials. Even so, when Davis, as the Canadian Ambassador to Germany, accepted the base on behalf of the Canadian government on September 28, neither he nor the Germans were sure if the RCAF's stay was a permanent one. Before his arrival at the base, Davis had heard that the French High Commissioner, Mr. Merlin, wrote to the German chancellor on August 31, 1953, that the RCAF would be stationed at Baden-Soellingen only until such time that the aerodrome near Koblenz was completed.[140] In fact, it was not until the next month that the RCAF was informed by SHAPE that

135. Message from Davis to External Affairs, dated June 11, 1953, RG 24, Accession 1983–84/216, Box 21723, Volume 2, LAC.
136. Message from the Chairman, CJS,(L) to Foulkes dated June 10, 1953, RG 24, Accession 1983–84/216, Box 21723, Volume 2, LAC.
137. Message from Davis to External Affairs, August 15, 1953, RG 24, Accession 1983–84/216, Box 1278, File 110–102, Volume 3, LAC.
138. Message from Bonn to External Affairs, August 28, 1953, RG 24, Accession 1983–84/216, Box 1278 File 110–102, Volume 3, LAC.
139. Note from Air Marshal Slemon to the Deputy MND, August 31, 1953, RG 24, Accession 1983–84/216, Box 1278, File 110–102, Volume 3, LAC.
140. External Affairs Notes, undated, RG 24 Accession 1983–84/216, Box 1278, File 110–102, Volume 3, LAC.

the Standing Group had approved the permanent assignment of Baden-Soellingen to the RCAF.[141] However, the French, still trying to get the Germans to finance the construction of another NATO airfield in their occupation zone, did not inform the German chancellor of this decision until pressured by Canadian External Affairs officials to do so in February 1954![142]

With permanent occupancy of Baden-Soellingen in the fall of 1953, the RCAF was well ahead of schedule in standing up all four fighter wings in Europe. What remained was the move of 1 Wing to the Continent. Unfortunately for RCAF plans, by early 1953 it had become clear that Marville was not going to be ready before the following year. Members of External Affairs were frustrated over this delay. The concern was public perception. Dana Wilgress commented that the lengthy stay of the RCAF in Britain could be interpreted as a change in Canadian policy limiting its air commitment to the forces of NATO to one that included the air defence of the UK and, thus, a return to defending the "Empire."[143]

These concerns were not shared by the RCAF. In fact, Canadian airmen were quite content to remain at North Luffenham until Marville was ready. To be sure, the fact that Canadian pilots enjoyed their stay in the UK and were comfortable with the air-defence role that they had been trained for in Canada had little to do with any sentimental attachment to the RAF. Canadian airmen did not want to rush the French in the construction of the airfield at Marville because they had seen the operational consequences of having done just that in the construction of the first three bases. Within months of the arrival of the RCAF at both Grostenquin and Baden-Soellingen, the runways at these bases had to be resurfaced, requiring the squadrons to operate temporarily from other wings.[144]

On 13 January, 1953, the Deputy Minister of National Defence expressed these views to Dana Wilgress, now the Under Secretary of State for External Affairs:

> After consultation with Group Captain Johns who has recently returned from France, [he] considers that the completion date of October 1953 is probably most optimistic even if construction is rushed. As you know, there is no great urgency from the RCAF point of view, in moving No. 1 Fighter Wing from the United Kingdom to the continent, and we would be content as long as the airfield at Marville was ready by June 1954. We propose, therefore, to have the Joint Staff in London negotiate with SHAPE and the French to have a more realistic date, not later than June 1954, set for the completion of the airfield, without the necessity of adopting a rush program of construction.[145]

If the RCAF had valid logistical reasons not to depart for Marville too early, they had operational grounds to retain the North Luffenham base after the move of 1 Wing to the Continent. This was the position of airmen during the period of 1951–52, before they knew what the end state structure of the Air Division would look like. North Luffenham would have been an excellent location in which to locate another RCAF wing if the Canadian government had been requested to increase its air contribution to NATO. This base was also planned as the RCAF's in-theatre supply base before it found one at nearby Langar. Lastly, North Luffenham was an ideal base to fall back to during war if the enemy succeeded in driving NATO forces off the Continent.[146]

RCAF planning factors aside, by early 1953 it became apparent to the Air Staff that keeping RCAF elements at North Luffenham following the departure of 1 Wing to Marville was not going to happen. First, such a scenario would have complicated the command and control of RCAF forces

141. External Affairs message to Bonn, October 21, 1953, RG 24, Accession 1983–84/216, Box 1278, File 110–102, Volume 3, LAC.

142. Letter from P. A. Beaulieu, Acting Under Secretary of State for External Affairs, to Bonn, February 3, 1954, RG 24 Accession, 1983–84/216, Box 1278, File 110–102, Volume 3, LAC.

143. Letter from C. M. Drury, Deputy Minister, Department of National Defence, to L. D. Wilgress, Under Secretary of State for External Affairs, January 13, 1953, RG 24, Accession 1983–84/216, Box 1278, LAC.

144. In the case of 4 Wing, the three squadrons had to deploy to the other three wings for three weeks less than a month following their arrival to allow for runway repairs! See 1 Air Division Message to Canadian Air Liaison Officer London, September 22, 1953, RG 24, Accession 1983–84/216, Box 1278, File 110–102, Volume 3, LAC.

145. Letter from Drury to Wilgress.

146. Internal Air Staff memorandum entitled "RCAF Base in the UK," from the Director Air Plans, Group Captain E. M. Reyno, to the Chief of Plans and Intelligence, dated October 16, 1952, RG 24, Accession 1983–84/216, Box 3102, LAC.

between the commanders-in-chief, RAF Fighter Command and AAFCE. Second, and the RAF made it clear that this was not an option, is as follows:

> At present, as the result of an inter-change of letters between Sir John Slessor and Air Marshal Curtis in November and December 1951, we have planned on the assumption the Canadian squadrons based at North Luffenham will be available, in all circumstances, until April 1954 as an integral part of the Air-defence System of the United Kingdom ... [whatever RCAF plans] because of its strategic location, North Luffenham is a vital station in our air-defence system and we could not risk having squadrons based there which, either in an quote alert unquote or on the outbreak of war were not completely integrated with the remaining forces under the control of Fighter Command.[147]

If the impatience of the Canadian government and RAF was growing over the departure of the RCAF from North Luffenham, the French were in no hurry to build the base at Marville. On September 22, 1953, the CAS was informed that the contracts for construction, which had just been signed, were not to come into effect until November 15. Work would not begin until the beginning of construction season in the spring of 1954. The latest estimate for the completion of Marville was late fall 1954.[148]

By August 1954, the AOC of the Air Division, A/V/M Campbell, was under increasing pressure to have 1 Wing moved to Marville. In addition to avoiding answering to the Canadian public why the Air Division was not yet complete on the Continent, the Canadian government was concerned that the national media had joined its American counterparts in criticizing the French.[149] Campbell also had to deal with the growing impatience of the RAF, which had expected the RCAF to have left North Luffenham by the previous April. The good news for the AOC was that Marville was available in December of 1954, but as was experienced at Grostenquin and Baden-Soellingen, important components of the base were not. In the case of Marville, married accommodation and aircraft fuel storage facilities would not be completed until April 1955.[150] In any event, on October 4, 1954, the Air Ministry and Air Staff agreed on a plan that sent 410 and 441 Squadrons to 4 and 3 Wings respectively during November and December 1954. 439 Squadron was to remain in Luffenham until January 1955 before it moved to Marville.[151] As it turned out, the final move of all three squadrons to Marville was not completed until April 1955.

Much credit has to go to Canadian airmen and External Affairs officials for their hard work in getting all four RCAF wings based in Europe by September 1953. They successfully carried out the government's mandate to have the Air Division ready no later than 1954, well ahead of schedule. Even so, this mandate did call for all four wings to be available to SACEUR's integrated Force by that date. While the air-defence role carried out by 1 Fighter Wing at North Luffenham was part of the overall air defence of Western Europe and, therefore, arguably under NATO control, the position of the RAF was that the RCAF squadrons at North Luffenham were under the operational control of RAF Fighter Command and, therefore, were employed exclusively for the air defence of the UK. 1 Wing did not come under the operational control of TAF until it moved to its permanent base at Marville (see Figure 4-4).

147. Message from Air Commodore A. P. Revington, RAF, Senior Air Liaison Officer, UK Service Liaison Staff, The Roxborough Building, Ottawa, to Air Marshal Slemon, dated March 30, 1953, RG 24, Accession 1983–84/216, Box 3102, LAC.

148. Internal Air Staff Memorandum from Wing Commander C. V. Trites, the Director of Construction Engineering – Air, to the EA CAS, dated September 22, 1953, RG 24, Accession 1983–84/216, Box 3102, LAC.

149. Message from Wing Commander Gillespie, Air Staff, to A/V/M Campbell, subject: " Press reports in Europe Over Reasons for Delay of Move of 1 Wing to Marville," dated August 18, 1954, RG 24, Accession 1983–84/216, Box 3102, LAC.

150. Message from Campbell to A/V/M Dunlap, Air Staff, September 27, 1954, RG 24, Accession 1983–84/216, Box 3102, LAC.

151. Message from Campbell to CAS, dated October 4, 1954, RG 24 Accession 1983–84/216, Box 3102 (code 32), LAC.

Figure 4-4. Location of No. 1 Air Division Wings 1955

The argument over when exactly No. 1 Air Division was complete and entirely at the operational disposal of SACEUR must not overshadow the hard work of those responsible for its creation. The next step was for the RCAF to confirm the operational roles and area of operations assigned to the Air Division. As the next chapter will show, operational matters in NATO were not easily determined, given the cultural and political diversities of a multinational alliance.

Chapter 5

THE CHANGING THREAT AND THE RCAF'S RESPONSE

The establishment of four wings on the European continent was a major milestone for Canada and allowed the RCAF to get on with its operational commitments to SACEUR. This feat was accomplished through the cooperation of Canadian military personnel and civilians in the face of political, cultural, financial, and legal roadblocks. For Canadian airmen, having found bases for their squadrons in Europe was a first step, albeit an important one, toward realizing their primary task of becoming a combat-ready air force, and to demonstrate to NATO that Canada's air-power contribution to alliance security was a valuable one.

The focus of this chapter is the operational evolution of the Air Division in the context of national and alliance military strategy from 1953 to 1957. It describes the challenges facing senior RCAF officers in balancing institutional, national, and alliance demands, while carrying out their operational mandate. This chapter also describes tactical doctrine. It looks at the air-power roles NATO air leaders expected the Air Division to carry out and the impact this direction had on RCAF equipment choices and doctrine. This assessment is necessary if one is to appreciate that the aircraft employed in the Air Division were at once a significant combat addition to NATO's Central Region and a guarantor of organizational and national independence within the alliance.

While the aircraft employed in the Air Division have been described in previous works, little is known about the relationship between these aircraft and the RCAF's expectations in NATO.[1] This chapter reveals that an important objective of the RCAF in its planning and deliberations in NATO was to preserve its national autonomy. This could only be assured if the squadrons and wings remained integral to the Air Division and were not parcelled out to other alliance air forces. Air Division leaders also ensured that SHAPE guaranteed Canadians operational control of the Air Division and that the RCAF was represented in alliance headquarters commensurate with its air contribution. Canadian airmen were not satisfied unless their operational opportunities were matched by those of command and staff that permitted them a say in the higher direction of alliance air operations. For the most part, they were denied such opportunities during the Second World War.[2]

This chapter explains why the RCAF's original role in NATO was that of air defence at the expense of any thought of providing air support to the Canadian Brigade or any other NATO land force. At the same time, it shows that the Air Division's wartime role did not completely absolve it from performing a ground-support role. A fact not previously publicized due to its classified nature, this chapter reveals that the main wartime role of the Air Division was to escort American tactical nuclear fighter bombers on offensive missions against Russian forces. In addition to air superiority, the RCAF in Europe was to conduct offensive sweeps which entailed air-to-ground missions in support of land forces. What is intriguing about this wartime assignment is the fact that Air Division Sabre veterans do not recall the offensive sweep and escort roles, nor do they remember them being practised. As argued in this chapter, this inconsistency between what was planned and practised can be accounted for by understanding what air-power roles best guaranteed the RCAF national command and control of the Air Division.

Discussed in the previous chapter, Canada's unique status in NATO between 1951 and 1955, during which its forces in Germany were subject to the Occupation Statute, was a legal and administrative headache for Canadians. This chapter shows how Canada's legal status in Germany

1. Exceptions are Maloney, *Learning to Love the Bomb*; and Milberry, *The Canadair Sabre*.

2. See Greenhous and others, *The Crucible of War*. Wartime opportunities for senior command for the RCAF were held back due, in large part, to the failure of "Canadianization," the Canadian government's quid pro quo to obtain such positions in return for hosting the British Commonwealth Air Training Plan.

during the period in question had an even more profound impact on RCAF operations. Not being an air force from one of the occupying powers, the RCAF was placed under such restrictive ROE that its pilots who flew over German airspace did so with their guns inhibited.

These issues need to be understood within the contemporary strategic context. The overarching determinant in RCAF operations and equipment choices in NATO was the proliferation of nuclear and thermonuclear weapons by the Americans and Soviets. The larger threat posed to the security of North America and Europe pushed the Canadian government and the RCAF to reconsider their original assumptions with regard to the air-power roles performed by the Air Division and the aircraft it employed. This global threat brought together the equipment and air-power choices for NATO with those required for the air defence of North America.

Lastly, this chapter continues the examination of RCAF operations in Europe and their relationship to the institutional security of Canadian airmen. Operational planning that became increasingly dictated by the threat of nuclear war could not come at the expense of the RCAF's image in Canada. Airmen understood that the priority assigned to air power within the nation's forces in being was contingent upon its future military value and the capacity of the defence budget. Both the St. Laurent and Diefenbaker Governments became concerned over the prohibitive costs of maintaining a large peacetime military. When NATO demanded its air forces fight with tactical nuclear-weapons—and the RCAF had to look for a new air-power role in Europe—a major challenge for Canadian airmen was to get political approval and funding at a time when defence spending had once more become the bête noire of the Canadian government. In this endeavour, the RCAF discovered that the popularity of air power was no longer sufficient by itself to obtain political support when it proposed a role using offensive tactical nuclear-weapons that were at once expensive and politically sensitive.

Meeting the threat

In 1954, the Air Division and its alliance partners remained quite concerned over their inferiority in forces in the face of a Soviet military manned by more than 100 divisions and supported by more than 4,000 tactical aircraft, of which 3,000 were believed to be jet powered. The threat to Western Europe was through three traditional routes from the East. The first was along the North German plain; the second was along the Lahn River, which allowed for the envelopment of the Ruhr from the south, and the third was through the Fulda gap, which leads past Frankfurt, Strasbourg, and on into France. The USSR also threatened NATO's flanks. Norway was open to an airborne attack, and Soviet forces were thought to be prepared to turn NATO's southern flank into Italy through the Balkans or into Greece and Turkey. The alliance was, therefore, organized into three regional commands: Northern, which included Norway and Denmark; Central, which included all countries between Denmark and Italy; and Southern, which included Italy, Greece, and Turkey. From the beginning of alliance planning, however, the main threat was considered to be against central Europe.[3] This was also the area of operations for the Canadian Army Brigade and for No. 1 Air Division.

As emphasized in the previous chapters, air power and American nuclear-weapons had been, from the start of alliance planning, considered NATO's main hope in deterring and confronting the numerically superior forces of the Soviet Union. With air power underpinning its military capability, the alliance in 1950 adopted a forward strategy that had NATO forces meeting the enemy as far east in Germany as possible, as opposed to holding them at the Rhine. While senior Canadian airmen accepted this strategy, they were concerned that the alliance goal to create balanced forces from all three military services undermined the emphasis on building up NATO air forces and jeopardized the basis of its strategy.

3. Address by Air Commodore K. L. B. Hodson to the United Services Institute, London, Ontario, entitled "The RCAF Air Division in Europe," dated December 15, 1954, on File at Canadian Forces College (Hodson) Library, Toronto, Ontario.

Air Marshal Curtis argued these points with General Foulkes, the chairman of the CSC, in late 1951:

> While I am in full agreement with the aim of the "forward strategy," I feel that unless there is a balancing and planning of the requirements against the capabilities of the NATO countries to produce the ground, sea and air forces, we will never be capable of fulfilling the aim of the "forward strategy." For example, it has been estimated that 52 divisions in the Central European area should be able to stabilize the front on the general line of the Rhine-Ijssel, [see Figure 5-1] and by 1954, if NATO nations' promised contributions mature, 52 divisions will be available for deployment. However on the air side, and I quote SG [Standing Group document] 161, "Total Air Forces promised are only some 3,000 aircraft against a considered requirement of 5,000 for the Rhine-Ijssel, with which to create a favourable air situation and support the ground forces. This deficiency may well prove crucial to both the air and land battles and force a consequential withdrawal west of the Rhine-Ijssel line." It seems to me that before we attempt to produce the additional 13 divisions required to achieve the aim of a "forward strategy" in this theatre, we must first find the means to produce the additional 1,900 aircraft which will permit us to provide some measure of air superiority, balance the disparity of the numbers on the ground, and enable us to hold the Rhine-Ijssel line. In short, our attention to present planning for the defence of Central Europe must be directed toward producing air forces necessary for the *holding* [italics added] of the Rhine-Ijssel line as a firm base for development of the "forward strategy." When we are assured that these forces will be available, then, and only then, should we undertake to produce land ground forces and the complementary air forces to meet the requirements of the "forward strategy." To do otherwise is to invite disaster.[4]

Figure 5-1. NATO Rhine-Ijssel defensive line 1949–1953

4. Letter from Air Marshal Curtis to the Chairman, Chiefs of Staff Committee entitled "NATO Planning," dated November 2, 1951, RG 24, Volume 6167, File 2, LAC.

Curtis also distrusted some of the alliance's planning assumptions when it came to overall alliance strength in aircraft. He was considerably less sanguine than his fellow alliance planners regarding predicted French forces:

> Although SG 20/37 has narrowed the "Gap" to some 360 frontline aircraft it must be remembered that this has been based on a French contribution of more than 2,200 aircraft. I am somewhat disturbed by the readiness with which we accept the French figures for I understand that France now has only about 700 operational aircraft (all types) available in the European theatre of which less than 1/3 are jet types. By the end of 1953 France is expected to produce or be provided with approximately 400 Vampires and 500 F-84s (U.S. Republic), bringing her total jet fighters to approximately 1,000. Although, in addition, France expects to produce about 400 MD 450s by the end of 1953 and a further 400 by the end of 1954 her production plans are well behind schedule and there is considerable doubt that anything like these numbers will, in fact, be produced. There are only slightly more than 2,000 pilots in the whole of the French Air Force and the numbers now in training or to be trained (including those in Canada and the United States) are well short of that required to produce the pilots necessary for the 2,200 aircraft force. Consequently, it is extremely likely that the number of aircraft which actually will be available to defend the Rhine-Ijssel line will be well below the number required.[5]

The essence of Curtis' argument was that the idea of balanced forces was a reasonable one but that before such a state could be achieved NATO had to place priority on building up its air-power strength:

> It is evident that in our NATO planning, we are permitting the generation of requirements for ground, sea, and air forces without regard for the relative degree of threat. For example, while I will admit that the protection of our ocean life-line is an important task, are we not prepared to accept some degree of risk on the ocean if the acceptance of such a risk will permit us to generate ground and air forces for the fulfilment of the "forward strategy" in Europe, or to produce the air forces required to hold the Rhine-Ijssel line? It would be a tragedy if we were found with excessive forces on the ocean while we were being forced to withdraw from Europe because of lack of air superiority.[6]

These comments demonstrate the serious concerns of senior alliance airmen in the early 1950s over the lack of combat aircraft to sustain the forward strategy and NATO's ability to hold off an attack by the USSR. Curtis' comments also suggest that the strong views held by Canadian airmen that saw surface forces subordinate to air forces were based in large part on their rationalization of the expected threat and NATO's best chances of meeting it. Left out of these comments were Curtis' views on the priority of air-power roles in the alliance and, with respect to the Air Division, an indication as to his satisfaction with the roles they were assigned in Europe. These issues, and the narrow air-power capabilities of the Air Division in Europe resulting from its selection of aircraft, preoccupied Canadian airmen before RCAF fighter operations in NATO had matured.

The Air Division's area of operations—work with the Americans or British?

By 1954, No. 1 Air Division was settling into an operational routine, and its Sabres were being replaced by more capable models. However, before 1 Wing moved to the Continent in April 1955, the Air Division was still not truly complete. While the Air Division's 12 squadrons were in Europe and assigned to NATO's 4 Allied Tactical Air Force (4 ATAF—also referred to as TAF), 1 Wing was still operationally responsive to RAF Fighter Command until it moved from North Luffenham. 4 ATAF was one of two tactical air forces that came under AAFCE. 2 ATAF, operating in the north of Germany, was made up mostly of RAF wings and several Dutch and Belgian squadrons. Together with USAF, French, and the other members of 4 ATAF, the RCAF was to provide protection for and

5. Ibid.
6. Ibid.

operate in direct support of Central Army Group, the land force expected to confront the main threat in NATO's Central Region. The main roles for the Americans and French were to provide air support to the US Army and French 2nd Army respectively. No. 1 Air Division was to provide air defence of the 4 ATAF area of responsibility as well as to provide cover and support for 4 ATAF offensive operations. The 4 ATAF area of responsibility extended from eastern France into eastern Germany.[7]

From a national point of view, this organizational result begged one obvious question: Why was the Air Division in 4 ATAF operating with the French and Americans who were in direct support of their land forces, and not in 2 ATAF providing support to the Canadian Army Brigade? This organization construct was in part the result of the type of aircraft that the RCAF decided to employ in Europe, the expectations of Canadian airmen to ensure national autonomy, and the decision to place the Canadian Army Brigade under the British Army.

The Air Division was initially equipped with the F-86E, which was the US designation for the Canadian Sabre 2. The latter were chosen by the Canadian government in 1948 as an interim jet fighter to equip the build-up of the RCAF's air-defence forces in Canada because the CF-100 was not expected to become operational until 1953–54. Since the government also succeeded in getting the aircraft built under licence at Canadair and, therefore, was being produced in large numbers, it was decided to equip the wings of the Air Division with the Sabre beginning in 1951. Although the Air Staff had planned for a multipurpose tactical air force in Europe, it was concluded that the Sabre was best employed in the air superiority and escort role.[8]

The decision to equip the Air Division with the Sabre, and the fact that it was not suited to the tactical-air-support role, produced two long-lasting organizational and operational outcomes. First, for operational and logistical reasons it was decided to place the Air Division under a tactical air force that included USAF. Like the Canadians, the Americans were introducing the Sabre into its European wings, and the RCAF would minimize support costs by sharing common supply lines with their southern neighbour. Also, during the post-war years, the RCAF and USAF had established common doctrine and tactics in a growing integrated approach to the air defence of North America. It was logical that the RCAF would continue to work with USAF as opposed to the RAF in Europe.[9] Second, in addition to the fact that the 12 squadrons of the Air Division were not equipped for tactical air support, the area of operations assigned to them in the air superiority role far exceeded the operational area of the Canadian Army Brigade.[10]

The selection of the Sabre for the Air Division was a major reason why the RCAF operated in 4 ATAF. Important as well were the feelings of Canadian airmen and the decision to place the Canadian Army Brigade in northern Germany under British command. The latter outcome owed much to the wishes of Lieutenant-General Simonds, the Canadian CGS, who strongly recommended that Canada's NATO forces in Europe should operate with the British as opposed to the Americans. Senior Canadian airmen, including Curtis, disagreed with the CGS. They were greatly concerned that by working with the RAF they would be placed in the position of a subordinate power with the loss of their national identity, a bitter experience from the Second World War.

Fortunately for the RCAF, its position was supported by the chairman of the CSC, General Foulkes. More to the point, Foulkes strongly disagreed with Simonds' recommendation regarding the Canadian Army. The chairman of the CSC insisted that the RCAF operate with the Americans. Previous works have suggested that Brooke Claxton, the Defence Minister, could not decide where to place his Army in Europe because he did not want to be seen supporting one of these two popular wartime generals over the other.[11] He, therefore, deferred the decision to General Eisenhower, who directed that the Canadian Army would operate under British

7. Hodson, "The RCAF Air Division in Europe," 2–3.
8. Visit report to CAS from A/V/M Smith, dated May 14, 1951, RG 24, Volume 6167, File 1, LAC.
9. Brief by Air Marshal Curtis for the Chairman, Chiefs of Staff Committee entitled "Grouping of the RCAF in Europe," dated August 13, 1951, File 73/1223, Raymont Papers, Series 9, Volume 3233, DHH, 1–2.
10. Hodson, "The RCAF Air Division in Europe," 3–4.
11. David J. Bercuson, "The Return of the Canadians to Europe: Britannia Rules the Rhine," in Canada and NATO, 16–24.

command in Germany. In actual fact, Claxton left SACEUR to choose because he could rely upon Eisenhower to make a decision based upon operational as opposed to sentimental reasons.[12]

The bottom line was the Canadian Brigade ended up being supported by 2 ATAF largely because it was located in northern Germany with the British Army on the Rhine. The RCAF ended up in 4 ATAF because it flew the Sabre and did not want to operate under RAF command. If this outcome met the institutional expectations of Canadian airmen, it appeared to counter the RCAF's goal of operating as a national force in support of the alliance. The explanation is that service interests were primary for the RCAF. In 1944, when Canadian airmen had the opportunity to support 1st Canadian Army, they chose to support 2nd British Army because of the prestige of supporting a D-Day land unit. In 1951–52, the RCAF chose not to support their national land unit because the latter operated under the British. In the opinion of the RCAF, to do so would have placed them in a subordinate role that was counter to service goals.

Initial equipment for the Air Division

From its first year of operation until the fall of 1956, No. 1 Air Division was equipped with one jet fighter, the F-86 Sabre. Over the course of this period, Canadian airmen flew improved versions of this aircraft. The Sabre 5 and 6 had considerably improved performance over the earlier variants. In 1954, the Air Division consisted of approximately 192 Sabre 2s and 4s, of which 48 were located in the UK. By the end of that year, this force was being re-equipped with Sabre 5s and was being built up to a total of 300 aircraft. Plans were in place for the introduction of some 240 Sabre 6s as replacements for the Sabre 5s, with delivery commencing in 1955 and completed early in 1956. By 1956, the plan was to equip three wings with Sabre 6s and the remaining wing with Sabre 5s.[13]

Opposing 4 ATAF was the Soviet 24th Tactical Air Army, which consisted of 1,200 MiG 15s, 850 ground support fighters, 225 light bombers (mostly IL-28s) and 220 reconnaissance aircraft. In addition, some 1,500 IL-28s and 650 MiG 15s were within range of the area. Intelligence estimates at the time correctly predicted that the USSR was producing an improved version of the MiG 15 (MiG 17), followed by an even better version between 1958 and 1960 (MiG 19), with afterburning engines that provided supersonic speeds in level flight. Although the Sabre 6 was expected to perform as well as the second generation of MiGs, the RCAF feared that it would be completely outclassed by the third generation (which turned out to be the MiG 21). A member of the Air Staff wrote that: "If we assume that Canada's air commitment to NATO is to be maintained and that the present NATO concept of operations remains unchanged, then consideration must be given to the problem of replacing the Sabre."[14]

In 1954, the Air Staff was planning on a replacement for the Sabre. The weakness in these plans was that they remained within the paradigm of a tactical air battle of the previous war and Korea:

> In order to more accurately determine the best type of aircraft to replace the Sabre some consideration should be given to the form that the battle will take. It is felt that the operation will follow the same pattern set in World War II and Korea. The enemy will first of all attempt to win air superiority by conducting raids against allied airfields. These raids will be carried out by formations of light bombers which will be heavily escorted. The RCAF's job would then be that of engaging the fighter escort while allied fighter bomber aircraft attack the enemy bombers. This means that our aircraft must be a superior air fighting machine. Allied offensive operations will probably be conducted in a similar manner. During these operations the RCAF would be obliged to do one or more of the following: provide escort for attacking bombers

12. Message from Major General Smith to General Foulkes, dated September 14, 1951, File 73/1223, Raymont Papers, Series 9, Volume 3233, DHH.

13. Staff paper written by Squadron Leader Laubman, Director of Operations Research 3–5, entitled "An Appreciation of Canada's Air Commitment to NATO – Fighter Aircraft," dated March 5, 1954, RG 24, Series E-1-c, Accession 1983–84/049, Box 102, LAC. For a detailed breakdown of the characteristics of each Sabre variant, see Milberry, *The Canadair Sabre*, 367. The major improvement was the installation of the Canadian–made Orenda engine for the Mark 3. Marks 5 and 6 had improved versions of this engine that increased the aircraft's rate of climb, maximum airspeed, and range. The Mark 4 had the original US-made J-47 because they were destined to be delivered to RAF squadrons. But since the RCAF was in desperate need to equip their wings in Europe, some of these versions were diverted on a temporary basis to the Air Division until the Mark 5 became available.

14. Laubman.

> or fighter bombers, provide area cover or conduct fighter sweeps in support of these raids. In every case the role is the same, that of destroying enemy fighters before they can attack the bombers.[15]

Interesting, as well, was that the Air Staff was comfortable with the limits on the Air Division Sabres as daytime fighters:

> Because of the nature of its work a tactical air force is only as effective as its ability to see and identify its targets. For this reason the majority of its operations are conducted during daylight hours and in fair weather. Night operations will probably be limited to reconnaissance and intruder missions. This would seem to indicate that our aircraft need to have no night/all-weather capability. Since this aircraft will be employed in an air superiority role and will be attempting to destroy other fighters and bombers, light armament would suffice. It is felt that guns are far superior to rockets for this type of fighting. Another very important consideration for an aircraft which is to be employed in a tactical air force is its ability to operate from second class airfields. When the battle is fluid, it may be necessary to operate from hastily constructed airfields in order to stay within range. Similarly, redeployment may be necessitated by enemy airfield strikes.
>
> Thus it may be seen that an aircraft which possesses the capability of operating from airstrips which can be cheaply and quickly constructed has a definite tactical advantage over the aircraft which requires complex base facilities.[16]

The RCAF wanted a daytime air-superiority fighter to replace the Sabre, but one that could operate as part of a mobile tactical air force using roughly constructed short landing strips. The problem with these desired specifications was that no fighter jet existed at that time that could balance the performance and speed of a Sabre with the ability to operate out of forward airfields. Moreover, it appeared that the original plan to replace the Sabre with the CF-100 once the latter was produced in sufficient numbers to equip the air-defence squadrons in Canada and Europe was ruled out for two reasons. Air Division planners viewed the CF-100 as too complex in relation to the Sabre. They also misunderstood that an all-weather capability was not in demand in 1954.[17]

Later that fall, the views of the Air Staff planners changed. There was indeed a need to find a replacement fighter aircraft to meet the expected enemy day-fighter and bomber threat. Further, an aircraft was needed that would bridge the gap between the conventional day fighter and the all-weather fighter in NATO. The concern was the utility of producing an air-defence fighter that would be obsolete by the time the Soviet Union had introduced supersonic fighters (Mach 2+) and missiles by 1960. One Air Staff member wrote that "it is foolhardy to consider any manned interceptor presently being manufactured or on the drawing board as an effective defence weapon ... far better to commence planning an offensive force capable of delivering thermal-nuclear-weapons as a more effective deterrent."[18] The dilemma that faced the Air Staff was a classic one faced by defence planners before and after, especially those that planned for the equipping of air forces: should one build up one's forces based upon current technology and be able to confront the threat in the immediate term? Or, conversely, should one risk that the enemy would not strike during that timeframe and build a force based upon improved technology and, therefore, be better able to meet a future threat?

In this search for a fighter that would replace the Sabre, the possible choices in 1954 were the CF-105 (Arrow), the North American F-100 Super Sabre, and the Lockheed F-104, all supersonic. More was known about the capabilities of the F-100 because it was further ahead in testing than the F-104 and the Arrow was still on the drawing board. The first version of the F-104 was not impressive. Designed as a high-speed day interceptor, its performance was disappointing with

15. Ibid.
16. Ibid.
17. Canada's comments to NATO annual review recommendations, passed to MND, dated December 7, 1954. For more on the annual review process see http://www.nato.int/cps/en/natolive/75495.htm#05 (accessed November 27, 2013).
18. Internal Air Staff memorandum entitled "Need to Replace Sabre," September 17, 1954, RG 24, Series E–1–c, Accession 1983–84/049, Box 102, LAC.

the J-65 engine (later versions had the J-79). It also would not be available for squadron service until 1958 or later. RCAF pilots who flew the F-104 liked it, but they did not recommend the Super Sabre because of problems that included instability in flight and poor low-speed handling qualities. It was not an easy jet to fly. Consequently, since the aircraft that the RCAF wanted was not available, and the one available was not suitable, the Air Staff recommended the continued development and introduction into the Air Division of the Sabre 6.[19]

Survivability and dispersion

By late 1954, Air Staff and Air Division planners were faced with more pressing concerns than a follow-on replacement for the Sabre. With the construction of the four RCAF wings completed and their re-equipment with more capable versions of the F-86 underway, Canadian airmen switched their attention to two additional problems: mobility and survivability. These two terms were used interchangeably because they both addressed the need for each wing to be sufficiently mobile to deploy its squadrons to alternate airfields in order to disperse and increase their chances of surviving an enemy attack. These terms also referred to the number and types of military vehicles held by each wing that permitted them to move personnel and aircraft support equipment to dispersed locations to maximize their survival and still continue to provide support to their wings' aircraft. Another related subject was Air Division plans to repatriate civilian dependents to Canada in times of crisis. Lastly, in order to satisfy the mobility and survivability needs for the Air Division, Canadian airmen had to consider base defence forces, local air defences, and national intra-theatre airlift.

Complicating these discussions in 1954, was the fact that the RCAF understood that the nature of the threat was changing. The RCAF appreciated that by 1954, its role in Europe had become one characterized by a static, base-oriented—as opposed to a mobile—tactical air force. Vital in early NATO planning was the provision of sufficient alternate airfields to allow alliance air forces to fall back in the face of a Soviet push to the Rhine. In 1952, SHAPE could not guarantee the Rhine-Ijssel line and wanted to ensure that airfields were built farther to the west to replace those that might be lost during the initial phase. Such airfields west of the Rhine were valuable for a defensive battle in depth.[20]

In the early 1950s, NATO placed considerable importance on national deployment plans and existing or planned facilities. As NATO was superseding the Western Union Organization, it took over, as far as practicable, planned or existing facilities which had been contributed to the Western Union. Although generally suitable from a tactical viewpoint, these locations were especially selected from an air-defence viewpoint. This latter responsibility, which was vested in the combined commander, Western Union, was passed over to NATO, and it was assumed that it would remain an alliance responsibility. In late 1951, there was no clear-cut separation between air defence and other tactical functions or a definition of commands responsible for them. Flexibility was considered essential in the wartime utilization of the small forces then available in relation to the magnitude of the task. Consequently, the provision of sufficient airfields for the integration of all elements into a properly coordinated whole was considered mandatory.[21]

Between 1951 and late 1954, there was no change to the concept of deploying NATO assigned units, and the plans were developed along the same lines to take care of newly assigned units. However, as the relative strength of NATO forces to Soviet forces was expected to improve in the central area, the prospects of holding a line further to the east in that region grew better. Consequently, the complex of airfields in this region was developed mainly in the forward areas, and those airfields west of the Rhine ended up outside the main battlefront.[22]

19. Undated memorandum to the Vice Chief of the Air Staff (VCAS) from Air Commodore Carpenter, Chief of Air Operations, RG 24, Series E–1–c, Accession 1983–84/049, Box 102, LAC.
20. Extract from SHAPE document AG 6160 entitled "NATO Dispersal Doctrine History," October 3, 1955, RG 24, Accession 1983–84/227, Box 21722, LAC.
21. Ibid.
22. Ibid.

These issues were relevant to Air Division planners, in that NATO's forward strategy lessened the mobility requirements for its wings. In the original concept based upon a strategy of withdrawal into western France, there was a requirement for the Air Division to be capable of moving simultaneously. This placed a premium on the transportation establishments of each wing. The amended strategy permitted the wings to adopt a more static posture.

Another issue, and one that would become increasingly difficult for the RCAF in Europe, was that NATO had inherited an air-defence organization from the Western Union that was based upon national air-defence zones and, therefore, operated in conjunction with, but not integrated into, any tactical air force. Its more diversified war assignments aside, the Air Division became an air-defence formation. While its wings would later be assigned dispersal airfields, the air-defence role meant that Air Division operations were performed from the originally assigned wings. In other words, the Air Division became a static, not tactical, formation.[23] Unlike the other member countries in central Europe, the Canadians were not assigned an air-defence role based upon national borders that used national command and control systems. Without a country to protect, the RCAF instead provided air defence for a tactical air force—4 ATAF. Canadian airmen, therefore, had to operate tactically in conjunction with and, until 1955, under the control of US and French controllers.

For reasons of funding priorities and the national air-defence preferences of its member countries, NATO was unsuccessful in its first decade of existence in building an integrated air-defence system. Consequently, in the Central Region, the alliance was operating without an optimum air-defence organization. Missing were an integrated control and reporting system, efficient and coordinated electronic countermeasures, coordinated interception lines at the maximum distance from the target area, integrated anti-aircraft units, and effective civil defence. This operational deficiency made it more difficult for the wings under AAFCE to prevent a successful surprise atomic attack by the USSR against NATO's priority targets. These included nuclear-strike forces, major command posts, signal centres and command posts, strategic centres, lines of communication, and major ports.[24] NATO's air-defence system was as much an alliance problem as it was a Canadian one.

In 1954, the questions of survivability and the future of the air-defence role assigned to the Air Division became interwoven in NATO's latest defence strategy. Referred to as "the new look approach," it assumed that atomic and thermonuclear-weapons were to be used immediately as war commenced and that maximum destruction would occur within the first few days or weeks. This assumption underpinned NATO's strategic guidance document, MC [Military Committee] 48, entitled, "The Most Effective Pattern of NATO Military Strength for the Next Few Years." This document, in turn, provided the basis for MC 60, "The Improvement of the Posture of SACEUR's Air Forces to Ensure Retention of an Adequate Operational Capability Under Atomic Attack," approved by the North Atlantic Council on April 25, 1956.[25]

Important in the Canadian context, especially in light of future national debates over nuclear-weapons, was that the assumptions made in MC 48, specifically the use of nuclear-weapons, were endorsed by the Canadian government in December 1954. In fact, one historian has argued that MC 48 had substantial Canadian inputs and became the basis for Canadian strategic planning well into the 1960s.[26] Implicit in this national commitment was that Canada's forces in being were structured to fight a nuclear as opposed to a conventional war. General Foulkes had to remind his new boss, Defence Minister Ralph Campney, of this sobering reality after the latter had made misleading comments in Parliament:

> I am a bit concerned about [your comments], in which you suggest that the awfulness of thermonuclear war may restrict warfare to lesser wars. This may be interpreted to mean that the major powers may decide to prohibit the use of thermonuclear-weapons and rely on conventional weapons. As you are aware, as far as Canada is concerned we have committed

23. Minutes of the 207th Meeting of Air Members, Item 1108, held November 30, 1954, File 73/1223, Raymont Papers, Volume 1825, DHH.
24. Brief on SHAPE study entitled "Air Defence in the NATO Area of Europe," dated November 10, 1954, File 73/1223, Raymont Papers, Box 147, Volume 9, DHH.
25. See "Supporting Data for Chiefs of Staff Meeting," dated 12 December 1956, File 74/743, DHH.
26. Sean Maloney, "Canada and the Cold War: The Maturation and Decline of a Nation," in *Forging a Nation: Perspectives on the Canadian Military Experience*, ed. Bernd Horn (St. Catharines: Vanwell Publishing Limited, 2002), 357.

> all our forces to NATO and outside of a police action on behalf of the United Nations, it is not contemplated that we would take part in any other war except that involving NATO. This being the case, you will recall that MC 48, which was approved by the Council, made it abundantly clear that the NATO Alliance could not engage in two types of war, one using nuclear-weapons and the other relying on conventional weapons. If we were to subscribe to this kind of policy, it would mean that we would now have to provide for the conventional weapons ahead of the contingency which has been suggested. This would mean an increase in the number of divisions to beyond 100 and a considerable increase in air forces. Therefore it was decided at the Council that our future planning should be based on the use of mass destruction weapons.[27]

The cold logic of General Foulkes' letter was that while conventional wars were perhaps less devastating than those that went nuclear, they were more costly because of the need to raise larger numbers of forces.

MC 48 was first drafted by ACE in 1954 as the alliance's capabilities plan for 1957. The primary purpose of this alliance document was development of ACE's forces into an organization capable of both waging and withstanding atomic war. The problem for the alliance was that its airfields were designed for concentration. Its wings had become a very lucrative target for USSR atomic weapons. To emerge from the initial exchange of atomic stockpiles with the capability of continuing war operations, all forces had to plan for a greater degree of dispersal than previously envisaged.[28]

These weapons posed a serious threat to the four RCAF wings in Europe. The problem for Canadians was that the proposed solution to this threat, maximum dispersal, was in itself problematic. The Canadian wings in eastern France and southwestern Germany were in sufficient proximity to each other to allow for tactical interoperability as well as national command and control. If Canadian squadrons were dispersed to alternate airfields, this benefit would be jeopardized. Even so, while the RCAF had legitimate tactical concerns with a dispersal strategy, the real issue for Canadian airmen was their belief that such a plan jeopardized the cohesion of the Air Division.

Another contributing factor that facilitated national command and control of the Air Division was the fact the RCAF wings were assigned common air-power roles and aircraft type. By 1954, SHAPE was putting increasing pressure on Canada to strengthen the alliance's all-weather capability by either adding CF-100 "Canuck" jet fighters to the Air Division, or by producing them for other alliance countries as part of Canada's mutual aid contributions. Air Division planners feared that the introduction of the CF-100 would lead to a dispersion of RCAF squadrons in Europe and, thus, remove the justification for its national air division and operational headquarters.[29]

Air-power roles for the Air Division

These issues were front and centre over the course of three meetings attended by General Foulkes in Paris between October 24–26, 1954. The main reasons the Chairman of the CSC was in Europe were to confirm SHAPE's demand for all-weather fighters from Canada and to determine the views of senior Canadian airmen on this issue before making his recommendations to the Canadian government. The discussions at these meetings were important in that they would become the genesis of the eventual deployment of four all-weather CF-100 squadrons in Europe. They also raised fundamental questions about the reality of the RCAF's wartime command and control of its forces in NATO as well as what SHAPE believed was Canada's priority air-power role in the Central Region.

Foulkes' first meeting was purely Canadian in character. He held talks with the AOC, A/V/M Campbell, and with A/V/Ms Miller and Smith, who had that year moved from the Air Staff to become the Chief of Staff to the Deputy Commander (Air) at SHAPE and the Chairman, CJS(L), respectively. From these discussions, Foulkes got a national perspective to help him prepare for the subsequent two meetings. These were held respectively with Air Chief Marshal Sir Basil Emery,

27. Foulkes letter to MND, dated January 17, 1955, File 73/1223, Raymont Papers, Volume 132, DHH.
28. Letter from the AOC 1 Air Division, A/V/M Campbell, to CAS entitled "Dispersion Plan," September 24, 1954, RG 24, Volume 6167, File 2, LAC.
29. Paragraph 8 to Memorandum for the Cabinet Defence Committee, entitled "Substitution of our CF-100 Squadrons for four F86 Squadrons in RCAF Air Division, Europe," dated December 7, 1954, File 73/1223, Raymont Papers, Series 1, File 132, DHH.

RAF, Commander of AAFCE, and General Norstad, USAF, Deputy Supreme Commander for Air at SHAPE. The four Canadian flag officers were in agreement that before they recommended to the politicians that Canada introduce all-weather fighters to NATO, certain national requirements had to be met. They wanted guarantees that the Air Division would maintain operational control and administration over its four wings, the RCAF was to remain at the four European bases, and, finally, Canadians were to retain control over their own squadrons.[30]

While the main topic of discussion was the provision of all-weather fighters to NATO, the conversation between these senior Canadian airmen also brought to light the Air Division's air-power priorities in a nuclear war. These missions were a result of the alliance's "new look approach." A/V/M Miller stated that it was SACEUR's understanding that NATO strategy was to have West Germany join the alliance and, with the German forces added to the order of battle, hold a line as far east of the Rhine as possible. The reality was that even with the additional German land and air forces, SACEUR did not think that the USSR could be held east of the Rhine with conventional forces alone. He was, therefore, convinced that NATO had to employ nuclear-weapons from the outset. Consequently, this assumption underpinned future NATO planning and force structure. The main role for No. 1 Air Division, and for all other NATO air forces in the Central Region, was to protect and escort USAF's air division of F-84 fighter bombers armed with tactical nuclear-weapons. This priority was later confirmed by both Air Chief Marshal Emery and General Norstad.[31] This was also the understanding of the AOC, No. 1 Air Division. A/V/M Campbell stated the roles of the Air Division in descending priority were escorting the nuclear-capable fighter bombers of the 4US Air Division, air superiority, and offensive sweeps.[32] This discussion is most interesting because the common belief, shared by Canadian airmen who flew in Europe in the 1950s, was that the Air Division's sole mission was air defence. One Sabre pilot from this era, a wing commander at the time and presumably familiar with his squadron's war tasks, had no knowledge of the mission to escort US nuclear-armed F-84s.[33]

While the discussion on NATO's air priorities provides a glimpse on what missions the Air Division may have been tasked to perform in wartime, the more immediate topic of concern for these senior Canadian airmen was the need for an all-weather fighter in NATO. A/V/M Miller confirmed that this was indeed the view of SACEUR. This capability would allow NATO to confront Soviet bombers in bad weather and at night. The knowledge that the enemy was equipping its bomber forces with atomic bombs was driving NATO's sense of urgency. NATO desperately needed to introduce an all-weather, 24-hour defence capability. A high priority was the protection of NATO's own nuclear-strike forces from a Soviet nuclear attack.

The operational imperative aside, the Canadian concern raised by Foulkes was that any dispersion of the RCAF would lead to the dismemberment of the Air Division. The chairman of the CSC feared that SACEUR would place a premium on the CF-100's all-weather capabilities. Consequently, he would disperse them throughout NATO's airfields in the Central Region for maximum survivability. Such a scenario included RCAF aircraft being dispersed to airfields in 2 ATAF as well as 4 ATAF. The last thing Foulkes wanted was the RCAF working with the RAF. Fundamentally, therefore, NATO's operational objective would, unfortunately for Canadian sovereignty, remove these aircraft from RCAF control. Miller disagreed. He pointed out that NATO's new policy on airfield dispersion would make such a concern a moot point. SACEUR initially wanted no more than eight aircraft per airfield to maximize survivability. All RCAF aircraft were to be deployed to alternate airfields as part of the alliance's latest strategy.[34] Miller did concede, however, that this requirement could only be met by the costly construction of additional airfields.

30. Record of discussions held in Paris on October 24, 1954, entitled "Problems of Replacing Four Squadrons of F-86s with Four Squadrons of CF-100s," File 73/1223, Raymont Papers, Box 132, DHH.

31. Notes on discussions with General Norstad at SHAPE, October 26, 1954, File 73/1223, Raymont Papers, Box 132, DHH.

32. Record of discussions held in Paris on October 24, 1954, "Problems of Replacing Four Squadrons of F-86s with Four Squadrons of CF-100s."

33. When this author raised this point during interviews with Air Division Sabre pilots, they all stated that they were unfamiliar with the escort role of US strike aircraft. This included "line" pilots, "Mac" Macgregor, Leo Donovan, and "Willy" Floyd. But the same response was given by Chester Hull, who, having been the first Commander of 3 Wing at Zweibrucken and previous to that a senior staff officer at AFHQ, would have had access to higher command direction, including that of the AOC, No. 1 Air Division.

34. Ibid.

When Foulkes met with Air Chief Marshal Emery, he inquired about command opportunities for the RCAF before moving on to the issue of all-weather fighters. While Emery's reply was not encouraging, it was honest and realistic. Emery looked at the existing organization of the RCAF's 1 Air Division as one that was superimposed on those of the 1st French and US 12th Air Force, which provided direct support to their respective armies in the 4 ATAF portion of NATO's Central Region. Given this organizational anomaly, Emery's opinion was that the AOC of the Canadian Air Division could not have an independent command in this theatre. Air operations in this sector had to be planned and coordinated by either of the other two air forces. He added that under these circumstances, in wartime, the Air Division would be allotted on an as-required basis to either the 1st French or US 12th Air Force. Although he was strongly opposed to breaking up the existing Canadian Air Division, he did not see how its control in wartime could remain under Canadian command. But Emery then confused the issue somewhat when he suggested that the AOC of the Air Division could be assigned a specific air-defence sector and retain national command. He did not explain how this command opportunity was reconciled with his previous arguments that overall control was vested in either the Americans or French.[35]

With respect to all-weather fighters, Emery stated that these were desperately required because he believed that the main threat to NATO's nuclear forces were Soviet Tupolev Tu-4 and Ilyushin IL-28 bombers operating at night and in poor weather. He wanted improved all-weather air forces in the Central Region and the immediate introduction of a cadre of highly trained aircrew necessary to carry out this role. Emery's wishes were for the RCAF to substitute 75 CF-100s for a hundred F-86s. On a positive note, he saw no need for the latter aircraft to be dispersed from the existing RCAF wings in Europe.[36]

Foulkes' subsequent meeting with General Norstad confirmed that SHAPE fully supported the Commander of AAFCE's views on the need for Canada to provide CF-100s. Norstad felt strongly "that this was one of the greatest contributions [Canadians] could make and would have a far-reaching effect out of proportion to the actual numbers and performance of the aircraft involved."[37] He saw the presence of a first-class, all-weather fighter as a considerable deterrent to the USSR attacking NATO should a war occur in the near future. It was important that Canada provided these aircraft immediately. NATO was forecast to have fewer than 350 all-weather aircraft during the critical period 1955–1958, and many of these aircraft were of dubious quality. Norstad also promised that the CF-100s would not be permanently dispersed and would be based at the existing four RCAF wings. He was sensitive to Canadian demands to retain an offensive air mission and the need to give senior Canadian officers opportunities of exercising command and control. Norstad believed that the AOC No. 1 Air Division would, in wartime, be given command of all air-defence aircraft in 4 ATAF, including those of the 1st French and US 1air forces. The latter air force would be employed in a tactical air-support role. While this was encouraging news, Foulkes did not believe that the French and Americans would ever agree to such a command arrangement.[38]

As noted above, the air-defence role in Europe was problematic for the RCAF, and as such, Canadian air planners were looking at more suitable roles, including offensive bombing. This goal, sustained by senior Canadian airmen who had been part of No. 6 Bomber Group during the Second World War (with modest national command opportunities), had to be reconciled with the RCAF demand that it be given national command over its air forces in NATO. While the air-defence role may not have been as popular as offensive tactical bombing, it had provided the AOC of No. 1 Air Division some chance of national operational command of his forces. As one former wing commander in the Air Division recalled, "We began to have some doubts about our [air-defence] role, and yet we were committed to some sort of an independent role because of the

35. Record of conversation held with Air Chief Marshal Sir Basil Emery by General Foulkes and A/V/M Smith, held October 25, 1954, File 73/1223, Raymont Papers, Box 132, DHH.
36. Ibid.
37. Notes on discussions with General Norstad at SHAPE, October 26, 1954, File 73/1223, Raymont Papers, Box 132, DHH.
38. Ibid.

desire to retain Canadian command of the force."[39] The importance of retaining an offensive role for these wartime RCAF veterans would become more evident, as the RCAF looked for a new role in NATO when the time came to replace its Sabres and CF-100s.

RCAF representation in NATO higher headquarters

In addition to seeking command and control over its own air force in NATO, Canadian airmen were also determined to have input in alliance decisions on air matters. The solution to the latter objective was placing RCAF officers in senior staff positions in the various alliance headquarters. Canada had already been successful in this goal. A/V/M Miller was in a key position in SHAPE as Norstad's Chief of Staff.[40] Even so, more staff positions were needed in both AAFCE and 4 ATAF.

The RCAF, supported by General Foulkes, wanted to ensure that the manning of the alliance's tactical air force headquarters was representative of the number of forces a country contributed. Further, the tactical AFHQ, like 4 ATAF, needed to be separated from the national headquarters of the dominant alliance countries. Conceptually, the Canadian demand was supported by Eisenhower and his immediate successors. Support also came from senior NATO air commanders like Norstad. The Americans appreciated that alliance solidarity was strengthened when all members, no matter their strengths, felt part of the overall defence organization. They also understood that multinational headquarters tended to be more expensive than national ones, and early on, when member countries were reluctant to provide personnel to fill staff positions due to cost, SHAPE badly needed the Canadians. During the early years of the alliance, as it would be later on, manpower was the biggest expense.[41]

At first, it appeared that General Norstad's concepts would be matched by reality. On his own authority, the Deputy Commander (Air) at SHAPE directed that a cadre 4 ATAF organization be established as part of the Headquarters US 12th Air Force at Landsberg, Germany, in April 1952. This small headquarters was then manned by an international staff that included Americans, French, and Canadians. The future for the Headquarters 4 ATAF looked brighter a year later when it moved to a separate location at Trier, Germany, and the RCAF was assigned the chief of staff position, which it immediately filled with A/C MacBrien. Conceptually, 4 ATAF was a superior headquarters that directed operations for three allied air forces: 12th US, 1st French, and No. 1 Canadian Air Division. To carry out this function, Headquarters 4 ATAF needed an establishment of 750 personnel that was to be 50 per cent USAF, 30 per cent French Air Force, and 20 per cent RCAF.[42]

Unfortunately for the RCAF, by February 1954, the future of 4 ATAF and, thus, any chance of obtaining more senior command aspirations for Canadian airmen seemed less certain. SACEUR, whose manpower options were limited by ceilings imposed by the Standing Group, announced on February 1, 1954, that 4 ATAF was to be scaled back to its original status as an adjunct of Headquarters US 12th Air Force. In his defence, General Gruenther's decision was driven by political, operational, and legal realities facing NATO at the time. It was not simply a rationalization of alliance manpower.[43]

Opposition to SACEUR's concept of an international staff manning alliance tactical air headquarters came from the British. This is interesting because the rationale used by the RAF supported existing RCAF concerns about working for British airmen. The RAF argued that approval of such a concept would have forced them to allow for a larger proportion of Dutch and Belgian representation in 2 ATAF. This was unacceptable to the British, who, for national prestige, wanted operational control over the northern area of NATO's Central Region. In the defence of the

39. Interview with LGen M. E. Pollard, quoted in Reginald H. Roy, *For Most Conspicuous Bravery: A Biography of Major-General George R. Pearkes, V.C., Through Two World Wars* (Vancouver: University of British Columbia Press, 1977), 333.

40. Message from the Chairman, CJS(L), to the Chairman, CSC, dated March 13, 1954, File 73/1223, Raymont Papers, Box 640, DHH.

41. Message from the Chairman, CJS(L), to the Chairman, CSC, dated February 12, 1954, File 73/1223, Raymont Papers, Box 640, DHH.

42. Message National Military Representative (NMR) 1075, from Wing Commander Mitchell, RCAF, Assistant National Military Representative, Paris, to CJS (L), dated March 31, 1954, File 73/1223, Raymont Papers, Box 640, DHH.

43. Message Supreme Headquarters (SH) 32847, from General Gruenther to all SHAPE nations, dated February 1, 1954, File 73/1223, Raymont Papers, Box 640, DHH.

British position in this matter, Dutch and Belgian airmen had no legitimate argument to be assigned headquarters positions because their air contributions were so small that their squadrons were integrated into the RAF wings of 2 ATAF. In any event, General Norstad had no legal authority from higher headquarters to force the RAF to form an international tactical air headquarters because no such positions had been approved or funded. These reasons, in addition to a lack of manpower, dictated the need to downsize his operational headquarters to be prepared for war; thus, Gruenther had to put his plan on hold. In the interim, 4 ATAF was scaled back until the manpower limitations were lifted and the headquarters positions were funded.[44]

Air Vice-Marshal Campbell was most unhappy with Gruenther's actions. On February 5, 1954, Campbell wrote a message to the CAS, Air Marshal Slemon. The contents of this message are most interesting. While they certainly confirm the AOC's anger and frustration, they also point to the lingering bitterness of RCAF war veterans whose dreams of upholding Canadian sovereignty had been subordinated to British command:

> SHAPE's proposed changes ... would in effect submerge 4 ATAF HQ as an operational and planning organization within 1United States Air Force ... . This in my opinion would be a most retrograde step and particularly so at this time considering the progress that has been made at 4 ATAF in establishing itself as an international HQ organization and in assuming the operational direction of its subordinate formations ... . Certainly the decision taken if implemented would place the Canadian Air Division on a status, as I remember, was not contemplated when the decision was taken to provide Canada's contribution to SHAPE of 300 aircraft as an Air Division along side of and on an equal status with the USAF and French Air Force under an international command ... . From our own point of view it means that we revert from a status of an Air Division serving an international HQ and commander to that of a subordinate formation of another nation, a very undesirable position and parallel to the position that we were in before and during the war under direct orders of a RAF commander ... .[45]

Campbell's position was supported by the CAS and the Chairman of the CSC. Foulkes had earlier been sceptical about the manpower bill associated with 4 ATAF and did not think that it would be supported by the Canadian government. But in a personal letter to General Gruenther on March 1, 1954, Foulkes stated his concerns that collapsing 4 ATAF into Headquarters 1US Air Force was a departure from their previous mutual understanding that the RCAF were to be given senior command opportunities:

> We are a bit concerned here that you have found it necessary to revert to the practice of using a national headquarters instead of a fully integrated headquarters. You will recall that during our discussion last December I mentioned to both you and Larry Norstad that we are anxious to continue to train staff officers on senior air force headquarters. As you are aware our air force has had very little experience in operational headquarters because during the last war the RAF used the RCAF as fillers and this did not give them the opportunity to develop staff officers and commanders.[46]

In the end, there was an international headquarters for 4 ATAF. Beginning in 1955, the tactical headquarters was authorized by NATO and funding was secured for its assigned personnel. That accomplishment aside, in the larger scheme of things, 4 ATAF never attained the status of a superior headquarters expected by the RCAF.

In 1955, USAF established the position of the commander 4 ATAF as a three-star general, but in practice, the officer filling this position was never higher than a two star. The impracticality of this command structure was laid bare by 1958. The commander of 4 ATAF, Major General Timberlake, was to direct the operations of the three national air forces including the US 1Air Force commanded

44. Message NMR 1026 from A/V/M Smith to General Foulkes, dated February 11, 1954, File 73/1223, Raymont Papers, Box 640, DHH.
45. CANAIRDIV Message A27, AOC for CAS, dated February 5, 1954, File 73/1223, Raymont Papers, Box 640, DHH.
46. Personal letter from Foulkes to Gruenther, March 1, 1954, File 73/1223, Raymont Papers, Box 640, DHH.

by the four-star General Everest. To resolve this matter, General Norstad, now SACEUR, appointed General Everest Commander of 4 ATAF and the United States Air Forces in Europe (USAFE), the latter organization having superseded the disbanded 1Air Force.[47] Unfortunately for the RCAF, the issue had come full circle. A powerful national air force was directing, as opposed to taking direction from, an international tactical air force headquarters. Worse for Canadians, the reality was that their aspirations of higher command opportunities were, similarly to the Second World War, subordinated to the nationalistic demands of the Americans, British, and French to command senior alliance formations. These countries had a national army supported by a national tactical air force in NATO's Central Region. Permitting a "lesser" power like Canada to have any operational control over their forces, even from an international headquarters like 4 ATAF, was, therefore, more theory than practice. In the end, all was not lost for the Canadian airmen, as they did retain the important chief of staff position in 4 ATAF. A few more positions at middle officer rank were added later on.[48]

If senior Canadian airmen felt strongly about national representation in higher headquarters, it was apparent that such views had a national bias. This was clearly demonstrated when it was suggested that German air force units be integrated into Air Division wings and that positions for German air force staff officers be established in the Air Division Headquarters. The idea was raised in 1954, when it was believed that the Germans would be integrated into NATO forces as members of the EDC. Correspondence at the time between A/V/M Campbell and A/M Slemon revealed that both of these senior Canadian airmen did not favour the idea of German units being integrated into the Air Division wings. They were particularly against having Germans in the Air Division Headquarters. Even so, the CAS conceded that Canada would have little choice if the proposal was agreed to by the US, UK, and other non-EDC countries.[49] The idea of working with an enemy that both men had fought less than a decade earlier could not have been popular, yet both Campbell and Slemon had operational reasons not to accept the Germans.

This contentious topic was tied to the introduction of all-weather fighter squadrons to the Air Division. SHAPE and AAFCE proposed to integrate one German all-weather squadron into each of the wings. This would have necessitated moving the displaced RCAF day-fighter squadrons to another NATO wing or to additional RCAF wings. Neither of these outcomes was an option from a Canadian point of view. The RCAF would resist dispersal of its existing squadrons for fear of losing operational control and jeopardizing national sovereignty. As well, both the Air Staff and the Air Division understood that the Canadian government would not entertain an expansion of its military commitment to NATO.[50] Given that this topic was coincidental to the pressures exerted by NATO upon Canada to provide all-weather fighters, one wonders if SHAPE or AAFCE raised the idea of integrating German all-weather squadrons into the Air Division knowing that such a proposal was not supported by the RCAF, thus getting the Canadians to add their own all-weather squadrons.

With respect to resisting the integration of German staff officers into the Air Division Headquarters, one senior Canadian airman felt that the RCAF was being hypocritical. In response to a specific AAFCE proposal to the RCAF in this regard in April 1955, A/V/M Dunlap, Acting CAS, had this to say:

> In dealing with questions of a similar nature affecting RCAF units and formations, the Canadian stand has always been that adequate RCAF representation must be maintained on the staff levels of higher Headquarters exercising operational control of and developing policy affecting deployment of RCAF units. The AAFCE proposal now forces us to consider the question from the opposite viewpoint. On the basis of information available, this Headquarters feels that it would be illogical to deny German participation at the staff level in Air Division when German forces are integrated.[51]

47. File 73/1223, Raymont Papers, Series 1, Box 654 (classified), DHH.
48. Neil Gillespie was employed as a senior staff officer at 4 ATAF in the late 1960s, Gillespie email, dated August 24, 2004.
49. CAS message 295 to A/V/M Campbell, AOC 1 Air Division, dated July 22, 1954, File 73/1223, Raymont Papers, Series 5, Volume 2574E.
50. Ibid.
51. Letter from the Acting CAS, A/V/M C. R. Dunlap to the MND entitled: "Integration of German Forces – 1 Air Dvision, RCAF," File 73/1223, Raymont Papers, Series 5, Volume 2574E.

Dunlap's views notwithstanding, he did not want to go against the wishes of his boss nor those of Campbell. He suggested that German squadrons could be closely located and work with RCAF wings, but not integrated into the Canadian units. The German units would come under operational control of 4 ATAF. This would have limited German representation at Air Division Headquarters to one of liaison as opposed to full staff function. As it turned out, the RCAF Air Division did not have German units assigned to it, and no German staff officers worked at the Air Division Headquarters. Nevertheless, the reluctance on the part of Slemon and Campbell to allow German representation1 at higher headquarters appears to justify Dunlap's contention that these senior Canadian airmen were acting hypocritically. They needed to understand that German nationalist aspirations were as important as theirs, especially in light of the need to integrate German forces into NATO once the latter became a member of that alliance.

Early operations and training deployments

If Canadian airmen were disappointed over their limited success in asserting national sovereignty through senior command and control opportunities, they were pleased with their progress in Air Division operations. Of their three wartime roles (to escort and protect US tactical nuclear fighter bombers, to conduct offensive fighter sweeps, and to provide air superiority), the emphasis was placed on ensuring air superiority. For over a decade, Air Division Sabres would conduct air-to-air combat training over the skies of Western Europe. These exercises pitted Canadian wings against Canadian wings, and squadrons against squadrons; they often involved the RCAF tussling in the air with fellow NATO pilots. There was perhaps no better visible example that typified these halcyon days of the RCAF as the sight of the twisting contrails of dog-fighting fighter jets over Europe.

One practical consideration in the 1950s was that the airspace over Western Europe was limited for military use, albeit above 18,000 feet [5,486 metres] there were few commercial aircraft to be found.[52] As a consequence of limited military training opportunities in Europe, the RCAF needed to find a location where its squadrons could conduct live firing exercises. In 1954, the RCAF obtained the use of a French Air Force base near Rabat, in what was then French Morocco, and the associated firing range off the coast. At this North African base the Air Division established a small detachment to support the deployed squadrons during their stay and to liaise with the French Air Force and local officials. The objective was to have each Air Division squadron deploy twice a year for live gunnery practice. This range was used by the RCAF until given up in 1956. Alternate arrangements were made the following year for the Sabres and CF-100s, the latter aircraft then in the Air Division. Subsequently, Canadian pilots used the more sophisticated gunnery range at Decimomannu, which was located near the city of Cagliari, on the southern end of the Mediterranean island of Sardinia.[53]

Another important addition to the Air Division's operational capability was the establishment of No. 61 Aircraft Control and Warning (AC&W) Squadron on May 1, 1955. This organization, located near the Air Division headquarters at Metz, provided the RCAF with a national warning and air traffic control function that was previously provided by the French and USAF. The high level of proficiency and professionalism of these two nations' controllers was not, unfortunately for the young RCAF pilots, matched by the English-speaking abilities of the French. One Air Division veteran, "Mac" MacGregor remarked:

> We always enjoyed a good level of camaraderie with our hosts, and we certainly had a high level of respect for the capabilities and professionalism of our American and French friends, and later, I am sure with other NATO forces as we moved among them. At 2 Wing, we operated under MIRA control, a French military radar. Their control was perhaps a bit loose, but always enthusiastic and helpful, though differences in language didn't always help. Establishment of our own Canadian AC [air control] set a new standard and was invariably described as excellent for equipment and operators.[54]

52. Baglow, 108.
53. Dodds, 13.
54. Interview with "Mac" MacGregor, Maxville, Ontario, April 26, 2004.

The Air Staff ensured that the Air Division was equipped with the latest RAF-designed Type 80 radar. No. 61 Squadron, therefore, operated with one Type 80 Search Radar and three MPS-14 height finders. The squadron was also equipped with two mobile ground controlled interception (GCI) systems (one backup and one reserve), each comprising one MPS-11 search radar and one MPS-14 height finder.[55]

The need for the Air Division pilots to maintain a high standard of proficiency in aerial gunnery was extremely important in the face of a growing enemy bomber threat expected to use both conventional and nuclear-weapons. In addition to the live firing training opportunities, a major step in the ability of the Air Division to meet this threat was the implementation of a continuous 24/7 alert posture of designated fighter aircraft from each wing, effective November 14, 1955. This capability was made possible with the arrival of No. 61 AC&W Squadron. The assignment of these alert status, or "Zulu," aircraft was shared between the wings, with two wings fulfilling the commitment weekly. Alert was initially maintained at 3 and 4 (F) Wings only, resulting in deployment of 1 and 2 (F) Wings when they were contributing Zulu aircraft. This system remained in effect until April 1956, when Zulu Alert was carried out on their respective home bases by all four wings, vice deployment to 3 and 4 (F) Wings. Total alert was for four aircraft to be on 5-minute readiness, followed by four aircraft at 10, and eight aircraft at 30 minutes, respectively.[56]

Rules of engagement

Maintaining alert aircraft in NATO's central area was not a new concept. Since the beginning of the occupation of Germany, the air-defence forces of the occupying powers maintained armed interceptor aircraft at readiness for the purpose of intercepting, identifying and, if necessary, engaging unidentified aircraft that penetrated the zones of occupation. The main reason it took the RCAF so long to get an alert assignment was because of legal issues that restricted Canadian ROE. Because Canada was not an occupying power, these restricted ROE were in effect as long as West Germany was subject to the Occupation Statute, which was the overarching legal authority for the occupational powers until 1955, when the Germans joined NATO.

Consequently, between 1952, the year that the Air Division began flying operations over Germany, and 1955, RCAF aircraft were not permitted to undertake armed interceptions of unidentified aircraft over Germany. Before November 1955, when the Air Division was officially assigned an alert role, aircraft of each wing maintained a loose readiness status and were occasionally called upon by 4 ATAF to perform interceptions. The difference was that before this date the guns of all Air Division aircraft had safety pieces inserted in their breech blocks. In the event that an Air Division pilot witnessed a hostile act or was commanded by the AOC to engage an unidentified aircraft, the procedure called for the pilot to land first and remove the safety pieces from his gun.[57] While RCAF aircraft operating over France or other NATO territory could fly with guns armed, all interceptions of unknown aircraft took place over Germany. Aircraft of 1 Wing, while based in the UK under the control of RAF Fighter Command, conformed to RAF regulations and flew with guns armed.[58]

These were peacetime ROEs. In times of increased tension or war, all Air Division fighter aircraft would have been fully armed. Nevertheless, these restrictions posed a real problem for RCAF pilots because of the number of incidents that involved armed engagements over Germany with Soviet piloted aircraft. How were the Air Division aircraft going to confront a surprise enemy attack with nuclear-weapons if their guns were inhibited? Flying time from behind the Iron Curtain to NATO's airfields in Germany and eastern France was measured in minutes. Airborne Sabres with "cold guns" would have been useless to engage and shoot down a surprise intruder. This operational

55. Minutes of the 200th Meeting of Air Members, Item 1086, held July 20, 1954, File 73/1223, Raymont Papers, Vol 1825, DHH.

56. Letter from AOC, 1 Air Division to CAS, dated November 6, 1957, entitled "1 Air Division Alert Status – Past History," RG 24, Series E–1–c, Accession 1983–84/049, Box 102 (code 32), LAC.

57. This operational limitation was confirmed in an interview with LGen Chester Hull (Ret'd), held at his residence in Belleville, Ontario, June 4, 2004. There is also a brief discussion by an Air Division armourer on how the guns were inhibited by a piece of T-shaped aluminum, in Milberry, The Canadair Sabre, 130–32.

58. Letter from Air Marshal Slemon, CAS, to Mr. R. Campney, MND, dated December 7, 1955, RG 24, Series E–1–c, Accession 1983–84/049, Box 102, LAC.

fact was highly classified and not public knowledge. In fact, the evidence indicates that Canadian politicians outside of the Cabinet were not aware of these ROEs, including Claxton's successor as defence minister, Ralph Campney.[59]

Existing ROE for pilots in No. 1 Air Division became an operational and national headache. Fundamentally, these restrictions brought out the differences in interpretation between the Canadian government and alliance military leaders with respect to NATO and Occupation responsibilities. While Canadian politicians made it quite clear that the Air Division was not to be involved in any engagement of enemy aircraft due to infringement upon occupational airspace, senior airmen like General Norstad at SHAPE viewed such incidents as part of NATO's defensive tasks. These differences were brought to the forefront when the alliance was confronted with several serious incidents in which Western aircraft were shot down by the Soviets along the occupational zones.

In the space of less than 24 hours, between March 11 and 12, 1953, two NATO aircraft were shot down by Soviet fighters in two separate incidents. In the first incident, two MiG 15s were engaged by two USAF F-84s over the Czechoslovakian–US Zone Boundary. In the ensuing confrontation one of the American fighters was downed, with the pilot ejecting safely and landing about 20 miles [32 kilometres] inside the US Zone.[60] The next day, a RAF Lincoln bomber was shot down by Russian fighters near Berlin. With respect to the second incident, NATO officials in subsequent classified correspondence revealed that the British aircraft was clearly inside Russian airspace to test the Allied radar screen. In order to carry out these tests satisfactorily, it was desirable to conduct the exercise as close to the Russian Zone frontier as possible. In typical cold war fashion, the Soviet Union was very cooperative with crash recovery and invited British officials to look at the wreckage and recover the bodies of the dead RAF airmen. For the Soviet Union to do so meant that they were confident that the RAF bomber had crossed over into their airspace.[61]

In the aftermath of the first incident on March 11, 1953, A/V/M Campbell sent two messages to A/M Slemon that described the details as well as the results of follow-on conversations he had with General Norstad. Campbell stressed that the incident was considered to be isolated and not an indication of a worsening international situation. The AOC wrote that Norstad was not content with the fact that the Canadians had "cold guns" and recommended that RCAF aircraft be armed and placed on a formal alert posture, as was the case with those of the three Western occupying powers. Furthermore, since the RCAF Sabres were, at the time, the best fighters in NATO, the senior USAF officer wanted to assign them to patrol the contentious flying corridors established around Berlin between the four occupying powers.[62]

Norstad's aim was to have standard ROE for NATO fighters in the Central Region. Dedicated alert stand-by aircraft carried out the interception under GCI control. Pilots were not permitted to open fire unless a hostile aircraft was clearly identified as such and had fired on NATO aircraft. If the hostile aircraft attempted to position to attack, alliance pilots were then permitted to defend themselves. Norstad felt that when NATO interceptor aircraft were out of radar range and over alliance territory, the pilots were permitted to defend themselves by force. Campbell expressed concern over the latter rule because of the lack of control and the potential for the unnecessary destruction of a hostile aircraft as a result of poor judgement by an alliance pilot. Of more immediate concern to the AOC was that he was being requested to implement these instructions drafted by Norstad to whom he was operationally responsible.[63]

59. Ibid.
60. Message from the AOC, 1 Air Division, Air Vice-Marshal Campbell to Air Marshal Slemon, CAS, dated March 11, 1953, File 73/1223, Raymont Papers, Series 2, Box 1040, DHH.
61. Message from The High Commissioner for Canada in London, Dana Wilgress, to External Affairs, Ottawa, dated March 20, 1953, subject: "Soviets Shoot down RAF Lincoln Bomber near Berlin," March 12, File 73/1223, Raymont Papers, Series 2, Box 1040, DHH.
62. Message from the AOC, 1 Air Division, Air Vice-Marshal Campbell to Air Marshal Slemon, CAS, dated March 11, 1953, File 73/1223, Raymont Papers, Series 2, Box 1040, DHH.
63. Ibid.

The Canadian government reacted with great concern to Campbell's messages. The AOC received his first reply on March 14, in a message signed by Slemon, but in fact written by Brooke Claxton:

> [More detailed] comment coming later. In meantime you no doubt appreciate the position. The forces under your command and other Canadian Forces committed to NATO are in Europe in accordance with and to carry out the intentions of the North Atlantic Treaty and the agreements and arrangements arrived at under its provisions. As we are not an occupying power and consequently have no rights or responsibilities as such, we would not take action arising out of occupational responsibilities of others. Such action might be taken by Russia as an excuse for challenge and attack, even over the corridors or possibly German territory and in any event might aggravate the situation. We mention this to remind you of it but we understand that there is no intention whatever to employ Canadian Forces except to carry out the intention of the Treaty and in accordance with arrangements made or to be made. Such NATO action would include, if this was desired, having your aircraft stand by and carry out interception with GCI control. If any new situation arises creating doubt as to whether or not action proposed would be pursuant to the provisions of the Treaty, we would expect to be consulted in advance of a request for deployment of forces, provided the operational situation permitted.[64]

In his memoirs, Lester Pearson vividly recalled Claxton's angry reactions upon receipt of Campbell's messages. Pearson added that he had to dissuade the defence minister from ordering the AOC to tell Norstad "that he had better find some other aircraft for these purposes."[65] As Pearson correctly concluded at the time, responding negatively to SHAPE would have been both imprudent and premature. Since it was learned that the RAF bomber had clearly strayed into Russian airspace, the heavy-handed response by the USSR was not surprising given the high state of tensions. Nothing serious came from these incidents, and the RCAF was not formally requested to perform occupational air-defence duties.[66]

If Pearson's recollections, years after the fact, paint a picture of a calm external affairs minister, correspondence at the time of these incidents tells a different story. Pearson was most concerned that Norstad was overstepping his authority by dictating operational ROE to the Canadian Air Division. On March 14, 1953, the external affairs minister expressed his views in a message to A. D. P. Heeney, then Head of Post, Delegation to the North Atlantic Council. In addition to portraying his concerns about the proper employment of RCAF aircraft, Pearson's comments in the following lengthy message provide a good summary of how the Canadian government looked upon the issue of ROE at the time:

> CAS message to Campbell was actually drafted by Claxton. You will of course appreciate the political importance of these developments. We do not want to precipitate Norstad into directing orders or requests to the RCAF requiring them to engage in new activities that might aggravate relations with Russia. The "peacetime" powers of SACEUR and therefore of Norstad are not as clear as they might be. He may "deploy ... major elements of forces assigned to his command in consultation with the appropriate National Authorities and in consonance with operational plans." He may also "place requirements upon national governments for the deployment of forces assigned to his command ... ." We think in this Department that this means that he cannot, without prior consultation with and consent of the Canadian government, assign a Canadian squadron to patrol, for example, along the American-Soviet zonal frontier, but it is far from clear. Whatever the legal position, it would be most unfortunate if Norstad were to address such an order or request to Campbell without first, at least, giving the Canadian government a reasonable time to consider the proposed order. If Norstad felt necessary to ask our squadrons to patrol inside Western Germany for the protection of NATO forces, along the Russian zonal boundary or the Czech border, I personally think that—the Canadian government would find it

64. Message from Slemon to Campbell, dated Marsh 14, 1953, File 73/1223, Raymont Papers, Series 2, Box 1040, DHH.
65. John A. Munro and Alex I. Inglis, eds., *Mike: The Memoirs of The Right Honourable Lester B. Pearson, Volume 2, 1948–1957* (Toronto: University of Toronto Press, 1973), 81–82.
66. Ibid., 82.

> difficult not to agree. If, however, he asked that our aircraft patrol one of the corridors to Berlin in Soviet territory, I doubt whether we would agree. The air corridors rest on old occupation arrangements, have no NATO character, and Canada has no rights in the corridors. One of the many troublesome features of the problem is that the American and United Kingdom service aircraft recently attacked may not have been under SACEUR's command. There is no sign that those governments are treating the matter in a NATO context. Some people here will be most reluctant to get the RCAF involved in what might be interpreted as the protection of occupation or other interests. However, I personally feel that Norstad could reasonably frame a request that made sense in NATO terms even though politically it might not be advisable to do so.[67]

Pearson's arguments were reasonable. While he emphasized Norstad had no authority to involve RCAF aircraft in actions in support of the occupational powers, he acknowledged the senior SHAPE air commander's authority to direct ROE to the RCAF in circumstances that were clearly related to the defence of NATO. Pearson's comments also underscore the tense times facing NATO in the early 1950s. He enunciated the concerns of the Canadian government about not unnecessarily provoking the USSR and starting a major war. Lastly, Pearson's comments reflect the government's objective of reassuring Canadians that their forces were in Europe strictly under the authority and collective interests of a multinational alliance and not as part of the occupation of Germany.

The question of authority for ROE was part of a larger and potentially troubling matter for the Canadian government. Fundamental to the St. Laurent and subsequent Canadian governments was the importance of being consulted before the alliance committed Canadian forces in NATO. In this regard, it was crucial that alliance military commanders first consult with the alliance's superior civilian authority, in which all member states were represented, before committing forces to war. Theoretically, this was the way it was supposed to occur. However, given that NATO was never attacked in the Central Region, there is no way of confirming if the military would have obliged. From a logical standpoint the realities of nuclear war demanded that the senior military commanders in NATO required considerable latitude in responding to an attack that would have precluded any time for civilian consultation.[68] As much as the 1952–55 ROE imposed serious operational challenges on RCAF pilots by restricting their effectiveness and response time, these restrictions were much more of a national political concern. Canadian politicians apparently forgot that the ROE proposed and adopted by SHAPE were no different from those approved jointly earlier by the US and Canada for the air defence of North America.[69]

West Germany joins NATO

Since national concerns with ROE were directly related to the future of West Germany, the integration of this country into the North Atlantic Alliance became a Canadian political and military objective in 1954–55. As discussed previously, this outcome was a slow and complex process due mainly to French concerns. Since 1950, discussions had been taking place to give Germany a new status in the military sphere by including it in a European defence community. The Bonn Conventions (which were to give Germany a new and more independent status) and the European Defence Community Treaty were signed in May 1952. Although ratified by the Federal Republic of Germany, they did not come into effect because of their virtual rejection by France in August 1954. New negotiations accordingly took place later that autumn. These resulted in the revision of the Bonn Conventions on terms more favourable to the Germans. A further outcome from these negotiations was the formation of the Western European Union. A primary function of this organization was the regulation of its members' armaments, including those of Germany. These conventions and protocols were known collectively as the Paris Agreements. They were ratified by all powers concerned, and, on May 5, 1955, the Allied High Commission was disbanded and the occupation came to an end.[70]

67. Pearson message to Heeney, subject: "Soviet Air Attacks in Germany; Possible Employment of RCAF Squadrons," dated March 14, 1953, File 73/1223, Raymont Papers, Series 2, Box 1040, DHH.

68. For a detailed discussion on this Canadian foreign-policy question, see Howard H. Lentner, "Foreign Policy Decision Making: The Case of Canada and Nuclear Weapons," *World Politics* 29 (October 1976); 29–66; and John English, "Problems in Middle Life," in *Canada and NATO*, 47.

69. These ROE, which concerned the interception of unidentified aircraft flying over Canadian and US territory, were adopted by the PJBD in May 1951, as Recommendation 51/4. This recommendation was approved by the Cabinet Defence Committee on May 30, 1951, File 73/1223, Series 2, Box 1040, DHH.

70. RG 24, Claxton Papers, Volume 108, LAC.

As a result of these Paris Agreements, NATO forces were, henceforth, in West Germany on a contractual basis. The agreements provided for the negotiation of new arrangements respecting the rights and obligations of foreign forces in the Federal Republic of Germany. As a result of this achievement, the status of Canadian forces in Germany became clearer and the restricted ROE were lifted. Overlooked in this outcome were construction costs for the Army Brigade and two RCAF wings which had come to $5,000,000. These were paid out of the occupation costs even though Canadian policy was not to add to such costs when its forces arrived in the fall of 1951.[71]

Thermonuclear weapons and Canada's commitment to NATO

By 1955, six years into the life of the North Atlantic Alliance, Canadian political leaders continued to reaffirm their faith in NATO as the primary body that provided the greatest guarantee of Western security and world peace. While Canadian adherence to the institution and collective security goals of the UN had not disappeared, repeated public statements made by key Cabinet members like Lester Pearson placed that world body in a lesser role than NATO in terms of best meeting Canadian national security and foreign-policy objectives:

> Personally I am more than ever convinced that the continuing cohesion of all the Atlantic powers, not merely the European powers, is vitally important to the preserving and reinforcing of the peace of the world and that no security and no stability can be achieved through isolated arrangements, either in North America or in Europe. Continentalism [sic], whether of the European or American variety, is not enough for safety.[72]

Pearson's speech referred to another benefit of being a member of NATO. In addition to its function as a guarantor of the peace, the alliance solved several of Canada's long-time foreign-policy dilemmas. With Britain and the US in NATO, Canada was able to satisfy a foreign-policy objective that allowed it to deal with these countries on a multilateral versus bilateral basis. Having these two countries in the alliance also facilitated Canada's chances of keeping good relations between them, another traditional foreign-policy concern. As well, Canadian security planners understood that the political and military credibility of NATO would have been non-existent without the membership of the US and Britain.[73]

Notwithstanding the continued strategic value of the North Atlantic Alliance to Canadian national security, by 1955 the Liberal Government had made several decisions that impacted on its future military commitments to central Europe. At the meetings of the NATO Council in December 1953, the unrealistic force goals determined at Lisbon the previous year were officially abandoned, and it was decided to stabilize alliance forces at levels then in place. For the Canadian government, this announcement underpinned its decision to limit the size of its forces in Europe to existing levels. Further, future mutual aid contributions would remain the same as per previous years, which amounted to $300 million annually.[74] Overshadowing the question of force levels were pressing national-security concerns over the proliferation of atomic and nuclear-weapons technology and their production by the US and Soviet Union.

The USSR exploded its first thermonuclear device in 1953, thereby joining the Americans as owners of such destructive power. Consequently, countries—including Canada—understood that it had become more important than ever to maintain peace between the two superpowers. This fact underscored the Canadian government's decision to join international efforts on nuclear disarmament through the UN or other forums, even though it had officially supported NATO's nuclear-weapons policy. From a Canadian leadership point of view, these seemingly contradictory foreign-policy objectives were reconciled, in that each contributed to global stability—the former by reducing the size of nuclear arsenals and the latter by maintaining the peace through deterrence.[75]

71. Ibid.
72. Lester Pearson, Secretary of State for External Affairs, Canada, *House of Commons Debates, 1953–54, Volume II*, 1587, quoted in Masters, 185.
73. Masters, 183–85.
74. Extract from Speech by the Honourable Ralph Campney, MND, in the House of Commons on January 28, 1955, File 73/1223, Raymont Papers, Volume 132, DHH.
75. Melvin Conant, *The Long Polar Watch: Canada and the Defense of North America* (New York: Harper & Brothers, 1962), 123–31. See also Masters, 188.

Ownership by the Soviet Union of such weapons of mass destruction, combined with what was believed to be the development of jet-powered strategic bombers in the class of the newly introduced US B-52s in SAC, also led to growing concerns in Canada about the state of air defence over Canada. In a *Globe and Mail* column published on September 30, 1955, Lester Pearson argued that this Soviet capability placed Europe and North America in equal danger and that NATO needed to rationalize its forces in this context. Although the external affairs minister denied that there was any official consideration of withdrawing Canadian forces from Europe, he argued that if air and ground forces were removed from Europe to North America "it would be a shift of strength rather than a withdrawal."[76]

Despite Pearson's qualification, these ambivalent messages coming out of Ottawa worried senior commanders at NATO. Canadian leaders had made similar public statements over the previous year. On June 10, 1954, General Gruenther, then SACEUR, addressed a special meeting of the CDC. He expressed concern over the state of public angst with the development of the hydrogen bomb. He argued that while the West suffered from grave armament deficiencies, it still had one main advantage by the possession of the atomic bomb and the means to deliver it in large numbers. From a military and NATO point of view, if the decision was made to dispose of the bomb, as advocated by some people, it would spell disaster for the West, as it represented a considerable advantage at that time. Gruenther also referred to previous debate in the Canadian Parliament over the suggestion that part of the Canadian Air Division be returned to Canada to strengthen national defences. Once more, SACEUR stressed that such a decision would be a major catastrophe for Europe and the free world. Due to an inchoate system that had to balance individual national commitments on the one hand and commitments to NATO on the other, the air defences of Europe were in much worse shape than those of North America. Despite the fighter forces available, it would be extremely difficult to guarantee protection for more than just a few vital targets.[77]

All-weather squadrons for the Air Division and RCAF air-power doctrine

General Gruenther's concerns over the future status of the Air Division were in fact allayed days before his address to the CDC. He was informed by the Canadian government that it had agreed to replace four existing F-86 IDF [Interceptor Day Fighter] squadrons with four CF-100 all-weather squadrons, subject to certain conditions. These aircraft would not be dispersed to other than 1 Air Division wings and the AOC of the Air Division was to retain operational and administrative command over RCAF units. Canadian officials also wanted the additional capital expenses that would accrue due to the introduction of the CF-100 in Europe to be funded under the common NATO infrastructure programme.[78] While negotiations over the latter issue would become contentious between Canadian and NATO officials, SACEUR was pleased to see Canada commit these badly needed combat aircraft to the central area in Europe after several years of pushing the Canadians to do so.

Canadian airmen had mixed feelings over the decision to introduce the CF-100 into Air Division wings. On the one hand, this commitment by the Liberal Government was a good indication that it intended to keep air forces in Europe; therefore, it was a positive indication that the RCAF would continue to receive favoured political support. On the other hand, Canadian airmen had to keep the big picture in mind in terms of the future role of Canadian air power. Prior to discussing the details of moving CF-100s to Europe, it is useful to describe the contemporary views of Canadian airmen and others with respect to the importance of air power in the large context of national policy.

The threat posed to Canada by Soviet long-range bombers armed with nuclear weapons was proof enough for the Canadian government maintaining expensive forces in being. Even so, more important to Canadian airmen was for their political leaders to continue placing priority on air power as the primary defence against this threat. The RCAF also understood the strategic threat to

76. *The Globe and Mail*, September 30, 1955, quoted in Masters, 185.
77. Minutes of a special meeting of the Cabinet Defence Committee, June 10, 1954, RG 24, Claxton Papers, Volume 108, LAC.
78. SACEUR Message SH 20911, dated June 6, 1955, File 73/1223, Raymont Papers, Volume 132, DHH.

Canada proper and expected the same political support for its home-based Regular and Auxiliary air-defence squadrons as it got with respect to the Air Division in Europe. However, in the larger political and economic context, Canadian airmen did not deny the financial realities that placed a ceiling on the total number of RCAF squadrons that the country could sustain. Their dilemma was the need to balance forces, both at home and in Europe. There was a limit to the number of CF-100s that could be delivered to the Air Division so as not to degrade the operational capabilities of the national air-defence squadrons.[79]

The aforementioned limitation meant that the four all-weather squadrons destined for Europe would not be dispatched until the nine domestic Regular air-defence CF-100 squadrons were brought up to full strength.[80] This was not expected to occur until early 1956; the first CF-100 squadron did not deploy to Europe until November that year, with the remaining three following in the spring of 1957. From an operational point of view, the utility of sending Canadian all-weather fighter squadrons to Europe was, therefore, questionable because they arrived after the period (1953–56) during which they were most needed.[81] The arrival of these aircraft was also questionable strategically because NATO's "new look strategy" placed a premium on nuclear-strike forces as opposed to air-defence aircraft. The assumption that nuclear weapons would be employed by both sides from the outset of war, and the acknowledgement by SHAPE air planners that its air-defence forces would be ineffective against fast-moving Soviet and Warsaw Pact nuclear bombers and fighter bombers, meant that the best defence was the first use of offensive tactical nuclear weapons as opposed to strengthening air-defence forces.[82]

If the RCAF had concerns about the operational value of sending CF-100s to Europe, Canadian airmen were careful not to criticize the importance of the Air Division to alliance and national defence. Operational details were not allowed to mask the value of the Air Division in Europe in sustaining the ascendency of Canadian air power in the early cold war. Canadian airmen, driven by a concern over their image in the public eye, used their alliance commitments as a means with which to defend air power's higher ranking in military importance over the countries' surface forces. In the spring of 1952, Air Commodore Claire Annis, at the time a senior member of the Air Staff, made a series of public speeches on contemporary air-power doctrine. Annis enunciated the classic airmen's view of the world. In modern warfare, land and sea power played subordinate roles to air power. It was militarily vital to centrally control all air resources. He also told his audience that air support to the surface forces was a low priority.[83] Ironically, in light of the favoured position of the RCAF at the time relative to the RCN and Canadian Army, Annis referred to airmen as the "poor cousin" of the other two services. He saw this as a problem in that the air-support demands of the latter two would seriously undermine the strength of air power.[84]

Wishing to gain public support, Annis spelled out four reasons why Canada was justified in placing emphasis on air power. First and foremost was the need to defend against the primary threat to the country, which was an aerial attack against its population, defence establishments, and industry. Second, air power prevented the enemy from gaining air superiority over Canada

79. Air Marshal Slemon, CAS, raises these issues in a letter sent to General Foulkes entitled "RCAF All-Weather Fighter Forces for Europe," dated December 7, 1954, File 73/1223, Raymont Papers, Volume 132, DHH. See also, "Minutes of the 206th Meeting of Air Members," Item 1007, held November 26, 1954, File 73/1223, Raymont Papers, Volume 1825, DHH.

80. Memorandum from EA CAS to VCAS, dated September 8, 1955, RG 24, Volume 6167, File 2, LAC. EA CAS quoted his boss as saying, "In preparing the plan, it should be borne in mind that at no time during the transfer of squadrons overseas is the present total of 9 CF-100 Squadrons in the Canadian Defence Force to be reduced ... ."

81. Internal Air Staff Memorandum from the Chief of Operations and Standards to EA CAS, entitled "Air Division History," dated November 28, 1958, RG 24, File 096–100–56/1, Volume 4, North Atlantic Council (NAC).

82. Ibid. For a contemporary discussion on the challenges that faced NATO in converting from an alliance air doctrine characterized by the need for air defence and close air support to one of tactical nuclear strike, read Beaufré, *NATO and Europe* (London: Faber & Faber, 1967), 49–52. General Beaufré was at SHAPE between 1952 and 1955 and was charged with the study of the introduction of tactical nuclear-weapons, developed by the US after May 1950, and he had the dubious job of coming up with a survivability plan in case of a thermonuclear attack.

83. Address delivered by Air Commodore C. Annis before the Montreal United Services Institute entitled "The Roles of the Air Forces," on February 21, 1952, 1–4. Annis states that "the first and main role of air forces is to destroy enemy air power ... [and] to exploit the air over the enemy's heartland. With respect to support to the Army and Navy, the airman "is sympathetic and willing ... [but] air forces employed in tactical support of surface forces do not contribute significantly in the real battle for air supremacy." File 79/40, DHH.

84. Ibid., 2. Annis states that "the airman is very much a minority compared with surface forces in committees, in politics, in industry, in the press, among the people ... ."

and the US. Third, making the RCAF and air power a defence priority maximized employment and economic benefits. Lastly, an air-minded country like Canada was able to continue to carry out its traditional role with respect to air training.[85]

Annis did not appear to use persuasive military reasons to convince his audiences of the virtues of air powers. In fact, these speeches showed that Canadian airmen felt compelled to be more parochial when facing the public. Yet it seems questionable, given traditional military protocol, that an active Canadian military officer would make a public presentation without first having its contents endorsed by political officials in National Defence. Proof that Annis was a messenger for the MND, if not the Canadian government, comes from the fact that his speeches were made concurrently to those made by Defence Minister Claxton in the House of Commons emphasizing the need to place priority on the RCAF. On April 3, 1952, Claxton reminded MPs that "air power was a dominant factor in war today ... it cannot win a war alone, but without it no war can be won."[86]

This favoured position enjoyed by the RCAF, at least relative to the Canadian Army, did not diminish later on. By the mid-1950s, the Canadian government placed considerably more faith in the military value of the Air Division than its Army Brigade. Remarks made to General Foulkes by Bud Drury, the Deputy MND, in a memorandum written in April 1955, suggest that the Liberal Government was not going to reinforce its Army Brigade in Germany to division strength in times of tension, as promised to NATO. The argument was that the rapid onset of a thermonuclear war precluded the timely dispatch and transportation of the additional two brigades. Worse for the Canadian Army, the government was to relegate its land forces to a civil defence role:

> I think it is agreed that the next global war, if it comes, will be thermonuclear. If it is thermonuclear, there will be some, at least, very spectacular damage done to the North American continent, probably including Canada. We have, in Canada, no adequate civil defence organization, nor is it likely that a satisfactory civil defence apparatus separate from the military will ever be created. In the absence of an adequate civil defence machine, the army, as possessing the only large body of organized men not committed to the actual battle, will, in all probability, be called upon to assist in the maintenance of civil administration and disaster control and relief. This means that the balance of the 1st Canadian Division will, in reality, be unlikely to depart shortly after the outbreak of a war. This, the Canadian government recognizes now ... . From his side, I am sure that General Gruenther must realize that under any arrangements that now seem possible, the likelihood of the balance of the division, even if it were made available in Canada, being embarked, landed at some chaotic channel port, marshalled, married up with its equipment, and put into battle in the first ninety days, is too unrealistic.[87]

These were the words of the senior public servant in National Defence and an ex-Army brigadier-general from the previous war. His admission that the Canadian land contribution to NATO was unlikely to be brought up to division strength, and that nuclear war by its nature relegated land forces to a civil defence role, says much about the low priority assigned to the Canadian Army in the early cold war. By implication, it would not be unreasonable to assume that Drury considered Canada's primary defence contribution in NATO's Central Region would come from the four wings of the Air Division that were in place and at war establishment. So if the RCAF was confident that it was the service of choice as far as their civilian masters were concerned, why did it feel compelled to use senior airmen like Annis to reinforce this fact through public engagements? In part, the actions of Canadian airmen can be explained in terms of having to reconcile future service goals with existing operational realities. Similar to the dilemma that faced the US Air Corps during

85. Address delivered by Air Commodore Annis before the Trenton Chamber of Commerce entitled "The Role of the RCAF," on March 26, 1952, 5–7, File 79/40, DHH.

86. Quoted in Eayrs, *In Defence of Canada, Vol IV*, 225.

87. Bud Drury classified memorandum to Foulkes in advance of the latter's visit to SACEUR, dated April 15, 1955, File 73/1223, Raymont Papers, Volume 1826, DHH. Not surprisingly, the Chairman of the CSC was reluctant to inform Gruenther of his government's position with regard to reinforcement of the Army Brigade in Germany. However, as a soldier, Foulkes' embarrassment in NATO circles would have paled compared to his shock in being informed that the Canadian Army was to be relegated to civil defence duties in a nuclear war. Most interesting is that Drury's analysis with respect to reinforcing Europe was as valid then as it remained until the end of the cold war. The bottom line was that the Canadian military never had the requisite air and sea transportation assets to move two brigades in time.

the interwar period, the post-war RCAF desperately wanted to retain offensive roles like strategic bombing, but in order to gain public support ahead of the Army and Navy, it had to champion a defensive role of air defence.[88]

These strategic considerations on the part of the RCAF overshadowed any operational concerns with respect to moving CF-100s to the Air Division. Canadian airmen reconciled these concerns with advantages to be gained by the RCAF with the introduction of these aircraft. The relative complexity and sophistication of the CF-100 in comparison to the Sabre in the air-defence role ensured the integrity of the RCAF overseas forces in NATO's Central Region with respect to operational control. The introduction of the CF-100 also assured the Air Division an allocated air-defence sector once NATO had created an integrated air-defence organization. The CF-100 was capable of operating in poor weather conditions and at night. When added to the Sabre daytime role, the CF-100, therefore, gave the Air Division a 24/7 fighting capability. While the RCAF was also excited by the suggestion for the CF-100 to conduct offensive night-intruder missions, this role was never adopted. One final advantage was to be gained in a scenario whereby all Sabres were phased out and replaced by CF-100s as an interim all-weather measure until a more advanced fighter like the CF-105 Arrow was introduced into squadron service. Seeing as the original RCAF plan was to equip both the national air-defence and air-division squadrons using the Arrow, considerable savings would have been realized in personnel training, operations, maintenance, and logistics costs.[89]

There were also strategic and economic considerations that led the RCAF to agree to the use of the CF-100 in Europe. The aircraft's sophistication and the lengthy training period required to train the pilot and navigator to operational standards made it impractical to assign the CF-100 to Auxiliary squadrons in Canada. Although the availability of sufficient aircraft and crews to man both the national air-defence and NATO squadrons in the 1956–57 timeframe would remain problematic, the decision not to equip Auxiliary squadrons with CF-100s at least gave this desired outcome a reasonable chance for success. The corollary to this exchange of aircraft was that the repatriated Sabres could be used by Auxiliary squadrons in Canada. Fitted with air-to-air missiles and having a superior ceiling than the CF-100, it was believed that these Sabres could have been operationally effective against Soviet bombers. Important as well, such a role would have sustained a combat role for the Auxiliary squadrons. Unfortunately, for the future of the RCAF Auxiliary, this plan never panned out. Sadly, by 1959, the Auxiliary was relegated to transport as well as search and rescue roles.[90]

The economic considerations were potential overseas sales of the CF-100. Initially the Air Staff worked closely with representatives from the manufacturer, A. V. Roe, to promote foreign interest in this Canadian-built, all-weather fighter. This was a reasonable strategy since RCAF crews flying this aircraft in Europe regularly visited bases of other NATO countries. Even so, the only foreign use of the CF-100 was by the Belgian Air Force, who obtained them through Canadian mutual aid. The sincerity of the Air Staff in this matter is questionable as well. In 1956, before they realized that the Arrow was too costly, Canadian airmen were lukewarm to promoting the CF-100 for fear of competing with, and thus jeopardizing the future of, the much anticipated but expensive CF-105.[91]

By April 1955, the Air Staff had worked out the details to exchange four CF-100 squadrons from Air Defence Command (ADC) for four squadrons of Sabres from 1 Air Division. 445 AW(F) [All-weather, Fighter] Squadron, based at RCAF Station Uplands, was to replace 413 (F) Squadron at 3 Wing on November 1, 1956; 423 AW(F) Squadron, based at RCAF Station St. Hubert was to replace

88. For a description of the American Air Corps dilemma, read Michael Sherry, *The Rise and Fall of American Air Power* (New Haven: Yale University Press, 1987), 38–43; Futrell, Vol. I, 39–126; and Ronald Spector, "The Military Effectiveness of the US Armed Forces, 1919–39," in *Military Effectiveness (3 vols) Volume II, The Interwar Years*, ed. Millet, Allen, and Williamson, (Boston: Unwin Hyman, 1988), 78.

89. Air Staff Aide Memoire, dated December 1954, File 73/1223, Raymont Papers, Volume 132, DHH.

90. The decision not to give the Auxiliary an air-defence role—combined with the disbandment of Tactical Air Command on January 1, 1959, which officially ended the RCAF's operational tactical-air-support component— was a bitter end for the Reserve component of the RCAF. This bitterness was sharpened by the realization that to some extent, the "Golden Years" of the RCAF applied to the Regular Force, but to neither the Auxiliary nor the Reserve. For a more detailed account of the demise of the RCAF Auxiliary, read Captain R. P. Haskell, "The Rise and Fall of the RCAF Auxiliary," Directed Research Project as part of the Continuing Studies Programme at the Royal Military College of Canada, Kingston, Ontario, 1998.

91. Paragraph 3 to Memorandum from Air Marshal Slemon to General Foulkes, entitled "NATO Meeting: Anticipated Questions re CF-100 Aircraft," dated September 27, 1955, File 73/1223, Raymont Papers, Volume 132, DHH.

414(F) Squadron at Baden on February 1, 1957; 419 AW(F) Squadron, based at RCAF Station North Bay, was to replace 441(F) Squadron at Marville on May 1, 1957; and finally, 440 AW(F) Squadron, based at RCAF Station Bagotville, was to replace 416(F) Squadron on August 1, 1957.

The actual changeover of squadrons was slightly different from the plan above. As it turned out, 445 Squadron replaced 410 Squadron at Marville on November 4, 1956, after a transatlantic flight that took five days due to poor weather. The routing for these and the following aircraft was via Goose Bay and Keflavik. 423 Squadron replaced 416 Squadron at Grostenquin on February 16; 440 Squadron replaced 413 Squadron at Zweibrucken on May 12, and 419 Squadron replaced 414 Squadron at Baden on August 5, 1957. The repatriated Sabre squadrons converted to CF-100s at the RCAF station from which their sister CF-100 squadrons had originated.[92]

This exchange of RCAF squadrons raised several operational and logistical problems. By the end of 1955, the Air Staff learned that in the next year it would not have sufficient all-weather crews to man the squadrons in Canada and Europe to the necessary ratio of 1.5 aircrews per aircraft. It was decided, therefore, to man the aircrew positions at home and overseas on parallel ratios until they had reached a 1 to 1 ratio. Interestingly, given the national priority placed on fulfilling its NATO commitments, the Air Staff directed that the ADC crew ratio of 1.5 to 1 be met before the same ratio was achieved in Europe. To meet this goal, 120 pilots had to be withdrawn from 1 Air Division during the period 1 May to 1 August, 1957.[93]

Another potential stumbling block to the successful aircraft exchange was the question of funding for the additional construction required for hangars and operational buildings to support the CF-100s at each Air Division wing. According to Canadian officials, the quid pro quo for the all-weather commitment was for the alliance to pay for the costs through the NATO infrastructure formula. In fact, they were paid for by the Canadian and German governments. This outcome had little to do with the generosity of these countries. Canadian officials became increasingly impatient with the lack of NATO standards for all-weather wings; as the exchange dates grew near, national funds had to be spent. NATO funding was predicated on these standards being approved. The Germans also had ulterior motives by assuming financial responsibility for the two RCAF wings in their country. They wanted to assert their new status as an equal member of NATO and to obtain leverage in negotiating the new Status of Forces Agreements with those countries that had forces in Germany. With respect to the two RCAF bases, the German government wanted to control the standards of construction in case the German Air Force would occupy them in the future.[94]

In late February 1956, Treasury Board approved the recommended construction at the two French bases, Grostenquin and Marville, in the amounts of $1,219,500 and $1,110,500 respectively. However, in a letter to National Defence, Treasury Board stated its qualifications for this approval:

> Approval for [this construction] was given ... subject to an undertaking by your Department to inform the appropriate NATO authorities that Canada is doing this work at national expense, at this time, rather than ask that it be included as an infrastructure project, because no standards have been developed by SHAPE for all-weather fighter facilities. Should SHAPE develop higher standards for present fighter fields, Canada will expect credit for the work done on these two fields. [95]

Treasury Board did not approve the construction recommended for the two German airfields, Baden-Soellingen and Zweibrucken. It directed that any commitment with regard to these locations had to wait until financial arrangements were cleared by the Bonn government. If such financial arrangements were not made, it would have been necessary to refer the matter to Cabinet. Luckily for the Canadians, in late July 1956, the Germans agreed to pay for the costs.[96]

92. Air Staff meeting, dated April 1, 1955, RG 24, Volume 6167, File 2, LAC.
93. Internal Air Staff memorandum from Wing Commander Morrison, Personnel and Careers 2, to the Deputy Personnel and Careers, dated April 19, 1956, RG 24, Volume 6167, File 2, LAC.
94. Letter by Group Captain Bray, on behalf of the AOC, No. 1 Air Division, to CAS, dated May 29, 1956, RG 24, Volume 6167, File 2, LAC.
95. Treasury Board letter to the Deputy Minister, Department of National Defence, F. R. Miller, dated February 22, 1956, RG 24, Accession 1983–84/227, LAC.
96. See internal Air Staff memorandum, no author, entitled "Report on Visit to Air Division Re CF-100 Introduction," paragraph 16, dated July 31, 1956, RG 24, Accession 1983–84/227, LAC.

NATO strategy and the dispersion of RCAF units and personnel in Europe

Whatever the arguments were for sending CF-100s to the Air Division, Canadian airmen knew that the urgency for an all-weather capability in NATO had already been eclipsed by the assumptions of MC 48. The effect of this alliance strategic document upon NATO air-power doctrine was profound. Emphasis was placed on the use of tactical nuclear weapons in the interdiction and counter-air tasks as opposed to using conventional weapons for close air support, interdiction, and counter-air operations. Closely related to this new doctrinal shift in tactical air power were changes made by the US and Britain with respect to their strategic nuclear forces. In light of the threat from Soviet nuclear bombers, the Americans repatriated their strategic bombers from their deployed bases in France, Morocco, Greenland, Iceland, and the Azores to the continental US. This move was accompanied by the introduction of jet-powered airborne refuellers, airborne alert aircraft, extended ground alerts, improved global communications, and the intercontinental B-52 bombers capable of high-speed, high-level penetration.[97]

The RAF reduced its production of Canberra medium bombers that were designed to operate with conventional weapons and accelerated production of its strategic nuclear "V" bomber force. The emphasis on nuclear war also permitted the British to drastically reduce their planned number of squadrons assigned to 2 ATAF. In 1954, the RAF planned to commit 56 squadrons to the Central Region. Their aircraft were to perform tactical air support and air-defence roles. These numbers were reduced to 35 in 1955, and by 1957, there were only 17 RAF squadrons in all of 2 ATAF.

The emphasis placed by the RAF and USAF on strategic nuclear air power at the expense of resources committed to air defence was relevant to the future plans of the RCAF and its selection of air-power roles. As mentioned earlier, the RCAF was not comfortable with the air-defence role in Europe. On the other hand, any change in role could not come at the expense of the Air Division itself. Another important consideration for Canadian airmen, given the eventual need to replace its obsolescent fighters, was that in addition to the strategic insignificance of air defence in NATO's Central Region, there remained little incentive for Western aircraft manufacturers to develop interceptors or air superiority fighters.[98]

In a meeting of the Air Members on September 6, 1956, the CAS and his senior officers agreed to use MC 48 as the strategic-guidance document for the RCAF. This NATO document, approved by the Cabinet on December 7, 1955, was henceforth used by Canadian airmen in determining priorities and policies for the RCAF.[99] Interestingly, mere months before the first CF-100 squadron was on its way to Europe to increase the air-defence capability of NATO's Central Region, the RCAF had already decided that its operational priorities needed to be better aligned with those of the government and NATO. In other words, it had to concentrate on those air-power roles that were best suited to fighting a nuclear war and posture itself for maximum survival.

Survival meant the dispersion of Air Division units (including personnel, aircraft, and support equipment), and from the beginning was an operational priority. One suggestion, that of integral air defences at each wing, was never realized due to the cost and manpower ceilings placed on Canadian forces in Europe by the government.[100] The most important task was the dispersion of wing aircraft, aircrews, support personnel, and equipment. NATO paper MC 60, "The Improvement of the Posture of SACEUR's Air Force Units to Ensure Retention of an Adequate Operational Capability Under Enemy Attack," which was approved by NATO Council on April 25, 1956, outlined a number of objectives to be achieved by SACEUR's air forces. These included their dispersal from existing main bases so that each base operated only one squadron. Although this principle of dispersion was approved by the Department of National Defence, it called for an unrealistic increase in the number of NATO airfields to be built between 1957 and 1960.[101]

97. Armitage and Mason, 196–99.
98. Ibid., 200.
99. Minutes of the 245th Meeting of Air Members, paragraph 1, held September 6, 1956, File 73/1223, Raymont Papers, Volume 1826, DHH.
100. Minutes of a special meeting of air members, held June 24, 1952, File 73/1223, Raymont Papers, Volume 1823, DHH.
101. Letter from the Deputy Minister, Department of National Defence, to the Under Secretary of State for External Affairs, Mr. Leger, dated March 14, 1957, RG 24, Accession 1983–84/227, Box 21723, Volume 2, LAC.

Since the Air Division comprised 12 squadrons on four bases, 3 squadrons per base, it required eight additional airfields if it was to implement fully SACEUR's dispersal plan. Due to the extreme shortages of airfields in Western Europe, the best SHAPE could do initially was allocate to the Air Division four deployment airfields located at Stuttgart in Germany, St. Hubert in Belgium, Sandweiler in Luxembourg, and Rocroi in France. It was not until March 1958 that the Canadian and Belgian governments negotiated a formal agreement for the use of two dispersion bases for the Air Division in Belgium at St. Hubert and Bertrix. On July 15 that year, the Canadian and French governments signed an agreement for the use of Rocroi as a dispersion base for the Air Division.[102] Rocroi was located about 50 miles [80 kilometres] northwest of Marville near the French-Belgian border. St. Hubert and Bertrix were located just 50 and 30 miles [80 and 48 kilometres] respectively north of Marville (see Figure 5-2). In addition to these three "formal" dispersion bases, Air Division squadrons could be deployed to other primary NATO and dispersion airfields.

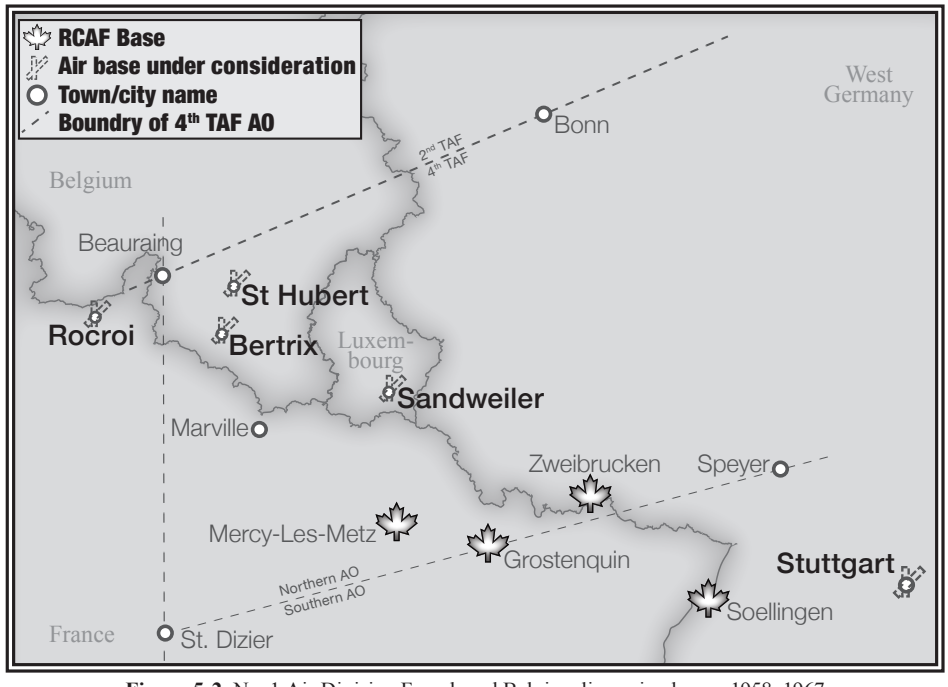

Figure 5-2. No. 1 Air Division French and Belgian dispersion bases, 1958–1967

These allocations were acceptable to Canadian officials. However, because full peacetime occupancy of these deployment bases by complete squadrons was financially prohibitive, they were to be pre-stocked with materiel and communications equipment so that immediate deployment of squadrons could take place within a minimum period of time upon the announcement of an alert. In addition, these bases were to be occupied on an intermittent but continual basis throughout the year by rotating squadrons or flights for deployment training and exercises from the main bases. Pre-stocked materiel at the deployment bases was to be under the care of national civilian caretakers during the periods between rotating squadron elements.[103]

During a major exercise, or on the declaration of an alert, the plan was to deploy one Sabre squadron of 25 aircraft to each field. Supporting ground crew totalling approximately 200 personnel, and the remaining squadron aircrew were to be flown in by Dakota aircraft from the main bases. The RCAF population at each deployment airfield was placed at approximately 250 personnel, all of whom were accommodated in tents.[104]

102. Minutes of a Meeting of the Privy Council, dated March 18, 1958, File 73/1223, Raymont Papers, Series 9, Volume 3233, DHH. See also RG 24, Volume 23538, LAC.
103. Ibid.
104. Ibid.

To what extent the Air Division wings exercised dispersion of their squadrons is unclear. One Sabre veteran recalled that his squadron, 434, based at 3 Wing, deployed only once during his time at Zweibrucken between 1953 and 1957. Interestingly, they dispersed to Pferdsfeld, the airfield rejected by the RCAF in 1952. Because this airfield was limited to a runway and ramp, the maintenance officer from 434 Squadron led a road move of vehicles transporting the necessary aircraft support equipment and logistical supplies to operate independently from this austere airfield. Prior to the arrival of the aircraft, pilots and support personnel lived "under canvas" and ate field-cooked meals for the duration of the deployment. While this particular deployment was a good test of 434 Squadron's ability to disperse and survive away from its main operating base, physical dispersion for Air Division squadrons was more routinely exercised by visiting other main NATO airfields for short periods of time. Operating conditions in these circumstances were considerably less challenging.[105]

SHAPE policy also called for each wing to adopt "vicinity dispersal." This concept, in addition to limiting the number of aircraft at each wing to no more than 25 aircraft, required two dispersal areas per airfield that were a minimum of three miles [4.8 kilometres] apart from each other and the main airfield. Roads and/or taxiways were to connect the airfield and dispersal areas and needed to be at least 12 metres wide. These "taxiways" had to have at least one stretch that was 5,000 feet [1,524 metres] long so that it could be used as an emergency runway. This policy was never implemented at the RCAF wings. In a message to 4 ATAF, the Air Division pointed out that the topography around Zweibrucken precluded the establishment of dispersal airfields. Such a concept was also counterproductive since the lengthy taxiing of aircraft between the main and dispersal airfields would cause excessive wear on the aircraft. If SHAPE insisted that vicinity dispersal was to be a peacetime as well as a wartime policy, the RCAF suggested that complete dispersal airfields be built 10 miles [16 kilometres] from the main airfields.[106] In any event, the utility of such a policy was questionable in light of the expected yield of Soviet and Warsaw Pact tactical nuclear weapons that became operational in the late 1950s.

Protection of its military forces and personnel was a main concern of Air Division planners. Once it was determined that RCAF personnel could go overseas accompanied by their families, consideration was given to repatriating these dependents to areas west of the forward bases in Europe, and eventually back to Canada, before the outbreak of hostilities. In April 1953, the CDC authorized the movement of dependents of service personnel abroad at public expense in those cases where the serving member undertook a period of service in Europe of two years or more and was able to find suitable accommodation for his dependents.[107] In order to facilitate the availability of housing in Europe, the Canadian government subsequently authorized the construction of married quarters at each wing. These were completed between 1955 and 1956.

In addition to the obvious quality-of-life benefits this policy brought to the members of the Air Division, its approval was also based on military considerations. Since most members of the forces accompanied by their dependents preferred a three-year posting, the movement of dependents overseas eased the manpower problems of the RCAF because fewer men were required to provide a pool in Canada to furnish personnel for rotation. While this policy did add to the overall expense for support to Canadian forces overseas, at the time, Defence Minister Claxton rationalized that the additional expense of the movement of personnel overseas was part of the cost of the voluntary system of enlistment.[108]

The key to the successful evacuation of military dependents in a timely fashion rested on the Air Division's indigenous airlift capability based in the UK at 30 Air Materiel Base Langar. This station was located 22 miles [35 kilometres] northwest of North Luffenham (see Figure 5-3).

105. Interview with Leo O'Donovan, Orleans, Ontario, August 19, 2004. He was a member of 434 Squadron at 3 Wing from 1953–57 and later was a CF-104 strike pilot in 430 Squadron, also at 3 Wing, from 1964 to 1967.

106. Ibid.

107. Minutes of the 93rd Meeting of the Cabinet Defence Committee regarding "Movement of Dependents Overseas," held on April 13, 1953, RG 2, Volume 2749, LAC.

108. Ibid.

Langar was a wartime RAF station, which had also been used by the United States Army Air Forces. The station was of the dispersed type, and its buildings were non-permanent. In early 1952, rehabilitation of the station to Canadian requirements was carried out under Air Ministry contract, and a considerable number of prefabricated buildings were supplied by the RCAF.

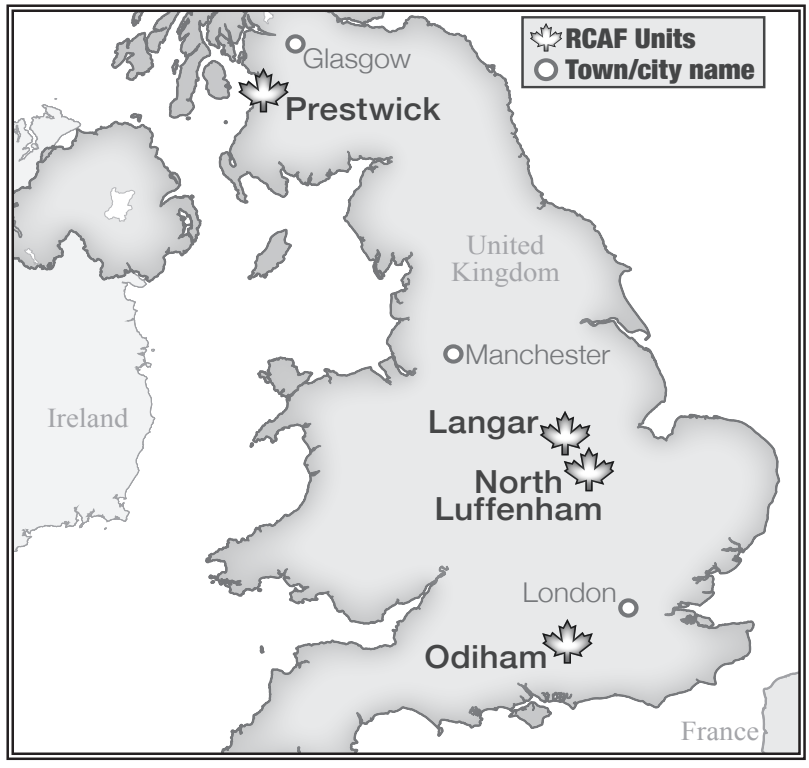

Figure 5-3. Location of No. 1 Air Division theatre logistics base and aircraft overhaul site

The main role of Langar was the provision of logistics support for the fighter wings of the Air Division. When it first stood up in the fall of 1952, it marked the first time that the RCAF established an overseas logistics support unit under its own complete control. Its establishment was, therefore, part of the RCAF's strategy of maintaining national operational and administrative control over its forces in Europe.[109]

Located at Langar was 137 (Transport, or "T") Flight. By 1956, this detachment was operating 5 Bristol Freighter and 12 C-47 Dakota transport aircraft and provided the Air Division with an integral air-transport capability. Its aircraft flew personnel and equipment between Langar and the four wings on the Continent. They also ferried squadron personnel to deployed exercises at various NATO airfields and to its gunnery ranges at Rabat, French Morroco, and Decimomannu, Sardinia.[110] In addition to 137(T) Flight, Langar hosted three logistics units that were vital to the daily support of the Air Division.

312 Supply Depot received and stockpiled shipments from North American and European sources and prepared shipments of aircraft, mobile equipment, and ground handling equipment spares. These spares were held in quantities sufficient for one week's operation of three squadrons: two Sabre and one CF-100. 314 Technical Support Unit instituted and supervised the development of a 24-hour production programme for all repair and overhaul contracts in the UK. They directed the rapid return to combat readiness of the maximum possible number of Sabre and CF-100 aircraft under Canadian–UK contract and conducted quality control over contract production. The main contractor for the overhaul of Air Division aircraft was

109. Directorate of Public Relations, Armed Forces news release, dated March 17, 1952, RG 24, Claxton Papers, Volume 110, LAC.
110. Internal Air Staff memorandum, dated August 28, 1959, RG 24, File 096–100–56/1, Volume 4, LAC.

Scottish Aviation, located at Prestwick, Scotland. 5 Air Movements Unit processed all RCAF personnel and/or materiel air or surface shipments into or out of UK ports or Langar airfield on a 24-hour basis. It also operated and supported personnel and materiel movement teams at ports designated as wartime entry or departure points for RCAF. Service personnel carried out the normal maintenance on aircraft and engines, but the maintenance of equipment stocks needed to support the operational squadrons and funnelling them to the appropriate service formations in Britain and on the Continent were done by civilian firms to allow for the maximum utilization of existing facilities.[111]

By March 1955, the Air Division had two plans for the evacuation of RCAF dependents from Europe. Air Division Operations Plan 2-54 envisaged air evacuation to Langar and was predicated on the receipt of at least 72-hours' warning of attack. In concert with US forces, Plan 3-54 provided for road evacuation to the Bordeaux area. This plan would be followed if there was insufficient warning of attack.[112] Both of these plans were flawed. Plan 2-54 called for a considerable amount of RCAF intra-theatre airlift whose availability in times of tension or wartime was questionable due to higher-priority military airlift needs. The airlift bill also had to account for the dependents of the Canadian Army Brigade as well as those of the Air Division. The road evacuation plan was also problematic. Evacuation via Bordeaux, Spain, and Portugal would have been a most difficult operation. Careful coordination with US forces would have been necessary owing to the large number of US dependents who required evacuation during the same time period. Another concern was that Bordeaux was an important NATO seaport and a likely priority enemy target. Concentrating Canadian dependents at this location was, therefore, not a good idea.[113]

Fortunately for the Canadian government and more importantly, for those RCAF personnel with dependents overseas, these evacuation plans never had to be implemented. Their chances of success no doubt depended on the amount of warning time received. Even so, these plans were based upon dubious assumptions. Air Marshal Slemon stated that in wartime he could not afford to assign airlift to the evacuation of dependents if he was to successfully deploy his military units to maximize their survival and ability to fight.[114] The only realistic option was a road move with the associated risks mentioned above. Nevertheless, the Air Division did take this responsibility seriously. In conversation with RCAF members and their families who lived in Europe at the time, it was learned that on several occasions the wings rehearsed the mobilization of their dependents and vehicles as part of a drill for a road move to safety.[115]

NATO strategy evolves and Canada gets a new government

Added to the anticipated problems associated with the Air Division's ability to survive and fight a nuclear war and successfully repatriating its dependents to safer areas were concerns about the formation's operational credibility. By the fall of 1957, the Air Division had established itself as a 24-hour, 7-days-a-week, all-weather air-defence and offensive-nuclear-escort capability to NATO's Central Region. However, the nature of the threat by Warsaw Pact forces was changing. Consequently, NATO air forces needed to reconsider their mission priorities. General Norstad, now SACEUR, understood that while NATO's all-weather capability still provided a reasonable defence against Warsaw Pact bombers, the real need was for all NATO air forces to adopt the nuclear-strike role. International events during the previous year, specifically the demonstration of Soviet aggression during the Hungarian uprising, had precipitated a sense of urgency in NATO to change the priorities of its existing strategy. The assumptions of MC 48 remained unchanged up through 1956, as indicated in the alliance's subsequent strategic document MC 14/2. NATO was to fight an initial atomic battle followed by the use of conventional weapons. The first priority was to

111. 1 Air Division War Plan for period January 1 to June 30, 1957, RG 24, Series E–1–c, Accession 1983–84/049, Box 102, LAC.
112. Minutes of the 215th Meeting of Air Members, Item 1135, held March 30, 1955, File 73/1223, Raymont Papers, Volume 1826, DHH.
113. Ibid.
114. Ibid.
115. This fact was revealed in the summer of 2004 in conversation with the author's parents, who were in 4 Wing Baden-Soellingen in the mid-1950s. Not really being told what the reasons were for showing up at a marshalling point at the base with their personal vehicles, "many thought that it was a planned wing picnic excursion!"

carry out the alliance's "forward strategy," while the strategic nuclear forces of SAC and the RAF were secondary. However, in order to send a tougher message to the Soviets, NATO reversed these priorities in the 1957 version of MC 14/2. Maintaining the integrity of NATO remained important but became secondary to the use of the strategic nuclear counteroffensive. The former forces became the "Shield," while the latter were referred to as the "Sword."[116]

By late 1957, the alliance introduced MC 70. This policy was underpinned by the assumptions of the latest version of MC 14/2. It entailed the integration of tactical nuclear weapons for NATO's Shield land and air forces that were provided by a dedicated US stockpile beginning in 1958. The concept called for these weapons to be matched up with the various ground- and air-delivery systems developed or procured by the member countries. American-owned nuclear weapons in NATO were to be jointly controlled by the US and the user country. Their use was limited to the NATO area of operations, and they were released under the authority of SACEUR.[117] Nevertheless, NATO's emphasis on the use of offensive strategic and tactical nuclear weapons notwithstanding, the protection of the Shield forces remained an important alliance objective. Consequently for the RCAF, General Norstad recommended in late 1957 that in its consideration of future air-power roles, the Air Division should plan for a mix of eight all-weather and four strike squadrons.[118]

The timing of SACEUR's request was well calculated. Through steady correspondence with the Canadian military, Norstad and his staff were well aware that the RCAF was looking at future options for the Air Division once the Sabres and CF-100s became obsolete. It appeared, therefore, that 1957 was a good year in which to convince Canadians that any future fighter for NATO should be able to carry out the strike and all-weather roles. However, as important as the future of its NATO commitment was to Canadian airmen, they were confronted with other pressing matters that impacted on their service, not the least of which was dealing with a new government.

In the summer of 1957, after more than 20 consecutive years as the party in power, the Liberals were defeated by the Conservatives under the leadership of John Diefenbaker. The fledgling government faced several challenges, including a number of outstanding sensitive national-security decisions inherited from its predecessors. Four of these—the need for an integrated Canadian-US air-defence command, foreign control over and Canadian use of nuclear weapons, keeping Canadian forces in Europe and the future status of the Arrow—were of immediate concern to Canadian airmen. Diefenbaker's surprising if not premature action in committing his country to NORAD within weeks of assuming power was good news to the RCAF. On the other hand, the prime minister's cancellation of the Arrow programme in February 1959 was a sad day for Canadian airmen and the future of the country's aerospace programme. While the RCAF had a good idea before the general public that the Arrow was likely to be axed for financial reasons, this decision made Canadian airmen nervous. Would the Conservatives fund replacement aircraft for the Air Division?[119]

More encouraging for the RCAF and for the future of the Air Division was Diefenbaker's previous announcement in June 1958 to extend the commitment of Canadian forces in Europe. The prime minister felt it vital for Canada to bolster alliance solidarity in the face of the threat from the Soviet Union. This decision was an interesting one given that there were persuasive reasons for Diefenbaker to consider withdrawing Canadian forces from the Central Region. From the beginning, the duration of this commitment was indeterminate and related to the economic and military recovery of Western Europe.[120] By the late 1950s, European economic strength had

116. Sean M. Maloney, *War Without Battles: Canada's NATO Brigade in Germany* (Toronto: McGraw-Hill Ryerson, 1997), 60.

117. Ibid.

118. SHAPE document 154/57, "Allied Command Europe Minimum Force Studies 1958/63," dated October 1, 1957, stated a requirement for a Canadian air contribution to SHAPE of one strike and three attack squadrons and eight all-weather squadrons by 1961. However, the requirement from Norstad was for four strike and eight all-weather squadrons, RG 24, Series, E–1–c, Accession 1983–84/049, Box 102, Volume II (code 32), LAC. See also, "Minutes of Air Council Meeting 3/58," Item 7, paragraph 2, held January 17, 1958, File 73/1228, Raymont Papers, Volume 1826, DHH.

119. J. L. Granatstein, *Canada 1957–1967: The Years of Uncertainty and Innovation* (Toronto: McClelland & Stewart, 1986), 107.

120. Jon B. McLin, *Canada's Changing Defense Policy, 1957–1963: The Problems of a Middle Power in Alliance* (Baltimore: John Hopkins Press, 1967), 45. There was also the proposal that Canada would continue as part of NATO, but by repatriating its forces and keeping them as strategic reserves in Canada, defence costs could be reduced considerably.

improved considerably, whereas the cost for Canada to maintain its forces in Europe was becoming prohibitive. This cost had risen dramatically because maintaining large regular forces required that they were well paid.[121] Another concern was that these costs were escalating because of the need to supply and maintain weapons systems over a 3,000-mile [4,828-kilometre] supply line for the Army Brigade and Air Division, which were operationally and geographically separated.

The aforementioned events, occurring during the first two years of the new Conservative Government, provided the RCAF the military, political, and economic background against which it had to make plans for the future of the Air Division. On the one hand, Canadian airmen were reassured by the government's commitment to NORAD and the Air Division. These commitments demonstrated the Conservatives had inherited their predecessor's faith in air power as the most important military option to deter a nuclear war and to best defend NATO and the country in case war broke out. On the other hand, the cancellation of the Arrow programme was a sober lesson that the cost of modern combat aircraft was such an expensive proposition that it could affect future decisions on military equipment and structure. Notwithstanding the political decision to keep forces in Europe, the question of rising defence costs with a defence budget that had remained fairly constant since the mid-1950s was a matter of concern for the RCAF because it could become a major factor with the government as it considered a replacement aircraft for the Air Division.[122] Airmen feared as well that the government's firm commitment to NORAD and NATO was not accompanied by an equally sanguine support of the use of nuclear-weapons that were needed to operate in the contemporary NATO battlefield.

This chapter has described the difficult and complex path taken by the RCAF in establishing itself as a respected air component of NATO. It has outlined the strategic umbrella under which the RCAF had to operate. While Canadian airmen were concerned with tactical matters like air-power roles, rules of engagement, and dispersion, they understood that these challenges could not be taken on without consideration of operational and national strategic imperatives. The prospect of fighting a nuclear war meant the protection of US tactical nuclear fighter bombers was more important than the Air Division's adopted role of air defence. The fact that the RCAF operated out of bases in West Germany impacted on Air Division tactics. While SHAPE wanted the Sabres armed at all times, national direction countered this alliance demand. The overarching policy of the Canadian government was to ensure that its military was seen by its public to be in Europe strictly as part of NATO's integrated force and not as part of the Occupation Forces.

In all of these discussions, however, the most important point is how the RCAF ensured that the integrity of the Air Division was not compromised. This was best demonstrated when NATO requested that Canadians replace F-86 squadrons with squadrons of CF-100s. This plan, and that of SHAPE to disperse NATO air wings to enhance survivability, jeopardized the cohesion of the existing Canadian four wings in Europe. To bolster its national presence and have a say in alliance air policy, the RCAF, supported by the Canadian military, demanded senior staff positions in the higher headquarters of the alliance. Finally, while the air-defence role was viewed by veteran RCAF officers as one less popular than offensive bombing, the former role guaranteed the national cohesion of No. 1 Air Division.

The RCAF now turned its attention to the selection of (and as important, gaining the political support for) a replacement fighter for the Air Division. Approval for this request was going to be a daunting challenge in light of the reality that this fighter was going to be expensive and needed to perform an offensive nuclear-strike role. The selection of this aircraft was also going to be a difficult one for Canadian airmen because it brought the question of high defence costs and nuclear-weapons increasingly into the public light.

121. Out of a total defence budget of $1.789 billion in FY 57–58, personnel costs for all three Services were $517 million, or about 29 per cent, see Department of National Defence, *Canada's Defence Programme, 1955–56* (Ottawa: DND Canada, April 1955), 37–38.

122. In 1954, capital spending accounted for 42 per cent of the budget; in 1957, this figure fell to 29 per cent, and by 1962, capital was less than 19 per cent of the defence budget (and falling). See Department of National Defence, *Canada's Defence Programme, 1955–56*, 40–1; and Desmond Morton, *A Military History of Canada* (Toronto: McClelland & Stewart), 249.

Chapter 6

THE NUCLEAR-STRIKE ROLE AND FRENCH POLITICS

The period 1959–1961 was significant in the evolution of the cold war RCAF. In June 1959, the Diefenbaker Government announced that it had chosen the F-104 Starfighter as the replacement for the Sabre in the Air Division in Europe. As important as this decision was, it was eclipsed by the implication that this aircraft was to perform the nuclear-strike role in support of MC 70, SACEUR's strategy on how to fight a nuclear war. It is, therefore, necessary to assess the factors that influenced this selection and discuss the operational and political consequences of changing Canada's air-power contribution to NATO. In a marked departure from its post-war emphasis on air defence, the RCAF was to perform an offensive mission, one that involved the use of tactical nuclear weapons no less. At the operational level, Canadian airmen were to face serious challenges. The introduction of this new fighter into NATO overburdened the existing pilot training programme and required expensive and operationally questionable infrastructure changes. Moreover, airmen ultimately had to equip eight strike squadrons knowing that no replacement aircraft were going to be purchased.

While this chapter concentrates on these operational challenges, it also places them into the contemporary strategic context. National and alliance politics overshadowed and impacted RCAF strike operations in Europe. Of greater concern to Canadian airmen, the strategic designs of their government and NATO placed the future of the Air Division in doubt. There were two main issues. First and foremost was the issue of nuclear weapons. The Diefenbaker Government was replaced by the Pearson-led Liberals in the spring of 1963 in large part because it did not commit to these weapons needed by the Canadian Army and RCAF. While the Liberals kept their campaign promise and signed an agreement with the US for the use of tactical nuclear weapons, it was evident from their subsequent actions that the future of these weapons in the Canadian military was to be of limited duration.

The second issue, related to the first, was the French government's growing disenchantment with an American-dominated alliance. This was clearly reflected in its search for nuclear-policy options independent of the US. One of the consequences of this strategy was France's decision to forbid American-controlled nuclear weapons on French soil. This policy limited the combat role of the French-based RCAF squadrons. More significantly, France's decision to withdraw from the military organization of NATO led to the closure of Grostenquin in 1964, followed by Marville in 1967.[1] While French politics forced the departure of the RCAF from France, it proved fortuitous for the Pearson Government by providing the opportunity to justify and hasten the introduction of a conventional mission for the CF-104 in the Air Division at the expense of the strike role.

Re-equipping the Air Division to meet NATO's military strategy

Implicit in MC 70, "The North Atlantic Military Report on Minimum Essential Force Requirements, 1958–63," were revisions to the roles of NATO air forces. With the increasing nuclear and missile capabilities of the Soviet Union and changes in the NATO defence concept, greater emphasis was placed on the need for strike and reconnaissance aircraft. The strike capability was to be coordinated with those of NATO missiles to ensure that the entire weight of the nuclear retaliatory power of the alliance was brought to bear in a decisive and coordinated effort. It was in the context of these changed roles for NATO air forces that SACEUR made known to the Canadian military authorities in 1957 his recommendation that the Air Division should assume a strike role in addition to its existing responsibilities for air defence.[2]

1. See Maloney, *Learning to Love the Bomb*, 166, 241, 309, and 327.
2. Memorandum prepared by the CSC for EA CAS entitled "Air Division History," dated November 24, 1958, RG 24, File 096–100–56/1, Volume 4, LAC.

Based upon SACEUR'S proposal, changes to the composition of the Air Division were to be made incrementally during the period 1959–62. By 1963, the Air Division was to retire its remaining daytime fighters. This would leave four squadrons of strike fighter bombers and eight squadrons of all-weather fighters.[3] This recommendation was resisted by the Canadian military authorities. It implied an increase to the country's military contribution to NATO's Central Region, fixed since 1954 to an army brigade (with two in reserve) and an air division that performed a daytime and all-weather air-defence role. The Canadian position was that any addition to these forces would have to come at the expense of capabilities in place.[4] A change to a strike role from air defence involved substantial changes in the organization and re-equipment of the Air Division. The message to Canadian airmen had been made clear by their political masters; whatever the preferences of the Air Division, they had to be reconciled with existing limits on Canadian forces in Europe.[5]

While content with Prime Minister Diefenbaker's public commitment to NATO in 1958, the year proved a frustrating one for the Air Staff. Due in large part to an uncertain economic picture, the Canadian government made it clear that the re-equipment of the Air Division was not to be discussed with SHAPE officials.[6] Moreover, discussions held within the CSC and CDC created considerable angst for senior Canadian airmen because the future of the Air Division appeared less certain. At the national level, it was becoming clear that the post-war economic boom had lost momentum. There was a reduced demand for, and capital investment in, Canada's primary exports of wheat, timber, paper, and minerals. At over 7 per cent, the spectre of widespread unemployment had returned for the first time since the Depression years. Spending on defence as a percentage of the government's total expenditures dwindled to 26 per cent, compared to an average of 41 per cent over the previous six years of Liberal rule.[7] Given these dire economic numbers, it was not a good time to talk about major military expenditures.

Annoying to senior air staff was that non-airmen and civilians questioned the rationale for, and the cost of, re-equipping the Air Division. Outside the RCAF there was widespread belief that $1 billion was to be the price tag for a replacement fleet of follow-on fighters. What made this estimate hard to swallow was that the expected increase in Russian missile capability brought into question the future operational utility of conventional aircraft deployed from static airfields in Europe. The belief among several senior Navy and Army officers, and a few politicians, was that the Air Division would be allowed to run down in the sense that its equipment would become obsolete within a matter of years and that it would not be possible to replace it. It was also suggested that a stronger case could be made for re-equipment if it were considered necessary to transfer the Air Division to North America.[8]

Needless to say, these points greatly concerned the CAS, the ex-AOC No. 1 Air Division, A/M Hugh Campbell. He vehemently denied that the longevity of the Air Division was tied to the lifespan of its initial equipment. He emphasized that support for the Air Division was tied to the continued membership of Canada in NATO. Campbell also challenged the argument that conventional fighter aircraft were vulnerable to enemy attack. He argued that the threat by Russian offensive forces could be overcome with dispersal plans in effect and future use of vertical take-off and landing (VTOL) aircraft.[9] Therefore, there was no legitimate reason not to procure new fighters.

Luckily for Canadian airmen, there was no serious threat to the future of the Air Division from the alliance's point of view. SACEUR attached considerable importance to the Canadian Air Division and strongly resisted any suggestion that it should be withdrawn at an early date. Further, General Norstad did not favour its replacement by an increased Army contribution. This was not

3. CSC Summary of Briefing held on April 8, 1958, for the Minister of National Defence, dated April 9, 1958, File 73/1223, Raymont Papers, Box 147, Volume 9, DHH.

4. Memorandum prepared by the CSC for EA CAS entitled "Air Division History."

5. Ibid.

6. External Affairs Message to Jules Leger, Canadian Representative at NATO, Paris, dated January 22, 1959, File 73/1223, Raymont Papers, Series 1, File 363, DHH.

7. Peter C. Newman, *Renegade in Power: The Diefenbaker Years* (Toronto: McClelland and Stewart, 1963), 344.

8. Memorandum prepared by the CSC for EA CAS entitled "Air Division History."

9. Letter from the CAS, Air Marshal Campbell, to the Chairman, CSC, dated December 3, 1958, File 73/1223, Raymont Papers, Series 1, Box 363, DHH. VTOL is used in this study in conjunction with the expression "Zero Launch," meaning the ability for an aircraft to take-off with little or no runway.

a surprising conclusion considering SACEUR's professional background and years as a senior NATO air commander. Good news also came from the government. The Canadian military was under strict orders by the government not to create any impression, either in Canada or abroad, that consideration was being given to the withdrawal of the Air Division. The prime minister thought it most unfortunate if Canada were to add to NATO's difficulties in maintaining alliance solidarity by indicating its intention to withdraw Canadian forces from Europe.[10]

In February 1958, in preparation for the defence minister's upcoming NATO meeting the following month, Campbell directed his staff to prepare a comprehensive staff paper that compared eight options for the re-equipment of the Air Division. The Air Staff looked at the AVRO 606 VTOL aircraft, a flying saucer-like contraption that looked like it came right out of a contemporary science fiction movie. A comparison was made to the Northrop N-156-F and Republic F-105 jet fighters. Another option was equipping the Air Division with the Polaris intermediate-range ballistic missile using existing facilities. The remaining options included a strike/reconnaissance version of the Arrow, modifying the Sabre for a strike role, improving the Sabre, and developing the CF-100 for continued employment in the air-defence role in the Air Division.[11]

The AVRO 606 option was quickly removed from the comparative analysis by the Chief of Plans and Intelligence, A/C Lister. He dismissed this option because the technology for vertical take-off was still years away and would not be available in the period needed by the Air Division. Although little is known about this project, it never advanced beyond the testing stage and died with the end of A. V. Roe in 1961.[12] In the period 1958–59, however, SACEUR had made a zero-launch (take-off with little or no runway) capability an important component of MC 70. For this reason, both the Air Staff Comptroller, A/V/M Kennedy, and the Air Member for Technical Services, A/V/M Hendrick, insisted that the VTOL option remain open. Their wishes were supported by the CAS.[13] The Republic F-105 was considered the most suitable aircraft for the simple reason that it had already flown and had proven capabilities. It placed the most modern equipment in Europe in Canadian hands and was viewed as an interim solution, bridging the gap until VTOL aircraft were available; however, it was very expensive. The aircraft was also too large and heavy from the point of view of zero-launch and recovery technique.[14] The Northrop option was a proposed combat version of the T-38 trainer.[15] Not known at the time and discussed later in this chapter, it was to be built under licence at Canadair and enter service in the RCAF in 1966 as the CF-5 Freedom Fighter. While lighter and less expensive than the other options, at the time of the study, it was still under development. Since its first test flight was 18 months away, it was not considered a viable option for re-equipment.[16]

As an intermediate-range ballistic missile, the Polaris would have reduced vulnerability to attack and offered a faster reaction time than manned aircraft. However, it was believed that missiles lacked some of the flexibility of employment inherent in manned aircraft and could not be used effectively with anything but atomic warheads. On the other hand, the missiles would have provided some significant advantage for use in the European theatre in an all-out war.

While considerable ink has been spilled writing about the CF-105 Arrow, its inclusion as an option for the Air Division is likely not common knowledge. The Air Staff believed that the Arrow could be produced in a strike version and that it would be available for introduction by 1961–62. But it was the most expensive aircraft considered. It was very large and heavy, required very long runways, and was not adaptable to zero-launching and recovery techniques. Even so, airmen felt that a reconnaissance version could be produced for one or two squadrons in Europe for very little additional development cost. It needs to be emphasized, however, that the Arrow option in

10. Trevor Lloyd, *Canada in World Affairs, Volume X: 1957–1959*, (Toronto: Oxford University Press, 1968), 47.
11. Minutes of Air Council Meeting 6/58, Item 23, held February 11, 1958, File 73/1223, Raymont Papers, Volume 1828, DHH.
12. Ibid.
13. Minutes of Air Council Meeting 9/58, Item 35, held February 26, 1958, File 73/1223, Raymont Papers, Volume 1828, DHH.
14. This was to be accomplished mainly by the use of jet-assisted take-off (JATO).
15. Canadians will recognize this aircraft by its Canadian Forces designation, CF-5.
16. Paper prepared by the Air Staff for the Minister of National Defence and Chairman of the CSC, in preparation for their attendance at the NATO meeting in March 1958, RG 24, Series E–1–c, Accession 1983–84/049, Box 102, Volume II, LAC.

early 1958 was no longer a serious one.[17] The myth of this fighter jet needs to be put to rest once and for all. While its cancellation, as explained below, contributed to the Diefenbaker Government's subsequent decision to procure a replacement fighter for the Air Division, Air Council minutes dated as early as August 1957 clearly show that the RCAF knew this aircraft was not going to enter service. If the debate has been over spiralling production costs and a lack of foreign sales, the Arrow conspiracy theorists would be interested to know that senior members of the Air Staff did not believe the Arrow to be a good air weapon years before it was chopped![18]

Another interesting option that is likely equally unknown to the public because of its classified nature was the suitability of the Sabre 6 as a nuclear-strike aircraft. Well before 1958, staff officers from the Air Division and Air Staff had investigated this option with the Americans. In June, 1957, A/V/M Hendrick held discussions with the AOC No. 1 Air Division, A/V/M Godwin, and with Colonel Baker, the USAF wing commander of F-86-Es employed in the strike role. Hendrick's report upon return to Canada found the Sabre suitable for conversion to a nuclear fighter bomber as an interim solution until the Air Division was re-equipped with a more modern aircraft. He also included the comments of USAF officers from wing level and employed at SHAPE:

> The Sabre 6 can be readily adjusted to carry same armament as F86-E. The load includes three drop tanks of 120 gallons [454 litres] each, one special [read nuclear] weapon of 1100 pounds [499 kilograms]. [There is] plenty of room in the cockpit and fuselage for the control panels and other special equipment required. [The Sabre] could be modified to an effective fighter-bomber configuration (including strike) by adding a four-point suspension wing and incorporating a Low Altitude Bombing System and Bomb Toss Computer. [Normal fuel load would give the Sabre] a radius of 460 nautical miles [851 kilometres] [that could be] extended by "buddy-buddy" refuelling system. Since USAF [was] replacing strike Sabres with F-100s, control panel and other equipment would become available. [The] F-100 [was] to carry a larger nuclear weapon—2,000 pounds [907.2 kilograms], 36-inch [91-centimetre] diameter ... [this weapon] cannot fit onto Sabre. No special storage or logistic problems in the handling of these weapons at wing level nor are additional accommodations needed. Targets are located at present by time and distance dead reckoning without the use of beacons and great emphasis is placed on the ability to operate under radio silence and other countermeasures. For this reason we should overlook no opportunity to exploit our own R-theta family of navigation aids which have direct application in this role. Even though F-100 is supersonic it must carry special weapons below Mach 1. This means the problem of our aircraft in competition with American aircraft is not that of delivery but of escape after delivery, therefore, if our aircraft have a good low level radius of action they can compete with any other aircraft in the theatre. [It was] perfectly feasible to escort our strike aircraft [using CF-100s or Sabres] as fighters if the question of their safe return were considered difficult. Opinions expressed by American officers at wing level and at SHAPE were that the supply of special weapons would be ample and exceed the number of aircraft and crews qualified to deliver them. Therefore they were quite interested in RCAF getting into the strike role.[19]

In the February 1958 Air Staff Study, use of the "Atomic Sabre" in the strike role was found to be the cheapest interim arrangement. On the other hand, it was expected that every other Western air force in Europe would be operating more modern and higher performance aircraft and Canada's prestige might suffer. Furthermore, the F-86 would not bridge the gap until VTOL aircraft were available.[20] Lastly, the Sabre had a short lifespan as a USAF low-level tactical nuclear fighter bomber, having been replaced by the F-100 Super Sabre within a year of being assigned the strike role. Thus, the Sabre's usefulness in this role was based upon little operational experience.[21]

17. Ibid.

18. In the presence of the CAS, Air Marshal Slemon, the Air Member for Technical Services, Air Vice-Marshal Hendrick, and the Chief of Telecommunications, Air Commodore Annis, expressed serious doubts about the Arrow Programme. Hendrick "was of the opinion that if the Arrow Programme was to be discontinued, it should not be because of the cost, but because the Arrow was not considered to be a good weapon." See minutes to a Special Meeting Held in the Office of the CAS, Wednesday, August 21, 1957, File 73/1223, Raymont Papers, Volume 1827, DHH.

19. Internal Air Staff Memorandum from Air Vice-Marshal Hendrick, AMTS, to VCAS, subject: "Trip Report – Strike Role for Air Division," dated June 21, 1957, RG 24, Series E–1–c, Accession 1983–84/049, Box 102, Volume 3, LAC.

20. Paper prepared by the Air Staff for the Minister of National Defence and Chairman of the CSC.

21. Baglow, 26–28.

The remaining option was modifying the Sabre and CF-100 for continued employment in the air-defence role in the Air Division. The Sabre was to be equipped with an afterburning engine and fitted with Sidewinder (heat-seeking) and Sparrow (radar-guided) air-to-air missiles, and the CF-100 was to be equipped with the Sparrow. If inclusion of these weapons extended their operational utility, both aircraft would have continued to suffer from inferior performance in relation to the predicted threat of light supersonic bombers and supersonic fighters. Furthermore, there was a lack of an adequate ground environment, specifically, an integrated air-defence radar, to cater to a high-density, high-speed air-defence battle. Lastly, both aircraft would have remained critically vulnerable to even the simplest countermeasures the enemy was known to possess against the Sidewinder and Sparrow weapons systems and the existing manual type of ground environment.[22]

If Canadian airmen were under no illusions that the approval process for the re-equipment of the Air Division was going to be smooth and quick in light of the expense and the implicit understanding that Canada was committing to an offensive nuclear-strike role, government indecision eroded their patience and caused uncertainty and some dissension within the Air Staff regarding the future of air power. In a special meeting of the Air Council on October 9, 1958, the members concluded that equipping the Air Division needed to be based upon the abandonment of day and all-weather air-defence roles. The preferred plan was to adopt the strike/attack role, including reconnaissance.[23] Consequently, the Air Council agreed that modifying the Sabre or CF-100 was financially and operationally impractical and rejected this option.[24]

This is not to say that there was unanimity within the Air Staff regarding the strike role as forming the basis of re-equipment. At this same meeting of the Air Council, the VCAS, A/V/M Marshal Smith, raised the concern that the government might consider the strike/attack role as an offensive rather than defensive type of operation. A/V/M Kennedy once more strongly supported the requirement for dispersal or zero launch and was opposed to re-equipping the Air Division with an aircraft type which needed long runways for normal operations. While CAS noted the concerns of Kennedy and Smith, he directed that the position of the Air Council was to find an aircraft that could perform the strike/attack role and that an associated concept of operations be written.[25]

As time passed, A/M Campbell changed his mind. By December 1958, fearing that he was losing his chance for a new aircraft and role for the Air Division, he returned to the original recommendations of SACEUR to have four strike as well as eight all-weather squadrons. Ideally, Campbell needed a fighter that could perform both the strike and air-defence roles. Since the aircraft he and his staff had reviewed to date did not satisfy this operational requirement, the CAS had to look elsewhere. His options were narrowed further when his superiors subsequently informed him that any new aircraft would have to be built in Canadian facilities.

The only proven aircraft at that time able to meet this requirement was a two-seat version of the Grumman F11F-1F, the 98J-7 Super Tiger.[26] This fighter was to be purchased by the United States Navy (USN). West Germany and Japan also expressed interest in this fighter as a replacement for their Sabres. As a first step toward acquisition of this aircraft for the Air Division, Campbell needed to persuade the chairman of the CSC, General Foulkes, and Defence Minster Pearkes that the Super Tiger was the right choice to replace the F-86 and CF-100. This he managed to do before the two departed for NATO Defence Ministers' Meeting in Paris. He then had to get the word to General Norstad that the Super Tiger met SHAPE's demand that Canada perform all-weather and strike roles.

22. Air Staff paper entitled "Merits of Extending Sabre and CF-100 in Air Defence Role in 1 Air Division," dated February 28, 1958, RG 24, Series E–1–c, Accession 1983–84/049, Box 102, Volume II, LAC.

23. Contemporary RCAF air-power doctrine defined these roles as follows: "The 'strike' aspect of the strike/attack role refers to attacks by aircraft with nuclear or conventional armament against predetermined surface targets. The 'attack' aspect of this role refers to attacks by similar aircraft against surface targets of opportunity. Photographic reconnaissance was either complementary or supplementary to each of these types of operation and, to a degree, could be carried out by the same or similar aircraft. Thus the strike/attack role embraced attacks against predetermined surface targets, or targets of opportunity, or photographic reconnaissance in support of these operations, with the same basic aircraft being used in each case." See Air Staff memorandum for the CSC, subject: "Future Role and Re-Equipment of No. 1 Air Division," dated February 25, 1959, File 73/1223, Raymont Papers, Box 364, DHH. In actuality, however, the term "strike" was assigned exclusively to the use of nuclear weapons against pre-determined targets.

24. Minutes of A Special Meeting of the Air Council, Item 156, held October 9, 1958, File 73/1223, Raymont Papers, Volume 1828, DHH.

25. Ibid.

26. Minutes of Air Council Meeting 38/58, Item 188, held December 5, 1958, File 76/264, DHH.

Campbell succeeded in doing so in a roundabout manner. He sent a message to the new AOC of the Air Division, A/V/M Wray, to be passed to A/M Dunlap, the senior RCAF staff officer at SHAPE. Why the CAS did not send the message directly to SACEUR is unclear. In any event, Campbell made clear in the following message that he had provided the defence minister and the chairman of the CSC prior to their departure for Paris his recommendation to procure the Grumman fighter:

> We have placed in the hands of Foulkes and the Minister a new approach to life on the re-equipping of the Air Division. This approach to life has been possible by virtue of a new aircraft in the US inventory which fortunately has the capacity to act as an interceptor as well as a strike aircraft. It is the J98 Dash 7 which is a two seat version of the F11F with a larger engine, [and a] change in fire control and navigation systems. This seems to be the only answer that is possible to produce and it is most satisfactory from the point of view that it meets the RCAF requirement to get into the strike role and meets SACEUR's requirement to fill the gap in all-weather fighters. In other words, it meets MC 70 requirement.[27]

The Grumman option may well have been capable of performing both all-weather and strike roles, but it was clear that the CAS was intent on limiting the role of the Air Division to the latter. Campbell never supported the idea of sending all-weather fighters to Europe in the first place. In a letter written to Foulkes in December 1958, the CAS stated that "ultimately the air defence of NATO Europe should be undertaken by indigenous European forces and the RCAF withdraw from this role ... however, Canada is currently making a contribution in the all-weather fighter role *as a consequence of the decision to provide four squadrons of CF-100s* ... [italics added]."[28]

While the CAS and his staff waited for feedback from the Defence Department with respect to the Super Tiger during the winter of 1959, their attention was diverted by the government's anticipated announcement with respect to the Arrow. At the time, Canadian airmen did not appreciate that the future of this aircraft would be linked to that of the Air Division. On February 5, General Foulkes informed the CSC that because of the serious effect on the aircraft industry of a possible decision to discontinue the Arrow programme, the government wished to give early consideration to the possibility of rearming the Air Division with Canadian-built aircraft. With the announcement by the Diefenbaker Government to cancel the Arrow only weeks away, the chairman of the CSC was preparing the military for an angry public reaction and potential political fallout if the government indeed cancelled the programme. More surprising to Campbell, he learned from Foulkes at this meeting that the Conservative Party's strategy was to soften the blow of job losses by making it clear that the re-equipment of the Air Division was a valid requirement if Canada was to continue with an effective contribution to NATO and that the new aircraft for Canada's NATO role were to be built in a Canadian company.[29]

Despite their preference for the Grumman Super Tiger, the Air Staff continued its examination of other possible aircraft suitable to replace the Sabres in the Air Division. In addition to the previously discussed options, the RCAF looked at the McDonnell F4H Phantom II and F-101 Voodoo, the Lockheed F-104 Starfighter, the English Electric F23 Lightning, the Chance Vought F8U-3 Crusader III, and the Blackburn NA39 Buccaneer. The Phantom became a popular choice, but because of its size, complexity, and sophistication, it was considered too costly to maintain and operate.[30] Airmen were also happy with the F-104. As described in an earlier chapter, they had found the aircraft underpowered yet a pleasure to fly. Its poor performance had been considerably improved with the addition of the J-79 engine. Furthermore, in a letter written to Campbell, A/M Dunlap mentioned that the Starfighter should be reconsidered in light of the addition of advanced avionics and navigation systems which allowed it to perform the all-weather and low-level strike roles. It was also being seriously considered by the German Air Force.[31]

27. Message from Campbell to AOC No. 1 Air Division, Air Vice-Marshal Wray, for furtherance to Air Marshal Dunlap at SHAPE, dated December 11, 1958, RG 24, File 096–100–56/1, Volume 4, LAC.

28. Letter from the CAS, Air Marshal Campbell, to the Chairman, CSC, dated December 3, 1958, File 73/1223, Raymont Papers, Series 1, Box 363, DHH.

29. Special CSC Meeting, dated February 5, 1959, RG 24, File 096–100–56/1, Volume 4, LAC.

30. Air Staff memorandum for the CSC, subject: "Future Role and Re-Equipment of No. 1 Air Division," dated February 25, 1959, File 73/1223, Raymont Papers, Box 364, DHH.

31. Letter from Air Marshal Dunlap to CAS, dated November 26, 1958, File 73/1223, Raymont Papers, Series 1, Box 363, DHH.

Notwithstanding the above arguments, the Air Staff preferred the Super Tiger. As such they recommended the procurement of 214 of these aircraft for a total price of $452 million. This recommendation was supported by the CSC, although the Chief of Naval Staff (CNS) did raise strong objections, arguing against this expenditure because of his fear that it would take funding away from the air defence of North America. The fact that purchasing the Super Tiger would come at the expense of funding for the RCN apparently was not a concern.[32] The MND approved the Grumman choice and presented the recommendation to the CDC on February 24, 1959. This was four days following the announced cancellation of the Arrow.[33] To the consternation of the Air Staff, the government announcement expected shortly thereafter confirming the re-equipment of the Air Division did not occur.

By May 1959, no word was heard, and the anxiousness of Canadian airmen was now shared by SACEUR himself. On May 18, in what later would prove to be a key factor in the approval of the re-equipment of the Air Division, General Norstad came to Ottawa and personally appealed to the Diefenbaker Government to fulfil its promised commitment to NATO.[34] The next month, on June 19, Cabinet agreed that an Air Division of the RCAF should continue to form part of Canada's participation in NATO's defence of Europe. More significantly for the RCAF, Cabinet confirmed that a new aircraft was to be procured to re-equip the eight F-86 squadrons in Europe, on the scale of 18 aircraft per squadron. This announcement was not released to the military until a week later. The Air Staff was also in the dark over Cabinet's direction to the Minister of Defence Production, Raymond O'Hurley, to limit his selection for a replacement fighter to one from either of two aircraft firms. He was to negotiate with the manufacturers of the Grumman F11F-1F and the Lockheed F-104G "to ascertain the most favourable arrangement obtainable for the production of 214 aircraft of one or the other of those types having regard both to price and to the possibility of partial production in Canada."[35] Cabinet's direction to O'Hurley was noteworthy for several reasons. It implied that the replacement aircraft were to replace the Sabres and not the CF-100s in the Air Division. This meant that the CF-100s were to continue to perform the all-weather air-defence role in Europe, while the new fighter would be limited to the strike role. The real surprise was the choice of the F-104 as one of the two options. Since the Starfighter was never the primary recommendation of National Defence, its inclusion by Cabinet demonstrated that the cost and potential national economic spinoffs of such an expensive weapons system made the choice of a new aircraft very much a political decision.

On June 27, O'Hurley briefed his findings to the CDC. His comparison of the two options clearly made the 104 the preferred choice. While 214 Starfighters priced at $420 million were only slightly cheaper than the same number of Super Tigers ($445 million), the real difference was in the comparison of production sharing possibilities. There were none with the Grumman option, whereas Lockheed offered considerable national economic benefits. The F-104G had been chosen by West Germany, which had ordered 66 and would build 200 more under licence. If Canada chose the 104, Lockheed would place a substantial amount of the work involved in the 66 for Germany in Canada, provided USAF agreed and the Canadian government approved the contract for the Air Division replacement by August of that year. Any mutual aid offer would also be filled from the tooling placed in Canada. The engine, which was the same for both aircraft, could also in large part be built economically in Canada. Another consideration that made the Starfighter the preferred choice was that it was in production and in service with the USAF. This was not the case with the Super Tiger. Further, while the USN did equip several of its air squadrons with this fighter, they decided that their primary fleet defence and strike fighter would be the F-4 Phantom.[36]

32. Memorandum to the CDC from the Minister of National Defence, dated February 24, 1959, File 73/1223, Raymont Papers, Box 364, DHH.
33. Ibid.
34. In a personal letter to General Norstad, dated July 30, 1959, Prime Minister Diefenbaker told SACEUR "the briefing you gave to Cabinet on the defence position of NATO was most helpful and of distinct benefit in making the decision to re-equip the Air Division," File 73/1223, Raymont Papers, Box 364, DHH.
35. Record of Cabinet Decision, dated June 19, 1959, File 73/1223, Raymont Papers, Box 364, DHH.
36. Briefing by the Minister of Defence Production, subject: "Replacement Aircraft for NATO," Minutes of the 124th Meeting, held on June 27, 1959, RG 2, Volume 2749, LAC.

Not surprisingly, the Minister of Defence Production recommended that the F-104G be selected as the replacement for the F-86. The airframe contract was allocated to Canadair Limited on an incentive type contract, and the engine contract went to Orenda Engines Limited on a firm-price basis.[37] This decision was another blow to A. V. Roe and, to a lesser extent, deHavilland. While politics cannot be ruled out in this matter, Canadair was in a much better position to take on the aircraft production contract. It had better facilities, skilled labour, and was already doing work on other RCAF aircraft. It also had a successful record of manufacturing aircraft under licence, including Lockheed and the F-86. In contrast, A. V. Roe would have had to ramp up its workforce and replace personnel recently let go following the Arrow cancellation. Not insignificant as well was the political benefit of choosing an aircraft firm in Montreal. Creating employment in the province of Quebec was never a bad thing for any federal political party that wished to win the next national election. In any event, the politics of where and by whom the aircraft was to be produced aside, General Foulkes confirmed on June 30 that the Starfighter met the operational requirements of the Air Division as laid down by SACEUR. Final approval for the CF-104 and its production was made by Cabinet and announced in the House on July 2, 1959.[38]

The selection came as a surprise not only to the RCAF, but to the opposition as well. Paul Hellyer, the Liberal defence critic, immediately questioned the MND in the House as to why the government had chosen the Starfighter. Hellyer's understanding was this aircraft had "originally been designed not as a low-level strike fighter, but as the last of the high-level air superiority day fighters."[39] The Liberal defence critic was obviously aware of some of the other aircraft under consideration that were specifically designed for the low-level strike role but, for whatever reasons, were rejected. Even so, it is not clear if Hellyer was as much concerned about the operational aspects of the F-104 as he was about the fact that neither deHavilland nor A. V. Roe received the contract to build the fighter. Prior to his defeat in the 1957 election, Hellyer was the MP for the riding of Davenport.[40] He was then re-elected as member of the House of Commons in December 1958 in a by-election for the riding of Toronto-Trinity. All of these ridings were located in Toronto, the city in which both of these firms were located.[41]

While Hellyer could not have dismissed the political considerations of this selection process, his biography suggests that his criticism was, for the most part, based upon operational criteria. For a politician, and a disgruntled ex-RCAF wartime corporal, he was quite informed on matters of defence, particularly when it came to air-power roles for the RCAF in Europe. As discussed in more detail in the next chapter, his criticism of the 104 later as defence minister was based on military rationale. He would argue that limiting the Starfighter to the strike mission prevented the RCAF from using this fighter in the conventional role that was consistent with NATO's strategic shift to flexible response in the mid-1960s.[42]

As well, there was appreciation by opposition politicians and the Canadian press that with the commitment to the 104 and the strike role, the Conservative Government had made a significant departure from the existing defensive post-war defence policy inherited from the Liberals. The RCAF was to embark upon an offensive bombing role that had up to that time been denied it in the post-war period. In a television interview shortly after the House was prorogued, Pearkes admitted that this offensive bombing role would likely involve the use of nuclear-weapons. As the defence minister became progressively less convincing as to the Conservative Party's commitment to nuclear-weapons, months after the public announcement of the Starfighter purchase, the media did not let go of the change in the RCAF role. Besides noting the switch to an offensive bombing mission, Dave McIntosh

37. Ibid.
38. Record of Cabinet Decision, dated July 2, 1959, File 73/1223, Raymont Papers, Box 364, DHH.
39. Richard Preston, *Canada in World Affairs, 1959 to 1961* (Toronto: Oxford University Press, 1965), 60.
40. Hellyer ran unsuccessfully in Davenport in the 1958 general election.
41. One author has made the implication that Hellyer's comments were made with his political constituency in mind. See Roy, 323.
42. Paul Hellyer, *Damn the Torpedoes: My Fight to Unify Canada's Armed Forces* (Toronto: McClelland & Stewart), 34–36. Hellyer shared the position of the American Secretary of Defence, Robert McNamarra, that NATO forces in Europe were not a "tripwire" leading to a global nuclear confrontation, a view shared by many in NATO until the early 1960s. The essence of "flexible response" was that NATO should increase its conventional forces in Europe and attempt to contain a war to a conventional one, or at least raise the nuclear threshold.

of the *Montreal Gazette* perceptively commented that the huge cost of the modified 104 made little sense unless it was to use nuclear bombs. He also correctly predicted that the Conservatives were going to have a challenge justifying the expense of the Starfighter and the adoption of an offensive nuclear role:

> The RCAF in the next few years will assume again a role which it lost at the end of the Second World War: offence. This is the real—and generally overlooked—meaning of the adoption of the CF104 strike-reconnaissance jet plane informants said today. One authority said the Defence Department has been somewhat astonished at the fact that so far there has been no criticism of the change in the 14-year-old role of the RCAF as an instrument of strictly defensive character. In effect, the RCAF is back in the bomber business in far greater strength than during the Second World War because of the advent of nuclear-weapons. Officials said today that the CF104 would not be used primarily for support of ground troops but to strike at targets several hundred miles [approximately 1,000 kilometres] behind enemy lines. Defence Minster Pearkes said earlier this week that it has not been finally decided whether the CF104 will be armed with nuclear-weapons but it is assumed [according to sources in Ottawa] that it will. The attitude on this is that it would be pointless to spend $420M for 200 strike planes and not arm them with the most potent weapons available.[43]

From the beginning of the post-war period, Canadian airmen had reluctantly conceded the reality that a strategic-bomber force was both unaffordable and politically unacceptable. They were no doubt quite pleased to be given the opportunity to take on an offensive strike role. The F-104 employed in the strike/reconnaissance role gave the RCAF a modern supersonic aircraft that sustained the RCAF's dominant contribution to the European theatre of operations. More importantly from an institutional perspective, its role and employment would continue the Air Division's operational independence from the Canadian Army Brigade and sustain its national autonomy within the alliance. For his part, Campbell was more determined than ever to dissuade the government from entertaining any additional roles for the Starfighter other than nuclear-strike and reconnaissance. His message to his planning staff was the unquestioned assumption that the 104 was to be employed using nuclear warheads.

National concerns with a Canadian nuclear role

At the political level, there were no such assumptions. There was one reason Canadian politicians were less sanguine than the RCAF on this issue. In contrast to the concern of Canadian airmen, the supply of tactical nuclear warheads by the Americans was not the problem. The difficulty for the Conservatives was how to balance the acceptance of American-controlled nukes with the prime minister's promise to be less dependent on his southern neighbour. Diefenbaker recognized a growing nationalistic rhetoric that was in large part fuelled by anti-American sentiment; an outcome for which he was partly responsible, given his pre-election rhetoric of cultural and economic nationalism.[44]

Although the debate focused more on the storage and control of US nuclear-weapons on Canadian soil, it also applied to their use in Europe. The American Atomic Energy Act did not permit joint—let alone foreign—control of US weapons. This angered those Canadians who saw the American storage and control of nuclear-weapons out of Canadian hands, whether in Canada or the Air Division, as an affront to Canadian nationalism. It also angered the anti-nuclear activists, who felt that Canada's membership in two military alliances dominated by the Americans relegated their country to users of such weapons by association.[45]

By 1960, Prime Minister Diefenbaker's growing reluctance to commit his country to accepting nuclear warheads was, in large part, based upon his perception of public sentiment. He convinced himself that "the people" did not want them, implying that the people, as opposed to the prime

43. Dave McIntosh, *Montreal Gazette*, dated November 13, 1959, RG 24, File 096–100–56/1, Volume 4, LAC.
44. Newman, 342.
45. Preston, 63–69.

minister and Cabinet, were the ones to decide.[46] Another reason was that Cabinet became hopelessly divided along pro- and anti-nuclear lines. Any government commitment was impossible without reconciliation between the pro-nuclear defence department, led by George Pearkes and his successor, Douglas Harkness, and staunch anti-nuclear Foreign Affairs Minister Howard Green.[47] While Diefenbaker and Green were supportive of the concept of collective defence and Canada's memberships in NATO and NORAD, they also believed that the world could be brought back from nuclear brinkmanship through East–West dialogue, leading to nuclear disarmament. Their dilemma was how to reconcile on the international stage a national policy in support of reducing nuclear-weapons with one that satisfied alliance commitments to equip the Canadian military with these weapons. When this conundrum is added to that of seeking a foreign policy independent of the US, the prime minister's indecision with regards to the use of nuclear-weapons for his military can perhaps be more easily appreciated.[48]

It is important to note that the reasons for Diefenbaker's indecisiveness were not limited to arming the Starfighter with nuclear warheads. He was faced with the same decision with respect to the Bomarc ground-to-air missile, the CF-101 Voodoo air-defence fighter, and the Honest John ground-to-ground missile. While all of these weapons systems were major political headaches for the prime minister, two of them, the Voodoo and Bomarc, were particularly so.

The Conservatives had committed to the Boeing Bomarc B during the demise of the Arrow. While this choice was problematic for several reasons, one is worth mentioning. The Conservatives argued that the Arrow was cancelled in part because it was designed to counter enemy bombers, when in fact the threat was from Soviet intercontinental missiles. Yet the Bomarc was also a weapons system that was designed primarily to shoot down bombers; it had little utility against missiles.[49]

The purchase of the Voodoo was also a result of the Arrow cancellation. Notwithstanding their public statement minimizing the manned bomber threat, the Conservatives understood they needed to replace the CF-100 in the air-defence role. In exchange for increased Canadian funding of the Pinetree radar defence line and additional US purchases of Canadian-built 104s for NATO air forces, Canada received 66 McDonnell F-101B Voodoo jet fighters. While the Conservatives got a replacement for the CF-100 and satisfied the Americans by employing a supersonic fighter that could engage enemy bombers sooner, this achievement came at a political cost. For a government that promoted itself as being less dependent upon the Americans, the Conservatives got a US-produced fighter that was arguably less capable than the Arrow built in Canada. Worse for the Diefenbaker Government, from a defence policy point of view, the Voodoo was obtained to perform the very role for which the Arrow was cancelled![50] Lastly, all of these weapons platforms, expensive capital acquisitions, were essentially useless without nuclear munitions.

RCAF planning for the introduction of the CF-104

As it turned out, Diefenbaker would not commit his country to the use of nuclear warheads. The Conservative Government fell to the Liberals in early 1963 in large part because of its inability to make a firm commitment to nuclear warheads for the RCAF and Canadian Army. Fortunately for the Canadian military and for Canada's relations with its allies, Canada's nuclear virginity was lost when Pearson agreed to satisfy his country's alliance commitments and accept nuclear warheads for the Bomarc, Voodoo, Honest John, and Starfighter. For Pearson this decision was a political volte-face and key promise of his 1963 election platform.

The problem for the Canadian military was how to proceed with planning for their four nuclear-weapons platforms without an agreement with the Americans to obtain the warheads. How were

46. Ibid.
47. For accounts of the Diefenbaker Government's handling of the nuclear question, see Granatstein, *Canada 1957–1967,* 120–122; and Lentner, 31–32.
48. Preston, 41–49.
49. Ibid., 55–59.
50. Ibid., 61–63.

they to work with their NORAD and NATO allies without the political authority to use the nukes? The RCAF never hesitated in carrying out the necessary detailed technical planning with the Americans to ensure that as soon as the 104s were operational in the Air Division they would be equipped with tactical nuclear-weapons. While this initiative ensured that the Air Division would achieve a nuclear capability within a short time frame following Canadian political commitment, without firm political direction, the actions of Canadian airmen were questionable.

National politics aside, the operational introduction of the 104 and nuclear role was also affected by alliance sensitivities. The RCAF needed to reconcile the introduction of strike squadrons to its bases in France with the French government's decision not to allow foreign-controlled nuclear-weapons on its soil. This requirement shaped planning of the Air Division in the 1960s to the extent that it limited the choice of air-power roles and, ultimately, led to the abandonment of the two French bases. Other key planning factors included the ongoing question of survivability and the need for dispersal of Air Division aircraft in a nuclear conflict. The RCAF also had to figure out how to best substitute the Sabre, and ultimately the CF-100 squadrons, with Starfighters without interrupting the RCAF's wartime capability to SHAPE.

As its overarching guidance document for major force structure changes, the Canadian military used (and still does today) a master implementation plan (MIP). Although it would undergo many changes due to a variety of logistical and operational adjustments, the first MIP for the re-equipment of 1 Air Division, dated March 15, 1961, outlined the planning assumptions, expected delivery schedule, squadron activation dates, training concept, roles, and the concept of operations for the CF-104s. The first aircraft were expected in October 1961, and by the following February,11 aircraft were to be built per month at Canadair. The last aircraft was to be delivered by May 1963. The AOC, 1 Air Division, A/V/M Wray, wanted the 104s flown to Europe following a lengthy post-contractor flying trials programme to be conducted at RCAF Stations Namao or Cold Lake. Campbell disagreed, saying that the aircraft should be in operational flying condition upon receipt from Canadair. However, the CAS was concerned that there would be possible losses of aircraft during a transatlantic trip due to pilot inexperience with such a new and sophisticated airplane. While this subject would be the first of several disagreements between Wray and Campbell, the CAS directed that the first 104s were to be transported in the RCAF's newly acquired C-130 cargo aircraft. The airlift was to commence in October 1962 at a rate of 12 per month, with the move expected to be completed in November 1963.[51] The majority of these aircraft would be flown directly from the Canadair plant at Cartierville (Dorval). The remainder were airlifted from RCAF Station Cold Lake, Alberta, where the 104 training was conducted. The requirement was for a unit establishment (UE), the number of aircraft authorized, of 18 aircraft for each of the eight Air Division squadrons.[52]

With respect to training, the plan was for a cadre of 12 OUT and 10 test pilots to receive conversion training on F-104C and CF-104D (dual cockpit) aircraft in the US as well as training on special weapons planning and delivery electronics systems. Before these cadre pilots flew in the 104, they first received instruction on the F-100 Super Sabre. All pilots were given some transition training on the F-86 Sabre prior to their 104 course.[53]

An interesting Air Staff policy stipulated that the initial intake of 104 pilots was, for the most part, to be limited to veteran ex-fighter pilots. The assumption was that the nuclear role was not to be entrusted to any but a few exceptional pipeliners. Even so, it is unclear why the RCAF initially limited its selection pool for 104 training to those pilots with Sabre or Vampire tours. RCAF pilots whose fighter experience was limited to the CF-100 were not considered suitable 104 candidates.[54] This was a curious policy given that part of the reasoning to exclude CF-100 pilots was because of the sophistication of the Starfighter, even though the CF-100 was far more sophisticated than

51. Minutes of Air Council Meeting 10/61, Item 44, held March 7, 1961, File 76/264, Folder 2, DHH.
52. Master Implementation Plan – 1 Air Division, dated March 15, 1961, RG 24, File 096–100–56/1, Volume 10, LAC.
53. Ibid.
54. Bashow, 9–14.

the Sabre or Vampire. When queried about this policy, "Mac" MacGregor, an ex-Sabre OTU and CF-104 Strike pilot was surprised that it existed and had this to say:

> There was always rivalry between Sabre and CF-100 aircrews. [But] I don't subscribe to the idea that airmen going to the AW squadrons had lesser credentials. Their role was certainly demanding, the aircraft more complex in weapons control areas I expect, and they operated in some pretty dirty weather. Of course, we were much more dashing, to say nothing of being better looking.[55]

In addition to the suggested inferior physical appearances of CF-100 pilots in comparison to their Sabre counterparts, a more serious handicap held against the former group was that they did not operate in the high-speed, low-level environment planned for the 104. Yet this also was not a strong argument, since Sabre pilots in the air-defence role spent the majority of their time in the medium- to high-altitude regions.

The wartime task of the 104-equipped Air Division wings was, in conjunction with other NATO air forces, the isolation of the European Combat Zone and the destruction of those enemy forces operating within SACEUR's tactical theatre of operations. With respect to the concept of operations, Air Division aircraft were to operate from fixed, pre-stocked sites and in wartime would be used in the strike role against targets in the SACEUR area of responsibility. In addition to their primary strike role, all CF-104 squadrons were to have a limited reconnaissance capability. In this connection, 1 Air Division was assigned a number of tactical reconnaissance targets which, depending on changing wartime priorities, were to be over flown automatically on the declaration of general alert at the same time as the initial strike force was launched. CF-104s used in the reconnaissance role carried a photographic pod. Noteworthy was that the main planning assumption in the MIP was that "special" (the contemporary euphemism for nuclear) weapons and procedures were to be made available to the RCAF and were to be compatible with the plan.

Concurrent to the introduction of the CF-104 into the Air Division was a major change implemented with respect to the logistical support concept in Europe. In the fall of 1961, the RCAF received 10 Canadair CC-106 Yukon long-range passenger and transport aircraft. This led to the re-establishment of 437 Transport Squadron based at Trenton, Ontario. On January 1, 1962, the Yukon flew its first transatlantic flight to Marville. Soon afterwards, 437 Squadron flew four freight missions at 25,000 pounds [11,340 kilograms] per flight and two passenger flights carrying 120 personnel per flight on a weekly basis to 1 Wing.[56]

This long-range air-transport capability greatly improved logistic and personnel support to the Air Division. It allowed for a direct supply and transportation link with national supply organizations. This obviated the continued need for the maintenance of 30 Air Materiel Base at Langar and considerably reduced the number of Bristol and Dakota aircraft used for intra-theatre airlift. Important for military personnel and their dependents posted to the Air Division, the Yukon vastly improved travel to and from Europe. With this aircraft, air travel to Marville from Trenton took about 12 hours, as opposed to spending days crossing the Atlantic in a ship, followed by a lengthy road trip to eastern France and Germany from the channel coast.[57] Lastly, because the addition of this air-transport capability greatly reduced the cost of moving personnel to Europe, the defence minister was persuaded to permit dependents to join RCAF personnel overseas and, via the introduction of a rotation concept, moved personnel and families to and from Canada as required.[58]

A major operational planning headache, and one that caused further tension between the CAS and Wray, was the issue of squadron dispersal and survivability in the Air Division. The problem was exacerbated by the French government's policy that any nuclear-weapons in France would

55. Interview with "Mac" MacGregor, Maxville, Ontario, April 26, 2004.
56. Larry Milberry, *Sixty Years: The RCAF and CF Air Command, 1924–1984* (Toronto: CANAV Books, 1984), 342.
57. Air Council Minutes, dated November 24, 1959, RG 24, File 096–100–56/1, Volume 10, LAC.
58. CAS letter to Douglas Harkness, dated September 7, 1961, RG 24, File 096–100–56/1, Volume 4, LAC.

have to come under their control. This was unacceptable to the Americans and to the remainder of NATO. This policy limited the two French RCAF bases to a conventional role, which of course was not what was planned by the Air Staff. The CF-104s could remain at Grostenquin and Marville, but they could not operate from these bases armed with nuclear-weapons. Faced with this scenario, Wray wanted three Starfighter squadrons located at each of the two German RCAF bases, limiting the French bases to one each. His plan called for the Marville- and Grostenquin-based squadrons to deploy to Baden and Zweibrucken when on nuclear alert.[59]

Under the circumstances, Wray's plan was not entirely unreasonable but was rejected for several reasons. First and foremost, it was not what Campbell wanted. The CAS insisted on an equal distribution of two strike/reconnaissance squadrons at each wing. With regard to French views on nuclear-weapons placed in France, Campbell evidently did not share the concerns of the AOC, nor those of his own staff: "as far as the problem of nuclear-weapons in France is concerned, we must assume that France will fall in line."[60] In light of the fact that his own staff officers were planning on the assumption the French government would not allow for foreign-controlled nuclear-weapons in France, Campbell's optimism seemed curious, yet it had much to do with his personal experience in Europe. As the first AOC, he encountered good relations with senior French airmen and officials and believed that they could be reasoned with. He also believed, based on his tour at SHAPE, that the French would eventually bend to NATO wishes.[61]

As it turned out, the CAS was proven wrong on both accounts. French airmen became increasingly stubborn and obstructionist with regard to NATO air operations over French soil. Moreover, in addition to forcing the alliance member countries to vacate bases in France, the French withdrew from the alliance's military organization. Nevertheless, in the interim, Campbell's wishes were carried out. On December 11, 1961, the CAS directed the Air Staff to inform the Air Division that the eight squadrons would be distributed evenly at the four bases and the alert aircraft for all squadrons would stand alert in the quick reaction alert (QRA), secure designated area on airfield for rapid response aircraft—both air-defence and strike, at the two German bases.[62]

Wray's proposal also ran counter to SHAPE's existing dispersal and survivability policy. In order to maximize the survivability of NATO's strike squadrons in the Central Region, his most precious military capability, SACEUR wanted to limit each wing to one strike squadron. As discussed in the previous chapter, this policy was impractical and unenforceable due to the prohibitive costs of building the required additional airfields. The Air Division was already planning to put two strike squadrons at each wing. The idea of adding a third to each of the two German RCAF bases was, therefore, not a popular operational proposal as far as SHAPE planners were concerned.

Another difficulty with Wray's plan was that it would have necessitated doubling the number of aircraft hard stands (parking spots) at each QRA area SHAPE had authorized per strike base. SACEUR's Nuclear Strike Plan required each strike squadron with a UE of 16 or more aircraft to maintain 4 aircraft on normal alert. As such, accepting that these bases would hold two strike squadrons, SHAPE authorized the construction of eight hard stands, four sheltered and four unsheltered, using NATO infrastructure funds. The Air Division plan would have required sixteen. In December 1961, SHAPE informed the Canadians that this was unacceptable because it entailed an overconcentration of strike aircraft and the existing programmed special ammunition storage (SAS) sites, for US tactical nuclear-weapons, and custodian facilities for each base were insufficient to adequately support this concentration. Consequently, SHAPE would not support construction of permanent facilities to maintain such a posture.[63]

59. Letter from Wray to Campbell, dated October 4, 1961, RG 24, File 096–100–56/1, Volume 4, LAC. At one point, Wray wanted two squadrons at 2 Wing and to leave Marville as an airhead only.

60. Memorandum from CAS to A/CAS, dated November 20, 1961, RG 24, File 096–100–56/1, Volume 4, LAC. The "frosty" tone of this memorandum from Campbell to his second in command was an indication that the CAS' position was not a popular one.

61. Ibid.

62. Memorandum from AMTS to Air Staff, dated December 11, 1961, RG 24, File 096–100–56/1, Volume 4, LAC.

63. Message from the Air Division to AFHQ, dated December 18, 1961, RG 24, File 096–100–56/1, Volume 4, LAC.

SHAPE's policies frustrated Campbell. He sent a message to A/M Dunlap, the senior Canadian RCAF officer employed as Deputy Chief of Staff of Operations, to get a confirmation of SHAPE's direction that no more than one strike squadron was to be located at each base. As such, the CAS expected SHAPE to assign the Air Division a total of eight bases, four permanent and four deployed, for its eight strike squadrons. He also expected SHAPE to authorize the construction of QRAs and SASs at each deployment base to allow for nuclear operations.[64] Dunlap, caught between the need to please his national boss and defend the position of his existing employer, confirmed that SHAPE expected maximum deployment of its strike squadrons, but he added that the redeployment of strike squadrons involved quite a number of difficult operational and logistical problems. The latter entailed the emergency deployment, storage, and custody of atomic weapons, all of which required American authority and additional manpower. Dunlap felt that the Americans were not going to approve such a concept.[65]

By the spring of 1962, the Air Staff and Air Division were getting worried because the issue of the deployment of the French-based RCAF Victor (nuclear-strike) Alert aircraft had not been resolved. The Canadians believed that they had three options with regard to the 1 and 2 Wing aircraft. The latter could stand alert at 3 and 4 Wings, at the RCAF-assigned deployment bases at Bertix and/or St. Hubert in Belgium, or at other NATO bases. As discussed above, the first proposal was ruled out because of SHAPE's concerns of over concentrating strike aircraft at one base. Regarding the third proposal, 4 ATAF confirmed that there were no other NATO bases available for RCAF dispersal—there were not even enough to accommodate USAF squadrons. While this left the second proposal as the only practical option, its approval was also questionable. It would have required a formal US–Belgian nuclear agreement and a separate bilateral Canadian–Belgian agreement for long-term use of Belgian bases. Further, the USAF would have had to create additional mobile custodial parties available to deploy to Belgian bases. St. Hubert was also operationally problematic due to runway lengths and heavy commercial air traffic around the base. Finally, to improve the two Belgian deployment bases to a standard to operate strike squadrons would have required considerable national funding; never a good prospect. As it turned out, this option was ruled out by a revised SHAPE policy that limited the construction of QRA and SAS facilities at peacetime bases only.[66]

In March 1963, an exasperated AOC sent a message to AFHQ stating what he planned to do under the circumstances. The tone of this message revealed Wray's frustration at having to satisfy the conflicting aims of SHAPE and the Air Staff:

> The latest CAS MIP gave impression that the objective was to deliver to SACEUR the maximum number of Victor Alert a/c [aircraft] as possible. *The purpose of my message is to tell you how I propose to get on with the job you have given me* [italics added]. To start with, number 1 and 2 Wings in France cannot be used for Victor Alerts because of the French Government position, therefore this leaves 3 and 4 Wings in Germany where we can stand alert. Policy respecting standing permanent Victor Alert at our deployment bases in Belgium, namely at St Hubert and Bertrix is still most indefinite and therefore I am not considering them in any interim solution to our problem. QRA capacity at each of the German wings is four sheltered and four unsheltered hard-stands and this means that the maximum possible number of Victor Alert aircraft at each wing is eight. I therefore intend to concentrate my aircraft and aircrew resources in sufficient numbers at 3 and 4 Wings to enable me to hold as many aircraft on alert as possible and then distribute the balance of resources between the two wings in France. For almost three years we have had studies carried out concerning the disposition of squadrons arising out of the inability to use the French bases for Victor Alert purposes and we have always come to the same conclusions, namely that the most difficult way of making use of the resources from the French wing would be to attempt staging aircraft and aircrew back and forth between the French and German wings.[67]

64. Letter from CAS to Air Marshal C. R. Dunlap, Deputy Chief of Staff (DCOS) Operations, SHAPE, Paris, France, dated November 20, 1961, RG 24, File 096–100–56/1, Volume 4, LAC.

65. Dunlap reply to CAS, dated December 8, 1961, RG 24, File 096–100–56/1 Volume 4, LAC. Air Marshal Dunlap was likely well aware by this time that he was the CAS designate: therefore, in order not to displease Campbell and jeopardize his career aspirations, he had to choose his words wisely.

66. Air Division message to AFHQ, dated May 25, 1962, RG 24, File 096–100–56/1, Volume 4, LAC.

67. Wray letter to Dunlap, dated March 15, 1963, RG 24, Accession 1983–84/049, Box 194, Volume 12, LAC.

At the time that the AOC wrote this message to AFHQ, the issue had been pretty much settled. NATO infrastructure funding for RCAF QRAs was limited to the two bases in Germany. Funding for this construction included the necessary buildings, roadways, security fencing, intrusion alarms, lighting, and power supply. The German contractors were to complete this construction by the fall of 1963 at 3 and 4 Wings.[68] But this issue was just one of several that had to be juggled by the AOC of the Air Division. Another problem was how best to schedule the departure of the Sabres and their replacement by the CF-104s so as to minimize the gap in air power provided by the RCAF in NATO's Central Region. In addition to resolving this matter, the RCAF faced three more headaches. They included the need to bring back the CF-100s earlier than planned, managing manpower ceilings on Canadian forces in Europe, and difficulties in obtaining the requisite number of pilots trained for the strike role.

Disbandment of the Air Division Sabre and CF-100 squadrons

Only a few years following its introduction into the European theatre, the operational effectiveness of the CF-100 was in serious doubt. When pitted against the supersonic fighters being employed in increasing numbers by other NATO countries during air-defence exercises, this aircraft's obsolescence was laid bare. Artificial rules had to be introduced to keep engagements within the inferior performance parameters of the CF-100 so its crews could continue to practice intercepts. The story told below, in which a CF-100 air intercept (AI) Navigator describes the humiliation of not being able to position the aircraft for a "shot" at a commercial airliner, demonstrates that, by 1960, the CF-100's days were clearly numbered:

> although range was closing, the unknown was still on the outside of our turn, so even Gary [pilot] could not get a visual. Finally the contact came down to something approaching minimum range, leaving nothing more to do but level our wings and have a look. All we got was the flash of a tail bearing the symbol of Lufthansa, then the rapidly decreasing form of a Boeing 707. With the CF-100 on limiting Mach and the 707 just cruising, it was fruitless to continue ... . As far as I was concerned, that was the end of the CF-100 as an effective frontline interceptor. With an attack speed of 440 knots TAS [true airspeed], versus a passenger aircraft cruising at about 480 TAS, its days were over.[69]

While these were the comments of a squadron-level navigator, by the spring of 1961 it was clear that the Air Staff agreed with this assessment. It was recommended that the four all-weather squadrons in the Air Division be disbanded in 1962 and that the RCAF's contribution to SHAPE be limited to the eight strike/reconnaissance CF-104 squadrons.[70]

The problem was that in the NATO Country Force Programme, which was the alliance document showing the forces committed by each member country, Canada was to have four AW(F) CF-100 squadrons in Europe at least until the end of 1963. The obsolescence of the CF-100 notwithstanding, SACEUR wanted Canada to continue to provide an all-weather capability to provide some protection to NATO's nuclear-strike capability. But in addition to obsolescence of the Clunk, the RCAF needed to withdraw the crews to allow for the smooth introduction of the CF-104 squadrons. The Canadian government was not going to raise the manpower ceiling for its military forces in Europe; therefore, the RCAF needed to rotate the CF-100 crews by no later than the summer of 1962 to offset the existing number of F-86 crews, dependents, and those associated with the newly arriving CF-104 squadrons. The Air Staff also needed to rotate the CF-100s out of Europe that summer because aircrew shortages were predicted to be greatest between the summers of 1962 and 1963. During this period, the RCAF needed to disband CF-100 squadrons to make room for pilots to cross-train to the Starfighter.[71] Aircrew shortages had already forced the Air Staff to be less selective in choosing its 104 pilots!

68. Update from CAS to Chiefs of Staff Committee, subject: "QRA and SAS Construction at 3 and 4 Wings," dated December 4, 1962, RG 24, Accession 1983–84/049, Box 194, Volume 12, LAC.

69. Account written by Charles Alexander, describing an interception exercise during the summer of 1960, in Baglow, 85.

70. Minutes of Air Council Meeting 20/61, Item 91, held May 17, 1961, File 76/264, DHH.

71. Internal CAS memorandum, subject: "Disbandment of Air Division CF-100s," dated April 11, 1962, RG 24, File 096–100–56/1, Volume 4, LAC.

The final decision regarding the disposition of the Air Division's CF-100s was made by the Diefenbaker Government for financial reasons. On June 1, 1962, the prime minister announced that one of the measures to be taken with the aim of strengthening the Canadian dollar was a reduction in spending during fiscal year 1962–63 on the part of all government departments. Accordingly, the planned expenditures of the RCAF, along with the other two services, were reduced. In this regard, the government accepted the RCAF's recommendation and announced to NATO the disbandment of the four CF-100 Squadrons in No. 1 Air Division and No. 61 AC&W Squadron, effective January 1, 1963.[72] Implicit in this announcement was that effective December 31, 1962, the RCAF's air-defence role in Europe officially came to an end. The outstanding GCI services of No. 61 AC&W Squadron, operating out of Metz since 1955, were no longer required, since the role of the 104s would obviate the need for this unit.[73]

To facilitate the introduction of the CF-104 into NATO, Wray wanted the disbandment of the Sabre squadrons moved forward into 1962 as well. While this idea was likely supported by the Air Staff, the first 104s were not expected to arrive in Europe until late 1962. As such, AFHQ shared the concerns of SHAPE that an early departure of the Sabres would have left too much of a gap in the Air Division's contribution of operational front-line aircraft to the Central Region:

> Air Council generally and CAS particularly was unhappy about probable implications making gap too prolonged in front line contribution to NATO. Admittedly, operational usefulness of Sabre squadrons is lessening but you will appreciate that at Air Council level and above here feeling is that we should maintain operational front line with as little break during transition period as is humanly possible by capitalizing on every resource at our command. Therefore ideal goal was the disbandment of a Sabre squadron on X day, and on X day plus one a CF-104 squadron would become operational.[74]

It was decided that the first Sabre squadron was to be disbanded and reformed as a 104 strike/reconnaissance squadron in December 1962, with the remaining seven squadrons disbanded and reformed over the course of the subsequent year.[75]

On the surface, due in large part to the strong efforts of Canadian airmen from the Air Staff down to the operational and training levels, this objective was met. The last Sabre squadron to disband, 439, was stood up as a 104 squadron at Marville on November 1, 1963, a full month ahead of the date forecast in the revised 104 MIP published in May 1962. Driving this hectic schedule was the need to provide SACEUR with strike squadrons as quickly as possible and to fill the gap in air-power capability left with the disbandment of the RCAF Sabre and CF-100 squadrons.

The reality was that in order to meet the compressed schedule, the RCAF had to make a series of changes and adjustments in key areas that included aircrew training and operational certification of the CF-104s. It moved up the first CF-104 course to July 9, vice August 13, 1962. It eliminated the work-up and operational suitability trials[76] planned for Cold Lake and assigned the latter function to the first CF-104 squadron in Europe. It then amalgamated all initial technician training at Cold Lake, with follow-on training carried out at 3 Wing, home of the first CF-104 squadron, 427.

72. Letter from CAS to all AOCs, entitled, "Actions to be taken as a result of Government austerity measures," dated August 13, 1962, RG 24 Accession 1983–84/049, Box 194, Volume 12, LAC.

73. Annual briefing by AOC, No. 1 Air Division, Minutes of Air Council Meeting 38/63, Item 193, held November 30, 1963, File 76/264, DHH. Installed equipment in the CF-104 permitted independent navigation to and from the target in all kinds of weather and at night.

74. Message from VCAS to AOC, No. 1 Air Division, dated April 12, 1962, RG 24, Accession 1983–84/049, Box 194, Volume 12, LAC.

75. It needs to be pointed out that there was no seamless continuation between the Sabre squadron and the 104 squadron that replaced it. In fact, in the case of 2 Wing, when the 104 pilots arrived in September 1963, there were no Sabres, or Sabre pilots, and the fledgling strike pilots encountered less than a dozen total RCAF personnel upon arrival. Like its sister Services, the RCAF is proud of tradition. One of those traditions is the proper transfer of squadron colours. This evidently never took place between the departing Sabre and arriving 104 squadrons. Sadly, some of the squadrons lost memorabilia in the confusion, and unbeknownst to the public, several military trials were held at the time for those held accountable. Interview with Leo O'Donovan, Orleans, Ontario, August 19, 2004.

76. No. 1 Air Division Directive issued December 22, 1961, RG 24, Accession 1983–84/049, Box 103, Volume 10, LAC. The Operational Suitability Trials (OST) encompassed all aspects of evaluating the CF-104 as a nuclear-weapons carrier. The purpose of the OST included the following: to assess operational suitability of the CF-104 as a complete weapons system against the operational nuclear-strike/recce requirements; to develop operational procedures for the use of the aircraft in the above roles; to evaluate the maintenance and operation of the CF-104 in squadron service to determine the adequacy of aircrew and ground-crew training, technical and aircrew personnel establishments, technical trades structures, ground support element establishments, maintenance procedures, and logistic support needs.

While these changes may have solved an immediate goal of getting crews and aircraft to Europe as quickly as possible, as detailed later in this chapter, they caused serious operational problems in the long term.

The requisite number of 104 pilots could not be found for the first OTU courses. The initial goal was to train 24 pilots per course, and each group, upon graduation, would be formed as a strike squadron. This had to be changed during the first two courses, with the 24 pilots divided equally to form the nucleus of 427 and 434 Squadrons of 12 pilots per squadron. The next two squadrons were also limited to 12 pilots, but the situation became even worse for the remaining four 104 squadrons, as they all began operations with an initial pilot complement of just 6. As for the aircraft, operational certification had to be performed in Air Division wings as they arrived from Cartierville. Due to the lack of qualified test pilots in the Air Division, pilots had to be sent to Europe from the Aerospace Engineering Test Establishment (AETE) in Cold Lake to carry out these tests.[77]

These problems notwithstanding, A/V/M Wray was pleased with the progress and was particularly impressed with the success of Air Transport Command (ATC) in transporting the 104s to Europe in what was dubbed Operation RHO DELTA. Following the delivery of the first Starfighter to 3 Wing on October 12, 1962, Wray wrote the following to A/M Dunlap, the new CAS:

> I have great praises for the efficient manner in which these movements are being carried out by ATC. The Hercules was completely and carefully unloaded in thirty minutes and was reloaded with surplus equipment and ready to return to Canada in two hours.[78]

In a subsequent update in April 1963, Wray was still upbeat and once more praised the work of ATC. He also passed on his thanks to Air Defence and Training commands for their efforts in training airmen to meet the compressed schedule:

> Two full squadrons at 3 Wing, with all aircraft tested and in operational use. At 4 Wing ten aircraft delivered with further deliveries occurring every third day. The ATC delivery operation has been excellent. The training product of ADC and Air Training Command has been good and we are now well beyond our planned programme in squadron training and flying utilization rate.[79]

The steady delivery of the new aircraft and the progress in the training of the air and ground crews removed a considerable load off Wray's mind. However, he was still confronted with two outstanding issues: the future of his wings in France and the political approval for the use of nuclear-weapons.

Planning requirements for the use of US tactical nuclear weapons in Europe

The use of tactical nuclear weapons by the Canadian military required the joint approval by Americans and Canadians of two key documents: a bilateral, government-to-government agreement and a technical agreement between the two countries' militaries. Approval of the latter document could not occur until the two governments had approved the former. Not widely known, because of its sensitivity and security classification, was that the Diefenbaker Government, by virtue of its membership in NATO, obtained approval in principle to a bilateral agreement with the US for use of American tactical nuclear weapons within months of assuming power.

As authorized in Articles 20 and 21 of the North Atlantic Council Communiqué issued December 19, 1957, and subsequent to discussions between the Canadian and US governments regarding general principles under which nuclear warheads were to be made available for the Canadian forces, the following was confirmed:

77. Interview with Leo O'Donovan, Orleans, Ontario, August 19, 2004.
78. Message from AOC, No. 1 Air Division, to CAS, dated October 17, 1962, RG 24, Accession 1983–84/049, Box 194, Volume 12, LAC.
79. Message from Air Vice-Marshal Wray to CAS, dated April 24, 1963, RG 24, Accession 1983–84/049, Box 194, Volume 12, LAC.

> The US shall provide and maintain stockpiles for the use by the CF. Stockpiles of nuclear-weapons, to meet the needs of approved defence plans, will be established at locations to be determined by the allied commanders concerned in accordance with their approved plans. All costs to be borne by Canadians over and above NATO infrastructure agreements. Custody of nuclear-weapons responsibility of US, including provision of personnel to oversee that function. Release of nuclear warheads to meet operational requirements will be subject, where practical, of prior inter-governmental consultation (they will be used, when authorized by both governments, only in accordance with procedures established by the appropriate Allied Commander or by the Canadian and US military authorities as applicable). [The] US [was] responsible for the maintenance, modification and assembly of nuclear warheads, including the provision of personnel and technical equipment for the performance of these functions. [The] US [was] responsible for movement of nuclear warheads to/[from] USA, and in respect to Europe, for movement in/out the countries within ACE area.[80]

During the period 1960–63, when Prime Minister Diefenbaker was under fire from both sides of the nuclear debate, he denied that the country had made any formal commitment to accepting nuclear warheads.[81] While NATO officials stayed out of Canadian politics, they were both perplexed and frustrated by Diefenbaker's refusal to accept the warheads they felt he had committed his country to years earlier. Particularly angry were the Americans. In what would prove to be one of the many nails in the Conservative Party's electoral coffin, on January 4, 1963, the retiring General Norstad paid a visit to Ottawa. In front of the national media, the outgoing SACEUR contradicted what the Canadian leader had been saying in public. Not only did Norstad confirm that the Conservatives had committed the country to nuclear weapons, NATO was depending on the prime minister to keep his government's promise. Although he could not mention the classified source in this public embarrassment to the prime minister, the outgoing SACEUR was referring to the 1957 alliance communiqué described above.[82] While debatable to what extent this NATO communiqué was truly a national commitment, the Norstad affair placed more doubt in the minds of Canadians about their prime minister's ability to be trusted and lead the country. Three months later his party went down to defeat at the hands of Lester Pearson's Liberals.[83]

About the same time that the Conservative leader agonized over the question of nuclear weapons for the Canadian military, Pearson surprised many, including those in his own party, when on January 10, 1963, he promised that, if elected, his party would honour Canada's nuclear commitments. As mentioned earlier in this chapter, this was a dramatic political about-face for the Liberal leader. Given his subsequent direction to rid the Canadian military of these weapons in the long term, it is debatable to what extent Pearson was truly committed to this policy.[84] Yet, as explained below, the evidence suggests that Pearson had earlier shown his support for using nuclear weapons. As St. Laurent's external affairs minister, he had earlier committed Canada to their use, at least in the defence of NATO.

In a classified letter to the chairman of the CSC, Air Chief Marshal Miller, written on February 3, 1962, the retired Dana Wilgress confirmed that Canada's commitment to the use of nuclear weapons began under the St. Laurent Government. Wilgress was a senior official in external affairs. Before retiring, he was the ambassador and permanent representative to the North Atlantic Council from 1953 to 1958. While Wilgress dismissed Miller's contention that the NATO Heads of Government meeting in December 1957 committed the member governments to the use of nuclear weapons, he pointed to two earlier meetings of the North Atlantic Council in which such a commitment was indeed made. The first occurred at the NATO ministerial meeting held in December 1954. At this gathering, it was decided that NATO forces would use tactical nuclear forces from the outset of war and that these weapons were to be incorporated into the Shield forces of the alliance. The second occasion was in December 1956. At this meeting, NATO ministers adopted the political direction confirming the concept of the "forward" strategy, based

80. North Atlantic Council Communiqué, Articles 20 and 21, issued December 19, 1957, RG 24, G–13–10, Volume 23319, LAC.
81. Newman, 344.
82. See "Norstad Visits to Canada," File 73/1223, Raymont Papers, Series 1, Volume 529, DHH.
83. Newman, 344.
84. Lentner, 32–39.

on the use of nuclear weapons from the outset of a war with the enemy. Noteworthy was that Wilgress ended his letter by the following: "From the Canadian point of view, the significant factor is that Mr. Pearson was the chief representative of Canada at the 1954 and 1956 meetings and it was he who accepted the commitments on behalf of Canada."[85] In Pearson's defence, this correspondence does not make it clear if he had committed his government to the use of nuclear weapons by Canadian forces, or simply to a nuclear strategy for NATO.

Once in power, a reluctant Pearson needed persuasion from the American government as well as his defence and foreign affairs ministers to sign a bilateral agreement with the US to provide the Canadian forces with tactical nuclear warheads. This agreement included warheads for the Army's Honest John missiles in Europe, for the Canadian-based CF-101Bs and Bomarcs in NORAD, as well as the CF-104s.[86] Although Pearson stated that his ultimate goal was to pursue a conventional role for the Canadian military, on August 16, 1963, his government signed and announced to the public a US–Canadian agreement that would have the Canadian military use American-provided tactical nuclear warheads. The terms of this agreement were based upon the aforementioned classified US–Canadian discussions and NATO communiqué of December 1957.

Unlike its political masters, the RCAF could not afford to waver in its intentions to accept nuclear weapons for the CF-104. In a message to the AOC, No. 1 Air Division in August 1962, the VCAS, A/V/M Annis, wrote that "RCAF policy is to take all possible action to prepare to receive nuclear weapons in the absence of a government to government agreement."[87] Wray and his headquarters staff were directed by AFHQ to advise the Commander-in-Chief, USAFE, General Landon, of RCAF desires and intentions. They were also to assist USAFE, as necessary, in securing specific information required for the staffing and implementation of a service-to-service agreement.[88] Over the course of the summer of 1962, airmen at AFHQ and Air Division HQ were greatly concerned that USAFE would not engage in staff actions for a service-to-service agreement covering the introduction of nuclear weapons and procedures on their release to Air Division squadrons. When Wray personally visited Landon, he found the commander of USAFE most willing to help but unable to do so until authority from the Pentagon was received. Landon then sent a message to the Chief of Staff, USAF, General Lemay, requesting the requisite authority. Lemay replied that until the US and Canadian governments had signed a bilateral agreement, the two services would be precluded from signing a technical agreement.[89] The signing of such an agreement in August 1963 was, therefore, of great relief to both the RCAF and USAF.

Although Canadian politicians may not have been aware of ongoing military planning, Canadian airmen were working out the details of assigning nuclear targets to the Air Division, a most sensitive subject, well before the government-to-government agreement had been signed. Internal and external correspondence from the Air Division Intelligence Target Production Unit in the fall of 1962 indicated that RCAF intelligence personnel were actively engaged with their USAF counterparts in the procedures to release nuclear targets to the Canadians. Of concern to RCAF intelligence officers was that RCAF squadrons were assigned targets in the 2 ATAF area of responsibility in addition to those within 4 ATAF. If the squadron activation dates were to be met, intelligence staffs needed to acquire the necessary maps, charts, mosaics, and other supporting target materials for these additional targets:

> Both target groups contain some targets which are located outside 4 ATAF Zone ... . At least three of the targets are well north of Berlin, although still within a low-low-low mission profile for CF-104. There are some deficiencies in the coverage of the target materials so far obtained for 1 Air Div [Division] and those which have been made available through 4 ATAF have been very skimpy indeed.[90]

85. Letter from Dana Wilgress to Air Chief Marshal Miller, Chairman, CSC, dated February 3, 1962, File 73/1223, Raymont Papers, Series 1, Box 310, DHH.
86. John Clearwater, *Canadian Nuclear Weapons: The Untold Story of Canada's Cold War Arsenal* (Toronto: Dundurn Press, 1998), 30–31.
87. Message from VCAS to AOC 1 Air Division, dated August 2, 1962, RG 24, Accession 1983–84/049, Box 104, Volume 12, LAC.
88. Ibid.
89. Message from the AOC, No. 1 Air Division, to CAS, dated August 14, 1962, RG 24, Accession 1983–84/049, Box 104, Volume 12, LAC.
90. Message from the Chief of Plans and Intelligence to Air Division HQ, dated November 18, 1962, RG 24, Accession 1983–84/049, Box 104, File SG–096–100–56/1, LAC.

The strike role, therefore, had increased the operational scope for No.1 Air Division.

The response from AFHQ was that it had never been the intention that RCAF CF-104 strike squadrons would operate only within the 4 ATAF area of responsibility. In a message to the Air Division, the Chief of Plans and Intelligence explained that there was a substantial requirement for planning multiple target coverage in ACE. By assigning targets to strike forces outside of the normal Canadian area of responsibility, SACEUR was provided with much greater flexibility in the use of nuclear weapons. The Chief of Plans and Intelligence from AFHQ added that the revised MIP dated May 15, 1962, made it clear that CF-104s would operate outside the area of 4 ATAF. The Director of Air Intelligence at Air Division HQ was to concentrate on target collection data embracing an arc with a radius of 600 nautical miles [1,111 kilometres], centred on 4 Wing, and obtain clarification from 4 ATAF on the total area within which 1 Air Division strike-reconnaissance forces were required to operate (see Figure 6-1).[91]

Figure 6-1. No. 1 Air Division strike squadron's 600-nm radius of action from 4 Wing

While the Air Staff wished to move forward on planning for strike operations in Europe, the lack of political commitment notwithstanding, senior airmen were most concerned that discussions with the Americans on the introduction of nuclear weapons were extremely sensitive and had to remain classified. This was made clear in a message the Air Staff sent to the Air Division:

> Personnel dealing with this matter [nuclear targets] must not reveal in discussion nor correspondence the fact that the USAF is providing Air Div HQ with target materials under a bilateral arrangement. This restriction is one of the terms under which the release to the RCAF was approved.[92]

In the last line of this message, the Chief of Plans and Intelligence from AFHQ inferred that the sensitive nature of this subject was a concern of a higher authority. It is not clear to what authority he was referring, nor is it clear to what extent the government was aware of these discussions.

91. Message from the Chief of Plans and Intelligence to Air Division HQ, dated December 2, 1962, RG 24, Accession 1983–84/049, Box 104, File SG–096–100–56/1, LAC.

92. Ibid.

It was quite evident that many months before the arrival of the aircrews and aircraft, Air Division intelligence personnel were actively engaged in the details of preparing target information data for use by the 104 pilots. In an internal Air Division HQ memorandum the following update was given:

> The initial group of intelligence personnel for 3 Wing began training with Squadron Leader Roy in Metz approximately August 13 [1962] and the lecture phase of the course has been completed. 4 ATAF has released a number of targets to Air Div for training and planning purposes for which the group are now preparing target-folders. Additionally, a number of targets which SHAPE have requested Air Div be responsible for effective 1 May 63 have also been given to our Target-Production Unit for planning purposes.[93]

The clandestine nature of these discussions over the assignment of nuclear targets begs the question as to the RCAF's motivation for secrecy. Were airmen unsure of the limits of political authority granted for these discussions, and therefore, did they need to keep the details of their planning with the Americans from their civilian masters? There is no evidence to support this contention. What is clear is that airmen had to have this data available before the strike squadrons and crews arrived in Europe. This target data was needed for the aircrews to successfully pass the operational readiness inspection by 4 ATAF and to be declared combat-ready in the strike role. This rationale was explained to AFHQ by the Air Division in December 1961:

> Targets will be assigned to our CF-104 squadrons before tactical evaluation. Reason is that part of the evaluation consists of a minute and detailed examination of the pilot on his primary and secondary target mission data in addition to examination on an equivalent practice target. We will of course be asking 4 ATAF to assign war time targets as early as possible after arrival of a squadron in Europe to enable pilots to get on with the job of preparing their target mission folders in preparation for the tactical evaluation. From our discussions with the appropriate USAFE formations and 4 ATAF HQ we estimate that it will take a pilot one week of solid work to prepare his mission folder from the basic target materiel envelope and then another three weeks approximately in which to completely memorize his primary and secondary target mission folders. In short it is considered that it will take a smart industrious young pilot between approximately three and six weeks to prepare his mission folders and to memorize the contents. For your general information CF-104 squadrons in conjunction with the wing organization must pass two separate and distinct types of tests, namely a test by USAFE agency respecting safety and security and when this is completed a NATO tactical evaluation which is conducted by 4 ATAF. From our present knowledge we estimate that it will take the first CF-104 squadrons six months before it can go on victor alert. It is significant then that on conversion to the F-105 aircraft in Europe the USAF squadrons which had already been holding victor alert with their old aircraft took three months before they were placed on victor alert with the new aircraft.[94]

As events proved, these were justified concerns. While the strike squadrons had received their aircraft and crews by the end of 1963, the necessary USAF/RCAF technical agreement had not yet been finalized. Five months had elapsed since the two governments had agreed that this would be done.

While A/V/M D. A. R. Bradshaw, the new AOC, No. 1 Air Division, was informed by letter of the necessary bilateral agreement on August 26, 1963, his staff had to wait until October 10 to receive the first draft RCAF/USAFE technical agreement. In general, the US was authorized to station personnel and equipment on RCAF bases in the Federal Republic of Germany. US forces consisted of custodial detachments which were to be made available once the RCAF attained operational readiness with the CF-104s and the necessary storage and administrative facilities were in place. American forces retained custody of all US nuclear-weapons, and which were to

93. Internal Air Division HQ memorandum, written by Squadron Leader Berryman, Air Intelligence Directorate, to Director Air Division Security Office (DADSO), dated October 31,1961, RG 24, Accession 1983–84/049, Box 104, File SG–096–100–56/1, LAC.

94. Air Division message to AFHQ, dated December 21, 1961, RG 24, Accession 1983–84/049, Box 103, Volume 10, LAC.

be released to the RCAF only in accordance with NATO defence plans, SACEUR directives, and US national control procedures.[95]

The storage, handling, maintenance, loading, downloading, security, access or any other operation involving US nuclear weapons were governed by the approved USAFE nuclear-weapon-system safety rules, as augmented by United States Commander-in-Chief / Commander-in-Chief, United States Air Force Europe (USCINC/CINCUSAFE) and associated technical manuals. The RCAF was to certify to USAFE that the armament system of the CF-104 met standards prescribed and approved by USAF. Such certification had to be received prior to placing the strike aircraft on QRA and at any time that the armament system was modified. No modification made to weapon control, monitor suspension, or release system was permitted without prior USAF approval. USAF and the RCAF also established a nuclear-safety inspection system.

Security was an important consideration. The US maintained custody and control of the nuclear and training weapons and established exclusion areas. These were primarily weapons' storage areas, where only US personnel were allowed access. The RCAF was responsible for external security of all areas made available for USAF units.[96]

Included in the technical agreement were the alert procedures for RCAF nuclear-strike forces. A portion of the SACEUR-committed RCAF force was placed on QRA during peacetime conditions in order to provide SACEUR with a capability to launch high-priority strikes in a minimum of time. For the release of weapons, a USAF alert duty officer was provided at all times to the RCAF QRA from the USAF Custodial Detachment. This American officer received and authenticated the United States Forces Commander-in-Chief, Europe (USCINCEUR) portion of the SACEUR/USCINCEUR release message, then released US atomic weapons to the strike unit in conformance with SACEUR/USCINCEUR implementing instructions.[97] He also notified USAF custodians at the QRA aircraft of the authority to release weapons.[98]

The last portion of the technical agreement addressed airborne emergency release or jettison procedures for RCAF aircrews flying with nuclear-weapons. Not surprisingly, the number one rule was that they were not to be released over land masses in friendly territory. Commanders had the moral obligation to ensure that the emergency disposal of these weapons was accomplished without endangering lives of friendly populations. The emergency release/jettison of a nuclear weapon (in safe configuration) was to be made only in open ocean areas at least 10 nautical miles [18.5 kilometres] from shore. Aircrews were to inspect impact areas before the drop. In an emergency, aircrews were to try to avoid built-up areas and were authorized to crash with the weapon on board.[99] These were certainly noble instructions, but it seems doubtful that they could have been followed to the letter. Most of the 4 ATAF area of operation was over land, making the emergency jettison of weapons over a large body of water problematic.

Although the Air Division was satisfied with the details of the US–Canadian bilateral technical agreement, 1963 was coming to a close and the document had yet to be signed by the two countries. On December 18, Bradshaw sent a message to AFHQ in which he expressed concern that further delay in approval of the technical agreement jeopardized Canada's chances of having its strike squadrons operational by the dates promised to SACEUR:

95. Detailed operational instructions, entitled "Arrangement between the Designated Military Representatives of the United States Air Force and the Armed Forces of Canada for Nuclear Weapon Support of Canadian Nuclear Delivery Units Stationed in the Federal Republic of Germany," signed by Colonel Falletta, USAF, Deputy Director of Programs, Deputy Chief of Staff Operations, HQ USAFE, delivered to AOC, No. 1 Division on October 10, 1963, RG 24, G–13–10, Volume 23319, LAC.

96. Ibid.

97. SACEUR was also dual-hatted as the CINCEUR. Under the latter authority, he directed the release of nuclear-weapons by the USAFE custodial detachments holding them at RCAF wings. As SACEUR, he had the authority to permit the use of these weapons by designated NATO forces, albeit under a separate chain of command. The inherent dual alliance and national authority in this concept was of concern to other alliance members, including Canada, because it theoretically allowed the Americans to use nuclear weapons in Europe based upon national grounds. See Clearwater, 117.

98. Ibid.

99. Ibid.

> Conversation between Col WT Sheally Director of Munitions HQ USAFE and SOARM [Staff Officer Armament] this HQ at a meeting at 4 Wing Baden Soellingen on 17 [December] has revealed that strong possibility exists that Custodial Detachments requisitioned by USAF for 3 and 4 Wings will be re-assigned to other NATO nations if technical agreement is not signed by 05 [January] 64. USAF Custodial Detachment personnel for our bases were requisitioned on the assumption that tech agreement would be signed by 01 Dec 63. These personnel are presently en route to Europe. Assignment to our bases was programmed to commence 01 Jan 64, however, EURCOM will not authorize such assignment unless technical agreement has been signed. If Custodial personnel are not assigned to us by 05 Jan 64 then they will be re-assigned to other non RCAF commitments and a minimum period of 90 days will be required before another group can be assigned to us. This 90 day period plus another 90 days required for on site work-up would introduce a serious delay in achievement of combat ready status.[100]

The hold-up was over details of the bilateral agreement at the national leadership level.

The Americans would not accept Canadian demands that the agreement contained assurances that the release of nuclear weapons would occur only after both governments had agreed that such weapons were to be used operationally. Fortunately for future US–Canadian relations and cooperation, a compromise was found whereby the requested amendment by the Canadian government was accepted by the Americans with the addition of "only in accordance with procedures established by SACEUR."[101] Both sides theoretically got what they wanted. While the Canadians got assurances that their government would be consulted before the release of US nuclear weapons to RCAF units, the Americans felt that SACEUR's ultimate authority to release these weapons in times of crisis remained unchallenged by the prior need to obtain the approval of the civilian authorities of the member countries.

Why Canadian and American officials would be happy over such contradictory assumptions is unknown. Fortunately for NATO and Western Europe, these assumptions were never put to the test. In any event, the service-to-service technical arrangement was signed by both countries on January 10, 1964. Interestingly, the compromise implemented was subject to the provisions of the Canada / United States agreement established by the exchange of notes 125 (Canada) and 58 (United States), dated August 16, 1963. The final agreement to obtain nuclear warheads was underpinned by the aforementioned North Atlantic Council Declaration and Communiqué made at the NATO Ministerial Meeting of December 16–19, 1957.[102]

Closure of Grostenquin

The uncertainty felt by Canadian airmen waiting for final government endorsement of the USAF–RCAF technical agreement for the release of nuclear warheads was exacerbated by another concern. There was growing speculation, in Canada and NATO, that the RCAF's days at one or both of its bases in France were numbered with the introduction of the strike role. The RCAF was aware that the storage of US-controlled tactical nuclear-weapons in Marville and Grostenquin was likely in jeopardy given the French government's position. Even so, other operational matters still needed attention by the Air Division. The RCAF required French authority for the use of its airspace for low-level flying training. This type of training was extremely important because it allowed the Canadian strike pilots to practice their assigned routes. In the following message sent to External Affairs from the Canadian Embassy in January 1963, one gets the sense of unease by Canadian officials at the time:

> spoke with Air Commodore Bradshaw, [then Chief of Staff, No. 1 Air Division HQ] and spoke informally with Colonel Galvin of the FAF [French Air Force]. Galvin said that all that was required [for RCAF low-level flying routes] was a technical agreement under the Canada-France

100. Message from A/V/M Bradshaw to AOC, No. 1 Air Division, AFHQ, dated December 18, 1963, RG 24, G–13–10, Volume 23319, LAC.
101. This amendment was accepted by the prime minister after both the ministers of National Defence and External Affairs had agreed that it satisfied national demands. RG 24, G–13–10, Volume 23319, LAC.
102. Air Division message to AFHQ, dated January 10, 1964, RG 24, G–13–10, Volume 23319, LAC.

> airfields agreement. He intimated that French authorities were already working on an overall plan for apportioning of French low-level flying facilities between allied air forces, including ours. *On the other hand he did make remark full significance of which is unclear—namely that French authorities were inclined to be concerned over changing role of allied air forces in France* [italics in original]. It is not evident whether their concern was over military concept or simply practical problems involved in control of low level flying.[103]

By March 1963, French authorities had been informed that the RCAF intended to place CF-104 strike squadrons on RCAF bases in France, and that they would need to be assigned low-level flying routes to maintain pilot proficiency, and that these practice flights would be without weapons. A timely French response was not received. This is also the period, discussed previously, during which A/V/M Wray had decided—in light of expected French intransigence on the control of nuclear-weapons in France and the fact that the strike operations from the assigned deployment bases Bertix and St. Hubert were impractical—that all strike squadrons should be concentrated in the RCAF bases in Germany.

Upon assuming command of the Air Division in July1963, A/V/M Bradshaw appeared to be more sanguine about the future of the RCAF in France. In response to the rumours of a Canadian departure from that country and, more specifically, subsequent to a public statement by Defence Minister Hellyer that gave the impression the Canadian government was considering changes in the Air Division, he sent the following message to AFHQ on July 3:

> Recent statements by MND relating to reevaluation of role of CF-104 aircraft on French bases has been reported in French press and European editions of US *Herald Tribune* in form of quote Will RCAF leave French bases at Grostenquin and Marville unquote. These press conjectures have created unrest among our French employees. Commanding Officers of Wings fear that unless employees reassured that RCAF will continue to occupy bases for sometime they will begin losing these employees with the key personnel leaving first. Re-hiring of such personnel virtually impossible owing to tight labour market. Request approval to advise Commanding Officers that it is not proposed to vacate Grostenquin and/or Marville now or during the next year. Should such a move be contemplated in the future there would be a considerable period of time elapse between such an announcement and the implementation of such policy.[104]

In a less than reassuring response, the CAS, Air Marshal Dunlap, replied two days later: "Inform your Commanding Officers that the MND's statement applied to the question of future or additional procurement of CF-104 aircraft and that further implications are not meant to be read into it."[105] An interesting comment was made shortly thereafter in a message sent to AFHQ by A/V/M Cameron, then the senior RCAF officer at SHAPE:

> I am not at all optimistic about achieving positive results by putting our problem [approval for strike operations out of RCAF bases in France and the need for low-level flying routes] to the French. But they are our allies and I think that it would not only be proper but it would make extremely good sense to put our problem to the minister in the first instance. [But] in conclusion let me say that I am not hopeful that a direct appeal to France will net us an extra centime. But who knows. The pattern around here amounts to treating the French with more suspicion than our principal enemy so there is no telling how they may react if we go to them with our problem seeking their cooperation.[106]

103. Message from Embassy Paris to Department of External Affairs, dated January 21, 1963, RG 24, Accession 1983–84/227, Box 21722, LAC.
104. Message by Air Vice-Marshal Bradshaw to CAS, dated July 3, 1963, RG 24, Accession 1983–84/049, Box 194, Volume 12, LAC.
105. Air Marshal Dunlap reply to Bradshaw, dated July 5, 1963, RG 24, Accession 1983–84/049, Box 194, Volume 12, LAC.
106. Message from Air Vice-Marshal Cameron, SHAPE, Paris, to AFHQ, dated August 14, 1963, RG 24, Accession 1983–84/049, Box 194, Volume 12, LAC.

Whatever the views of Canadian airmen at AFHQ, SHAPE, and No. 1 Air Division, the future of the RCAF in France by the summer of 1963 appeared uncertain at best. While it awaited national political direction on this important matter, the RCAF pressed ahead in equipping its wings in Europe.

That fall, the strike crews and their aircraft began to arrive at the two French bases. With the earlier departure of the majority of the Sabre and CF-100 crews and support personnel, these bases were virtually deserted. This was the scenario faced by Leo O'Donovan and the other 430 Squadron pilots who arrived at Grostenquin in September 1963. More encouraging, if not surprising, was the sight of over 40 shining, brand new 104s on the ramp. These aircraft had to be diverted to 2 Wing due to limited space at the German RCAF wings. Even so, O'Donovan and his squadron mates were unsure as to their future in Grostenquin. They had heard rumours while on course at Cold Lake that summer that 2 Wing was to be closed.[107]

Without direction from higher headquarters, the pilots of 430 Squadron, all six of them, decided to carry on with strike training as soon as aircraft were declared operational by the AETE test pilots temporarily posted to the base. Interesting, and frankly amazing given today's protocols, is how 430 pilots planned and flew low-level routes all over France and Germany without any authority from Canadian or French officials. While they did discuss their training routes with the local French Air Force liaison officer, he was less concerned over these flights than his national compatriots in Paris.[108] It is, therefore, a testament to the dedication of this small group of airmen who pressed on with a locally designed strike training programme despite having an inclination that Grostenquin was to be closed.

While the official announcement was still months away, by the late fall of 1963, the expected direction that 2 Wing was to be closed had filtered down to Air Division HQ. It was also understood by the RCAF that the Pearson Government wanted the Air Division composition changed from eight strike/attack (S/A) squadrons to six S/A and two reconnaissance squadrons. The plan was for the RCAF to vacate 2 Wing, and effective February 1964, 430 and 421 Squadrons were to be moved to 3 and 4 Wings respectively. Marville was to remain open, but the two RCAF squadrons there would be restricted to a reconnaissance role.[109]

While the evidence suggests that Paul Hellyer first informed SHAPE of Canada's decision to vacate Grostenquin on December 19, 1963, the defence minister did not make the announcement public until February 5, 1964.[110] Between these dates, there was a flurry of diplomatic correspondence between External Affairs and the Canadian embassies in Paris and Bonn. If the Germans had to be told about the addition of two strike squadrons at Baden and Zweibrucken, it was more important that Hellyer withheld his announcement until the French were satisfied with the Canadian plan. Not surprising, in light of the French government's policy on control of nuclear-weapons on their soil, was that the message to the French public stressed that the RCAF was to limit its operations at Marville to the reconnaissance role. Yet it was interesting that the message also indicated that it was the RCAF's intention to eventually equip all its strike and reconnaissance squadrons for the conventional attack role—at a time when the military emphasis was limited to the nuclear-strike role.[111] The matter was finalized in a letter sent by the new SACEUR, General Lyman L. Lemnitzer, to the defence minister on February 24, 1964. Lemnitzer agreed to the realignment of squadrons within the Air Division and to the Canadian request to cancel the assignment of Grostenquin to the RCAF effective August 31, 1964.[112]

107. Interview with Leo O'Donovan, Orleans, Ontario, August 19, 2004.

108. Ibid. In what was a most fascinating discussion, this strike pilot veteran described how air traffic control in those days was virtually non-existent in Europe, at least for military aircraft that flew above 25,000 and below 1,000 feet [7,620 and 305 metres]. Normal operating height for strike pilots was 500 feet [152 metres] above sea level, but in fact, they often flew lower than 100 feet [30 metres] at speeds up to 510 knots [944 kilometres per hour]! Quite amazing, was that six pilots, which became five with one pilot temporarily flying at 4 Wing, planned and flew these strike missions without any authority from Air Div HQ, the FAF, or 4 ATAF.

109. Internal Air Division memorandum from Group Captain Smith, Deputy Air Programs to DADSO, subject: "CF-104 Deployment Update," dated November 29, 1963, RG 24, Accession 1983–84/049, Box 194, Volume 12, LAC.

110. Minister of National Defence letter to SHAPE, dated December 19, 1963, and announcement at SHAPE, Paris, dated February 5, 1964, RG 24, Accession 1983–84/049, Box 194, Volume 12, LAC.

111. External Affairs message to Canadian embassies at Paris and Bonn, dated January 2, 1964, RG 24, Accession 1983–84/049, Box 194, Volume 12, LAC.

112. Lemnitzer letter to Hellyer, dated February 24, 1964, RG 24, Accession 1983–84/049, Box 194, Volume 12, LAC.

With this plan, the Canadian government had, for the time being, performed a political balancing act. While it allowed for the concentration of strike squadrons in Germany, it left one Canadian wing in France performing a conventional role.[113] Operationally, by adding one more 104 squadron each to Baden and Zweibrucken, this plan fell short of the ideal concentration of strike squadrons promised SACEUR. However, operational concerns were superseded by the need to demonstrate alliance solidarity. It was important not to draw any attention to the growing Franco-alliance rift over the move of squadrons out of France.[114] Lastly, there were practical grounds for leaving one wing in France. There were no surplus airfields in Germany to move to outside of 3 and 4 Wings, although some would have been available if the French Air Force had repatriated some of its strike wings from Germany. In an ironic twist, French President de Gaulle could not immediately repatriate all these forces because France had a limited supply of tactical nuclear weapons. Consequently, to maintain their strike capability the FAF had to remain in Germany to use American tactical nuclear weapons![115]

So why was Marville retained over Grostenquin? Strike veterans provide several explanations. Grostenquin was literally a swamp, whereas Marville was built on high ground and not prone to flooding.[116] As veteran Neil Gillespie recalls, 2 Wing was also an unpleasant area to live and work in:

> Grostenquin was located in the middle of industrial France—the Saar basin. As such, the area contained huge coal mining and smelting operations that kept the air continuously foul. The sky was always smog-filled with an orange colour. We always used 100% oxygen [while flying] in the area, it was filthy.[117]

1 Wing had other advantages. It was equipped with far superior accommodations for RCAF dependents. It was also the air-transportation terminal for the Air Division. As such, it had overnight accommodation facilities for families and a ground transportation section that moved personnel and their dependents to the other wings.[118] Left with the choice of retaining one base in France, the RCAF chose Marville for operational and administrative reasons.

The Air Division attains Victor (nuclear) alert status

Due to the increased space requirements, the addition of a third strike squadron to both 3 and 4 Wings in February 1964 was accomplished with considerable difficulty. Even so, 421 and 430 Squadrons were successfully "squeezed" into their new homes respectively at Baden and Zweibrucken. 421 and 430 were able to join their fellow squadrons in an extensive flying training programme to become combat-ready and in preparation of passing the upcoming 4 ATAF tactical evaluation (TACEVAL). All 3 and 4 Wing squadrons were now officially designated S/A. 439 and 441 Squadrons at Marville were designated reconnaissance/attack (R/A).[119]

After a year that saw its pilots memorizing their nuclear target folders and flying numerous low-level missions both visually and using radar only and with nuclear warheads and the USAFE custodian teams in place, both wings passed the 4 ATAF TACEVAL in June 1964. QRA posture at both wings with four aircraft on 15 minutes Victor alert per wing commenced that month. The six S/A squadrons subsequently settled into a wing routine of rotating between combat proficiency flying training and holding "Q."[120]

113. The Cabinet was assisted in making this decision by the Special Committee on Defence or the Sauvé Committee, as it was later known in reference to its chairman. This committee had been in session since May 1963 and had been looking at all aspects of national defence, including the RCAF nuclear role in NATO. In November 1963, it recommended that Canada retain this role but, given the French government's position on control of US nuclear weapons in France, added that the RCAF should relocate its strike aircraft out of that country. See Charlotte S. M. Girard, *Canada in World Affairs, Volume XIII, 1963–1965* (Toronto: Bryant Press Limited, 1979), 269.

114. Ibid., 255. Another example of how Canadian politicians thought they could perform the role of "lynchpin" between two feuding superpowers was External Affairs Minister Paul Martin Sr., who thought if the US and France reconciled their differences, the latter could be persuaded to remain in NATO.

115. *House of Commons, Debates*, April 2, 1964, Vol. II, 1708.

116. Interview with Leo O'Donovan, Orleans, Ontario, August 19, 2004.

117. Email from Neil Gillespie, veteran strike pilot who spent a short period of time at Grostenquin as one of the initial six members of 421 Squadron from December 1963 until their move to Baden in February 1964.

118. Ibid.

119. 3 Wing now included 427, 430 and 434 S/A Squadrons, and 421, 422 and 444 S/A Squadrons were based at 4 Wing. Each squadron had a UE of 14 single and 2 dual CF-104s. RG 24, File 096–100–56/1, Volume 4, LAC.

120. Internal Air Staff memorandum, dated June 14, 1964, RG 24, File 096–100–56/1, Volume 4, LAC.

Behind this success in achieving a nuclear-strike capability stood several problems that would ultimately limit the RCAF's ability to perform this role to the extent promised to NATO. As discussed previously, the immediate problem was pilot production. The RCAF decided that stand-up of the eight squadrons promised to SACEUR was not to wait until each had its full complement of strike pilots. Consequently, instead of the 24 pilots per squadron as planned in the MIP, the first four squadrons began life with 12 pilots, and the next four with 6 or less.[121] While the RCAF's urgency in not delaying the start dates for the Air Division's CF-104 squadrons was understandable, it placed great strain on the pilots and support personnel at squadron level. It also meant that the strike squadrons were initially unable to generate the number of QRA aircraft mandated by SACEUR. Based upon the number of RCAF strike squadrons located at each German wing, SHAPE expected the Air Division to provide eight QRA assigned strike aircraft per wing. Early on, the two wings provided but four per wing.[122] Providing half of the expected number of strike aircraft was not a good start for the RCAF in the Central Region.

The pilot shortage would slowly improve, but never to the numbers that were required. One worrisome, if not unsafe, consequence of this shortfall was that pilots were overworked. The initial cadre of strike pilots had to be on duty for 127 hours per week in order to maintain flying currency, undergo the continuous number of proficiency checks and, most importantly, to allow for sitting "Q." Further pressure was exerted because of SACEUR's direction that each strike pilot fly 240 hours per year to maintain combat proficiency. Leo O'Donovan recalls that even during the "good times," when his squadron pilot complement reached 12 by the mid-1960s, they still worked 90 hours per week.[123]

No attrition aircraft and a conventional role for the Air Division

While the lack of pilots was initially both a safety concern and an operational limitation, the long-term viability of the RCAF's strike capability in Europe was placed in doubt with the decision taken by the Canadian government not to purchase replacement CF-104 aircraft. Prior to their defeat, the budget restrictions imposed by the Conservatives had already placed a ceiling on further buys of CF-104s. This limited the fleet to 200 single and 37 dual aircraft. In April 1963, the VCAS, A/V/M Annis, wrote in a memorandum to CAS that the force structure plans for the Air Division could never be realized without additional 104s to cover attrition loses being purchased. While the Air Staff had consequently reduced the planned number of aircraft per squadron from 18 to 14, Annis felt that even the revised numbers were unrealistic. In order to preserve the eight squadrons in No. 1 Air Division, the VCAS predicted that the likely unit entitlement would be, quite accurately as it turned out, closer to 12 CF-104s per squadron.[124]

Given that the Liberals had just come to power in April 1963, Annis also worried that the finite number of aircraft would become a sensitive political matter for the incoming government. Pearson may have promised NATO that Canada would accept US nuclear weapons, but without replacement 104s, the country's commitment to the nuclear-strike role could not be sustained very long. In the same memorandum Annis wrote:

> I suggested that the matter of Canada's commitments to NATO versus her performance was now of intense political concern and certainly would be looked at intently by a new MND. The facts are that, no matter what we do, Canada is lagging in meeting her commitments for reasons far beyond RCAF control, and rectification and/or adjustment is a matter which the RCAF can achieve only with major political help and guidance.[125]

121. This revised plan was also driven by the decision to create six strike/attack and two strike/recce CF-104 squadrons in Europe, as indicated in the following Air Staff update: "OTU graduates: first four squadrons with the first four OTU grads, providing 12 pilots per squadron, the next four OTUs evenly split to provide 6 pilots per course to augment the four squadrons in Germany, while the other 6 pilots per course would become the nucleus of a CF-104 squadron in France, now that we anticipate approval of a six-squadron structure in Air Division, with two assigned to the recce role." Internal Air Staff memorandum from Group Captain Smith, Director of Air Programmes, to DADSO, subject: " F-104 Deployment Update," dated November 29, 1963, RG 24, File 096–100–56/1, Volume 4, LAC.

122. Ibid.

123. Interview with Leo O'Donovan, Orleans, Ontario, August 19, 2004.

124. Internal Air Staff memorandum from Air Vice-Marshal C. L. Annis, VCAS, to Air Marshal Dunlap, CAS, dated April 4, 1963, RG 24, File 096–100–56/1, Volume 4, LAC.

125. Ibid.

Fundamentally, the VCAS had laid bare the RCAF's commitment capability gap well over a year before the RCAF had become operational in the nuclear-strike role in Europe.

The bottom line with respect to the total of strike aircraft and trained pilots that Canada was to provide to SACEUR was that the planned numbers never materialized. The original MIP called for 144 aircraft and 216 pilots just to meet the needs of the eight strike squadrons. These numbers were based on a UE of 18 aircraft per squadron at a NATO-approved pilot to aircraft ratio of 1.5 to 1, or 27 pilots per squadron.[126] These numbers did not include the aircraft and pilots needed for the 104 Operational Training Unit at Cold Lake. Early maintenance and aircraft systems problems, as well as aircraft losses due to a worrisome accident rate, quickly reduced the number of available 104s. By the end of 1964, the RCAF had already lost 21 of them, of which seven separate accidents had resulted in the deaths of pilots. This loss rate was not considered unduly high when compared to the Sabre era, but public scrutiny and media descriptions of the aircraft as the "Widowmaker" overshadowed the operational progress made.[127] As explained below, this negative portrayal of a capable but complex combat aircraft was also accentuated by the poor economic climate and the Liberal Government's cool support for the 104 and its primary role.

The inherent pessimism of the VCAS's prognostications was vindicated by government policy a year later. In his White Paper on Defence, presented to Parliament in March 1964, Hellyer signalled that Canada's nuclear role in Europe was to be of limited duration and announced that government policy was to place more emphasis on a conventional (non-nuclear) role for the Air Division. This defence policy statement has been chiefly remembered for its reference to the need to cut costs and sustain the military's future capital programme by integrating and unifying the three services. While these initiatives would affect the future of the Air Division, the defence minister sounded the death knell for a long-term and robust strike role in Europe when his White Paper included the announcement that attrition replacements for the CF-104s would not be procured.[128] A/V/M Annis' worst nightmare had come true.

On the surface, this decision seemed unwarranted. The Liberal Government had, in effect, declared its intention to allow the Air Division to gradually decline less than a year after it had promised the Canadian electorate and NATO that it was going to honour its alliance commitments, including the use of nuclear-weapons. The fact that the decision was made as Canadian airmen were desperately trying to get the strike role operational and, in several instances, giving their lives to accomplish what was, after all, direction given to them by politicians, makes it difficult to support the actions of the defence minister and his peers. In his biography, Hellyer argues that this decision was consistent with the American strategy of flexible response. In simple terms, the latter strategy was to increase NATO's conventional capability and thus raise the nuclear threshold. The American proposal was that NATO could fight and win a war in Europe without having to resort immediately to tactical nuclear-weapons. In terms of air squadrons, the Americans wanted a dual conventional-nuclear-strike capability.[129]

What Hellyer fails to mention was that the German defence minister, Kai-Uwe von Hassel, told him in June 1964 that "the nuclear-strike capability to SACEUR should not just be maintained but built up."[130] Here was the view of a key alliance ally whose country's very existence, unlike the US, was directly threatened in a European conflict. The European members of NATO did not share the US's confidence in the military effectiveness of conventional weapons. The need to raise larger conventional forces was also an expensive one. The last thing they wanted to see was a reduction in NATO's nuclear forces.[131] The American view and reasons for adopting this strategy were vehemently opposed by the French and, to some extent, the Germans and Turks.

126. Internal Air Staff memorandum from Group Captain Smith, Director of Air Programmes, to DADSO, subject: "F-104 Deployment Update," dated November 29, 1963, RG 24, File 096–100–56/1, Volume 4, LAC.
127. Bashow, *Starfighter,* 34.
128. Douglas L. Bland, *Canada's National Defence, Volume I,* 58–60.
129. See Chapter 8 to Phillip Meilinger, ed., *The Paths of Heaven: The Evolution of Airpower Theory* (Maxwell: Air University Press, 1997).
130. Roy Rempel, *Counterweights: The Failure of Canada's German and European Policy, 1955–1995* (Kingston: Queen's University Press, 1997), 124.
131. See Chapter 25 to Peter Paret, ed., *Makers of Modern Strategy from Machiavelli to the Nuclear Age* (Princeton: Princeton University Press, 1986).

Recalling the devastations that long, drawn-out conventional wars had wrought on their countries in the 20th century, they were opposed to a strategy that depended upon the use of conventional weapons. They were determined that "any direct aggression against Europe larger than a border incident would be met at once with tactical nuclear weapons."[132] Lastly, the strategy of flexible response was not popular with either General Norstad or Lemnitzer. As shown below, both SACEURs did not want to reduce their nuclear-strike forces. By maintaining its Army Brigade and nuclear-strike forces in the Central Region, Canada, therefore, provided forces that Germany, as well as SACEUR, wanted.

The defence minister's questionable decision in this matter notwithstanding, it was made within the context of national and alliance political realities. Politicians have a larger constituency to please than soldiers. Not long after assuming the appointment of MND in spring 1963, and well before the White Paper was announced, Hellyer had directed the Air Staff to come up with an implementation plan to introduce a conventional role for the Air Division by 1966. The staff officers at AFHQ were, therefore, busy over the remainder of 1963 coming up with such a plan, including recommendations for the most suitable weapons for the 104. Coordinating this effort was none other than the VCAS himself, A/V/M Annis. It is quite revealing what this senior airman said in an internal Air Staff memorandum in defence of the MND and the latter's expectations with regards to the future of the 104:

> The [Minister] is thinking in terms of the period 1 January 1967 onwards [for conventional role], ... any earlier acquirement of an attack role capability as being a bonus. The UE of post end-66 force would be a maximum of 90, and perhaps 72 [CF-104s]. The MND has had heavy pressure put on him [because of] past promises of his party to meet existing commitments, i.e., Strike role until end-66, past promises of his party to find some other role after end-66 (any before would be a bonus), [and due to pressure exerted by] Secretary McNamara—to acquire a dual attack/strike capability in our CF-104s of the same kind as Secretary has insisted be acquired by all USAF F-105 and other strike squadrons, [and] by SACEUR to, in any case, retain a strike capability also ... I believe that while demanding dual capability in US squadrons McNamara attached the greater importance to the attack portion of the duality ... . I suspect MND would be glad to see our CF-104s in an attack (or attack/recce only) role, after end-66, but recoils from keeping the CF-104 force in action at all because he believes the CF-104 is near-to-useless in a conventional role. I do not think it is fair to the CF-104 to allow MND to continue believing this.[133]

The rambling prose of this memorandum sent to the Chief of Operational Research aside, Annis evidently saw the actions of his defence minister somewhat sympathetically. He acknowledges that Hellyer's objectives in replacing the 104's nuclear role with a conventional one were at least partially a result of internal and external political pressures the MND could not ignore. While Annis disagreed with Hellyer's assessment of the 104, he understood that the MND's annoyance with this aircraft was based not only upon the fact that it was married up with the nuclear role, but also on his opinion that it was a poor tactical aircraft. Hellyer's dilemma, compounded by conflicting objectives of SACEUR and the US secretary of defense, was how to phase out the nuclear role and replace it with a conventional one, while left with an aircraft he felt was not optimally suited for the latter mission. In light of the MND's views above, it is less difficult to understand why Annis drove his staff so hard in getting an attack role for the 104, knowing that this was a most unpopular proposal in AFHQ. He felt that the lesser of two evils was to get the Air Division to adopt an attack role while retaining the strike role with the 104, as opposed to the introduction of a dedicated attack aircraft that would have ended the coveted strike mission.

132. Minutes of the 176th Meeting of the Air Staff Policy Committee (ASPC), Item 1, paragraph 12, held February 6, 1964, File 76/263, DHH. It is interesting to note that the ASPC was chaired by the VCAS and that this meeting was meant to provide a doctrinal basis for the RCAF to adopt a conventional role for the strike squadrons. The contents of this meeting strongly indicated that the majority of committee members were against such a move.

133. Internal Air Staff minute from VCAS to Chief of Operational Research (COR), November 14, 1963, RG 24, Accession 1983–84/049, Box 103, Volume 10, LAC.

One cannot dismiss out of hand Hellyer's concerns that limiting the Air Division squadrons to a nuclear role limited their flexibility of employment and made them of no use during an initial conventional war. While no doubt influenced by the flexible response strategy of US Secretary of Defense McNamara, the MND's views were not his alone. They were, in fact, shared by senior Canadian public servants and, most importantly, by the prime minister himself. This is evident in the following top secret and strictly personal letter sent by George Drew, the High Commissioner for Canada in London, to Lester Pearson on October 8, 1963:

> Based on views of General Lemnitzer [SACEUR], NATO strategy has evolved from one of being a "Trip Wire" to use of nuclear weapons, to one of a holding force using conventional weapons ... under those circumstances I can only re-emphasize my belief that it would be a major tragedy, even if all the aircraft were fully supplied with the only weapon they can use, if what is generally regarded by everyone including our friends from the United States as the best air force in Europe, were immobilized as a result of their inability to use the only weapon they possess.[134]

In Pearson's reply that follows, it is clear that he supported Drew's views, and furthermore, he fully supported Hellyer's determination to push the RCAF for a conventional role in Europe:

> [your letters] will reinforce the position I have taken with the MND on these matters, especially in their relation to the equipping of the Air Division in Europe. I am assured that this particular matter is being re-examined with a view to changes being made.[135]

In this case, it appeared that the Liberal Government was following the wishes of the Americans. But it is not clear if it was as much the case of the prime minister and his defence minister agreeing with the American military assessment of NATO, or rather the case that the latter became a convenient policy upon which to hang the Liberal Party's objective of phasing out a nuclear role for the RCAF in Europe.

There was a possibility that Hellyer's interest in a conventional role for the RCAF may also have been influenced, ironically, from a study conducted by airmen prior to his appointment as defence minister. In February 1961, the Air Council directed that a study group be formed within AFHQ with the objective of developing long-range strategic guidance. With this study, the Air Staff could "formulate broad policy on the objectives, roles, and functions of the RCAF through the [next 10-year] period."[136] The study group consisted of four senior RCAF officers led by Air Commodore F. S. Carpenter. They were to envisage how the strategic environment would impact on the RCAF a decade into the future. One of the main features of this study was the recommendation to re-establish a tactical air command to control all RCAF fighter aircraft employed in air defence, ground attack, and those assigned to SACEUR. With respect to the latter, it was recommended that the RCAF continue to practise the delivery of tactical nuclear weapons and, therefore, retain the nuclear-strike role. But the study did suggest that the RCAF become part of SACEUR's mobile reserve forces to be deployed where needed, as opposed to remaining at static bases. It was also implied that RCAF fighter forces in NATO needed to increase their flexibility by being capable of carrying out a conventional attack role in addition to nuclear strike. The study is most interesting in that it was completely at odds with existing RCAF doctrine. It recommended that not only Tactical Air Command serve the interests of all three services, but that air power also should be treated as a joint military capability.[137]

It is not clear if Hellyer read this study or if it ever made its way out of the hands of senior airmen. Subsequent minutes of Air Staff meetings suggest that the RCAF remained committed to a nuclear-strike role and had no interest in conventional attack. On the other hand, since these concepts so closely mirrored those put forth later by the defence minister, it would not be unreasonable to assume that he had seen or heard about this 1961 RCAF study. Two major recommendations by

134. Drew letter to Pearson, dated October 8, 1963, DND, Hellyer Fonds, File entitled: "NATO 1963, Air Division in Europe – Equipment," M.G. 32, B–33, Volume 74, LAC.

135. Pearson letter to Drew, dated October 14, 1963, DND, Hellyer Fonds, File entitled: "NATO 1963, Air Division in Europe – Equipment," M.G. 32, B–33, Volume 74, LAC.

136. *Report of the Special Studies Group on the Long Range Objectives for the RCAF*, 1.

137. Ibid., 23–26.

Hellyer that would be implemented included the creation of a mobile tactical air command, one that would cater to all three services, and the introduction of a conventional role for the RCAF.

Attack doctrine and conventional weapons for the CF-104

The contemporary NATO definition of an attack squadron was one that was assigned a primary conventional-weapon attack role. This differed from a strike squadron which had a primary strike role and a secondary conventional-weapon attack role. The priority of tasks for an attack squadron in 4 ATAF included suppression of enemy air-defence ground environments and counter-air strikes against the enemy's air order of battle on designated airfields, close support for ground forces and/or other indirect support tasks, and armed line reconnaissance of enemy approach routes.[138] In the case of the CF-104, the training and weapons needs of an attack squadron, as well as the impact on strike operations, were of considerable concern to members of the Air Staff:

> If the attack role is, in fact, close tactical support, then we must consider not only what weapons should be carried, but the fact that a separate OTU for all aircrew so involved would have to be set up at the expense of the strike OTU now running at Cold Lake. Then we must bear in mind the serious problem regarding available flying time on our CF-104 aircraft. At the present time and in the foreseeable future we will do well to achieve a MFR [monthly flying rate] on these aircraft sufficient to meet the minimum criteria of 4 ATAF in a purely strike role. If a dual role is superimposed on these squadrons obviously any operational training by the squadrons in the attack close support role will involve a direct increase in MFR over and above the minimum SHAPE criteria for the strike role.[139]

There was also some confusion on the part of these staff officers when it came to reconciling weapons stocks in 4 ATAF and what the priority role was for NATO strike/attack squadrons, the official definition of an attack squadron given above notwithstanding:

> By definition, the primary mission of attack aircraft will be support of the nuclear-strike aircraft and, as indicated by the Stockpile criterion, they are to be capable of delivering general purpose, medium case and/or fragmentation bombs, napalm, and air-to-ground rockets in addition to nuclear-weapons. Hence, although the requirement to support the strike aircraft seems to imply that attack aircraft will be employed primarily on interdiction type missions, the combat stock requirements are indicative that SHAPE envisages employment of attack aircraft for both the interdiction and close support tasks.[140]

In any event, the Air Staff advised the VCAS that the CF-104 was capable of performing the conventional role effectively, provided it underwent some modifications and was assigned specific targets and armed with the appropriate weapons.

The CF-104 had a maximum external load carrying capacity of 4,800 pounds [2,177 kilograms] and without engineering was capable of carrying bombs (up to 4,000 pounds [1,814 kilograms]), napalm, rockets, and air-to-air missiles. To make the 104 a true attack aircraft, Lockheed needed to make modifications for additional pylons outboard of the existing wing pylons and to modify the aircraft armament system. As for weapons, the cluster bombs CBU-2A and CBU-3A, which at the time were newly introduced into the West, were assessed as the most effective for airfield interdiction and antitank missions. The MLU 10/B Fire Bomb (napalm), also new, was assessed as the most effective against marshalling yards and against troops. Although the SHAPE criterion made no reference to penetration aids, stockpiling of SHRIKE (anti-radar missile) for enemy radar suppression was also recommended. Conversely, the CF-104 was assessed as being an ineffective

138. Note from Air Marshal Dunlap to VCAS, subject: "Discussion of NATO Definitions of Attack Aircraft," dated December 5, 1963, RG 24, Accession 1983–84/049, Box 103, Volume 10, LAC.

139. Internal Air Staff memorandum from Chief of Operations, COPs, to COR, dated November 7, 1963, RG 24, Accession 1983–84/049, Box 103, Volume 10, LAC.

140. Staff paper prepared by COR staff, subject: "Attack Role Requirements for CF-104 Aircraft," dated November 27, 1963, RG 24, Accession 1983–84/049, Box 103, Volume 10, LAC.

weapon system for delivery of conventional, general purpose bombs against targets such as bridges and tunnels. As such, use of these types of munitions and missions was not recommended.[141]

If the CF-104 could theoretically be modified for the attack role, the concerns expressed by Canadian airmen with respect to assigning a conventional role to the Air Division strike squadrons were based on more than tactics. Their main criticism was that it was founded on a dubious strategy. In short, the RCAF had no faith in the assumptions of flexible response. They were also quite aware that NATO was split on this matter. But more pertinent to airmen, there was an aspect specific to air forces that questioned the rationale of flexible response.[142]

Discussions in the winter of 1964 held within the Air Staff Policy Committee revealed that airmen felt it operationally futile to use conventional weapons in support of numerically inferior NATO ground forces. Moreover, since the 104 was of little use in direct support of the Army, it would have to use conventional weapons in the same manner as if it were armed with tactical nuclear weapons. This limited the 104 to interdiction missions against the enemy well behind the front lines. Consequently, since there was a high probability of provoking the enemy to escalate the war to a nuclear confrontation, why not use tactical nuclear-weapons from the outset?[143] This point of view was expressed in another manner:

> The attack/strike role conflicts with the philosophy of nuclear-strike deterrent. The enemy may consider hitting one of our squadrons in Germany to nullify its attack capability. This would not necessarily mean the start of a nuclear war. However, should the squadron also be a nuclear carrier a potentially dangerous situation could be precipitated.[144]

The majority feeling within this committee, therefore, was that "insofar as air forces were concerned the greatest single deterrent to any war occurring in Europe would be achieved by arming them exclusively, or almost exclusively, with tactical nuclear weapons."[145]

Whatever the merits of these arguments debated among airmen, the end result was that the RCAF was directed to implement a dual attack/strike role for the Air Division. Any thoughts to the contrary were, therefore, moot. This direction came in the early spring of 1964 from the MND. To this end, the Air Council selected the BLU-1/B version of the M116 fire bomb and the CBU-2/A dispenser and cluster (fragmentation) bomb to fulfil the attack requirement. The selection was made on April 22, 1964, and received the minister's approval on July 6. All Air Division CF-104 aircraft were modified to permit carriage and delivery of these conventional weapons.[146]

Being directed to implement a conventional role was one thing, but actually attaining an operational capability was quite another matter. The conversion kits for these weapons did not appear at 3 and 4 Wings until late 1965. In fact, the pylon kits did not arrive until January 30, 1966; thus, weapons delivery practice of the BLU-1/B did not begin until the following month. The news was much better with respect to the CBU-2B/A anti-material fragmentation bombs. Deliveries of these weapons had commenced in June 1965, so that by February 1966 there were a total of 296 CBU-2B/A weapons stored at 3 Wing and 40 at 4 Wing. By July 1966, the Air Division had achieved an operational capability for the CBU-2B/A at both 3 and 4 Wings, but its capability for the delivery of napalm remained limited due to a lack of full armament crews, insufficient training, and the need for modifications to loading equipment.[147] Nevertheless, on December 22, 1966, three years after being directed to implement a conventional role in Europe, the AOC, No. 1 Air Division, advised SHAPE that his wings were operationally capable in a secondary attack role for pre-planned counter-air and interdiction missions using both fragmentation bombs and napalm.[148]

141. Ibid.
142. Ibid.
143. Ibid.
144. Internal Air Staff memorandum from COR to VCAS, dated November 12, 1963, RG 24, Accession 1983–84/049, Box 103, Volume 10, LAC.
145. Minutes of the 176th Meeting of the Air Staff Policy Committee, Item 1, paragraph 13, held February 6, 1964, File 76/263, DHH.
146. Internal Air Staff discussion paper, dated January 20, 1965, File 73/1223, Series 1, Box 104, Volume 13, DHH.
147. Internal Air Division HQ memorandum, dated July 8, 1966, RG 24, Volume 23318, LAC.
148. Air Division HQ message to SHAPE, dated December 3, 1966, RG 24, Volume 23318, LAC.

While the introduction of a conventional role for the Air Division was in line with the long-term defence policy objectives of the Liberal Party, it was not favourably embraced by Canadian airmen. The purchase of the 104 by the Conservatives, followed by their refusal to equip this fighter with nuclear warheads, gave the RCAF reasons to be at once enthusiastic and frustrated. Pearson's Liberals followed the same route with airmen by accepting the warheads for the RCAF and then indicating that the nuclear role was to be of limited duration and be replaced with a conventional role. The problem was one of perspective. The CF-104, matched with an offensive nuclear-bombing role, satisfied the cultural and institutional aims of the RCAF. Its independence from the Army in Europe and within the North Atlantic Alliance was assured. Pearson's Liberals, like Diefenbaker's Conservatives, saw things from a more complex political outlook. While satisfying the operational needs of NATO was important and a major component of their defence and foreign policies, this strategy needed to be consistent with a changing domestic mood. Perhaps not appreciated by Canadian airmen was that moving to conventional military capabilities, including those performed by the RCAF, provided the Canadian government with options independent of NATO and NORAD. In other words, Canada was to have a military equipped to support global missions in support of UN or Commonwealth mandates in addition to its alliance commitments. These were roles independent of the Americans and ones in which Communist-inspired forces would be fought on a conventional level and, thus, well below the nuclear threshold.

As detailed in the next chapter, this difference of perspective between the RCAF and its political leaders would be laid bare as the life of the Air Division came to an end. The eight strike squadrons would be incrementally reduced to three conventional attack squadrons by 1972. Yet even when the end was near for the Air Division, its pilots and support crews continued to provide a military capability to NATO's Central Region second to none.

Chapter 7

THE END OF THE RCAF AND FALL OF THE AIR DIVISION

Good things do not last forever. This philosophy is perhaps no more applicable than to the fate of the Air Division during its last five years, from 1965 to its disbandment in July 1970. On the one hand, the RCAF would succeed in providing SACEUR with a strike/attack and reconnaissance capability that was well out of proportion to the size of its overall strength. On the other hand, the previous decision by the Liberal Government not to purchase replacement CF-104s had already established a sense of futility in the minds of Canadian airmen, knowing that the end of the Air Division was drawing near. Compounding their unease was the overall uncertainty over the future of the Canadian military. Between 1964 and 1966, Defence Minister Paul Hellyer pushed through the integration and unification of the three services. He also initiated a series of defence reviews that, at a minimum, re-opened the debate over the need to keep Canadian forces in NATO. This issue was partly driven by the French decision to withdraw from the military organization of NATO and to remove all foreign forces from its territory. But it was also because of the Liberal Government's concern that the Air Division's air-power roles served alliance as opposed to national interests at a time when the European members of NATO were considered ready to defend themselves without the need for the stationing of Canadian forces in Europe.

It is, therefore, tempting to describe this period of the Air Division as one of inevitable decline as a result of national and foreign political forces that Canadian airmen could not control. The truth was that the actions and designs of the RCAF contributed to the demise of the Air Division. Canadian airmen were most excited with the nuclear-strike role because it extended the life of the Air Division and sustained their institutional and national independence in NATO. The problem with this strategy was that it depended upon the continuing employment of the CF-104 in large numbers performing the strike role. Once both of these components no longer existed, this strategy unravelled. It is difficult to believe that the outcome would have been different if the RCAF had been more flexible in its approach to accepting a conventional role or if it had cooperated in a strategy whereby it supported the Canadian Army Brigade in Germany. If replacing the nuclear role with a conventional one was the wish of the Canadian government, it was not supported by SACEUR.

This chapter describes the maturation of the strike/attack and reconnaissance roles and the successful manner in which the pilots and ground crews of No. 1 Air Division carried out their responsibilities to SACEUR. This chapter also discusses the reasons that led to the incremental reductions of the Air Division and its ultimate termination. The focus is on demonstrating how these reductions were met, and dealt with, by senior Canadian airmen. It then analyses the operational effectiveness of the strike role and discusses the problems associated with command and control of this capability from a national and alliance perspective. While the strike role was certainly affected by Canada's changing foreign policy under the Pearson and Trudeau governments, a mission in wartime in which the RCAF would be given nuclear bombs provided by the Americans and released under NATO authority was problematic in that it was never really clear to senior Canadian airmen and their political leaders how it would all work.

Air-power choices—conventional attack or nuclear strike?

While the progress made towards achieving a conventional capability no doubt satisfied the Liberal Government, veteran strike pilots clearly recall that this air-power role was accepted most reluctantly by Canadian airmen. The RCAF's primary focus in Europe was the nuclear-strike mission. This was, to some extent, contrary to direction from higher headquarters and, to a lesser extent, to pressures exerted by the Americans for NATO strike forces to be capable of carrying out the attack role. In the message below from Air Force Headquarters to the Air Division in

December 1966, the unknown author is asking a subordinate headquarters for data to substantiate a conventional role for the 104 in Europe. The tone suggests that this role was not a popular one in AFHQ, and further, it was not to interfere with the strike mission:

> It is understood that Air Division's interest [in the conventional role] primarily stems from the intent of the [1964] White Paper to move toward a greater degree of conventional capability in the tactical support role. In order to generate a continuing alternative conventional capability for the CF-104 aircraft in the Air Division, an appreciation covering the following supporting data is required: NATO, SHAPE, or ACE substantiation of the conventional requirement, your concept of operations in the conventional role, the impact of [the latter] on the nuclear-strike capability, qualitative and quantitative assessment of your requirements for refuelling probes, guns, ammunition, and bombs, suggested training programme for 1 Air Division units considering the availability of ranges, the impact of manning and tactical support requirements on the Air Division manpower ceilings to support such a program, and your appreciation of the risk of aircrew capability degradation in attempting the duality of role.[1]

To some extent, the intention of Canadian airmen to keep the conventional role at a lower priority was supported by NATO policy at higher headquarters. The commander of 4 ATAF was "authorized to employ in the attack role those USAF and RCAF strike aircraft which were not required for the priority one programme [meaning nuclear strike] ... [but] loading of generated strike aircraft with conventional weapons [were to be] carried out only on specific orders of COMFOURATAF [Commander Fourth Allied Tactical Air Force Central Europe]."[2] In another message from USAFE, it was emphasized that "the operational concept for the conventional secondary role as defined at 4 ATAF [was] such that it [would] not interfere with the Nuclear Launch Sequence Plan."[3]

The importance of the offensive nuclear-strike role to Canadian airmen cannot be overemphasized. It ensured, albeit for a short period of time, two post-war RCAF goals: national autonomy by maximizing operational control over its own forces and the assignment of an offensive bombing role. Conversely, close air support of NATO ground forces was felt to be a dangerous road that could have led toward the units of the Air Division becoming divided and apportioned to another allied air force commanded by a non-Canadian. One veteran strike pilot, Neil Gillespie, was familiar with USAFE policy through employment at Headquarters, 4 ATAF. He had this to say:

> It was evident no serious thinking of an attack role for the 104 went on before about 1967 as the OTU training was strictly nuke oriented. Canadian senior commanders at that time were adamant that the Strike role was the right role, and dithering over conventional weaponry was counter productive. Many of these commanders were heroes of WW II Six Group, strategic-bombing advocates. The USAF commanders in post-war NATO did not hew so closely to that line, and most if not all USAFE fighters were fighter bombers with a secondary role of Attack whether or not it was declared.[4]

Gillespie's views bring to light several points on contemporary Canadian and US air power. They confirm the unpopularity of the conventional role amongst the RCAF. They also support the argument that the post-war RCAF leadership, veterans of strategic-bombing operations in Europe during the Second World War, did not want to lose an opportunity of performing an offensive role they had lost since 1945.

In contrast to the RCAF, there was a growing American emphasis on the attack role in Europe. This was as much the result of its popularity among senior USAFE commanders as it was politically driven to satisfy the objectives of flexible response. The emphasis by USAFE on the air-to-ground roles was in stark contrast to the traditional post-war priority assigned by USAF

1. AFHQ message to No. 1 Air Division HQ, dated December 3, 1966, RG 24, Volume 23318, LAC.
2. Message from Commander 4 ATAF to No. 1 Air Division HQ, dated July 8, 1966, RG 24, Volume 23318, LAC.
3. USAFE message to No. 1 Air Division HQ dated January 5, 1965, RG 24, Volume 23318, LAC.
4. Neil Gillespie email, dated August 24, 2004.

to strategic nuclear bombing. Doctrinally, the growth of the air-to-ground role in NATO and the Far East relegated the strategic-bombing mission in USAF to a lower priority, to the extent that its subsequent leaders came from the ranks of fighter and fighter-bomber pilots as opposed to the "bomber barons."[5] The once unquestioned dominance of the latter group also diminished with the introduction of more capable and less vulnerable ICBMs to the US strategic nuclear arm.

Tactical photo reconnaissance

There was perhaps no better example of the initial unpopularity of the conventional role for many senior Canadian airmen than their approach to the reconnaissance assignment. Political direction led to the closure of Grostenquin in the summer of 1964 and restricted the roles of 439 and 441 Squadrons at Marville to R/A. From the beginning, however, especially in light of the frustrations experienced by the slow 104 pilot production, all pilots, including those destined for the Marville squadrons, were trained primarily as strike pilots. Several senior RCAF officers were adamant that the time and resources required to train the aircrew for the implementation of the reconnaissance role were in no way to interfere with the strike training programme and the priority was to fill the German-based strike squadrons as quickly as possible. In a meeting of the Air Council in September 1963, the VCAS, A/V/M Annis, stated that, given the limited number of hours which at the time could be generated by the CF-104 fleet, "every effort was to be directed towards achieving Victor (nuclear) Alert status for the squadrons" and that, furthermore, "he did not consider it possible to do any training in the reconnaissance role in the future."[6] Annis recommended that "the tactical photo-reconnaissance (Tac PR) equipment [being prepared for Marville] be placed in storage, that the training for Tac PR be discontinued, and that the Air Division establishment for Tac PR personnel be deleted."[7]

The VCAS's recommendations were overruled by the CAS, A/M Dunlap. While the latter agreed that priority was to be given to the strike role, he did not feel that the nuclear mission needed to be sustained at the expense of the reconnaissance role. Dunlap argued that the type of flying required to develop a Tac PR capability would not add too much additional training since it was similar to that being performed by the low-level training being carried out by the strike squadrons. As such, he directed that the procurement of photo-reconnaissance pods and all associated equipment for the CF-104 aircraft was to be completed. Even so, when it came to the question of establishing a Tac PR role in the Air Division, the AOC of the Air Division, A/V/M Bradshaw, urged vigilance in a letter to CAS in October 1963:

> We should approach the recce role with caution, at least until we have our strike forces well organized. Although a long period of training would be necessary, I am satisfied that we would be in a position to examine with you the feasibility of accepting an additional role of reconnaissance for our squadrons within six months of our last nuclear squadron becoming operational in the strike role. In this respect we should not overlook the possibility of locating one or two squadrons in France—squadrons that would be employed solely in a primary reconnaissance role.[8]

As well as reflecting Bradshaw's priorities with respect to the strike and reconnaissance roles, his letter suggests that the AOC was well aware of the political issues at the time with respect to the possibility that Canada was to move one or both of its wings out of France. Understanding that the French government did not want foreign-controlled nuclear-weapons on its soil, his suggestion to locate "one or two" squadrons in France was a practical solution to the Air Division's need to perform the reconnaissance role. It is not clear if Bradshaw was motivated as much or more by his perceptions of Canadian political sensitivities regarding its French-based wings than any genuine operational interest in photo reconnaissance.

5. For more details on this subject read Robert Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force, Volume II, 1961–1984* (Maxwell: Air University Press, 1989), 467–579; and Robert Coram, *Boyd: The Fighter Pilot Who Changed the Art of War* (New York: Little, Brown and Company), 243–56.

6. Minutes of Air Council Meeting 32/63, Item 168, paragraph 10, held September 4, 1963, File 76/264, DHH.

7. Ibid.

8. Letter from Air Vice-Marshal Bradshaw to CAS, subject: "Update Regarding Air Division Recce Role," dated October 17, 1963, RG 24, Accession 1983–84/049, Box 103, Volume 10, LAC.

While the VCAS and AOC of the Air Division were ordered by the CAS to get on with the reconnaissance mission, it quickly became apparent that the RCAF was not adequately prepared to perform this role. During the early post-war years, the RCAF had attempted to retain the expertise it had gained in performing the Tac PR role with 39 Wing of the 2nd TAF during the Second World War. As previously discussed, this role was to be performed first by PR Spitfires, and then by PR Mosquitoes. Since the purchase of these two types of aircraft did not materialize, the RCAF was left with one squadron of P-51s at the Canadian Joint Air Training Centre (CJATC) at Rivers, Manitoba, to practise Tac PR and train the support personnel to process and interpret film. By the early 1950s, the Tac PR mission was being taught to all three Services at Rivers as part of the tactical air-support syllabus, but the focus was on the Canadian Army and RCAF to prepare those units dedicated to the Mobile Striking Force (MSF). The latter organization's main purpose was to conduct defence of Canada operations using mobile and integrated Army and Air Force units.[9]

Unfortunately for the future of a robust Tac PR capability—and, in fact, for the very future of the RCAF Auxiliary—the MSF died a slow death after 1955 because the Soviet threat to the North American continent had changed. Given the limited range of early post-war bombers from the Soviet Union, it was feared that Soviet airborne forces would be used to attack and secure airfields in the Canadian north.[10] The MSF was designed to dislodge these enemy forces. But with the advent of longer-range Soviet bombers and, after 1957, the threat of ICBMs, the raison d'être of the MSF disappeared. This change in threat also led to the end of any serious tactical air-support training within the RCAF, and by 1959, the RCAF Auxiliary was relegated to non-combat duties. Tac PR training was sustained to some degree at the CJATC using the T-33 aircraft but not to the level necessary to keep up with the existing developments of the 1960s, both in terms of training pilots and photo interpreters.

The pilots posted to 439 and 441 Squadrons at Marville received no formal reconnaissance training at the 104 OTU in Cold Lake before being posted overseas. They were trained exclusively as strike pilots and, in fact, were expected to maintain a combat-ready status in this role while at Marville. Like their strike/attack brothers at Baden-Soellingen and Zweibrucken, they frequently deployed to the RCAF Air Weapons Unit at Decimomannu, Sardinia, for bombing practice. When the first 104 pilots arrived in Marville in 1964, six each to the two squadrons, there was "no lack of expertise in low-level navigation or in technical photo matters, but this expertise had to be applied in a manner and on a scale which was new."[11] One veteran pilot posted to 439 Squadron made these comments:

> It took about three months of training on squadron to become "combat ready" in the [reconnaissance] role. Frankly, it took me at least that long to feel reasonably confident that I could complete an entire mission without getting lost. The nine months' training in Canada really hadn't prepared me for low level navigation in Europe, which had none of the lakes and few of the distinctive terrain features to which I was accustomed. Moreover, the landscape was a clutter of look-alike settings and the maps which we originally used were woefully out of date. They were based on immediate post-war survey data and showed few contour details.[12]

The bottom line was that the 104 pilots at Marville had to learn the lost art of the reconnaissance mission on a local basis. In the case of 439 Squadron, training was initially received from two experienced reconnaissance pilots, one British and one American. Together, these two exchange pilots trained not only the Canadian pilots but also the photo interpreters. The latter were pilots and navigators from ADC training in their new occupation. The RAF pilot, Flight-Lieutenant Noel, put together an aircrew reconnaissance manual which became a written instructional guide for future RCAF pilots posted to 439 Squadron.[13]

9. Paper prepared for the Land/Air Warfare Committee, subject: "Mobile Striking Force – Standardization of Air/Ground Training," dated October 24, 1952, File 096–104, Volume 1, DHH.

10. With a range of 3,450 miles [5,552 kilometres], the Soviet Tu-4 (reverse-engineered B-29) could not fly to North America and back. Since the Soviets did not have an air-to-air refuelling capability, they looked at "forward" air bases in the Aleutians, Alaska, Greenland, and Newfoundland. See Sean Maloney, "The Mobile Striking Force and Continental Defence 1948–1955," *Canadian Military Journal* 2, No. 2 (Autumn 1993): 76.

11. Dave Huddleston quoted in Bashow, 36.

12. Bill Turnbull quoted in Bashow, 40.

13. Dave Huddleston quoted in Bashow, 35.

As Acting AOC, No. 1 Air Division, Air Commodore Bradshaw sent a message to CAS outlining the concept of operations for the reconnaissance role. Once more, the contents of this message indicated early on that this role was a low priority for the Air Division and that it was to be performed to a limited extent. All sorties were to be conducted in daylight only. No photographic processing or interpretation was to be carried out at Air Division wings. Lastly, the photographic magazines would be merely forwarded as quickly as possible to the agency responsible for photo interpretation.[14] As it turned out, only the first of these restrictions remained in effect throughout the entire period that the RCAF was assigned an official reconnaissance role in Europe. Tac PR was indeed limited to daylight hours. Nevertheless, at the height of the reconnaissance programme, between 1965 and 1970, there were over 100 photo technicians and dozens of photo interpreters employed at 1 Wing, so the Air Division had built up an integral photo processing and interpretation capability. The reconnaissance role at Marville matured to the extent that the two squadrons at 1 Wing had to be capable of working closely with ground forces. Marville was designated by 4 ATAF to work with the US Army; accordingly on the authority of the Commanders of 4 ATAF and Central Army Group (CENTAG), the US Army assigned an officer of captain rank plus two enlisted personnel for duty at this Canadian wing.[15]

It was ironic that the RCAF, which had viewed the reconnaissance role as a low-priority mission for its strike squadrons, went on to provide this capability to SACEUR in a credible and proficient manner. A good test of this capability came in the form of NATO's annual "Royal Flush" competitions that pitted reconnaissance squadrons from 2 and 4 ATAFs against each other. When 1 Wing first competed in 1966, its squadrons came dead last. By 1968, the Canadians started to win the competition. In 1969, 441 and 439 Squadrons placed first and second.[16] In another ironic twist, the RCAF did not employ a dedicated reconnaissance version of the 104 (RF-104G) as did the Germans, Italians, and Dutch. As was typical in the Canadian approach to the reconnaissance role, its solution was to install an "externally mounted afterthought, the Vinton Vicom camera pod."[17] This detachable system was fitted onto the aircraft's centre line rack. It contained four cameras, including a side oblique configuration that permitted "the pilot to offset photograph a target while flying straight and level and simultaneously completing a visual reconnaissance report."[18] This capability was not possible with the RF-104, consequently giving the Canadians an advantage. In the end, the RCAF not only carried out the unpopular conventional reconnaissance role in Europe, it did so in a superior fashion and with an ad hoc aircraft modification relative to the other NATO air forces.

Paul Hellyer and air-power theory

The defence minister was keenly interested in the progress the RCAF was making to integrate a conventional role into the Air Division. Since, in general, there was arguably no single person more responsible for the future of the RCAF as well as the fate of the CF-104 and the strike role specifically, it is important to assess Paul Hellyer's views on air power. As pointed out in the previous chapter, he never liked the purchase of the Starfighter in the first place. While he was an advocate of air power, he eschewed the need and utility of the strike role for the RCAF.[19] He appreciated the inherent mobility and flexibility air power offered the military and the country in general, but he distrusted airmen and the advice they gave him. He appreciated the importance of air superiority, but he did not share the views of senior Canadian airmen that this role was of paramount importance. He was also suspicious of and frustrated by the RCAF's penchant for the procurement of offensive weapons systems during tight budgets that came at the expense of other air-power capabilities.[20]

14. Letter signed by Air Commodore D. A. R. Bradshaw, Acting AOC, to CAS, dated January 25, 1962, RG 24, Accession 1983–84/049, Box 103, Volume 10, LAC.
15. Letter to CDS from AOC No. 1 Air Division, subject: "Army Liaison Officer, RCAF / US Army Administrative Agreement," 1 Wing Marville, dated January 22, 1965, RG 24, Volume 23319, LAC.
16. Bashow, 52.
17. Ibid., 35.
18. Ibid.
19. File entitled: "NATO 1963, Air Division in Europe – Equipment," undated, Volume 74, DND, Hellyer Fonds, M.G. 32, B–33, LAC.
20. Hellyer, *Damn the Torpedoes*, 73.

More fundamentally, Hellyer's views on air power were shaped by his belief that the Canadian military had to move away from the narrow concept of nuclear war and accept the premise that assured mutual destruction rendered the strategy of massive retaliation obsolete. Hellyer wanted the Canadian military to concentrate on building up conventional forces that included a strategic sea and airlift capability to provide it with maximum flexibility and mobility.[21] From the time that the Conservative Government announced the purchase of the CF-104 and alluded to the nuclear-strike role in July 1959, Hellyer's goal was to rid the military of this aircraft and with it, the nuclear role.[22]

While in opposition and also as defence minister, Hellyer conferred with the ex-RCAF senior officer and writer of military affairs, John Gellner.[23] This relationship is an important one because their thoughts on air power for the Canadian military were similar and contrary to those put forth by the RCAF. Prior to the 1963 election Gellner was a commentator for *The Globe and Mail*. He also wrote articles on aviation for various magazines. On December 21, 1962, he wrote a letter to Hellyer in which he expressed his views on Liberal defence policy. Most interesting in light of Pearson's announcement weeks later that he would commit his party to nuclear weapons if elected, Gellner advised the Liberal Party to initially meet Canada's alliance commitments and accept tactical nuclear weapons for its air and land forces in NATO, but then move quickly to get rid of them.[24] These same views were expressed by Hellyer at a speech made at Walkerton, Ontario, weeks earlier on December 8. One major exception was that Hellyer did not mention withdrawing nuclear weapons after the Liberals would commit to them. Hellyer stated afterwards that he passed the contents of Gellner's letter to Pearson on December 31. Presumably he did this with the intention of bolstering his own position, knowing that "Pearson had more respect for Gellner's views [on defence] than mine."[25]

Relevant in this discussion is that Gellner's views on defence, particularly with respect to nuclear weapons, shaped, if not determined, the path that Hellyer, Pearson, and the Liberal Party took upon assuming power in April 1963. Gellner was completely against the nuclear role for the CF-104 and, like the defence minister, was adamant that the Air Division should be relegated to a purely conventional mission. Gellner praised the Liberals following the announcement of the 1964 White Paper. In the May 1964 edition of *Canadian Aviation*, he wrote: "Fortunately for Canada, and for the RCAF, the White Paper heralds changes that should bring an end to the frustrations of the past ... . It emphasizes those military tasks which a non-nuclear power of Canada's stature can perform, mainly active peace-preservation through the deterrence of—and, if necessary, timely intervention in—relatively small, local, conventional wars."[26] The suggestion that the RCAF should rid itself of any nuclear role and the implication that the RCAF should abandon this air-power role in NATO were anathema to Canadian airmen, who recalled Pearson's earlier election campaign promise to commit to nuclear weapons for the Air Division.

It is not known to what extent the RCAF was aware of Gellner's influence in the Liberal Party, nor if airmen knew about Gellner's letter to Hellyer on the eve of the election. But following publication of his views above in *Canadian Aviation*, the RCAF was left with little doubt that Gellner was advocating replacing the strike role with a conventional one. Gellner's popularity with senior airmen could not have improved when in the same article he suggested that pilots in the Air Division were not happy with the strike role. He wrote that RCAF morale was at a low ebb in part because its pilots in the Air Division, still waiting for their nuclear weapons, were asking themselves "what possible purpose were [they] serving when shadow-boxing in Canadian skies

21. Ibid., 19–20.

22. This conclusion is evidenced by an article published in the *Victoria Columnist*, dated November 20, 1960, in which Hellyer is quoted as saying: "Because we [the Liberal Party] advocate the build-up of NATO strongly by conventional weapons ... we recommend the cancellation of the CF-104 and the abandonment of Canada's offensive role, and suggest instead that the Canadian Air Division in Europe play a ground support role, providing cover and tactical support to this country's brigade group." Hellyer correspondence, File 73/1223, Raymont Papers, Series 9, Box 3158, DHH.

23. John Gellner was born in Czechoslovakia in 1907 and practised law in that country until coming to Canada in 1939. He joined the RCAF in April 1940 and served as an air observer and pilot, including a tour in Bomber Command. Before his retirement in 1958, he was an instructor at the RCAF Staff College, where he began his writing career on military affairs. Many of his views on air power can be found in his columns in *Canadian Aviation*.

24. Lentner, 34–35.

25. Howard Lentner telephone interview with Paul Hellyer, June 19, 1975, in Lentner, 35.

26. John Gellner, "Paper Promises RCAF New Blood," *Canadian Aviation* 37, No. 5 (May 1964): 32.

or learning to drop tactical nuclear weapons in Europe."[27] It is interesting that Hellyer makes virtually an identical comment in his biography. He states that during the lead-up to the strike role [when the Conservatives were still in power and had not authorized the use of nuclear weapons], Air Division "pilots were so ashamed they avoided bars frequented by their NATO colleagues."[28] When queried as to his thoughts on this comment, one veteran strike pilot replied that he and his fellow strike pilots were always committed to the strike role. Any frustration on their part was over the political uncertainty demonstrated by both Liberals and Conservatives over their commitment to the nuclear role in Europe.[29]

The defence minister's approach to air power generally, and toward the CF-104 specifically, was part of a larger goal to integrate and unify the Canadian military. Effective August 1, 1964, the positions of the Chiefs of Staff of the three services and the chairman of the CSC were abolished and replaced by the Chief of the Defence Staff (CDS). With these dramatic organizational changes, Hellyer felt that he had brought the military under more centralized control with only one senior military officer, the CDS, reporting to him. These changes had a particularly detrimental effect on the existing privileged, cold-war position of the RCAF relative to the Army and Navy. With the loss of the CAS position and with the direction over air operations and logistics support now respectively the responsibility of the Vice Chief of the Defence Staff (VCDS) and Chief of Logistics, the RCAF had lost a considerable amount of political and military clout that it had possessed since the beginning of the post-war period.[30]

An integrated command structure and the search for a tactical air-support fighter

Once Hellyer created a new national defence headquarters, he was able to make further changes within his department. These changes would have a considerable impact on the existing organization and doctrine of the RCAF. Hellyer succeeded in convincing Cabinet that the RCAF not only needed to adopt a conventional role, it had to find a dedicated fighter to carry it out. The two decisions that reflected these changes were the purchase of the CF-5 Freedom Fighter to fulfil the conventional air-support role and the creation of an integrated command structure. The first decision confirmed the Liberal Party's intention to have the military place an increased emphasis upon conventional air power while gradually withdrawing from a nuclear role in NATO with the attrition of the CF-104. The second decision involved the creation of Mobile Command to support a defence policy that was not exclusively wedded to the country's two alliances. This included a shift from the government's preoccupation with air power in support of NATO's Central Region, to something that would be more flexible and designed to provide direct support to a mobile Canadian Army based in Canada, one that would be prepared to support operations overseas in NATO's outer flanks and in the support of UN commitments in non-NATO regions.

With respect to the future of combat air forces for the Canadian military, Liberal policy was enunciated in the 1964 White Paper:

> During the decade, we propose to give increasing emphasis to the provision of aircraft for direct support of our ground forces. We anticipate that a high performance aircraft will be available to provide sufficient flexibility for any task we might undertake from ground attack to air surveillance. These versatile tactical aircraft will possess adequate radius of action to allow rapid deployment from Canada to bases overseas. This will permit squadrons to be stationed in Canada or Europe as required.[31]

27. Ibid., 32.
28. Hellyer, *Damn the Torpedoes*, 24.
29. Interview with Leo O'Donovan, Orleans, Ontario, August 19, 2004.
30. Douglas L. Bland, *Canada's National Defence, Volume 2: Defence Organization* (Kingston: Queen's School of Policy Studies, 1997), 120–31.
31. *1964 White Paper on Defence*, M.G. 24–N3, LAC.

The same year that the Liberals announced this policy, Hellyer directed his military staff to make recommendations for an aircraft that would best meet the above criteria. The details of this search for a new fighter are useful in that they reveal Hellyer's single-mindedness in ridding the RCAF of the 104 and replacing the nuclear role with a conventional one. This discussion also gives the reader an idea how the Liberal Government's shift in defence policy—which, theoretically, gave it options outside of NATO and NORAD—placed the future of the Air Division in doubt. As it turned out, the aircraft recommended to and supported by the MND was the McDonnell F-4 Phantom II. Hellyer understood that in addition to fulfilling the conventional role, the F-4 was also a suitable replacement for the CF-104 and CF-101. The reality was that this aircraft was unacceptable for the same reason it was rejected in 1959—its prohibitive cost.[32] While Hellyer argued that funds for the F-4 might have been available if the Conservatives had not bought the CF-104, he understood that he needed to look for a cheaper fighter. In the meantime, the MND had to fend off a strong lobby by the RCAF and aircraft industry—the two of which he felt were one and the same—to buy the Phantom II. The F-4 option was also supported by several senior officials in the Department of Defence Production. They had proposed a joint British–Canadian programme to build this fighter under licence in Canada with Rolls-Royce Spey engines. These aircraft were in great demand by the Royal Navy.[33] However, the pressures exerted by the RCAF and from those within his own party to buy the F-4 did not deter Hellyer. When he placed the options before Cabinet, he presented them in such a shrewd manner that he knew the outcome would go his way.

The MND recommended to Cabinet that a programme in the aggregate of $215 million be authorized for the acquisition of six to eight squadrons of ground support aircraft (approximately $1 million per aircraft). Hellyer pointed out that if the government opted for the acquisition of the F-4 RN (Royal Navy) for industrial reasons, then an annual increase in the DND estimates of four per cent needed to be authorized for the five-year period 1965–1970.[34] Hellyer knew perfectly well that the funding increase was not an option for a department that was already struggling to find funds for the existing capital programme. He also knew that the senior officers representing the Army and Navy would not support such an expensive project that would have jeopardized their acquisition priorities.[35]

Hellyer's aggressive behaviour in these deliberations aside, he had an important ally in Cabinet to support his strategy. The overriding factor in his search for a cost-effective fighter aircraft was the insistence by Finance Minister Walter Gordon that the annual defence budget was to be held at $1.5 billion for three years. This ceiling was maintained in the face of Cabinet's earlier decision in 1964 to increase the defence budget to $2 billion, recommended by the Conservatives in March 1960 to pay for Canada's increased commitments in support of MC 70.[36]

On December 8, 1964, Cabinet decided "that the Government was not in a position to reach a conclusion concerning future aircraft needs of the RCAF, [however] that it was the present view of the Government that the F-4 did not fulfil force requirements."[37] The next day, Prime Minister Pearson informed his British counterpart, Harold Wilson, that the deal for the joint production of the F-4 was off. Unfortunately for Canadian airmen, this action ended the chances for the RCAF to buy what would turn out to be one of the most successful and versatile cold-war combat aircraft ever produced in the West. It also opened the door for the eventual acquisition of the CF-5.

In light of the Cabinet decision above, Hellyer once more directed his military to recommend a suitable tactical combat aircraft for the RCAF. This time there was no question of selecting a replacement for the CF-104; the military simply had to recommend an aircraft that best performed

32. Air Staff / COR recommendation, made April 1963, called for the purchase of 288 F-4C Phantom II aircraft at cost of $836,733,000 (all costs), with first aircraft delivered December 1965, and last on 1 December 1968, RG 24, Series E–1–c, Accession 1983–84/167, Box 6283, LAC.

33. Hellyer, *Damn the Torpedoes*, 114–15.

34. Memorandum to Cabinet, subject: "National Defence Equipment Programmes, 1965–66 to 1969–70, inclusive," dated November 16, 1964, File 73/1223, Raymont Papers, Series 9, Box 3176, DHH.

35. Hellyer, *Damn the Torpedoes*, 130–31.

36. Conversation between the author and Dr. M. Hennessy, Royal Military College, January 2005. Hennessy's views based upon Liberal Party Cabinet Papers from 1964.

37. Record of Cabinet Decision dated December 8, 1964, File 73/1223, Raymont Papers, Series 1, Box 40, DHH.

the tactical, conventional role.[38] The remaining contenders were all US-designed aircraft: the Douglas A-4E Skyhawk, the Grumman A-6 Intruder, the Corsair A-7A, and the Northrup F-5 Freedom Fighter. An initial popular choice, at least as far as the RCN was concerned, was the A-4E, which Canadian naval officers viewed as a replacement for their aging Banshee fighters flying off the BONAVENTURE.[39] Most interesting were the official recommendations made to the MND by his Chief of Operational Readiness, the future CDS, Lieutenant-General Allard. On the date by which the MND expected a recommendation (February 15, 1963), Allard's staff sent their proposal to the minister through the CDS, Air Chief Marshal Miller. They concluded that the A-7A was the best option, but of all four options, only the F-5 was rated as not suitable.[40]

In his biography, Hellyer's description of the F-5 as "little more than a trainer with guns hung on it,"[41] suggests that he agreed with the assessment of his staff. Yet at the time, he was adamant that the CF-5 be selected as the new tactical fighter for the RCAF. He was insistent that the RCAF adopt an aircraft that was capable of performing a conventional attack role and one that came with an acceptable price tag.[42] Undeterred by the recommendations of his military staff, on May 27, 1965, Hellyer directed the military requirements staff to "dumb down" the selection criteria for the tactical fighter to place the F-5 in a more competitive position. At this point it was apparently clear to the military that any subsequent recommendation other than the CF-5 was futile. Consequently, in a suppressed manner of protest, they simply submitted their latest results to the minister on June 7 without a recommendation.[43] The following month, on July 15, following Cabinet approval, the MND announced that the government had approved the purchase of the CF-5.

Another promise made in the 1964 White Paper on Defence was to make changes to the command structure of the Canadian military. The new integrated structure, announced in June 1965, saw the number of commands in Canada "reduced from eleven to six: Mobile, Maritime, Air Defence, Air Transport, Materiel and Training."[44] The formations in Europe, the Infantry Brigade Group and No. 1 Air Division, were not initially included in this change. It was the creation of Mobile Command that best illustrated Hellyer's defence priorities, including the future of combat air power for the Canadian military. Mobile Command's mission was "to maintain combat-ready land and tactical air forces capable of rapid deployment in circumstances ranging from service in the European theatre to United Nations and other peacekeeping operations."[45]

When Hellyer discussed this new command in his address to the House on December 7, 1966, during his presentation on the government's proposed changes to the Canadian Forces Reorganization Act, he emphasized that a vital component was to be its tactical air element. Not surprisingly, the aircraft that was to equip four tactical ground-support squadrons was the CF-5. In contrast to this upbeat comment, the MND's discussion on the Air Division was more subdued. He alluded to a reduction in the number of squadrons and the likelihood of having to move the two reconnaissance squadrons out of France. When he mentioned the strike role, he quickly added that the CF-104s were also being readied for a conventional bombing capability.[46] Conceptually, neither the CF-104 nor the strike role it was assigned had any place in Hellyer's desired force structure.

From the RCAF's perspective, the defence minister's comments did not bode well for the future of the Air Division because airmen linked their existence in Europe to the nuclear role. They feared that replacing the Starfighter with the less sophisticated CF-5, confined to a conventional attack role, jeopardized the rationale for maintaining an autonomous Air Division. It was the view of line RCAF pilots, one supported by Canadian Forces Headquarters (CFHQ) later on, that the Canadian-built

38. Memorandum from Paul Hellyer to Air Chief Marshal Miller, subject: "Selection of a Tactical Aircraft," dated January 7, 1965, File 73/1223, Raymont Papers, Series 5, Box 2501, DHH.
39. Hellyer, *Damn the Torpedoes*, 130.
40. Memorandum from LGen Allard to MND, through CDS, subject: "Selection of a Tactical Aircraft," dated February 15, 1965, File 73/1223, Raymont Papers, Series 5, Box 2501, DHH.
41. Hellyer, *Damn the Torpedoes*, 131.
42. Ibid.
43. "CF-5 History of Events, 1964–1971," page A1, paragraph 8, File 73/1223, Raymont Papers, Series 5, Box 2501, DHH.
44. Bland, *Canada's National Defence, Volume 2*, 121.
45. Ibid., 122.
46. Ibid., 121–22.

CF-5 lacked the requisite all-weather navigation and attack capabilities to overcome the known enemy defences in the Central Region. In the opinion of the military, if the CF-5 had been deployed to Europe, its operational deficiencies would have been laid bare. This would have led to its repatriation and restricted its employment to Canada and support of short-term overseas deployments.[47] This was exactly what transpired when this fighter was put into service in the late 1960s.

Liberal defence policy inevitably led to much uncertainty and angst among senior Canadian airmen, especially the AOC of the Air Division at the time, A/V/M Bradshaw. He was most concerned about the future force structure and role of the Air Division in light of CF-104 attrition and the government's preoccupation with the conventional role. In October 1965, Bradshaw sent a letter to the CDS, Air Chief Marshal Miller, in which he argued that the Air Division could retain the six strike and two reconnaissance squadrons until the end of 1974. The attrition problem was to be addressed by a gradual distribution of the reconnaissance 104s to the strike squadrons. The two reconnaissance squadrons would then be re-equipped with the CF-5.[48] In response, Miller had this to say:

> As you know, the future of 1 Air Division cannot be considered in isolation ... on a broader scale, the Air Division is but one of the factors influencing our overall force structure ... first of all the assumption that we shall maintain eight CF-104 squadrons for as long as possible is not necessarily valid. [In fact], it is the government's intention to reduce our commitment to six CF-104 squadrons for the planning period commencing 1 January, 1967: four strike/attack squadrons and two reconnaissance squadrons. The intention in this event is to maintain the total number of aircraft but reduce the number of squadrons. My second point concerns the future roles of 1 Air Division. These cannot be defined and decisions will be influenced by such factors as the conclusions of the current series of NATO studies; the experience we gain on the CF-5; and the technological developments in the field of close air support aircraft. Nevertheless, I believe that any future role of the Air Division must be similar to that of our tactical squadrons within Mobile Command.[49]

Bradshaw's vision of maintaining his existing structure into the early 1970s was dashed with the news that higher headquarters intended to reduce the Air Division by two squadrons. More significantly, by suggesting that any future role of the Air Division had to be in line with that of Mobile Command, Miller was clearly echoing the wishes of the MND with respect to the priority to be placed on tactical air support. Lastly, Miller's comments suggest that he had read the long-range strategic study conducted by members of the Air Staff earlier in 1961–62 (see Chapter 5). The CDS's reply that the future structure of the Air Division was to be based more on being a mobile reserve than one that operated from fixed airfields was a recommendation of the study. The CDS also alluded to another recommendation from the 1962 study when he stated that the future of the Air Division was not necessarily tied to any specific aircraft type or air-power roles assigned.[50]

The closure of Marville and Metz

When Air Chief Marshal Miller spoke of the "factors influencing our overall force structure," he undoubtedly had in mind the future of the RCAF in France. There had been increasing French signals that their national-security policies were no longer compatible with those of NATO. On February 21, 1966, President de Gaulle declared in a press statement that "any foreign element ... in France, will be under French command alone."[51] This announcement, followed shortly thereafter by a series of government aide-memoires, resulted in the withdrawal of French forces from participation in NATO's military activities effective July 1 of that year. For the alliance, including Canada, this decision meant that its operational forces as well as all national and alliance headquarters had to leave French soil by April 1, 1967.

47. See "CF-5: History of Events," page F–8, paragraph 17(c), File 73/1223, Raymont Papers, Series V, Volume 2501, DHH.
48. Letter from Air Vice-Marshal Bradshaw to Air Chief Marshal Miller, dated October 15, 1965, File 73/1223, Raymont Papers, Box 118, DHH.
49. Letter from Air Chief Marshal Miller to Air Vice-Marshal Bradshaw, subject: "Future Posture of 1 Air Division," dated December 20, 1965, File 73/1223, Raymont Papers, Box 118, DHH.
50. *Report of the Special Studies Group on the Long Range Objectives for the RCAF*, 25.
51. Quoted in Sawyer, 40.

The French decision did allow Air Chief Marshal Miller an opportunity to provide the AOC of the Air Division with more guidance on the future of the RCAF in Europe. He directed that the remaining RCAF units in France be prepared to move to a new location no later than the summer of 1967. He added that in making plans for the move, consideration should be given to the likelihood that the lifespan of the Air Division was unlikely to exceed 10 years.[52] With respect to the nature of the Air Division, Miller wrote:

> You should plan on the Air Division remaining at approximately its present aircraft strength, with a phase-in of some other aeroplane than the 104 in a tactical role during the latter part of the ten-year period. You should also plan on whatever economies are possible as a result of the move, both in manpower and in operating expenses. I would suggest therefore that if at all possible you should incorporate the Canadian Air Division and the Headquarters on existing facilities rather than attempt to maintain additional stations respectively for this purpose. In this connection the role of your Headquarters in the operational employment of the force should be very carefully looked at. The siting of the air-transport air head should also be arranged with careful consideration for the economy of personnel and the efficiency of distribution within the Brigade and the Air Division.[53]

While the CDS's message gave the AOC of the Air Division his direction for moving the French-based Canadian units, it also indicated that the future structure for Canadian forces in Europe would integrate the Army Brigade and Air Division. This was certainly not welcome news to the RCAF that had always eschewed operating with their Army brothers for fear of being absorbed by them. As far as Canadian airmen were concerned, the writing had been on the wall much earlier that the French were going to make life for those NATO units remaining in their country a difficult one. As discussed in previous chapters, the Canadians never did operate with US tactical nuclear-weapons in France, and the Americans had moved all their nine nuclear-strike F-100 squadrons to Germany and England by July 1959.[54] The issue, therefore, had not been the carriage of nuclear-weapons over France by the USAF and RCAF but rather the increasing restrictions imposed upon these two air forces while operating in French airspace.

The French were particularly sensitive about photo-reconnaissance missions flown by NATO aircraft over their country. Following an incident in which a USAF aircraft took photographs of a restricted area in Pierrelatte, the French Ministry of Defence wrote to the Canadian Embassy in Paris in September 1965, saying that all aerial photography over French territory by foreign aircraft was subject to prior approval, including the agreement of the French Ministry of Foreign Affairs. In a departure from previous direction, the French stated that an overflight authorization, even if granted in respect of reconnaissance aircraft, no longer constituted an authorization to carry out aerial photography. The latter had to be the subject of a special request.[55] Prior to this notification, the French were not concerned about reconnaissance flights out of Marville. While RCAF aircraft could continue to operate out of this base, they could no longer take pictures until authorization for aerial photography had been negotiated.[56]

Even prior to the increased restrictions imposed upon the RCAF photo-reconnaissance squadrons, French officials were making it more difficult for the Canadians to obtain overflight authorizations than was previously the case. This fact was indicated in the internal Air Division memorandum below:

> French Inter-ministerial Directive 350 states that no foreign aircraft may undertake a mission which involves overflight of France without having prior authorization seriously affects mission

52. Letter from Air Chief Marshal Miller to Air Vice-Marshal Bradshaw, dated March 21, 1966, File 73/1223, Raymont Papers, Box 118, DHH.
53. Ibid.
54. Message 1895, Canadian Embassy in Washington to External Affairs, dated July 30, 1959, RG 24, Accession 1983–84, Box 216, Volume 1272, File 100–109–63, LAC.
55. Letter to Director General Intelligence, Canadian Forces Headquarters, signed by Colonel D. J. Guimont, Military, Naval and Air Attaché at the Canadian Embassy, dated September 9, 1965, RG 24, Box 23318, File 1040–2–0085/285, Volume 2, LAC.
56. Internal Headquarters 1 Air Division memorandum from Flight Lieutenant Hulme, Staff Officer Air Traffic Control, and Group Captain Mussells, Senior Air Staff Officer, dated September 13, 1965, RG 24, Box 23318, File 1040–2–0085/285, Volume 2, LAC.

> out of 3 and 4 Wings, given the frequency of missions to be flown and the required long lead time for prior notification involved. The application of 3 and 4 Wings as foreign based is unrealistic since 3 Wing entirely and 4 Wing partially are in French-controlled airspace, [yet] the French still want the two hour lead time to do prior notification.[57]

The memorandum went on to conclude that the new regulations in effect seriously affected flexibility to conduct NATO-required low-level missions and night/instrument meteorological condition (IMC) missions planning. It also alluded to the hypocrisy of the French, as their military aircraft based in Germany were not subject to similar overflight rules by the Germans.[58]

Even though the Canadian government was faced with the logistical and operational implications of moving its units out of France, it was more concerned with the political consequences and optics that this move would have on future relations within the alliance. The objective, shared by the Americans, was on the one hand not to give the public the impression that NATO had completely given in to the demands of the French, yet on the other hand, both the Americans and Canadians did not want to appear to be insensitive to French rationale in leaving the military structure of the alliance. Before any decision could be made as to where the RCAF units were to be located, the "question of principle" with regard to such a withdrawal from France had to be settled. In a memorandum to Cabinet in May 1966, Paul Hellyer raised this issue:

> The French declaration of intent to place NATO forces based on French soil under French Command had the effect of forcing Canada to move all 1 Air Division units out of France. The target date for this move is 1 April, 1967. Planning and preparation for the move, however, are impeded because 1 Air Division has been instructed to curtail any physical preparations *until the question of principle with regard to our withdrawal from France has been settled*, [italics in original] and because there has been no decision as to where the units now in France are to be moved.[59]

The fact that NATO held similar concerns to those of the Canadian government was revealed in previous correspondence when the RCAF informed the French that it would no longer be using Rocroi as a deployment base.

A technical agreement between France and Canada regarding the use of Rocroi Aerodrome had been signed between the AOC No. 1 Air Division and the Chief of Staff of the French Air Force on July 15, 1958. This agreement enabled the Air Division to have permanent access (by surface means) to, and intermittent use of, the Rocroi Aerodrome as a deployment airfield, which had pre-stocked petroleum, oils, and lubricants (POL), supplies, and ammunition.[60] When the CDS informed External Affairs and SACEUR that Rocroi was no longer suitable as a dispersed operating base (DOB) for CF-104 operations in March 1966, the response he got from SACEUR made it clear that the matter was less an operational problem as it was a political one, following the French decision to leave NATO. As far as Hellyer was concerned, the matter of Rocroi was further proof that Cabinet had to move quickly to make a decision with regard to the move out of Metz and Marville that would meet both the envisaged future Canadian force structure and political sensitivities. In a letter to the external affairs minister written in April 1966, Hellyer stated: "In the light of the uncertainties now prevailing in NATO, and the possibility that adjustments which we might decide upon for other reasons would be regarded as a direct consequence of the French action, I think you will agree that it is important that our plans for reorganizing the Air Division should reflect political as well as military requirements."[61] After writing another letter to Martin in June, Hellyer succeeded in getting the matter brought to the attention of Cabinet.

57. Internal Headquarters 1 Air Division memorandum, subject: "Operational Training Problems," dated August 17, 1965, RG 24, Box 23318, File 1040–2–0085/285, Volume 2, LAC.
58. Ibid.
59. Memorandum to Cabinet from Paul Hellyer, dated June 21, 1966, RG 24, Volume 23318, LAC.
60. RG 24, Volume 23538, LAC.
61. Personal letter written by Paul Hellyer to Paul Martin, Minister of external Affairs, April 25, 1966, File 73/1223, Raymont Papers, Box 118, DHH.

In a memorandum to Cabinet written in June 1966, Hellyer laid out Canada's options and explained their pros and cons as a consequence of having to move the RCAF units out of France. It boiled down to a decision to distribute the remaining Air Division units throughout the two existing bases at Zweibrucken and Baden-Soellingen or to add a third base:

> The only existing RCAF bases in Europe to which the units in France might be moved are Zweibrucken and Baden Soellingen in Germany. However, with the facilities and personnel required to support the modern complex aircraft and weapons systems, these bases are populated to near capacity with 48 CF-104s at each base. If the Air Division units now in France are to be re-deployed to Germany, then additional facilities are required, either in the form of a third base, or of additional facilities at the two existing bases in Germany. To avoid the operational limitations inherent in operating a large number of aircraft from the two German bases, and to reduce the costs involved, it would be necessary either to reduce the number of aircraft in 1 Air Division to a level which would result in a significant reduction in our contribution to the Allied Command Europe Strike Force, or to acquire an existing NATO base in Germany.[62]

In the same memorandum, Hellyer mentioned that a suitable third base had been found in southern Germany if it was vacated by its existing occupants, the French Air Force:

> The French Air Force have an airfield in Germany at Lahr, south of Baden Soellingen, which has adequate operational, headquarters, and housing facilities to accommodate all the RCAF units now in France. A move to Lahr could be accomplished in a relatively short time and at little cost. American and NATO sources have indicated that Lahr would be available to Canada if the French Air Force units are withdrawn from Germany.[63]

While the defence minister was not convinced that the three-base solution was the best one, this was the option chosen by Cabinet on November 6, 1966. As such, at least on an interim basis, 1 Wing from Marville and Headquarters, No. 1 Air Division from Metz were to move to Lahr subject to the concurrence of the French and German governments. The bad news for the RCAF was that the Canadian base at Zweibrucken was to be closed in two to three years.[64] A two-base end state in Europe provided the government an excuse to reduce the number of squadrons further, arguing that not to do so would leave an overconcentration of squadrons on each base.

The Canadian government defended its decision to go to an interim three-base option for several reasons. Housing and school facilities for the personnel who were to be moved from France to Germany were not available and would not be available for at least 18 months at 3 and 4 Wings. There was insufficient accommodation at these two wings for the ATC aircraft and Air Movements Unit coming out of 1 Wing, nor was there room for the headquarters. The two-base option would have forced the repatriation of many dependents and resulted in a policy whereby new personnel would have had to come unaccompanied. Lahr had good operational facilities, plenty of housing, and a useful staging base for CF deployments on UN operations. The most attractive argument in favour of the three-base option was its cost. Not having to add new infrastructure reduced the price for relocation to three bases to $3 million, compared to $8 million for the two-base option.[65]

It is not known to what extent senior Canadian airmen, concerned over the future of the Air Division during this lengthy deliberation, appreciated that government actions were motivated far less by operational objectives than they were by politics and Canada's image within alliance circles. Sad for the RCAF was the reality that regardless of what option the government chose, the intention was to reduce the Air Division to six or fewer squadrons during the 1968–69 time frame. Any hesitation by the Liberals in making the final decision was a result of their concern about

62. Memorandum to Cabinet from Paul Hellyer, dated June 21, 1966, RG 24, Volume 23318, LAC.
63. Ibid.
64. Record of Cabinet Decision, dated November 6, 1966, RG 24, Volume 23318, LAC.
65. Memorandum to Cabinet, subject: "Reasons to go to Lahr," written by the Minister of National Defence, dated December 2, 1966, RG 24, Volume 23318, LAC.

declaring reductions in Europe in the immediate aftermath of the French announcement to leave the military organization of NATO. Such an action could have been perceived by other alliance members and the Warsaw Pact countries that the political and military solidarity of NATO was in jeopardy, a most undesirable Canadian foreign-policy outcome at the time.

On June 24, 1966, H. B. Robinson, the Assistant Under-Secretary of State for External Affairs, enclosed a draft memorandum for his boss, Paul Martin, to Air Chief Marshal Miller, in which he clearly states the government's primary motivations with respect to the Air Division based upon previous Cabinet discussion:

> Mr Hellyer's proposal is that no new base be acquired when Marville and Metz are given up next year ... . [T]wo CF-104 strike squadrons would be disbanded, the remaining four strike and two reconnaissance squadrons would be located on the two existing German bases ... . [T]his proposal makes sense from a practical, military and financial point of view ... . [T] he argument against it is that at the time of withdrawing our air units from France we would be reducing from three to two operational bases, from eight to six squadrons and from 126 to 92 aircraft. This reduction by a quarter or more of our air contribution in Europe would very probably be regarded by our allies as a consequence of the French decision to disengage from NATO's integrated defence structure. The External Affairs paper argues that this would be politically undesirable, particularly as the French are likely to withdraw about 75 similar aircraft.[66]

If Robinson advocated the three-base option because he felt that it would permit the retention of eight CF-104 squadrons, this was merely to be a temporary solution and one with which to resolve Canada's alliance image. It was always the intention of the Liberals to reduce the size of the Air Division:

> One proposal ... which we [External Affairs] can suggest calls for the acquisition of a third base, and in practice this means taking over an existing base in Germany to be vacated as a result of the withdrawal of French air units ... . The object would be to demonstrate, for a limited period of time, that Canada was prepared to maintain the present level of its air contribution to NATO despite French withdrawal ... . It would be our suggestion that operations be carried out on this basis [three-base option] for a period of one year following the withdrawal from France. We could then, having demonstrated our continued support of the integrated defence structure, carry out the reduction to 92 aircraft, organized in six squadrons as proposed by Mr Hellyer but deployed on three rather than two German airfields. We assume that it would not be practical to take over a third airfield for one year only. *The reduction could be convincingly presented as one necessitated by attrition of the available supply of aircraft and not related to the French withdrawal. We could indeed point out that there would have been practical advantages in making the reduction a year earlier, which we had deliberately foregone in order to demonstrate our continuing support of the Alliance* [italics in original].[67]

Underpinning the matter of "principle" that so concerned Canadian officials was the need to project alliance solidarity versus any consideration for the future operational viability of the Air Division. It was ironic, given that RCAF operations over French airspace had become increasingly problematic due to growing French restrictions resulting from national politics, that the eventual reductions effected within the Air Division were held off temporarily as a result of the French decision to leave NATO's integrated command.

Notwithstanding the Canadian government's decision to move to Lahr by April 1967, as late as December 1966, there remained some doubt as to such an outcome. Furthermore, the subject was still extremely sensitive. On December 22, the new CDS, General Allard, wrote a letter to Group Captain Legacé, the Canadian Forces Attaché at the Canadian Embassy in Paris. In anticipation of an

66. Letter written by the Assistant Under-Secretary of State for External Affairs to Air Chief Marshal Miller, June 24, 1966, File 73/1223, Raymont Papers, Box 118, DHH.

67. Ibid.

imminent announcement by the French government regarding the move of their forces out of Lahr, Allard directed Legacé to proceed to Lahr and Bremgarten (near Freiburg, south of Lahr) to see which base was more suitable before a plan could be drawn up for a road move. While Bremgarten was another French Air Force base that was expected to be vacated by the French, correspondence at the time clearly showed that it did not meet the needs of the Air Division.[68] Allard's eleventh-hour direction to Legacé was evidently a sign of some concern on his part that the French would change their minds regarding the availability of Lahr. Bremgarten was his backup plan, notwithstanding its unsuitability.

The CDS was informed by the defence minister on January 30, 1967, of the French government's decision to turn over Lahr to the RCAF and that the move was planned for April 1 of that year. The fact that the MND kept his important decision from the CDS for more than three weeks after the French had informed the Canadian Embassy in Paris of their decision on January 6 underscored how sensitive and secretive the issue had become. Canadian officials were instructed that the subject was classified until an announcement was made by the French government, expected sometime in February. The French government may have delayed this decision further were it not for the efforts of the commander of the French 1st Tactical Air Force, General Gauthier. The latter had a good relationship with the new AOC of the Air Division, A/V/M Lane, and personally appealed to his political superiors for the need to make a timely decision, permitting the Canadians to get on with their move plans.[69]

On February 17, 1967, the CDS gave the MND an update on the move of the RCAF from France to Lahr:

> Proposed procedure is that the French delegate will announce the French withdrawal from Lahr, the German delegate will announce allocation of the base to Canada, in that order. A subsequent public announcement will be made by the NATO secretariat ... as suggested by the German Foreign Office, no publicity should be given to the RCAF advance party at Lahr until after date of NATO announcement—February 22.[70]

Because of the extreme sensitivity of the matter, the picture that NATO and the Canadian government wanted to portray to their people was that the RCAF move to Lahr was a result of it being offered by the German government following its abandonment by the French, as opposed to the reality that it was desperately needed because the French had forced the Canadians out of their country! Correspondence from this period depicts a similar attitude by the American government with respect to the withdrawal of their remaining forces from France.

Even the departure ceremonies were to be very low key, so as not to draw too much public attention. On January 25, 1967, Lane sent a message to CFHQ stating that he wanted to "symbolically hand-over the Metz complex to the French government" on March 31.[71] In this regard, he expected a senior French official at ministerial level to attend. There was to be no such thing, as indicated by the response he received from the VCDS, Air Marshal F. R. Sharp:

> It is the wish of the Canadian government to play down as much as possible our departure from Metz and that it be given the least publicity. Because of this your handover should be purely military and there will be no representation from France nor will there be representation from Canada nor will any ambassadors participate. It would be appreciated if as little publicity as possible could be given to handover ... .[72]

68. Letter from General Allard, CDS, to Group Captain Legacé, Canadian Forces Attaché, Canadian Embassy in Paris, dated December 22, 1966, File 73/1223, Raymont Papers, Box 216, Volume 1017, DHH.
69. File 73/1223, Raymont Papers, Box 216, Volume 1017, DHH.
70. Memorandum from General Allard to MND, February 17, 1967, File 73/1223, Raymont Papers, Box 216, Volume 1017, DHH.
71. Message from Air Vice-Marshal Lane to CFHQ, dated January 25, 1967, File 73/1223, Raymont Papers, Box 216, Volume 1017, DHH.
72. Message from Air Marshal Sharp, VCDS, to AOC No. 1 Air Division, dated February 8, 1967, File 73/1223, Raymont Papers, Box 216, Volume 1017, DHH.

It is understandable that the alliance and its member countries wanted to project an image to both the West and the Warsaw Pact that all was well despite the departure of a major European power from NATO's military structure. But to do so, the two countries that had to move forces out of France—the US and Canada—had to cater to French and European sensitivities.

The first RCAF units arrived in Lahr in April 1967, after which time the French gradually moved out. Unfortunately for the RCAF's move plan, by the middle of September there were still French families occupying those quarters needed by the Canadian airmen and their dependents. Conversely, all Canadians had to leave their married quarters in Marville by June 30 due to the termination of the lease. CFHQ had to implement a contingency plan in which some families were temporarily relocated to quarters at Metz, while others moved into trailers around the Lahr airfield during that summer. Canadian officials were fortunate that any concerted criticism of the late departure of the French was dampened when it became public knowledge that some of the Canadian families chose to stay in their temporary accommodations well after proper living quarters were available.[73]

The Canadian advance party from Marville arrived in Lahr in March, while the two reconnaissance squadrons, 439 and 441, and the ATC aircraft detachment arrived the following month. The FAF continued to operate a Mirage III squadron from Lahr until November 1967; consequently, air traffic control was in the hands of the French on an interim basis, and the two RCAF reconnaissance squadrons were squeezed into the north dispersal, while the FAF squadron was in the south dispersal.[74] The RCAF's move to Lahr was made more difficult than necessary thanks in large part to the slowness of the French departure and the unwillingness on the part of NATO and Canadians to pressure the French to vacate the base in the time agreed upon. These difficulties aside, A/V/M Lane and the personnel of the Air Division were able to complete the move without prejudice to its operational capability, as directed by CFHQ.[75]

The fact that airmen and their dependents had to move out of France within a prescribed deadline imposed by French officials, while French forces in Germany were under no such timetable, was hard to accept by the RCAF. But from the Liberal Government's perspective, the hardships placed upon Canadian airmen and their families as a result of having to move out of France were, like operational concerns, subordinate to Canada's foreign-policy requirements.

The end draws near—incremental reductions of CF-104 squadrons

As part of the operational plan for the move to Lahr, the AOC was given confirmation of the bad news he had heard earlier. The Air Division was to be reduced to four strike/attack squadrons with the disbandment of 444 and 434 Squadrons respectively in April and March 1967.[76] As mentioned previously, this had been the government's intention well before the French announcement leading to the RCAF's departure from France. In a memorandum to the CDS on May 14, 1965, Paul Hellyer stated:

> As I indicated in respect to the Air Division in Europe, it is the government's intention to reduce our commitment from the present six squadrons in the primary strike role and secondary ground attack role, to four squadrons, for the planning period commencing January 1, 1967. The air component of our contribution to NATO Europe will then be four squadrons primary strike but with dual capability, and two squadrons reconnaissance.[77]

73. RG 24, Volume 23318 (code 32), LAC. Fortunately for the Canadian families that moved into trailers, Lahr experienced an unusually warm and pleasant summer and fall in 1967. In fairness to the French, there were some Canadian servicemen and their families that chose to remain in these trailers well after married quarters were available because the lower cost left them with more money from their monthly overseas living allowance.

74. Vic Johnson quoted in Bashow, 44–45.

75. The Stewardship Briefing, paragraph 8.01, presented to Canadian Forces Headquarters by Air Vice-Marshal Lane, November 10, 1967, File 79/25, DHH.

76. CFHQ Operational Plan for the Move of 1 Air Division Units to Lahr, Germany, dated February 1, 1967, RG 24, Volume 23318, LAC.

77. Memorandum from Hellyer to CDS, dated May 14, 1965, File 73/1223, Raymont Papers, Series 1, File 118, DHH.

In a paper written by the CDS staff the following September, the rationale for the government's decision was explained and the options available were discussed:

> It is accepted that a Canadian contribution to SACEUR will be maintained through the programme period. However, for reasons of attrition of CF-104 aircraft, it will not be possible to hold the Air Division establishment at its present level much after 1966. Therefore the problem resolves itself into one of allocation of aircraft to a force that will come closest to satisfying our international obligations within the terms of the NATO Agreement. The forecast attrition-rate is set at .32 per 1000 hours flying time. Aircraft losses during the period 1966/67 will make mandatory the closing down of at least two squadrons or will result in significant reductions in UE. During next 24 months, [we] expect to lose 25 to 35 aircraft. [The] first two squadrons to disband should be two German-based strike squadrons. [There are] three reasons. First, the reconnaissance squadrons in France can function at a lower UE because they have no QRA responsibility and fewer pre-designated tasks. Strength adjustments can therefore be made more easily than in the strike squadrons. Secondly, aircraft density at the German bases now exceeds SACEUR's requirements for dispersion. Finally, during the last year we have made considerable investments in equipment and facilities at 1 Wing Marville in order to achieve a worthwhile reconnaissance capability. Another consideration is that Marville is the air-transport hub for overseas travel and it is the home of 109 Transport Squadron [sic] which provides air-transport service to the Air Division.[78]

The bottom line was the inevitable need to reduce the number of CF-104 squadrons in the Air Division as a result of aircraft attrition. In his 1965 study, the CDS recommended retaining the two reconnaissance squadrons at Marville and reducing each squadron UE from 15 to 12 aircraft at the end of fiscal year 1965–66. Concurrently, the plan was to bring down the establishment of the strike/attack squadrons from 16 to 15 aircraft and, finally, to disband two of the Germany-based squadrons at the end of fiscal year 1966–67.[79]

Reducing the Air Division to a total of six CF-104 squadrons made the two-base option a possibility. As discussed above, this option was considerably more expensive than the one using three bases. Moreover, in the CDS's 1965 study, a three-base Air Division was preferred to maximize dispersal before it was known that the RCAF would have to leave Marville. Lahr was needed because the Air Division had lost its theatre air-transport terminal with the closure of 1 Wing. But the timing of the move to Lahr was fortuitous for Hellyer because it overshadowed the disbandment of two S/A squadrons and held in abeyance criticism of the Liberal Government's decision not to purchase replacement CF-104 aircraft to cover attrition. Yet it is curious why the government ignored the advice of External Affairs to hold off on the disbandment of two strike squadrons until 1968. With the decision to disband these two squadrons in the spring of 1967, reducing the Air Division to six squadrons, what was the point in opting for a three-base solution if the plan was to close the third base within a few years, regardless of the cost argument? The answer presumably has to do with the overall optics of the RCAF moving out of France at a time when the latter was leaving the military command of NATO. As stated earlier, there was to be no impression left in the public's mind, or that of the enemy, that the reduction of RCAF squadrons in the Central Region was linked to French politics.

Notwithstanding the upheaval experienced by his Air Division in 1967 due to the move of units from France to Lahr and the loss of two S/A squadrons, A/V/M Lane was proud of his units' operational record. As of April 1 of that year, the Air Division's commitment to SACEUR's operationally ready forces was reduced from 126 to 108 aircraft. Even so, the highly operational state of this force was sustained and proven by 4 ATAF tactical evaluations held in May, in which all wings were given a "one" rating across the board; the only force in 4 ATAF to attain such a rating in 1967.[80]

78. CDS Staff Paper entitled "Air Division Reality 1965," dated September 17, 1965, File 73/1223, Raymont Papers, Series 1, File 118, DHH.
79. Ibid.
80. The Stewardship Briefing, paragraph 1.02–1.03, presented to Canadian Forces Headquarters by Air Vice-Marshal Lane, November 10, 1967, File 79/25, DHH.

Significant as well in the aftermath of a force reduced by 18 aircraft, Air Division's 72 strike aircraft (18 aircraft per strike squadron) still represented 20 per cent of 4 ATAF's all-weather strike capability. Canada, therefore, continued to make a significant air-power contribution to NATO's Central Region, the reductions in squadrons notwithstanding. Moreover, Air Division pilots sustained a tradition established by their earlier daylight fighter predecessors by winning the Annual Allied Forces Central Europe Tactical Weapons Meet held in May 1967. Competing against strike squadrons from 2 and 4 ATAFs, the Canadians won three of the four strike trophies, including that for top strike pilot.[81] As mentioned earlier, this feat was added to that of the two reconnaissance squadrons competing at the annual Royal Flush competition held in June. 439 and 441 Squadrons came in second and third within 4 ATAF, only one percentage point behind the winning team. This was a most remarkable achievement, considering that the RCAF had started its reconnaissance programme from scratch only two years earlier.

Lane's satisfaction with the operational achievements of the Air Division was tempered by rumours that the Canadian government had recommended further reductions in strike squadrons. When Lane made his presentation to the annual stewardship briefing at CFHQ in November 1967, it was evident from his comments and pleas that he was aware this latest blow was more than just rumour. Most disturbing for the AOC was that the closure of Zweibrucken, scheduled for the summer of 1969, was to be moved up a year earlier.[82] Even though the CDS dispelled that rumour, Lane sensed more reductions were being planned for his Air Division. In his presentation, Lane argued that he could operate six CF-104 squadrons from two bases, in other words, maintain an overall aircraft establishment of 108 fighters. He was prepared to do so with a 28 per cent reduction in manpower (3,800 from 5,306). His plan was to be implemented in the summer of 1969, which was the planned date for the closure of 3 Wing.[83] He concluded with the following impassioned plea to the CDS and his senior staff:

> I am most reluctant to reduce our contribution to SACEUR if there is any hope of militarily maintaining it. I am suggesting that militarily we can and should do so. The political aspects are however another matter. In the event that a reduction must go ahead then I beg you to: Firstly, keep six squadrons, the morale aspect alone would warrant such action. From a career point of view, we should keep every squadron we can to sort out our wing commanders, for it is here that an officer makes or breaks himself. Secondly, not leap from 108 committed aircraft to the 88 figure but only accept whatever lower figure is necessary to satisfy the political requirement. We can have the best of both worlds and we in the Air Division are bending every effort to this end.[84]

The fact that Lane had mentioned the end state establishment figure of 88 CF-104s was a good indication that someone had informed him of an earlier decision by the Cabinet to reduce the Air Division to exactly that number and a total of four squadrons by 1969.[85]

The final years—in with the Trudeau Government, out with Air Division

If 1967 was a tumultuous year for the Air Division, especially in light of the reductions that were announced, the events of the following two years would prove even less promising for the future of Canadian forces in Europe. First and foremost, the Liberals remained in power with a new leader, Pierre Trudeau, who openly showed his disdain for all things military. The real problem for the Canadian military, as Jack Granatstein points out, was that Trudeau's "indifference and his

81. Ibid., 1.03–1.05.

82. Message from Air Vice-Marshal Lane to CDS, dated November 1, 1967, RG 24, Volume 23318, LAC.

83. The Stewardship Briefing, paragraph 7.04–7.05, presented to Canadian Forces Headquarters by Air Vice-Marshal Lane, November 10, 1967, File 79/25, DHH.

84. Ibid., 7.06–7.07.

85. Top secret letter, subject: "Re-equipment Air Division 1968–69," from CDS, General J. V. Allard, to VCDS, dated January 26, 1968, File 73/1223, Raymont Papers, Box 217, Volume 1017, DHH. In this letter the CDS referred to the Cabinet decision of September 12, 1967, that approved the reduction of the Air Division to four squadrons with a total of 88 aircraft by 1969. Interestingly, the remaining discussion was over when and what to tell AOC Air Division. Allard was interested in a paper by US Secretary of Defense on NATO alliance of December 12, 1967, in which he looked for reductions to aircraft committed to the nuclear-strike plan. In any event, it was apparent from this letter that Lane must have received his "information" from some source other than the CDS or VCDS.

anti-military attitudes typified the views of most *Canadiens* and a great many Canadians [italics in original]."[86] This assessment is significant considering the fact that when the Liberals went to the polls on June 25, 1968, they won a majority of 45 seats over all the other political parties, an outcome not seen for over a decade. It was evident that many Canadians embraced their new prime minister and his political views including, presumably, those on national defence. In what would become another dagger in the heart of the Air Division, Canadians shared Trudeau's view that the continuation of the nuclear-strike role by the RCAF in Europe ran counter to the country's responsibility to promote peace and that, in any event, its military utility was rendered useless by the existence of strategic thermonuclear-weapons in the hands of both super powers.[87]

In April 1969, while talking to the Alberta Liberal Association, Trudeau revealed his plans to reduce the military and the reasons for doing so. In his opinion, the fundamental problem was that defence policy had driven the country's foreign policy during the course of the cold war. In effect, Canada's foreign policy was dictated by the defence policy of NATO. This had to change. Trudeau believed the answer was to reconsider Canada's military role in the North Atlantic Alliance. Previous to making this public announcement, Trudeau had involved his Cabinet in a series of policy review exercises, including national defence. The military had input into these studies, and the evidence shows that senior members of National Defence supported some of the new prime minister's views on defence and foreign policy.[88]

One of Hellyer's legacies when he left the defence department in September of 1967 was leaving behind a francophone CDS who shared many of his views on the future of the Canadian military. This undoubtedly had much to do with Allard becoming the CDS ahead of more senior officers. Allard's unexpected appointment was also based upon the simple fact that this officer was one of few whom Hellyer could trust to see through the integration and unification of the military. A long-time goal of Allard was to make the Canadian military more accessible to francophones. Until his appointment as CDS in 1966, Allard had no success in this endeavour and, in fact, offered his resignation to Air Chief Marshal Miller in 1965 over this failure.[89] The good news for Allard was that his new boss, Léo Cadieux, was also a francophone. These two senior members of the defence department shared the goal of removing traditional language and cultural barriers that they perceived had previously kept French–Canadians from joining the military and, once in, made life difficult for them. Their success in creating francophone units in the RCAF and RCN, in addition to the Canadian Army, was facilitated by Prime Minister Trudeau, who shared their views and the objectives of the Official Languages Act, enacted in 1969.[90]

Relevant to Canadian air power and the Air Division were Allard's views on the future force structure of the Canadian Forces. In many ways, he shared the views of his first boss, Paul Hellyer, in that he believed the emphasis should be on mobility and the defence of Canada, as opposed to the country's commitments to NATO. It helped, of course, that Allard was the architect of Mobile Command as well as its first commander. This new command was based in St. Hubert, Quebec, placing the new Army headquarters in the centre of *la francophonie*. In a classified and unpublished paper written in November 1968, Allard argued that on the eve of the expiration of the original 20-year mandate of the North Atlantic Alliance, it was time to seriously consider removing all Canadian forces from Europe and repatriating them. This would have concentrated forces for the integrated air and land forces of Mobile Command. Lastly, shifting forces from Europe to Canada removed the need to keep a nuclear capability in NATO, thus achieving a goal initiated by Hellyer.[91] Allard's analysis was premised on the original assumption that US and Canadian forces would withdraw from Europe as the European member countries' military and economic recovery was sufficiently advanced to assume the defence of Western Europe, aided only by American strategic nuclear forces. He felt that the time had come whereby the Europeans were

86. Granatstein, *Who Killed the Canadian Military?* (Harper Collins Publishers, 2004), 97.
87. Ibid., 110–116.
88. Ibid., 116–117.
89. Jean V. Allard and Serge Bernier, *Mémoirs du général Jean V. Allard* (Boucherville: de Mortagne, 1984), 244.
90. Granatstein, *Who Killed the Canadian Military?* 110–117.
91. Unpublished paper written by General Allard entitled "Flexible Response and the Use of Nuclear-weapons in NATO," 6, dated November 5, 1969, File 73/1223, Raymont Papers, Box 2528, DHH.

capable of defending themselves. As such, Allard believed their insistence that US and Canadian forces remain in Europe was simply a sham that allowed the Europeans to neglect their defence responsibilities by minimizing defence spending, as it would not be necessary to maintain large conventional forces. He had a cynical view of flexible response, in that he believed the Americans had never really supported this concept. His belief was that the Americans had advanced this strategy for NATO (recommending the move away from a total reliance on a nuclear deterrent) simply to force the European members to increase their national contributions to the alliance's conventional forces.[92]

The bottom line was that the Canadian military had a CDS who supported any strategy that forced the European members of the alliance to accept a larger role in their own defence. Further, the emphasis should be upon increasing conventional forces as opposed to a reliance on tactical nuclear weapons. He saw no difficulties in removing all Canadian forces from Europe. In his paper, Allard made the following summation:

> It is appreciated that no chief of a nation's defence forces likes to see those forces reduced. On the other hand, in producing the arguments for keeping a proper level of forces, one has to be sure that one's rationale for doing this is not only completely in the nation's interests and aims, but also in the right priority of interests. For that reason it is for consideration as to whether we should look more towards committing an increase in our defence resources for the defence of North America, with increased emphasis on the Arctic where we have not given much priority in the past, before deciding what resources can be spared for overseas commitments in support of national aims. In this context there is always the attractive alternative of building up air/sea transportable forces based in Canada, which can be used for any overseas commitments which the government may feel it is in their national aims to undertake from time to time.[93]

Allard's views were shared by the then Director General of Policy, Control and Review, R. L. Raymont. The latter was a long-time soldier and one who had spent much of his career close to the senior decision-making circles of National Defence as secretary to the chiefs of staff and CDS committees. Raymont also felt that Europe was ready to accept a collective defence role independent of forces from North America. He even went one step further than Allard, by suggesting that the nuclear forces of the UK and France were a sufficient deterrent that would obviate the need for further reliance on American strategic nuclear forces.[94]

Given these views by influential senior defence department personnel, it came as no surprise that in the spring of 1969, Pierre Trudeau had openly discussed with Cabinet the idea of completely withdrawing all Canadian forces from Europe. Luckily for the military, this idea horrified members of his Cabinet including, significantly, Cadieux. It also greatly concerned the other members of the North Atlantic Alliance. The latter were particularly annoyed that the Canadian government was intent on reducing its forces in Europe less than a year following the invasion of Czechoslovakia by the Soviet Union and its satellites. While the defence minister may have been a proponent of increasing opportunities for francophones in the military, he did not share the views of the prime minister nor those of his CDS when it came to Canada's commitment to NATO. Faced with the resignations of Cadieux and Mitchell Sharp, his minister of external affairs, Trudeau compromised and agreed to keep some forces in Europe.[95]

Nevertheless, this final outcome spelled the end of the Air Division. On August 13, 1969, Cabinet directed the defence minister to inform SACEUR that effective June 30, 1970, the land force commitment to NATO was to be cut in half and that the air component would consist of one reconnaissance and two strike squadrons. The total authorized aircraft establishment through

92. Ibid.

93. Ibid., 7.

94. Unpublished paper written by R. L. Raymont entitled "Some thoughts on NATO and Its Future," 7, dated December 1, 1969, File 73/1223, Raymont Papers, Box 118, DHH.

95. J. L. Granatstein, *Canada's Army: Waging War and Keeping the Peace* (Toronto: University of Toronto Press, 2002), 361–63. At first, Trudeau wanted all Canadian forces out of Europe. His initial compromise was to leave behind a paltry force of 3,500. Thanks in large part to the intervention of Cadieux, a strong proponent of NATO, Trudeau not only reversed his earlier decision to withdraw all forces, but to leave the ceiling at roughly 5,000.

to 1972 would be 54 CF-104s; 12 per operational squadron and 18 for the training squadron at Cold Lake, the latter having been designated as a contingency reserve squadron in time of war. The ceiling on all Canadian forces in Europe was limited to 5,000. Further bad news for the RCAF came when Cabinet "also agreed that Canada would be out of the nuclear role completely by 1972, and that the reconnaissance role for Canadian aircraft would be re-examined in the interim before 1972."[96]

The Air Division could hardly keep up with the successive government announcements that forced squadrons to move and disband. The closure of 3 Wing brought about the move of 430 and 427 squadrons respectively to Lahr and Baden in February and June 1969. Since Lahr had to that point hosted the two reconnaissance squadrons, the addition of a strike squadron necessitated the establishment of QRA and SAS facilities and, of course, the posting in of USAF security personnel and nuclear custodians. It must have been a source of considerable anger and frustration for all concerned when the Canadian government announced that by the following year Lahr was to cease functioning as an operational wing and that 430 Squadron was to be disbanded and 439 and 441 squadrons were to move 20 miles [32 kilometres] up the Autobahn to Baden-Soellingen. 422 and 427 squadrons would suffer the same fate as 430 Squadron, as they too were to be disbanded in July 1970.

The nuclear-strike role revisited

The last commander of No. 1 Air Division was the wartime fighter pilot and triple ace, Lieutenant-General Don Laubman, AOE (Alberta Order of Excellence), DFC (Distinguished Flying Cross) and Bar (second award of the DFC). Only a few years from retirement, Laubman must have had mixed feelings, being given command of the prestigious Air Division only to see its dismemberment and eventual disbandment in August 1970. By that summer he was left with three CF-104 squadrons. Two squadrons, 421 and 439, continued the nuclear-strike mission until that role was terminated in 1972. 441 Squadron remained in the reconnaissance business. After 1972, the three remaining 104 squadrons would perform the attack role. While this required modifications to the aircraft, the pilots had, since 1967, been compelled by 4 ATAF to become proficient in the conventional attack role in order to retain their combat rating status. The remaining 104 pilots had, therefore, gained some experience in conventional methods. Important as well was the Air Division had stockpiled conventional ordnance.[97]

What about the strike role? As far as Canadian airmen were concerned, it was the panacea that gave them their coveted offensive bombing mission and sustained national cohesiveness within NATO. The pleas made to CFHQ by Laubman's predecessor to retain the maximum number of strike squadrons may have appeared almost pathetic knowing that such an outcome was a complete anathema to a government bent on replacing the strike role with a conventional one. On the other hand, Lane's reaction and defence of the nuclear-bombing mission would have been made by every one of his predecessors during the strike era. To these senior airmen, retention of this role kept their Air Division alive and sustained their post-war ambition of having senior command authority within an alliance.

The institutional and cultural expectations of the RCAF notwithstanding, the reality was that the strike role, and the use of the CF-104 to carry it out, was problematic for operational as well as national political reasons. The concentration of large numbers of strike aircraft in the dwindling number of bases available to the RCAF made survivability questionable given the counter-air capabilities of the Soviet and Warsaw Pact air forces. They were particularly vulnerable to enemy conventional and nuclear-armed medium-range ballistic missiles (MRBMs) that were mobile and could strike fixed targets like airfields in NATO's Central Region in minutes.

96. Record of Cabinet Decision, dated August 13, 1969, File 73/1223, Raymont Papers, Box 118, DHH.

97. Interview with Leo O'Donovan, Orleans, Ontario, August 19, 2004. The Liberal Government may have been uncomfortable with the use of offensive nuclear weapons, but they apparently had no qualms about dropping napalm on the enemy. The latter was purchased in considerable quantities in the late 1960s because it was cheap. Of course, it was a very "nasty" weapon, and mating the weapon contents with the bombs was a dangerous and dirty job for the armament technicians.

Another concern was the strike mission itself and how assigned targets were to be de-conflicted with those of other NATO strike aircraft and MRBMs as well as those of the strategic nuclear forces of the US and UK. One strike pilot, Leo O'Donovan, commented that:

> There was a plan to de-conflict tactical and strategic forces nuclear targets in Europe. This was done with the use of the first of the "super" computers at Headquarters, Strategic Air Command in Omaha, Nebraska. This process took into account the SLBMS [submarine launched ballistic missiles] as well. I felt, however, that the number of strike planes and targets were never de-conflicted. Even [while sitting] in Q, aircrew found that they were hitting [the] same target or in each other's way ... .[98]

Another strike pilot, Neil Gillespie, who served as a senior member of the 4 ATAF tactical evaluation team, had this to say:

> There were often several weapons targeted on a single target, this to give better odds of destroying the target. For aircraft safety this required separating the weapons' arrivals by time. Because there were large numbers of scheduled carriers to deliver weapons all over eastern Europe, it was also necessary to ensure that aircraft en-route to their own targets did not fly through weapons bursts. These factors were behind de-conflicting the strike plan. All aircraft would refer to a declared R Hour [going to war using nuclear weapons] that was part of the Launch instructions received prior to starting engines. A weapons code alpha numeric was another part, which when entered into the weapon control panel would allow weapon enabling. De-confliction for en-route aircraft was by timing the flyby of en-route detonations or changing the planned route around planned detonations by a large distance in the case of large weapons, smaller distance with smaller weapons. USAFE weapons were usually larger than non US forces, and international weapons, RAF V Force, SAC aircraft, USN MRBMs, ICBMs were very much larger. These non-NATO delivery systems' schedules were supposed to be available to de-conflicters, but seldom were.[99]

He went on to add:

> SACEUR's Strike Plan was still a huge complex operation. SHAPE was constantly adding more vehicles to the system—US National Guard aircraft "follow-ons" for example. These aircraft would have to be given targets and inserted into the Strike Plan as an afterthought, an impossible task without going back to stage one, the annual strike de-confliction conference. When de-confliction became impossible, SHAPE's solution was to change the separation standards; where a flyby of 7.5 NM [nautical miles, 13.9 kilometres]was the previous standard for a particular size burst, it was dropped to a smaller distance. If the burst would occur ten minutes prior to exact overflight, well that would be OK under the old standards, but with the new it could be reduced to two minutes which could have provided a very warm overflight! De-conflicting the Strike Plan was frustrating even using a huge USAFE computer at Wiesbaden. All the computer could do was to identify where de-confliction was less than the standards called for. It was no help in rectifying the problem.[100]

In addition to recounting his solution to the problem of deconfliction, Gillespie's comments below allude to the internal politics of USAF and the ever-present interservice rivalry within the US military. It demonstrates how the RCAF air-power choices in NATO were shaped by American doctrine:

> I prepared an unsolicited paper on the effectiveness of aircraft to get the job done which had two suggested corrective options: The first was to reduce, not increase the number of aircraft in the plan, and the second was to put more Pershing missiles into it, both options to enhance delivery expectations while not running down the aircraft inventory. The Pershing could be on target 8 minutes after launch from a variety of launch sites away from vulnerable fixed bases. It was extremely accurate and had the capability of analysing the initial launch trajectory to determine

98. Interview with Leo O'Donovan, Orleans, Ontario, August 19, 2004.
99. Email from Neil Gillespie, dated August 24, 2004.
100. Ibid.

> whether the missile would arrive at the target, and could relaunch a follow on weapon as soon as the machinery cooled if it wouldn't. The US Army and the Luftwaffe operated Pershing missiles. I submitted the paper to a US General, Chief of 4 ATAF Ops. After he had perused the paper I was called to his office where he told me he agreed with everything in the paper except the options I had provided. He told me the real war wasn't going to start with nukes – The WP [Warsaw Pact] had much larger ground and air forces than NATO, and would try to get the job done conventionally before resorting to nukes, and in any case NATO would probably decide when that would happen. In the meantime, however, a large conventional air battle would occur in which attrition would be high on both sides, but winning it was not out of the question for NATO, and more specifically, USAFE with larger stores of conventional weapons than all the rest of NATO combined. NATO would need these aircraft for the conventional job, and if he told the Pentagon he didn't need all those machines for Strike, the SAC bosses who held great sway in those days would happily remove them.[101]

It is interesting that the recommendations Gillespie made at the time to his American boss to maximize the deconfliction of targets were similar to those published at about the same time by Gellner. In an article written in February 1968, in which he discussed what future air-power roles should be considered for the Air Division, Gellner also recommended introduction of the Pershing MRBM, albeit for slightly different reasons. He argued that if Canadians wanted to continue to contribute to a true deterrent in NATO, it had to be in the form of MRBMs because the vulnerability of fixed-based CF-104s removed any such value from the latter weapons platform.[102]

Both Gillespie and Gellner discuss the political problems associated with the strike role. But they saw the problem from different viewpoints. In correspondence between Neil Gillespie and Major-General D. P. Whiteman (Retired), it is evident that these veteran strike pilots remain unconvinced that the mechanism whereby national command authority was to be granted prior to the use of tactical nuclear weapons would have worked. Their doubts were based upon the reality that they never saw this mechanism practised in peacetime. The fact that neither Gillespie, who worked in headquarters, 4 ATAF, nor Whiteman, who commanded a strike squadron between 1970–71, knew just how the system was to work or if it would have worked at all is a rather startling admission. Gillespie makes these comments to Whiteman:

> The dissemination of the R Hour message had nothing to do with the ATAFs or MSCs [major subordinate commands—or regional groups] or even, I'm quite sure, SHAPE where SACEUR hung his hat. I believe it came directly from Brussels, NATO political HQs I believe it was called, where the national Ministers hung theirs. As to the mechanics of getting the R Hour message disseminated, it's possible it went from SHAPE with its direct connections to airbases and NATO MSCs and PSCs [principal subordinate commands]. Some sort of coded message from Brussels could have tasked SHAPE to do that. I never did find out where the hangup was. Not once was any exercise R Hour message received by even a majority of Strike units. On two occasions I can recall in the cave at 4 ATAF, it was received over twenty minutes after the R Hour it declared. *There is no way that Strike Plan could have been successful.*[103]

Whiteman's reply is equally surprising, his humour notwithstanding:

> Excellent piece of work Gillespie, I had no idea you were so clever and well written. I did not know some of this in spite of being in charge of a swack of nuclear bombers. You bastards [at 4 ATAF] wouldn't tell us anything. You were probably afraid we'd all quit if we knew the truth. I am unclear to this day how the National release would have worked on the Canadian side. I just assumed that when 4ATAF told us it was State Scarlet or whatever that it was a done deal and the Canadian government somehow had agreed to carry the nukes. Tell me how it worked. Who phoned Trudeau?[104]

101. Ibid.
102. John Gellner, "Peek into the Crystal Ball of the RCAF's Future NATO Role," *Canadian Aviation* 39, No. 2 (February 1966); 15.
103. Email between Neil Gillespie and Major-General Whiteman (Retired), dated August 24, 2004 (italics in original).
104. Email between Whiteman and Gillespie, dated August 24, 2004. Whiteman commanded 441 Squadron between 1970–71, after it had converted from reconnaissance to strike following its move from Lahr to Baden in 1970.

Included in this email traffic was a second-hand account about events that allegedly took place during a NATO command post exercise that called for political authority to release nuclear weapons.

Although this story is not verifiable, it questions to what extent NATO politicians, in this case a Canadian, were prepared to authorize the use of tactical nuclear weapons. Once more, Gillespie recounts:

> I was not at [a] NATO wide exercise involving this level of command, [NATO political headquarters at Brussels] but was told by one who was that Haig, SACEUR at the time [1973–1978] and who was there braced the Canadian minister—I think it may have been Ritchie, [Defence Minister James Richardson?] but it has faded. The reason was the WP was advancing pretty much across all of Central Europe and was threatening the Kiel Canal in the north which was one of the trigger points for NATO to dust off some selective release nukes. Like all NATO decisions, the vote had to be unanimous on the premise that if one country did not agree, well that would be tantamount to having a Veto. Haig was asked to talk to this Canadian position (Our PM was not in the chain of command, but it's likely he was kept apprised. In this case I don't think he was even in Ottawa, and was not apprised). Haig asked the minister why he wouldn't vote with all the others, and the minister looked down his nose at Haig saying, "You have no idea of what could be the result in lives and property in this action," and Haig replied, "With respect minister, my knowledge in this far outstrips yours." I don't know the result of the face-down—it was an exercise and lower formations were never shown the critiques on any exercise ... .[105]

There was an unanswered question throughout the history of NATO during the first two decades of its existence as to the collective political will to use nuclear weapons in time of war. Closely related to this question was the extent to which the member countries, especially Canada, would allow SACEUR, always an American officer, sufficient latitude to decide on the use of such weapons under circumstances where there was insufficient time to consult the alliance's political authority. Fortunately, the alliance was never placed in a position to find the answers to such questions. However, the above "story," for which there is no reason to doubt its authenticity, leaves the impression that both the need to gain unanimous support for the use of nuclear weapons as well as the system to communicate this decision could not have been taken for granted.

If the nuclear-strike role was operationally questionable and a potential command and control nightmare in wartime, its advocacy by the RCAF placed Canadian airmen at odds with government defence policy. This divergence of civil-military goals was pointed out by RCAF critic John Gellner. His concern was that an air-power role that relied principally on nuclear-weapons had become completely out of touch with Canadian defence policy. This was especially so in light of the Liberal Government's changed defence priorities that placed its commitment to NATO in third place behind national sovereignty and the defence of North America. In another view likely not shared by many airmen at the time, Gellner saw Bill C-243 (the Canadian Forces Reorganization Act) and the dissolution of the three military services, including the RCAF, as a step forward for the Canadian military. Gellner looked at the Canadian armed forces post-1967 as "moving from the shadows and reaching out for maturity and independence."[106] Mirroring his own views on air power, he fully endorsed the government's policy to build a more flexible and mobile integrated armed forces. Striking the nationalist chord, Gellner argued that the RCAF's air-power choices were heavily influenced by the Americans: "The readiness to follow the leader made us accept the nuclear-strike-reconnaissance role for the RCAF's No. 1 Air Division under NATO and its re-equipment with the CF-104 Starfighter."[107] While Gellner felt that RCAF leadership in the post-war period displayed no independent air-power thought and merely followed the lead of the Americans, this conclusion ignores the more recent position that the choice to use nuclear weapons was consistent with Canadian foreign policy and not one born out of the need to please the Americans.[108]

105. Email between Gillespie and Whiteman.
106. John Gellner, "Canadian Air Power – At the Beginning of a New Era," *Canadian Aviation* (February 1968); 14–15.
107. Ibid., 15.
108. D. W. Middlemiss and J. Sokolsky, *Canadian Defence: Decisions and Determinants* (Toronto: Harcourt Brace Janovich Canada, 1989), 61.

As mentioned earlier in this chapter, there is no doubt about Gellner's influence on Liberal defence policy. No longer in an air force uniform, Gellner did not have to serve the institutional interests of the RCAF when he spoke about the strategic purpose of air power. To John Gellner, conventional tactical air power was sufficiently mobile and flexible to serve a more useful purpose than nuclear strike. More importantly, at a national strategic level such an air force would be more appropriate for a country of Canada's stature because it would be used more frequently to help bring an end to the numerous smaller conflicts that were occurring around the world at the time. These conflicts were characterized by the use of conventional, not nuclear, weapons. The essence of his argument was that building an air force for a conventional war was more likely to be used than one that was tied to the nuclear role. He made these comments in *Canadian Aviation* in 1968:

> In any event, the wholesale revision of its military policy undertaken by Canada will result in an increase of *real* [sic], that is, usable (as distinct from merely apparent) air power; there can be no doubt on that score. Canadian air power will henceforth be wielded by a single armed service, the Canadian Armed Forces.[109]

In shifting its main military effort to the creation of a mobile force of all arms for use in limited non-nuclear conflicts, Gellner correctly added that "air power is used strategically to get the necessary force to the theatre of operations, and tactically to do the job required job once there."[110]

The problem in 1968–69 was that Canada possessed neither a suitable tactical fighter capability nor sufficient strategic sea/airlift to meet the demands of the Liberal Party's defence policy. The four squadrons of CF-5s never materialized due to cuts in the defence budget by the Trudeau Government, so that only two were formed, including the training squadron. The lack of funding aside, the CF-5 was never a popular choice with airmen, particularly for use in Europe.[111] It was rejected by the VCDS staff in June 1969 as a replacement for the CF-104 because of its many operational limitations.[112] The sole operational CF-5 squadron, 433, was to deploy to Norway as part of Canada's changed role to support NATO's northern flank. To get there in a timely fashion, the CF-5 needed a strategic tanker, and the purchase of strategic air-to-air refuelling aircraft was then years away.

Worse for the Canadian Forces, there was no replacement fighter aircraft of any sort under consideration during the first Trudeau Government. In June 1967, Cabinet approved a defence department initiative to begin negotiations with a multinational European consortium that had as its objective the development of a multirole jet fighter. This became the genesis of the "Canadian Advanced Multi-Role Aircraft (CAMRA)" Project. The excitement within the Canadian fighter community as result of this potential procurement of a modern fighter—shared by Allard's successor as CDS, the wartime bomber pilot General F. R. Sharp—was short-lived, with the termination of the CAMRA Project by the Trudeau Cabinet on October 22, 1968.[113]

John Gellner had criticized the nuclear role in NATO because he felt it departed from the country's foreign-policy objectives, ignoring the argument that this capability was a tangible contribution to the maintenance of peace in Europe and, by extension, to global stability. He argued further that not only had the Air Division's main role become disconnected from government policy, the use of an aircraft type and mission that was exclusively employed in support of NATO in Europe placed its long-term future in doubt. Instead, Gellner's recommended air-power concept

109. Gellner, "Canadian Air Power," 16.

110. Ibid., 16.

111. In emails received on October 22, 2004, opinions solicited from veteran strike pilots about the CF-5 were pretty much unanimously derisive. Neil Gillespie states that "the CF-5 was a NATO joke ... , it had no state of the art systems, no range, no nuke certification, poor weapons load ... , the manoeuvring flaps had been discarded for a production cost decrease which resulted in a large operational shortcoming." Leo O'Donovan says that "there was no way that the CF-5 could have been deployed to the Air Division and carry out the task other than fodder ... ." Finally, Willy Floyd comments that "the CF-5 would have needed in-flight refuelling to get from XP [Zweibrucken] to Langar [250 miles (402 kilometres)] for a night of "pubbing" at "Notts" [Nottingham].

112. See "CF-5: History of Events," page F–8, paragraph 17(c), File 73/1223, Raymont Papers, Series V, Volume 2501, DHH.

113. See memorandum from General Sharp to Defence Council, dated August 15, 1968, and Record of Cabinet Decision, dated October 24, 1968. This European consortium, that ultimately was reduced to include Great Britain, Germany and Italy, went on to produce the multirole Tornado. This project, like its successor, the current Eurofighter project, was plagued by cost overruns, but the aircraft was and still is used in NATO as an air-defence and ground-attack fighter. File 73/1223, Raymont Papers, Series 2, Volume 903, DHH.

underpinned by mobile conventional forces, adopted by the Liberal Party, was stillborn from the beginning because the government never procured the resources needed to have it implemented. John Gellner championed a practical, yet politically unrealistic, air-power concept for the Canadian Armed Forces. What his commentary did succeed in doing was to identify an ongoing policy capability gap that continues to this day. This was not the fault of the RCAF and Canadian airmen. While the latter no doubt coveted the CF-104 and the nuclear-strike role, the Starfighter performed this role magnificently. In contrast to the Liberal Government's chosen alternative fighter, the CF-5, which was technically incapable of operating in NATO's Central Region, the RCAF met the operational expectations of SACEUR's nuclear-strike force employing the 104. By doing so, the RCAF continued its excellent reputation in NATO, one established since Canadian airmen returned to Europe in 1951. It also confirmed that air power underpinned Canada's commitment to the North Atlantic Alliance.

Chapter 8

CONCLUSION

After 18 years of existence, No. 1 Air Division was disbanded on June 29, 1970, and on the following day was renamed 1 Canadian Air Group (CAG). With the establishment of Canadian Forces Base Europe, 4 Wing became 1 CAG, Baden Detachment, thus losing its distinction as a separate base. The three remaining CF-104 squadrons were all based at Baden-Soellingen. Lahr continued as the theatre air-transport hub, sharing the base with the remnants of 4 Canadian Mechanized Brigade Group that moved down from northern Germany. The Air Division had started out in 1952 as a self-contained fighting unit of 12 squadrons, led by a national air force headquarters and with a well-defined role in NATO's Central Region. Less than two decades later, it had been reduced to three squadrons with an ill-defined role and an uncertain future.

The Air Division was revived in the 1980s in anticipation of promises made by the Mulroney Government to increase troop levels in Europe. As it turned out, the life of the "second" Air Division in Europe was short-lived with the fall of the Berlin Wall in 1989. Four years later, the Canadian air group and brigade were completely withdrawn from Germany. Equipped with the more capable and modern CF18 Hornet, the reconstituted Air Division was a formidable air force. Yet sentimentally and historically for airmen, a single three-squadron air wing (with two more squadrons based in Canada) was no replacement for the original four-wing Air Division. This was certainly the belief at the time of one of its veteran fighter pilots, the CDS, General Theriault.[1] But by the late 1980s, such sentiments were moot. The military and political threat that had brought Canadian forces back to Europe almost 40 years earlier ended with the collapse of the Soviet Union. If the resurrection of the Air Division was part of the Conservative Government's plan to reinvigorate the Canadian Forces after decades of Liberal neglect, their political objectives were pre-empted by the end of the cold war.

The political motives of creating another Air Division in 1988 aside, the country's military leaders supported the old nomenclature for less cynical reasons. Minister of National Defence Perrin Beatty and his CDS, another veteran fighter pilot of the original Air Division, General Paul Manson, drew upon the political benefits Canada had accrued in the West as a consequence of the important military contribution made by the RCAF and the original Air Division.[2] More relevant to what this book has argued, these leaders understood and appreciated the sentimental and institutional value of No. 1 Air Division to its veteran airmen. These are the memories that form the basis of this book. They also lead to its underlying conclusions. For the nearly 20 years of its existence, the Air Division at once served as an expression of national sovereignty and a means of meeting the operational and cultural ends of the RCAF. Further, if the focus of this book has been its importance to Canadian airmen, the value of No. 1 Air Division was multidimensional. Its existence proved beneficial to Canada's leaders and to the RCAF. The Air Division became the means to meet both national political and institutional service ends.

This work has fundamentally challenged the argument that the RCAF's fighter forces in NATO were of marginal military utility and that their presence was the token price of Canada's political commitment to the alliance. Roy Rempel has written that "the credibility of Canada's political role in NATO was in large measure dependent on the perceived viability of its military commitment."[3] This book makes the same argument, substituting the Air Division for Canada's overall military commitment to NATO. If often more appreciated by Canada's allies than by her own political leaders, the sum total of the Air Division's military contribution during its lifespan was not insignificant and out of proportion to its actual size. Contrary to popular belief, in military terms, Canada "punched above its weight class." What the RCAF did in Europe, therefore, mattered a great deal in Ottawa. The excellent reputation of the Air Division at the operational level translated to national credibility.

1. Douglas L. Bland, *Chiefs of Defence,* 248. Theriault believed that the three Canadian fighter squadrons in Germany in the mid-1980s had nothing of value to contribute to the threat in Europe.
2. Ibid., 253. See also Paul D. Manson Fonds, R11222, Container 4, File 2, LAC.
3. Roy Rempel, *Counterweights: The Failure of Canada's German and European Policy, 1955–1995* (Kingston: McGill–Queen's University Press, 1996), 132.

To Canadian airmen, No. 1 Air Division was more than a group of fighter jets and the opportunity to provide NATO with a modern air-power capability. The Air Division's operational cohesion and the air-power roles it was assigned assured the RCAF's independence within the alliance. It also allowed the RCAF to operate independently of the Canadian Army brigade in Germany. As evidenced by the sources used in this work, these institutional goals of the early cold war RCAF were shaped by the earlier experiences of its leaders in wartime and during the interwar period. The correspondence between airmen, and between them and higher headquarters, strongly attests to the wishes of the RCAF not to operate under the RAF, as senior Canadian airmen felt strongly that the RAF had unjustifiably limited command opportunities for the wartime RCAF.

During the deliberations in 1951 as to where the Air Division would operate in the Central Region, the first AOC of No. 1 Air Division, A/V/M Campbell, was adamant that he work with the Americans and not with the RAF. These views were supported by the CAS, Air Marshal Slemon, and by the chairman of the CSC, General Foulkes. Later, during discussions held between Canadian officers and senior allied officers at SHAPE, Campbell was insistent that he command his forces during peace and war and that the RCAF receive appropriate appointments at AAFCE and at SHAPE. Once more these views were supported by Slemon and Foulkes. In building the Air Division for maximum national autonomy, the RCAF had a two-pronged strategy. First, it operated with the Americans and French in 4 ATAF and not with the British in 2 ATAF, and second, it obtained a say in the higher direction of the air war through independent command of the Air Division and by obtaining senior staff positions in higher NATO air headquarters.

Central to this book is the claim that the RCAF's No. 1 Air Division was an expression of Canadian nationalism. For the RCAF and, at least early on, for Canada's political leaders, the creation of No. 1 Air Division was a symbol of national credibility within the North Atlantic Alliance due to the critical role played by air power. For this reason, a significant corollary to this book's main thesis is that the Air Division remained a relevant contribution to NATO because air power became the most important military option for the defence of both Western Europe and Canada. While the Canadian government provided an Army brigade as well as an air division to NATO's integrated forces to meet a perceived military threat from the Soviet Union in Europe, the alliance's strategy was from the beginning to rely on superior Western air power to compensate for inferior numbers of conventional ground forces. This strategy did not change and in fact, NATO came to rely even more on air power with the introduction of tactical nuclear-weapons. This was why the Air Division, in contrast to the Army brigade, was always manned at war strength and received the bulk of Canadian defence funding.

If the Air Division was an expression of national independence for Canadian airmen, this institutional imperative was so strong that it often overrode preferred operational roles. While daytime and all-weather air defence were not the most popular air-power missions for airmen, these roles formed the backbone of Air Division operations and sustained the command's national independence throughout the first decade of its existence. Even so, Canadian airmen had mixed feelings about air defence. On the one hand, they were proud of the fact they proved to be the best in NATO in performing this role. Flying the F-86 Sabre, initially, they could also boast in having been equipped with the best daytime fighter in the West. On the other hand, the lack of an effectively coordinated and integrated air-defence system in NATO made the air-defence role, from the beginning, problematic for the RCAF in Europe. This was especially so in light of the fact that NATO air defence was based upon member countries being responsible for this role within their own geographical boundaries.

With the introduction of the CF-104 and the strike role it performed, Canadian airmen "got their cake and could eat it too." Being equipped with the Starfighter, the RCAF at once safeguarded the future of the Air Division and witnessed the return of a most popular aircraft-mission combination for Canadian airmen—offensive bombing. In contrast, after 1972, when limited to the conventional attack role, Canadian airmen were left with the popular Starfighter performing an unpopular mission.

They were out of the nuclear-strike business; one that they performed independently of the Army. As well, having lost their service independence with the integration and unification of the Canadian military, they now saw themselves as being integral to, and not independent of, NATO ground forces in the Central Region.

While this book has presented the institutional ambitions of Canadian airmen with respect to the Air Division, it has also shown that the RCAF's goals were not always achieved. Problematic for Canadian airmen was that their nationalistic designs were often difficult to reconcile with the exigencies of NATO air operations. First, the RCAF obtained few command positions above the Air Division. Operating under 4 ATAF allowed its airmen to escape working for the British but placed them in a headquarters dominated by the Americans. In theory, 4 ATAF was to be manned by the French, Americans, and Canadians in numbers proportional to the number of wings contributed. Further, 4 ATAF was to command the air units assigned to it by these three countries. This was never the case, particularly as far as the Americans were concerned. There was no question that, first and foremost, 12th Air Force and then United States Air Force Europe were never subordinate to Central Command Air Forces, let alone 4 ATAF. However, working in an allied tactical air force dominated by USAF was less a cultural affront to the RCAF than having operated under the wartime RAF. The RCAF and USAF were close doctrinally, and their airmen came from similar social backgrounds.

Another example that saw the RCAF's quest for organizational autonomy threatened by alliance operational needs occurred when NATO demanded Canada provide squadrons of the all-weather capable CF-100. With the Canadian government's decision to limit the Air Division to its existing 12 squadrons, Canadian airmen resisted the introduction of the CF-100 in Europe. In large part, the RCAF feared these valued assets would be dispersed to other allied wings, consequently threatening the rationale of an air division with fewer squadrons. As it happened, the four CF-100 squadrons sent to Europe in 1956–57 were stationed at the four Canadian wings, replacing an equal number of F-86 squadrons. Instead of jeopardizing the future national cohesion of the Air Division, the Canadian integral 24/7 air-defence capability solidified its future.

Supporting their insistence on the national cohesion of the Air Division, Canadian airmen counted on the popularity of air power at the national and alliance political levels. The immediate post-war years preceding the establishment of the Air Division witnessed the rise of air power as the dominant military force in the West. Not surprisingly, therefore, during the early years of the Air Division, the RCAF leveraged the popularity of air power in their pursuit of institutional goals. A good example of this strategy occurred in the spring of 1952, when A/C Claire Annis put forth the RCAF's views on air power during a series of presentations to Canadian audiences. Like their counterparts in Britain and the US, senior Canadian airmen understood that it was crucial to promote air power as a war-winning strategy, and that doing so helped assure an air force independent of the surface forces. But unlike the RAF and USAF, who dominated the leadership of NATO air forces, senior officers in the RCAF were also determined to achieve national independence within the alliance.

While this work has not looked at what the average Canadian citizen felt about air forces, parliamentary sources confirm that Canadian politicians believed that a national defence underpinned by air power, as opposed to land and sea power, was the best strategy. They saw air defence as the only military means with which to safeguard the country from aerial attack by Soviet intercontinental bombers armed with nuclear weapons and to allow NATO forces in Europe to defeat numerically superior Soviet ground forces.

Contemplating a nuclear air battle between East and West, Canadian leaders argued that spending large sums of money on ships for the Canadian Navy was pointless and maintaining a large Army bolstered by a politically unpalatable policy of conscription was out of the question. Since the RCAF was seen by Canada's leaders as the primary means of defence in a nuclear conflict, it became

the leading service in the country's cold war military force structure built around regular forces in being. In the same vein, the Air Division became Canada's principal Air Force contribution to NATO. While Canada also provided maritime and naval aviation forces to the North Atlantic Alliance, the European-based fighter wings of No. 1 Air Division were the much more visible symbol of Canada's presence in NATO. It was these Canadian fighter forces that best supported the alliance's defensive strategy and were critical to NATO, whose member countries had rejected the economically prohibitive option of matching Soviet ground forces.

From a national strategic perspective, air power, in general, and the creation of the Air Division, specifically, were key components of Canada's early cold war foreign policy. With its creation late in the war and during the immediate post-war years, Canadian leaders had placed much faith in the UN as an organization that could maintain global peace and security. When these expectations were dashed with the onset of the cold war, these same leaders convinced their electorate that the country should commit itself to an unprecedented peacetime alliance. Further, they were instrumental in convincing an isolationist US to join as well, knowing that without American military and economic commitment, a North Atlantic Alliance would be hard pressed to deter the Soviets. Noteworthy was that the American commitment to NATO was to rely principally upon its assigned theatre and existing strategic air forces and, conversely, to keep in-theatre ground forces to a minimum. In theory, an enduring component of Canadian foreign policy was faith in the mandate of the UN to maintain world peace through the collective actions of its members, but in reality, Canada's national security became inexorably linked to the multinational military strategy of NATO, followed by its military commitment to the bi-national NORAD alliance. This study has argued that Canada's ability to sustain such a foreign policy, like the Americans and the majority of its NATO allies, necessitated a reliance on air power.

In addition to its role as Canada's principal military contribution to the North Atlantic Alliance, the Air Division was to satisfy another important foreign-policy objective for Canada's civilian leaders. During the two world wars, Canadian leaders ensured that they "paid their way" in terms of financial, materiel, and personnel support with respect to forces committed to the conflicts. This was to ensure that Canadian forces retained some national identity by not being completely integrated into formations of one or more major powers.

For the same reasons, it was important for Canadian civilian leaders to pay all reasonable costs attributable to the country's air contribution to NATO. This work has revealed that Canada did not pay for the construction costs of the Air Division's four wings, insisting instead that the two German bases be built using German war reparation funds. Furthermore, to ensure its forces were not subject to German law, Canada had no legal alternative than to have them employed under the Occupation Statute. Therefore, when it came to paying alliance infrastructure costs and the legal status of its forces in Europe, Canada accepted and, in fact, depended upon the Occupation Statute, contrary to its stated foreign policy. Fortunately for the St. Laurent Government, this outcome was not public knowledge, otherwise it would have appeared to Canadians that their military had returned to Europe in 1952 as part of the post-war occupation forces in Germany despite their politicians' insistence that Canadian forces were there strictly in support of NATO. The point to be made is that for both its land and air contribution to NATO's Central Region, Canada actively pursued a minimum cost approach in order to retain some influence in alliance decision making. Fortunately for Canadian leaders, the military value of the Air Division bought them the desired influence.

Although the RCAF enjoyed considerable support from their political leaders, this amicable relationship was neither constant nor without tension. If Canadian politicians were believers in air power as the primary military option for the defence of the country and for Western Europe, they insisted that the RCAF adhere to government policy. The RCAF was given wide latitude in the formation of the Air Division. It also had considerable input into operational matters such as area of operations, selection of aircraft types, and roles to be performed. Still, correspondence between

airmen and politicians paints a clear picture in which civilians had the last say when decisions were required on critical military matters, including tactical ones, that potentially impacted upon national foreign policy.

A notable example of military subordination to civilian authority occurred during the spring of 1953 when two NATO aircraft were shot down by Soviet fighters. In response to these incidents, General Norstad wanted A/V/M Campbell to have his Sabre aircraft armed while airborne over Germany. While operational matters were the purview of SHAPE, the St. Laurent Government did not consent to Norstad's wishes. Concerned that another world war was at stake and that the direction to the Air Division was to satisfy the needs of the Western occupying powers and not those of the North Atlantic Alliance, the AOC was ordered by both the defence and foreign affairs ministers that unless the alliance was under attack the existing operational posture of the Air Division would not change.

If relations between senior airmen and their political masters were never close during the Diefenbaker years, they deteriorated rapidly following the return of a Liberal government in 1963. The main source of tension resulted from Hellyer's success in integrating and unifying the Canadian military. This dramatic organizational change terminated the RCAF as a separate military service. As well as limiting RCAF access to the defence minister, it also put in place a command structure that considerably reduced the power senior airmen had held in the defence department since the early 1950s.

It also certainly did not help that the defence minister distrusted airmen and what he felt were their narrow views on national defence generally and air power specifically. Particularly unfortunate for airmen was that Hellyer's distrust of RCAF leadership was vindicated during the early 1960s. It became clear to the MND that senior airmen in the Air Staff and Air Division actively planned for the nuclear mission before the government had signed an agreement with the United States for the release of tactical nuclear weapons. Second, Hellyer was not happy when he saw that the RCAF made little effort to accelerate the reconnaissance mission in Europe as he had directed.

A bigger blow to the institutional wishes of Canadian airmen came with the realization that Hellyer was to rid the RCAF of the Starfighter and the nuclear role. The RCAF concluded that the days of the Air Division were numbered after the MND's announcement that no attrition CF-104s were to be purchased. A difficult pill to swallow was Hellyer's single-minded determination and success in purchasing the CF-5 tactical fighter that was planned to replace the 104. While this aircraft was a good fit for the defence minister's new force structure, the RCAF and senior military officials knew that the Freedom Fighter was operationally limited in the high-threat environment in NATO's Central Region. Nonetheless, criticism of the Freedom Fighter's tactical capabilities by Canadian airmen was motivated less by operational concerns than by institutional ones. Airmen were angered by the CF-5 purchase because they believed that its introduction in Europe would have hastened the end of the CF-104 and the coveted strike mission. This outcome in turn would have removed any remaining rationale to keep their beloved Air Division intact.

So were airmen ultimately motivated by parochial service ambitions? Were their views on air power in the early cold war limited to satisfying their cultural and institutional goals at the expense of the Army and Navy and other national defence options? By examining air-power choices made by Canadian airmen during the life of the Air Division, this book has provided answers to these questions. The key is the evolution of air power in the Canadian context that began in the later interwar period and matured during the Second World War. These formative years shaped the opinions of Canadian airmen who became the leaders of the post-war RCAF. More specifically, the decisions these senior airmen made during the rise and fall of No. 1 Air Division need to be understood in the context of the expectations and lessons learned from their wartime roles. The purpose of this book was not to judge if these decisions were justified. The evidence was used to show the relationship between the creation and life of the Air Division and the institutional goals of Canadian airmen. This same evidence, however, revealed that the goals of the RCAF

were not always compatible with those of the other services or with those of their political masters. Moreover, this book suggests that the service designs of the RCAF led to questionable organizational outcomes for the Canadian military in Europe.

By choosing not to operate under the RAF and with the Canadian Army in Germany, the RCAF may have satisfied its service goals, but Canadian airmen also set in place an operational boundary that impacted on the optimum employment of Canadian forces in the Central Region. By operating in 4 ATAF, the RCAF limited its role to air defence when it could have argued for equipping its wings with a multi-purpose aircraft if it had worked in support of the Canadian brigade group in northern Germany. The RCAF could have used its positive wartime experience in tactical air support by working closely with the Canadian Army in 2 ATAF. Perhaps more importantly for the future of Canadian forces in Europe, if the Army and Air Force components had worked together, the prohibitive cost of the transatlantic logistical pipeline could have been reduced. Furthermore, if the RCAF had not performed the nuclear-strike role and had been limited to providing air-to-ground support to the Canadian army brigade using conventional munitions, there might have been more political support to buy attrition replacements for the 104. This outcome in turn may have extended the life of the Air Division.

Whatever the merits of these hypothetical arguments, they miss the point. If the RCAF felt satisfied that it had achieved its institutional goals with the creation of No. 1 Air Division, it was fortunate that its objectives did not counter those of SHAPE when it came to determining the physical location and combat roles of No. 1 Air Division. Crucial to the alliance was the establishment of air superiority in the Central Region to protect its numerically inferior ground forces and, more importantly later on, the alliance's tactical nuclear air forces. With four wings equipped with the then modern Sabre performing the air-defence role, the RCAF made an enormous contribution to alliance strategy, certainly much more so than if it had built an air force to support the Canadian army brigade.

In the end, however, the will of Canadian politicians prevailed at the expense of the RCAF and the institutional goals of senior airmen. The RCAF disappeared with the Canadian Forces Reorganization Act in 1968, and the Air Division was disbanded two years later. During the late 1960s, airmen tried desperately to defend the need for the Air Division and the nuclear mission. What they could not understand, or failed to accept, was that the country's leaders had decided the future of Canada's national-security priorities could no longer be dictated solely by those of NATO. Worse for airmen, the Canadian people shared this sentiment enunciated by their new prime minister, Pierre Trudeau. Whatever his politics, Trudeau responded to the mood of the electorate. National sentiment was increasingly anti-American. Many Canadians were concerned that Canada's military commitments were driven by NATO and NORAD, two alliances dominated by the US. In the end, it did not matter that the RCAF, unlike the Liberal Government, saw the nuclear role as a deterrent to war and thus a contributor to global stability and peace. With the support of the electorate, Canada's civilian leaders cut their military forces in Europe by 50 per cent and withdrew all Canadian nuclear forces from NATO's Central Region.

Nonetheless, if the expectations of Canadian airmen were dashed with the end of the Air Division in 1970, this sad outcome should not obscure what they had accomplished in terms of promoting Canadian air power and raising Canada's prestige on the international stage over the previous two decades. Whatever their motivation, given the opportunity by their government, they had created and led an air force command second to none. The speed in which the four wings were built and the ability of the Air Division to adjust to changing alliance air priorities would not have been possible without the professionalism, dedication, and leadership ability of senior Canadian airmen that came from their collective wartime experience. While it is acknowledged that any success they achieved during the lifespan of the Air Division was directly proportional to the extent they were in the good books of politicians, the air-defence and nuclear-strike roles performed by Canadian airmen in Europe became the most formidable military contribution Canada made to the North Atlantic Alliance during the height of the cold war.

Appendix A

SENIOR NATO AND NATIONAL DEFENCE APPOINTMENTS, 1951–1970

Minister of National Defence

Brooke Claxton, December 1946 – May 1955
Ralph Campney, June 1955 – June 1957
George Pearkes, June 1957 – October 1960
Douglas Harkness, October 1960 – February 1963
Paul Hellyer, April 1963 – September 1967
Léo Cadieux, September 1967– September 1970

Chairman of the Chiefs of Staff Committee / Chief of the Defence Staff

General Charles Foulkes, 1951–1960
Air Chief Marshal Frank Miller, 1960–1966
General Jean V. Allard, 1966–1968
General F. S. Sharp, 1968–1972

Supreme Commander Allied Forces Central Europe (SACEUR)

General Dwight Eisenhower, January 1951 – April 1952
General Mathew B. Ridgway, May 1952 – July 1953
General Alfred M. Gruenther, July 1953 – November 1956
General Lauris Norstad, November 1956 – January 1963
General Lyman L. Lemnitzer, January 1963 – July 1969

Chief of the Air Staff (CAS)

Air Marshal W. A. Curtis, September 1947 – January 1953
Air Marshal C. R. Slemon, February 1953 – August 1957
Air Marshal H. L. Campbell, September 1957 – September 1962
Air Marshal C. R. Dunlap, September 1962 – July 1964

Air Officer Commanding (AOC), 1 Air Division

Air Vice-Marshal H. L. Campbell, December 1952 – August 1955
Air Vice-Marshal H. B. Godwin, August 1955 – August 1958
Air Vice-Marshal L. E. Wray, September 1958 – July 1963
Air Vice-Marshal D. A. R. Bradshaw, July 1963 – July 1966
Air Vice-Marshal R. J. Lane, August 1966 – January 1968
Lieutenant-General D. C. Laubman, July 1969 – August 1970

Appendix B

NO. 1 AIR DIVISION SQUADRONS, 1952–1972

1 WING

North Luffenham (September 1951 – March 1955)
410 (F) Squadron – November 1951 to November 1954 (F-86)
441 (F) Squadron – February 1952 to December 1954 (F-86)
439 (F) Squadron – June 1952 to January 1955 (F-86)

Marville (April 1955 to April 1967)
410 (F) Squadron – April 1955 to November 1956 (F-86)
439 (F) Squadron – April 1955 to November 1963 (F-86)
439 (R/A) Squadron – March 1964 to April 1967 (CF-104)
441 (F) Squadron – April 1955 to September 1963 (F-86)
441 (R/A) Squadron – September 1963 to April 1967 (CF-104)
445 (AW) Squadron – November 1956 to December 1962 (CF-100)

Lahr* (April 1967 to July 1970)
430 (S/A) Squadron – February 1969 to July 1970 (CF-104)
439 (R/A) Squadron – April 1967 to June 1970 (CF-104)
441 (R/A) Squadron – April 1967 to June 1970 (CF-104)

*Remained an air transport base until 1993

2 WING

Grostenquin (September 1952 – July 1964)
416 (F) Squadron – October 1952 to February 1957 (F-86)
421 (F) Squadron – October 1952 to August 1963
421 (S/A) Squadron – December 1963 February 1964 (CF-104)
423 (AW) Squadron – February 1957 to December 1962 (CF-100)
430 (F) Squadron – April 1953 to June 1963 (F-86)
430 (S/A) Squadron – September 1963 to February 1964 (CF-104)

3 WING

Zweibrucken (February 1953 – July 1969)
413 (F) Squadron – April 1953 to May 1957 (F-86)
427 (F) Squadron – April 1953 to December 1962 (F-86)
427 (S/A) Squadron – December 1962 to June 1969 (CF-104)
430 (S/A) Squadron – February 1964 to February 1969 (CF-104)
434 (F) Squadron – April 1953 to January 1963 (F-86)
434 (S/A) Squadron – April 1963 to March 1967 (CF-104)
440 (AW) Squadron – May 1957 to December 1962 (CF-100)

4 WING

Baden-Soellingen (August 1953 – July 1970)**
414 (F) Squadron – September 1953 to August 1957 (F-86)
419 (AW) Squadron – August 1957 to December 1962 (CF-100)
422 (F) Squadron – September 1953 to April 1963 (F-86)

422 (S/A) Squadron – July 1963 to July 1970 (CF-104)
427 (S/A) Squadron – June 1969 to July 1970 (CF-104)
444 (F) Squadron – September 1953 to June 1963 (F-86)
444 (S/A) Squadron – August 1963 to April 1967 (CF-104)

** Became 1 Canadian Air Group effective July 1970, remained open until 1993.

Air Division squadron summaries

1953 to 1956
Twelve F-86 daytime fighter squadrons

1957 to 1962
Eight F-86 daytime fighter squadrons
Four CF-100 all-weather fighter squadrons

1963 to 1967
Six CF-104 strike/attack squadrons
Two CF-104 recce/attack squadrons

1967 to 1970
Four CF-104 strike/attack squadrons
Two CF-104 recce/attack squadrons

1970 to 1972 (1 CAG)
Two CF-104 strike/attack squadrons
One CF-104 strike/recce squadron

Abbreviations

AAFCE	Allied Air Forces, Central Europe
A/C	air commodore
ACE	Allied Command Europe
AC&W	aircraft control and warning
ADC	Air Defence Command
AETE	Aerospace Engineering Test Establishment
AFHQ	Air Force Headquarters
Air Div	Air Division
A/M	air marshal
AMAP	Air Member for Air Plans
AMAP/P	Air Member for Air Plans – Plans
AMCJS	Air Member, Canadian Joint Staff
AMOT	Air Member for Operations and Training
AMTS	Air Member for Technical Services
AO	area of operations
AOC	air officer commanding
AOC-in-C	air officer commanding-in-chief
AOP	air observation post
ASW	antisubmarine warfare
ATAF	allied tactical air force
ATC	Air Transport Command
A/V/M	air vice-marshal
AW	all-weather
AW(F)	all weather, fighter
CAG	Canadian Air Group
CAS	Chief of the Air Staff
CAMRA	Canadian Advanced Multi-Role Aircraft
CDC	Cabinet Defence Committee
CDS	Chief of the Defence Staff
CFHQ	Canadian Forces Headquarters
CGS	Chief of the General Staff
CJATC	Canadian Joint Air Training Centre
COR	Chief of Operational Research
COS	chief of staff
CJS(L)	Canadian Joint Staff, London
CSC	Chiefs of Staff Committee
DADSO	Director Air Division Security Office
D/AMAP/P	Deputy Air Member for Air Plans – Plans
DCL	Defence Construction (1951) Limited
DEA	Department of External Affairs
DFC	Distinguished Flying Cross
DHH	Directorate of History and Heritage
DM	Deutsche mark
DND	Department of National Defence
EA CAS	Executive Assistant to the Chief of the Air Staff
EDC	European Defence Community
F	fighter
FAF	French Air Force
FY	fiscal year
G/C	group captain
GCI	ground controlled interception
HQ	headquarters
ICBM	intercontinental ballistic missile
LAC	Library and Archives Canada
MC	military committee
MDA Act	Mutual Defense Assistance Act

MFR	monthly flying rate
M.G.	manuscript group
MiG	Mikoyan-Gurevich
MIP	master implementation plan
MND	Minister of National Defence
MP	Member of Parliament
MPS	long-range height finding radar
MRBM	medium-range ballistic missile
MSC	major subordinate command
MSF	Mobile Striking Force
NAAFI	Navy, Army and Air Force Institutes
NATO	North Atlantic Treaty Organization
NMR	National Military Representative
NORAD	North American Aerospace Defence Command
OR	operational research
OST	operational suitability trials
OTU	operational training unit
PJBD	Permanent Joint Board on Defence
PX	personnel exchange
QRA	quick reaction alert (also referred to as "Q")
R/A	reconnaissance/attack
RAF	Royal Air Force
recce	reconnaissance
RCAF	Royal Canadian Air Force
RCN	Royal Canadian Navy
RG	record group
R Hour	war using nuclear-weapons
ROE	rules of engagement
S/A	strike/attack
SAC	Strategic Air Command
SAS	special ammunition storage
SACEUR	Supreme Allied Commander, Europe
SG	Standing Group
SH	Supreme Headquarters
SHAPE	Supreme Headquarters Allied Powers Europe
T	transport
TACEVAL	tactical evaluation
Tac PR	tactical photo reconnaissance
TAF	tactical air force
TAS	true airspeed
UE	unit establishment
UK	United Kingdom
UN	United Nations
US	United States
USAF	United States Air Force
USN	United States Navy
USAFE	United States Air Forces in Europe
USCINCEUR	United States Forces Commander-in-Chief, Europe
USSR	Union of Soviet Socialist Republics
VCAS	Vice Chief of the Air Staff
VCDS	Vice Chief of the Defence Staff
VLR	very long range
VTOL	vertical take-off and landing
WP	Warsaw Pact

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