

In Peace Prepared
Innovation and Adaptation in Canada's Cold War Army

Andrew B. Godefroy



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Preface

SHORTLY AFTER COMPLETING my doctoral studies in 2004, I accepted an invitation from the Canadian Army to join its Directorate of Land Strategic Concepts (DLSC), located in Kingston, Ontario. Serving as the army's main think-tank, this organization was responsible for a broad range of land warfare studies, conceptual development, experimentation, and design, including future security environment analysis and the development of force employment concepts and force structure models. It was an exciting time to be joining this community, as the Government of Canada had just ordered the army to return to Afghanistan in force, and much work remained to complete the transformation of our soldiers from a New World Order-era peacekeeping force into a robust, combat-effective, tactically decisive, counterinsurgency field force.

Not long after I arrived in my new post, I realized how monumental a task it is to conceive, design, build, and manage something as complex as a modern-day army. Beyond strategic forecasting and the determination of the main threats – no small tasks in themselves – one must also be able to successfully develop robust, fully tested force employment concepts and tactical doctrines that will survive first contact with an aggressively smart enemy, a bureaucratic military culture, opinionated senior military officers, and their political masters. These concepts and designs must also withstand the test of time, meaning that one must try to forecast, but not predict, as accurately as possible the future of foreign affairs, domestic politics, budgets, society, and culture. Needless to say, since perhaps the Roman era, such work has not been about getting it exactly right so much as it has been about not getting it too horribly wrong.

Appreciating the complexity of the subject, one would think that, just as in law, historical precedence would play a large role in providing current leaders and planners with lessons, judgments, and insights, as well as the necessary tools to be successful in the future. Yet much about combat development since the mid-1970s has had to do with looking forward only. Looking behind is often considered gauche for some inexplicable reason, and it certainly puts a damper on those wishing to create the appearance of “leading change” – a key activity that remains necessary if one wishes to be promoted. Nevertheless, despite this perception, history does and should continue to play an important central role in the army's overall capability development process. Put another way, the

relationship between ignorance of past military experiences and catastrophic military failure is too strong to be dismissed as purely accidental.

Feeling that it was important to re-establish historical case study analysis as part of the overall capability development process, I sought, with the encouragement of my superiors, to undertake a comprehensive study of the evolution of combat development in the Canadian Army since the end of the Second World War. This work began with an effort to locate as much primary source evidence and secondary source literature as possible. What I found both enlightened and disappointed. While there was a considerable amount of primary source evidence to draw from, very little secondary source literature analyzing the subject existed. No comprehensive historical narrative of army combat development had been published since J.W. Mayne's organizational histories in 1970, and unfortunately, the little else written on the topic by one or two other historians was often problematic in its analysis and overly situating in its conclusions. At best, previous authors had captured a little core data – basic facts, figures, and dates – that would facilitate some further research later on. At worst, they wove what could be considered an alternative history of sorts, one that cherry-picked through evidence to make certain outcomes seem more salient than they really were while ignoring other important accomplishments, or to promote certain biases and agendas prevalent during the period in which the authors were writing. A more balanced view of the army's innovation and adaptation during the Cold War era had yet to be written.

With this in mind, I have made every attempt to avoid presenting any bias towards or contempt for the decisions taken by the various actors examined in this study. I have found in my research that the acrimonious and at times adversarial emotions that seemed to dominate civil–military relations in the post-unification decades adversely biased, in my opinion, much of the military historical writing during its immediate aftermath to the point where both the analyses and the conclusions were largely poisoned. Re-examining civil–military interactions one peacekeeping era (Bosnia) and four wars (Gulf, Kosovo, Libya, and Afghanistan) later, I feel much more inclined simply to try to understand what happened and why, and to take an objective view of how accident, contingency, and personality can affect the outcomes of military problem solving and decision making.

Figuring out what one was doing in the past to inform what one might or should do in the future is admittedly no small task, and there are many people who deserve thanks in assisting with the completion of this book. I must acknowledge again J.W. Mayne's pioneering work in the field, from which I drew inspiration to develop this history from a bunch of scribbles in my pocket journal into the final product. The Canadian Army Land Warfare Centre, the descendant

of DLSC, has enthusiastically supported my work every step of the way. Both Colonel Ian Hope and Lieutenant-Colonel Brad Boswell saw the value in having a better understanding of the evolution of the army's combat development organizational behaviour and process, and they both provided great encouragement throughout every aspect of the project. More recently, Lieutenant-Colonel Chris Rankin and Major Andrew Gimby, colleagues in concepts and designs, read and critiqued various arguments made in this book and also deserve my thanks. I must also acknowledge the tremendous support I received from the army during my visiting research fellowship with the Changing Character of War Programme at Oxford University during 2009-10, as well as the kindness of Dr. Hew Strachan and Dr. Rob Johnson, who were excellent hosts during my stay there. Many of the arguments appearing in this book were first tested among my colleagues and peers at Oxford – a demanding crowd to say the least – and they too deserve many thanks for their insight and frank, constructive criticism.

Completing the research for this study would not have been possible without the expertise and kind assistance of many people. A very special thank you goes to the staff of the Fort Frontenac Library in Kingston, Ontario, in particular David Willis and Richard Palimaka. These two gentlemen went beyond expectations every time I sought some elusive source, and this study would not have been possible without their invaluable corporate knowledge of material and events. No matter how obscure the reference, David could find it, and no matter what the subject was, Richard would be aware of some related item I had probably overlooked. The army is lucky to have such professionals as the custodians of its intellectual touchstone.

A number of other people also offered great assistance and advice. Captain John Rickard, a fellow historian and author and a great colleague and friend, allowed me to bounce a million ideas and arguments off him. Fred Cameron, a veteran mathematician of the Defence Research Board and various army operational research establishments, was most helpful in reviewing my descriptions and explanations of quantitative methodologies and modelling as well as various other details regarding the evolution of army war-gaming and simulation.

I would also like to thank UBC Press, in particular Emily Andrew and Lesley Erickson, for the tremendous support I have received towards my own research and scholarship over the past few years. Similarly, I wish to express my gratitude to Dr. Dean Oliver at the Canadian War Museum for his stewardship of the Studies in Canadian Military History series and his successor, Dr. Tim Cook, for their generous support in making this book a success. Last but not least,

this is for Tammy and Chloe. Thank you for the time you always give me to chase the stories of the past.

I have done my best to remove any marks from this book that might give it the distinction, as Horace Walpole once put it, “of being the work of a gentleman rather than of a professional author.” Any errors that remain are my responsibility alone.

Introduction

FROM EARLY PRE-CONFEDERATION militias to modern regular armies, Canada's soldiers have always sought to innovate and adapt to overcome the many threats and challenges they have faced throughout history. These two attributes – innovation and adaptation – were in fact often considered the essential hallmarks of success in Western democratic citizen armies, and the Canadian soldier's continued achievement in both war and peace often depended greatly upon his or her ability to consistently embrace these ideals. Institutionally, innovation and adaptation have also always been the essential means by which any modern army has successfully evolved from an idea or a concept on paper to an actual physically equipped force deployed on the battlefield. At some point, very much driven by the efforts of enterprising individuals, the deliberate codification of an institutional approach to conceiving, designing, building, and managing modern land forces – a tremendously complex process that eventually became known in twentieth-century military circles as “combat development” – evolved out of these previously less formal and isolated wartime endeavours.

Canada's own credibility as a nation that could successfully engage in combat development by conceiving, designing, equipping, mobilizing, deploying, and commanding massive citizen armies that could fight and win was solidified by a series of deliberate engagements in defence of the British Empire in the nineteenth century, as well as two incredibly destructive world wars between 1914 and 1945. Yet just as the army mastered much of what was required to build effective forces for conventional war, the very nature of warfare changed so dramatically that soldiers soon found themselves having to seriously reconsider the very foundations of their long-established modus operandi. The advent of the American atomic bomb in 1945, and its replication by the Soviet Union shortly thereafter, cast a long shadow over the great conventional military victories of the Second World War. The nuclear weapons¹ that came to define much of the era that followed, commonly referred to as the Cold War era, threatened instant destruction on a magnitude without any precedent in the history of land warfare. The introduction of these technological nightmares onto the battlefield posed new, unique, and very serious problems for all the Western allies, including the postwar Canadian Army.

The loss of the American nuclear weapon monopoly in 1949, when the Soviet Union detonated its own first atomic weapon, forced the United States and its allies in the recently created North Atlantic Treaty Organization (NATO) to not only address the issues surrounding the inevitable future of nuclear weapon parity, but also rapidly come to grips with the fact that existing NATO armies were completely outmatched on the ground in a newly divided Europe. Towards the end of the 1940s, allied military intelligence assessments estimated that the Soviet Union's combat-capable ground forces deployed astride the East–West political divide consisted of approximately 2.5 million men organized into approximately 175 divisions. It was also estimated that this entire force of arms could be mobilized for major combat operations against Western Europe within five to seven days.² The imbalance of conventional military power between NATO and the Soviets worsened even further in the early 1950s, when in response to the political and military formation of NATO, the USSR brought its own national satellites into a Treaty of Friendship, Cooperation, and Mutual Assistance known as the *Dogovor o druzhbe, sotrudnichestve i vzaimnoy pomoshchi*, or what the West labelled as the Warsaw Pact.

Soviet and communist-influenced military aggression in Europe and elsewhere after the end of the Second World War encouraged the Canadian government to implement a defence policy designed to protect Canada's sovereignty and national interests and promote bilateral and collective security arrangements that would improve its chances for longer-term security and prosperity. At the same time, Canada's defence policy makers sought to develop a credible and salient military capability that could be deployed alongside the country's primary allies, Great Britain and the United States. For Canada's army, specifically, this meant pursuing options that were within its own fiscal and physical means yet still aimed at creating an effective military deterrent to Soviet aggression. Specifically, it meant threatening mutually assured destruction and massive irreplaceable attrition of Soviet military power using tactical atomic weapons supported by hardened conventional forces.

To counter this new Soviet-dominated Warsaw Pact, US-led NATO forces opted for an offensively postured forward defence strategy that sought to delay any possible advance of enemy ground forces in wartime with tactical nuclear weapons, thus giving friendly European nations desperately needed time to bolster their own defences or, if necessary, evacuate their own populations towards the Iberian coast.³ America, Britain, and Canada (known during this period simply as ABC) also sought whatever wisdom they could gain on fighting the Russian Army through the pursuit of collaborative study, concept development, experimentation, and training.⁴ In Canada, these activities began with the detailed academic study of Soviet performance during the Second

World War, specifically during its failed military campaign in Finland in 1939-40, for new insight on how one might conduct successful defensive operations against this new main adversary.⁵ Additionally, German officers who had fought against and were captured by the Allies in wartime now freely shared their experiences and lessons from the war against the Soviets on the Eastern Front. Although it was learned much later during the post-Cold War years that ex-Nazis seeking to ingratiate themselves with their new NATO masters had often been less than truthful in their facts and analyses of Russian performance and outcomes, the Canadian Army and others believed at the time that German operational and tactical solutions inspired by the likes of legendary strategists such as Carl von Clausewitz offered credible solutions to defeating the Soviet adversary on the ground.⁶ Even with this knowledge in hand, however, much more work remained to be done.

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In his classic study on the relationship between the soldier and the state published at the height of the Cold War, American political scientist Samuel Huntington argued that in order to assess the efficacy of an army's fighting abilities, it was necessary and essential to study what its captains, majors, and lieutenant-colonels were thinking and doing.⁷ Similarly, the innovation and adaptation exercised by those military officers and their civilian defence scientists and engineers – essentially the middlemen of military change – shaped nearly every aspect of the Canadian Army's response to the threat of future conflicts between the end of the Second World War in 1945 and the final departmental unification of the three armed services into a single Canadian Forces in 1968. The untold story of these efforts by Canadian Army staff and civilian personnel to conceive and design how the army would fight a possible third world war is the central subject of this book.

It was during the early Cold War period that the possibility of a war against the Soviet Union and the Warsaw Pact seemed most likely, and it was expected that any such war would include the use of nuclear weapons at some point. Acknowledging the overwhelming odds against any chances for survival and victory on a conventional-nuclear battlefield, Canadian Army officers, supported by a large civilian defence workforce, nevertheless responded aggressively to the many cognitive challenges that the chilling prospect of a third world war presented. Through innovation and adaptation, the defence community's own diverse culture of observers, thinkers, writers, critics, scientists, designers, engineers, technicians, and administrators adopted many new ideas and approaches to collectively dissect the complex difficulties associated with the emerging paradigm of conventional-nuclear warfare. Generating and debating

a wide variety of concepts, collaborating with allies, and then applying new methods of design and experimentation, the army's soldiers and civilians tested many alternative theories in order to propose new and practical solutions for achieving modern military victory. This collaborative and systemic approach to military problem solving served not only as a foundation for the advancement and encouragement of military intellectualism and innovation within the postwar Canadian Army, but also as a critical factor in the development of permanent new relationships required of all modern armies in the Western alliance as the Cold War dragged on.

To study military problem solving and decision making of this sort is to undertake the examination of an uncertain journey. Yet understanding how the army overcame the various problems associated with surviving and fighting on the early Cold War-era atomic battlefield, as well as the successes and failures that accompanied their application, is critical to placing the role of the army properly within the broader contextual narrative of both Canada's military history and the Cold War NATO alliance. Thus, this book seeks to undertake what American historian Paul Kennedy once described as "history from the middle":⁸ a substantially thorough and in-depth examination of the army's institutional approach to military problem solving during the early nuclear era. And as this book will demonstrate, no other activity, except perhaps actual war, was responsible for guiding the army's institutional development more significantly in the first two decades of the Cold War.

Still, to some observers, it initially appeared that little, if anything, from previous wars could offer Cold War armies relevant conceptual and doctrinal guidance on how future ground forces might deal with the new battlefield conditions caused by nuclear weapons, such as extreme blast, heat, radiation, prolonged irradiated fallout, and sudden massive, irreparable damage. Many postwar American strategic thinkers, including the noted analysts Herman Kahn and Bernard Brodie, often questioned in their own writings during this period if conventional ground forces had any future at all.⁹ For Canadian soldiers, the legacy of conventional expeditionary warfare, established by the army first in South Africa and then in two world wars, seemed not to matter much anymore if the next war was to be decided by political ideology and, if necessary, the aerospace delivery of megaton-yield weapons of mass destruction.¹⁰

Still, one could not give up on facing the problem or trying to address it simply because it appeared unsolvable. Nor was atomic war a military problem that one or two isolated military officers and civil servants could simply deal with. Instead, the army was required to bring the full weight of its uniformed and civilian staffs to bear on the problem collectively. During the period covered in this study, oversight for the conceptualization of future military force

employment and its capability requirements in a potential conventional–nuclear environment was the responsibility of two distinct groups: the various combat development directorates at Army Headquarters (AHQ) in Ottawa and its operational research organizations and establishments spread across the country. Staffed by smart, educated, innovative, and dedicated soldiers and civilians, many of whom were veterans of previous wars, these organizations first identified the complex problems associated with fulfilling the government’s defence and security objectives and then worked endlessly to propose practical solutions to those problems. Ultimately, their combined goal was to create combat-effective ground forces for Canada that could live, move, and fight on a modern conventional–nuclear battlefield. It was a daunting task to be sure, but knowing that failure was not an option, these men and women rose to the occasion repeatedly despite the seeming impossibility of successfully completing their main task.

Combat Development

The evolution of the army’s conceptual and doctrinal design during the first two decades of the Cold War – essentially its approach to, and success and failure at, military problem solving – is the main emphasis of this study and is explored here in many facets. Beginning with experiential lessons learned, NATO – and more specifically the ABC Armies – collaborated throughout the Cold War on numerous physical testing and experimentation activities to produce operational research that could be directly applied to the creation of allied future operating concepts. These documents, ratified by respective NATO governments, in turn formed the baseline from which each allied army would then develop its own specific capabilities in response to the Soviet threat. Officers from AHQ in Ottawa and elsewhere participated directly in the creation of the ABC Armies’ operational concepts and subsequently led the adaptation of existing models for the employment of Canadian ground forces so that their formations could be more easily interoperable with Canada’s allies in future conflicts. This conceptual evolution also eventually led to the codification of an official Canadian Army doctrinal design or “way of war.” Specifically, allied armies had, since the Second World War, sought to codify a common set of teachable protocols to empower a collectively trained army to apply its concepts in a coordinated fashion on the battlefield. The Canadian Army’s Cold War–era doctrine, aligned with those of its NATO and ABC allies, also served as the basis for its development of specific Canadian tactics, techniques, and procedures.

Once army doctrine was validated through operational research and experimentation, constant collective training, or perhaps even war itself, doctrinal designs were then used to create new army organizations, formations, and other

new force structures, as well as purchase new equipment. Whatever organization the army finally adopted as a result of its combat development process, some form of planning and preparation was required for its training, administration, and sustainment over the longer term until lessons learned in battle or other changes to the political or military situation encouraged the whole process to adapt further and/or start over again. This cycle of development is explored extensively in this study through several distinct periods from the end of the Second World War in 1945 to the advent of Canadian Forces unification in 1968.

The deliberate combat development process was what ultimately drove the army's evolution during the early Cold War era from a traditional conventional force, briefly towards a nuclear-centric army, and finally towards a completely new and in some ways unique functionally integrated land force. Throughout the 1950s, faced with the necessity to aggressively deter any Soviet expectation of an easy military victory on the ground in Central Europe, the army marched slowly towards the creation of a forward-deployed, nuclear-centric land force. Yet when the Berlin and Cuban Missile Crises pushed NATO's ground forces to the brink of Armageddon in the late 1950s and early 1960s, it was quickly discovered that armies built solely around the protection and delivery of nuclear capabilities left their political masters with very few options for a graduated response to armed conflict. Realizing that even limited or accidental confrontations between NATO and Warsaw Pact forces could immediately escalate into an irreversible nuclear exchange, the US-led NATO was forced to reconsider its approach to military deterrence. The eventual solution was to adopt an alternative strategy of a more flexible and conventional military response, but the switchover to this less catastrophic approach to war was not fully embraced before many more valuable, and at times painful, lessons were learned.¹¹

This mid-1960s period of broad political and financial upheaval brought change across the whole of the Canadian government. The Department of National Defence's (DND's) traditional bureaucracy was irrevocably affected, and the impact on the army's institutional strategy and concepts was profound. After 1964, the army was completely dismantled and rebuilt into new and uniquely integrated, functionally oriented organizations known as Force Mobile Command, which emerged to assume responsibility for projecting Canadian military power globally in the post-unification era. At the same time this activity was under way, Canada's land forces conceptually and doctrinally shifted away from a tactical nuclear focus towards a more flexible but solely conventional deterrence capability. The longer-term effects of this integration and unification, combined with new NATO influences and experiences in the 1970s, affected all aspects of Canadian land force development throughout the remainder of the Cold War.

The period of DND integration and unification writ large is a study in itself and, therefore, outside the scope of this work beyond a brief introduction in Chapter 6 in the context of how it reshaped the existing army. Readers are recommended to explore this theme in other publications that examine it at greater length.¹² This study also does not use a significant amount of space explaining the daily bureaucratic history of the civil–military relationship during this era.¹³ Still, missing from previous studies is any explanation of how these bureaucratic changes affected the intellectual foundations and capital of the army’s main institutions. Equally, little consideration has been given to date to how these changes influenced the army’s longer-term ability to innovate and adapt during the later Cold War era.

With a full appreciation of the constant threat that Warsaw Pact ground and air forces posed and how NATO forces perceived and reacted to that threat, it is possible to explain why and how Canada’s early Cold War army as a member of the NATO alliance evolved in the manner it did. An examination of the army’s strategy, roles, missions, ideas, operational concepts, doctrinal designs, and force structures reveals how the army introduced new methodologies and approaches into an increasingly formalized and complex institutional process, especially after the physical exploration of the effects of atomic warfare on armies became dangerously counterproductive. Interestingly, a picture emerges from this complex analysis of a much more innovative and astute organization in Canada during this period than previous histories have given the army credit for.

Debating Innovation and Adaptation

Despite the obvious interest in and advantage to developing the comparative analysis further, the subjects of Cold War–era military innovation, enterprise, and technological change have simply not enjoyed the same degree of scholarly attention in Canada as they have elsewhere. Historians have too often chosen instead to define the Canadian Army’s Cold War–era evolution almost exclusively in political or social terms, giving little attention to the study of the institutional army’s activities outside of or between periods of major conflict, or how its own innovation influenced the formal defence decision-making process over the longer term. Understandably, perhaps, explaining how armies are conceived, designed, built, and managed is sometimes a difficult task, even for those conversant in these matters. Therefore, historians, seemingly often lacking any developed understanding of the field and generally unable or unwilling to broach these subjects in depth, have instead turned to convenience by suggesting that operational and tactical innovation and adaptation simply did not exist within the Cold War army.¹⁴ Such assertions, however, not only are

unhelpful but also lack any serious scholarly credibility given the evidence available to historians and should be rejected entirely. Instead, it must be recognized that conceptual and doctrinal development resulting from innovation, military enterprise, and technological change did exist and were as important as political and operational influences in shaping the army's evolution during this period.

The exploration of the history of the combat development process and the actors involved in it, therefore, presents an investigative lens unlike any other for fostering a broader understanding of how Canada's army evolved as an institution alongside its allies during the Cold War. As in other NATO forces, conceptual and doctrinal design lay at the core of the Canadian Army's systemic approach to military problem solving both in peace and war, and without it the army would have been nothing other than a poorly armed mob. It is important, therefore, to develop a greater understanding of how senior political and military decisions were conceived, informed, analyzed, debated, and finally made. It is also important to understand how army staff and civilian defence scientists interpreted those decisions to produce effective results. It is tremendously important to identify and acknowledge this systemic approach to land force concepts and design, as it contributed to the sustainment of army professionalism until other political and economic events dramatically altered the very foundations of the Canadian Forces' organizational culture going into the 1970s.

The investigation of modern Western military innovation and adaptation is a well-developed field of academic study; however, the vast majority of the literature produced since the 1960s and 1970s has tended to focus solely on the evolution of British and American forces, their immediate European allies, and their main adversaries.¹⁵ Though these efforts have produced a substantial codex of scholarship on the Anglo-American experience in land force development, the study of other armies whose problems are similar yet also in many ways unique to their own national experience is usually absent from most comparative analyses content to focus on more traditionally developed cases. Even more recent surveys of military innovation and adaptation by scholars such as Stephen Peter Rosen, Williamson Murray, or Gregory A. Daddis, for example, still tend to default to well-defined American and British case studies for samples in their analyses.¹⁶ This is not to suggest in any way that there is nothing of value to be learned from such surveys, but one cannot always depend solely on the lessons of others, and ultimately any conclusive understanding of Canada's own military innovation and evolution must also include the results of the analysis of its own experiences in both peace and war.

It should come as no surprise, then, that American historians have thoroughly investigated the evolutionary development of their country's Cold War-era land

force concepts, doctrine, and force structures, while scholars in the United Kingdom and Australia have also published both surveys and specific in-depth studies of the development of their own armies.¹⁷ In contrast, the historical literature examining the Canadian Army experience during this period remains very limited, with only a short list of articles in a handful of professional military journals. Yet if one is to understand why Canada's army matured the way it did during the first two postwar decades, as well as how it did so within the broader context of Canadian Cold War national interests, it is imperative to begin more serious inquiries into the conception and design of the Cold War army as an instrument of Canada's national power.

Though the study of the history of Canadian defence policy and Canada's army is a well-developed field, very few published works have focused on the army's institutional development or organizational culture during the early Cold War era, and of these none have chosen to investigate subjects beyond higher-level civil-military politics and policy or, oppositely, low-level frontline operations. Though both are important perspectives for a considered analysis of the topic, these examinations also prove too narrow for adequately understanding and explaining how and why, exactly, the army evolved as it did. To discover this, one must first understand what sort of institutional military problems the army faced as a result of various Cold War-era security threats, politics, and defence policies. Only then can one investigate how it sought to institutionally respond to these many challenges.

Still, it would be disingenuous to suggest that the subject of military innovation and adaptation has received no attention from Canadian historians at all. Stephen J. Harris, James Wood, and Bill Rawling have all examined some aspect of institutional evolution in the army during its formative years.¹⁸ Studies examining the post-1918 period include the competing operational narratives concerning combat effectiveness by Terry Copp and Jack English, as well as the study of command-driven innovation such as John Nelson Rickard's insightful treatment of General A.G.L. McNaughton's army preparations for the invasion of Normandy.¹⁹ Investigations of the post-1945 period, however, are undeveloped, and this has allowed dominant and popular narratives to continue to argue that the postwar Canadian Army, broadly defined, lacked any strategic culture that could enable it to innovate and adapt at the same level as its Cold War-era allies. Simply put, historians continue to argue that the army's force development objectives during this period were, aside from brief bouts of professionalism, confused and generally met with failure.

Some critics point to a Canadian Cold War-era army dominated by the strategic influence and decisions of its larger allies as an indication of its inability to control any aspect of its own innovation and evolution. For example,

historian Marc Milner's edited volume *Canadian Military History: Selected Readings* notes that the Cold War army's planning focused on avoiding war at the expense of "preparing to fight one," and that as the stalemate dragged on, the army's brigades, especially in Europe, were "simply hostages to fortune."²⁰ Others, meanwhile, simply do not acknowledge any intellectual process at all. Preferring instead to qualify innovation only in terms of final procurement, Desmond Morton's *A Military History of Canada* describes the Cold War army's combat development process as little more than making a "shopping list."²¹ Similarly, historian Jack Granatstein's *Canada's Army: Waging War and Keeping the Peace*, takes a very broad approach to explaining how the Cold War army was conceived, designed, built, and managed during the height of the early Cold War era by summarizing briefly that its organization was the result of uncoordinated planning and a lack of funds.²² No further explanation or analysis of how or why the army supposedly arrived at this end state are offered.

Other academic studies of the subject over the years seem to reinforce this interpretation. In the late 1970s, for example, historian David Charters criticized the army's efforts in the immediate postwar era to create a Mobile Striking Force as "Five Lost Years."²³ Interestingly, however, he never qualified why these years constituted lost time. With America, Britain, and France overseeing the de-Nazification of Germany while keeping a barely credible military deterrent stationed in Central Europe, Canada's overarching security threat during this five-year period was the possibility of a Soviet attack against North America.²⁴ And, as demonstrated in Chapter 2 of this study, the Canadian Army wasted little time between the end of the Second World War and the beginning of the Korean War reorienting itself to new roles and missions as best it could with the resources it had in the midst of a massive demobilization and transition. Nevertheless, Major C.B. Bradley's own damning study of the army's combat development process in the late 1980s followed similar suit, describing army innovation and adaptation as little more than a smoke-and-mirrors exercise designed to hide widespread institutional incompetence that had persisted since the Second World War.²⁵ Others, such as historian Roy Rempel, took this line of argument into the 1990s and beyond. Rempel highlighted the army's commitment-capability gap in Central Europe from 1956 to 1961 in a well-received article in *Canadian Defence Quarterly*, but his criticism of the Canadian government's decision to cut its European force strengths during these years falls flat with the revelation in the same publication that the British, suffering their own economic and financial pressures during the same time frame, similarly reduced the strength of the British Army on the Rhine by nearly 22,000 soldiers, or one-quarter of its total ground force strength.²⁶

In essence, the prevailing historiography of the period to date has consistently argued that since the Canadian Army did not exert great influence over its allies or physically match their capabilities in the early nuclear era, it must have lacked a strategic culture capable of critically thinking, innovating, and adapting. And lacking this culture, therefore, it never undertook meaningful or effective combat development in preparation for possible future wars. Yet as this study will prove repeatedly, such conclusions are disingenuous and rest on a false paradigm. The fact that the Canadian Army was not a dominant influence in Cold War allied strategic or operational objectives fails to prove that it did not itself innovate and evolve effectively within its own means to meet the common threat.²⁷ Indeed, easily discoverable evidence shows instead that the army was more than capable of anticipating and adapting to constantly changing emerging security environments; however, factors beyond its immediate influence or jurisdiction too often vitiated many of its efforts and final objectives. Politics aside, however, there is clear evidence the army was much more capable of innovating and adapting during the early Cold War years than previous historians have given it credit for. That said, there were limits to the reach of its influence, and a more nuanced analysis of the subject reveals that there was a point where the army's influence on the whole process ended and political influence began. One must be careful, therefore, about arbitrarily assigning accountability for failures to an institution that seldom had the complete authority to decide every aspect of its own future.

New access to a considerable amount of previously restricted evidence emerging from the archives of former adversaries is yet another reason to review and reconsider the innovation and evolution of the Canadian Army during this period.²⁸ The opening of some of the Soviet Union's Cold War military archives and those of several of its former Warsaw Pact allies during the 1990s, for example, revealed a major treasure trove of new information on war preparations that lent justification to the actions the West took during the Cold War to contain Soviet communist expansion both politically and militarily. Most important, perhaps, is that access to these sources by Western scholars has since allowed them to present a more accurate juxtaposition of Cold War-era military concepts, doctrine, and capabilities, especially considering that the context in which they were developed can now be more fully explained and appreciated.²⁹ It is within such a context that the Canadian Army's Cold War evolution must now be considered, and this in-depth study is but a first step towards achieving that objective.

Terminology

Lastly, a few brief comments and caveats about terms and terminology. Any organizational study dealing with military institutions and bureaucracy is bound

to drown in technical terms, abbreviations, and acronyms. One could swear that the army, in particular, loves its acronyms over normal speech. The employment of acronyms in this study, however, is for the sake of brevity and in many instances was simply unavoidable. Every effort has been made to keep them to a reasonable minimum.

This book also encompasses a period in Canadian military history during which many titles, names, and terms for both the army and atomic warfare came and went in short order. Both “army” and “Canadian Army” are employed here. The former is used as a common noun, whereas the latter refers to the institution. Still, even this institutional title has its own caveats. Officially, the designation “militia” was often applied to all land forces of Canada prior to the outbreak of the Second World War. Until then there was a “Permanent Active Militia” – often referred to as the Permanent Force – and a “Non-Permanent Active Militia” – commonly referred to as the Militia. The exception to this, of course, was the Canadian Expeditionary Force that served overseas during the First World War. With the authorization of a “Canadian Army” in 1940, the Permanent Active Militia became the Active Force and the Non-Permanent Active Militia was re-designated the Reserve Force. Meanwhile, those soldiers serving in the war overseas were part of the Canadian Active Service Force.

After 1945, the title “Canadian Army” remained, but elements of it became part of the Mobile Striking Force, and in 1950 the land forces deployed in the Korean War were known as the Canadian Active Special Force. In 1954, the Active Force was once again re-designated as the Regular Force, while the Reserve Force became the Militia once more. These titles remained in use until the integration of the three armed services into the Canadian Forces in 1964. With integration came the new title of “Land Force,” and in 1965, the majority of Canada’s land forces became part of a new organization known as Mobile Command. This name was later augmented into Force Mobile Command in 1975. The name held until Force Mobile Command was officially stood down during the mid-1990s.

This book employs both “atomic” and “nuclear” when discussing weapons of mass destruction developed during the early Cold War era. Generally speaking, the term “atomic” gained popularity in the Canadian Army from the advent of these weapons in 1945 until about September 1959, after which the word “nuclear” largely came to replace it in professional military literature, documents, and discourse as a result of an official corrective issued across the DND by the chairman of the Chiefs of Staff Committee.³⁰ The term “atomic bomb,” however, still appeared in military literature after that date. For this study, both are considered equally suitable.