The Canadian Army Command Culture in World War II: A Study of Operational Effectiveness in the European Theater

A Monograph

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14. ABSTRACT
1st Canadian Army fought as a formation under 21st Army Group from 1944 to the end of the war in the European theater. The following monograph provides insights into the implications of the command culture of the World War II Canadian Army on its operational effectiveness in the European theater. The author asserts that the command culture of the Canadian Army in World War II reflected the ambivalent attitude of the government and population towards war and the military profession, the primacy of British military influence, and the organizational structure and roles assigned within the institution. On the battlefield, it hindered the ability of second echelon forces to create cognitive disruption but enabled interoperability within 21st AG. It did not encourage the use of large mechanized operational maneuvers to exploit enemy weaknesses and maintain the initiative but made great use of superior artillery and air support during deliberate operations. It balanced the risk to troops with the limited replacements available and the political implications of conscription. He concludes that the current principles of war, adopted in 1946, are a synthesis of Canada's experience in World War II. The modern emphasis on the maneuverist approach creates potential dissonance when looking at mechanized warfare. If some aspects of the command culture are the same, the mechanization of the Canadian Army continued after World War II. The doctrine now clearly requires creating cognitive disruption of the enemy in depth. Awareness of the command culture and adaptation via training and professional military education remains vital today in shaping the future Canadian Army.

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Abstract

The Canadian Army Command Culture in World War II: A Study of Operational Effectiveness in the European Theater, by Major Nicolas Lussier-Nivischiuk, Canadian Army, 53 pages.

The Canadian Army entered World War II with approximately 4,000 regular and 34,000 reservist military personnel, including only forty-five British staff college graduates. By 1945, it had grown to a total force of 730,625 members with 288,000 serving in Europe. 1st Canadian Army fought as a formation under 21st Army Group (AG) from 1944 to the end of the war in the European theater. The following monograph provides insights into the implications of the command culture of the World War II Canadian Army on its operational effectiveness in the European theater. It aims to enable awareness of the continuities, potential cognitive dissonance, and opportunities when implementing doctrine for direct engagement in large-scale combat operations.

Using the theory of Edgar H. Schein and its adaptation by Eitan Shamir to the military domain, the author defines command culture as the product of the interrelated cultural elements categorized under basic assumptions, espoused values, and artifacts that influence the activities of leadership, management, and decision making in a military organization. Using a military history case study methodology, he demonstrates its implication on operational effectiveness in the 1944 European theater of operations during the Falaise pocket and the Scheldt campaigns through the lens of the elements of operational art.

He asserts that the command culture of the Canadian Army in World War II reflected the ambivalent attitude of the government and population towards war and the military profession, the primacy of British military influence, and the organizational structure and roles assigned within the institution. On the battlefield, it hindered the ability of second echelon forces to create cognitive disruption but enabled interoperability within 21st AG. It did not encourage the use of large mechanized operational maneuvers to exploit enemy weaknesses and maintain the initiative but made great use of superior artillery and air support during deliberate operations. By evolving, it balanced the risk to troops with the limited replacements available and the political implications of conscription.

He concludes that the current principles of war, adopted in 1946, are a synthesis of Canada's experience in World War II. The modern emphasis on the maneuverist approach creates potential dissonance when looking at mechanized warfare. The doctrine now clearly requires to create cognitive disruption of the enemy in depth.

Being cognizant of the World War II Canadian Army command culture can help prepare for the next conflict. As theorist John Boyd argued, cultural tradition, heritage, and previous experience have a notable impact on the orientation phase of the decision-action cycle. There resides the opportunity of learning from our past tendencies to create new ways to answer doctrinal challenges. As seen in World War II, the command culture did not prevent innovation and evolution on the battlefield, but peacetime preparations shaped the force and were critical to operational effectiveness. Awareness of the command culture through professional military education remains vital today in shaping the future Canadian Army.

Contents

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Acronyms

ADP	Army Doctrine Publication
ADRP	Army Doctrine Reference Publication
AGRA	Army Group Royal Artillery
BG	Battle Group
CA	Canadian Army
CAB	Canadian Armoured Brigade
CAD	Canadian Armoured Division
CAF	Canadian Armed Forces
CASF	Canadian Active Service Force
CAO	Canadian Army Overseas
CAR	Canadian Army Reserve
CIB	Canadian Infantry Brigade
CID	Canadian Infantry Division
CRAC	Canadian Royal Armour Corps
DND	Department of National Defence
ETO	European Theater of Operations
HQ	Headquarters
IDC	Imperial Defence College
LSCO	Large Scale Combat Operations
MCDP	Marine Corps Doctrinal Publication
NDHQ	National Defence Headquarters
NRMA	National Resources Mobilization Act
NPAM	Non-Permanent Active Militia
PZ Div	Panzer Division
PF	Permanent Force

RCAF	Royal Canadian Air Force
RCR	Royal Canadian Regiment
RHLI	Royal Hamilton Light Infantry
RMC	Royal Military College
SS	Schutzstaffel
WWI	World War I
WWII	World War II
1st CA	First Canadian Army
1st PAD	First Polish Armored Division
12th AG	Twelfth Army Group
21st AG	Twenty-First Army Group
II CC	Second Canadian Corps

Illustrations

Introduction

> We not only increase our own self-respect as a Nation, but we also increase the respect for Canada from all other nations who have come to realize her greatness. The opinion formed of Canada and Canadians by peoples in Europe and in Britain will be based upon the impression created by the Canadian troops they see about them.
>
> —Lieutenant-General G. G. Simonds, Cairon, France, 16 July 1944

On May 10, 1940, the German Army outflanked the French Maginot Line fortifications as it invaded the Netherlands, Belgium, and France, conquering them in a month and a half. Germany's *blitzkrieg* led it to victory on the Western front and Canada unexpectedly became the United Kingdom's most significant ally in the European Theater. A sense of urgency emerged in the form of the *National Resources Mobilization Act* (NRMA) for home defense as the Canadian Army (CA) redoubled its efforts to send troops overseas. 1st Canadian Division would be the land component supporting the defense of the British Isles. Four years later the 1st Canadian Army (1st CA) crossed the Channel as part of the broad coalition that liberated Western Europe, driving from the beaches of Normandy to the heartland of Germany.[1]

The CA entered WWII with approximately 4,000 regular and 34,000 reservist military personnel, including only forty-five British staff college graduates. By 1945, it had grown to a total force of 730,625 members with 288,000 serving in Europe. 1st CA fought as a formation under 21st Army Group (21st AG) from 1944 to the end of the war in the European theater. The *command culture* that emerged from the experience has modern implications. The current principles of war, adopted in 1946, are a synthesis of Canada's experience in WWII. They originated from the command culture of the time and influence operational art and effectiveness in the 21st Century.[2]

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[1] Desmond Morton, *A Military History of Canada*, 5th ed. (Toronto: McClelland & Stewart, 2007), 181; Léopold Richer, "La loi King votée aux Communes et au Sénat," *Le Devoir*, June 21, 1940, accessed September 20, 2018. https://www.warmuseum.ca/cwm/exhibitions/newspapers/canadawar/conscription_e.shtml.

[2] Charles Dick, *Decisive and Indecisive Military Operations*, vol. 1*, From Victory to Stalemate: The Western Front, Summer 1944,* Modern War Studies, ed. Theodore Wilson (Lawrence: University Press of Kansas, 2016), 62-65; Morton, 209; Randy Brooks, "The Principles of War in the 21st Century:

CA capstone doctrinal manuals *Land Operations* and *Land Operations Doctrine Note 16-01* both emphasize the importance of the maneuverist approach and mission command philosophy in conjunction with a fast decision-action cycle to gain a psychological advantage over the enemy. It requires leaders to be adaptive when operating dispersed in time, space, and purpose. The tenets underlying the maneuverist approach must be an integral part of the command culture to enable successful future operations. Similarly, cultural traditions, heritage, and previous experiences play an essential part in the orientation phase of the decision-action cycle known as John Boyd's *OODA loop*. Therefore, describing the CA command culture of WWII aims to enable awareness of the continuities, potential cognitive dissonance, and opportunities when implementing doctrine for direct engagement in large-scale combat operations (LSCO).[3]

The command culture of the CA in WWII reflected the ambivalent attitude of the government and population towards war and the military profession, the primacy of British military influence, and the organizational structure and roles assigned within the institution. On the battlefield, it hindered the ability of second echelon forces to create cognitive disruption but enabled interoperability within 21st AG. It did not encourage the use of large mechanized operational maneuvers to exploit enemy weaknesses and maintain the initiative but made great use of superior artillery and air support during deliberate operations. It balanced the risk to troops with the limited replacements available and the political implications of conscription.

Operational Considerations," Thesis AMSC 3, Canadian Forces College, 2000), 4-5, 16; The definition of command culture is the product of the interrelated cultural elements categorized under basic assumptions, espoused values, and artifacts that influence the activities of leadership, management and decision making in a military organization. It reflects the theory of Edgar H. Schein and its adaptation by Eitan Shamir to military organization. The term is inspired by Jörg Muth, but used holistically. Muth's definition is closer to the element of command doctrine under the espoused values category in this monograph.

[3] Canadian Army, *Canadian Army Doctrine Note 16-01, Land Operation Doctrine, An Updated Summary* (Ottawa: Queen's Printer, 2016), 15-16; Canadian Army, *B-GL-300-001-FP-001, Land Operations* (Ottawa: Queen's Printer, 2008), 5-75; Boyd's OODA loop consists of four cognitive activities: Observe, Orient, Detect, and Act. See Frans P.B. Osinga, *Science, Strategy and War: The Strategic Theory of John Boyd* (New York: Routledge, 2007), 229-233.

The initial section introduces the concept of command culture using Edgar H. Schein's organizational culture and leadership model, which addresses basic assumptions, espoused values, and artifacts. Eitan Shamir's work then suggests a way to apply the model to military organizations with sub-categories that will frame the analysis of the CA command culture. Also, the officers' perception of their role and purpose on the battlefield, their approach to military problem solving, and the importance given to initiative supplement the command doctrine element.[4]

Section two contains specific historical elements that contributed to the formation of the CA command culture in WWII. These include the public perception of the institution and its mandate during the interwar period, the intellectual framework of the professional military education system and command doctrine, and the organizational structure and use of technology.

The third section consists of a historical case study to demonstrate the implications of the command culture on operational effectiveness for 1st CA in the European theater. This case study will focus on CA operations from the Falaise Pocket Campaign in August 1944 to the Scheldt Campaign of October and November 1944. To cast light on the implications of the CA command culture, three elements of operational art found in *Army Doctrine Reference Publication 3-0, Operations* serve as the basis of the analysis; phasing and transition, risk, and tempo.[5]

Organizational Culture

Per the Canadian Armed Forces (CAF) leadership conceptual foundation, leaders contribute to military effectiveness by creating an environment conducive to their subordinates'

[4] Edgar H. Schein, *Organizational Culture and Leadership*, 3rd ed. (San Francisco: Jossey-Bass, 2004), 25-37; Eitan Shamir, *Transforming Command: The Pursuit of Mission Command in the U.S., British, and Israeli Armies* (Stanford: Stanford Security Studies, 2011), 95-97; Jörg Muth, *Command Culture: Officer Education in the US Army and the German Armed Forces, 1901-1940, and the Consequences for World War II* (Denton: University of North Texas Press, 2013), 7-9.

[5] US Department of the Army, *Army Doctrine Reference Publication (ADRP) 3-0, Operations* (Washington, DC: Government Printing Office, 2017), 2-4–2-10; US Department of the Army, *Army Doctrine Reference Publication (ADRP) 6-22, Army Leadership* (Washington, DC: Government Printing Office, 2012), 5-1–5-5.

individual and group achievements. They enable them by providing decisions, resources, organizational structures, and doctrine that reflects the culture and identity of the institution. By honoring the sacrifices of those who have preceded them, leaders perpetuate institutional values and align the operating culture with the military ethos. It has the innate benefit of strengthening the professional capabilities of the members with a view of stewarding the profession. Leaders must also bear in mind the connection between the Army and the Canadian population writ large, for the institution remains a public trust. To meet this vision, one must understand the concepts underlying organizational culture.[6]

Edgar H. Schein described culture as a dynamic occurrence in constant flux, subject to modifications based on the interaction of members, guidelines, norms, and structures. At the organization level, leaders both create and manage culture, making it an important aspect of the leadership model. As the members of the organization face difficulties, they review their assumptions and adapt to create lasting change. This ability to leave established boundaries while effecting transformation belongs to the realm, and is the greatest trial, of leadership.[7]

Culture as a concept is "a pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members." It is imperceptible but has an impact on the comportment and attitudes of the members of a group. For this reason, it is difficult to modify and has a lasting impact on organizations unless it becomes dysfunctional. Responsibility for change falls on leaders at all levels of the institution. Therefore, leaders need to be aware of the organizational culture that surrounds them so that it does not manage them.[8]

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[6] Department of National Defence, *A-PA-005-000/AP-004, Leadership in the Canadian Forces: Conceptual Foundations* (Ottawa: Queen's Printer, 2005), 6, 23,100.

[7] Schein, 1-2.

[8] Ibid., 8, 11, 17, 23; Quote from Schein, 17.

The Levels of Culture

To analyze organizational culture, one must recognize the various levels at which it presents itself. From an outsider's perspective, the visible output of a group's culture is observable through its artifacts. In an organization, they are mainly observable in the form of structure and processes. However, if looked at in isolation, they seldom offer the depth required to interpret the working principles that guide daily conduct. For that, the second level is necessary.[9]

Espoused beliefs and values aim to bring clarity and influence group dynamics to reduce uncertainty while improving efficiency. Inspiration comes in the form of philosophy and vision but also include the various approaches used by leaders to harness difficulties and obstacles. As they repeatedly prove their worth, certain solutions become part of the culture and take the form of assumptions.[10]

Culture builds on the core formed by basic underlying assumptions. This cognitive level is difficult to change because the members of the group fail to imagine other acceptable behaviors. There resides the supremacy of culture that influences one's actions, interpretations, and reactions to events. These heuristics help accelerate decision making while also tending to make people within that culture intellectually comfortable with like-minded individuals, and intellectually vulnerable to people outside the culture. Organizational culture includes basic underlying assumptions that manifest themselves in the form of observable espoused beliefs and values, and artifacts. In military organizations, each level contains multiple elements that can help define the emergent properties of a culture.[11]

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[9] Schein, 25-27.

[10] Ibid., 28-30.

[11] Ibid., 28-37.

Military Command Culture

Military command culture is by no means different. To define the various traditions of command, one must look at the unique properties within each level that contribute to the whole. To do so, Shamir constructed a framework that helps develop a deeper understanding of each level in a military organization. To describe basic underlying assumptions, he begins by defining the national attitude towards war and the armed forces. He then suggests outlining the attitude towards risk and the military profession. To complete the cognitive cornerstone of military command culture, he includes the main sources of inspiration for military education. From conceptual, he moves into the realm of observable.[12]

Espoused values and beliefs emerge by identifying the sources of military elite and the inspiring military figures of the institution. Also, the study of the command doctrine and specifically emphasized principles of war provide the operating principles of the army. For command, the officers' perception of their role on the battlefield, their method of problem-solving, and the prominence given to initiative is a key component of the system. In turn, these influence the artifacts that give the culture's expression in the form of structure and processes.[13]

Military academies and the general staff officers that they produce represent two artifacts within military culture. These then have implications on three others: the headquarters (HQ) and staff organization, the perception and use of technology, and the structure imposed upon human resources. These fourteen elements divided across the three levels of culture applied to the CA during WWII.[14]

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[12] Shamir, 56, 95-97.

[13] Ibid., 96; Muth, 8.

[14] Shamir, 96; Muth, 9-13.

WWII Canadian Army Command Culture

Historically, Canada has always joined conflicts as part of a coalition to remain a trustworthy ally. WWII was no different. Canada had minimal strategic interests in the war until the fall of France in 1940 and the attack on Pearl Harbor in 1941. It also contended with internal anti-military and isolationist attitudes that prevented both a complete mobilization of the population and a serious effort to maintain military readiness in the interwar period. Even after the 1931 *Statute of Westminster* gave Canada complete control of its international relations, no sense of urgency existed in the creation of institutions to reinforce the military element of national power. Thus, the British Army influence remained strong in education, organization, and processes.[15]

Basic Assumptions: Canadian Society and War

The Canadian population accepted the legitimacy and the necessity to wage war in Europe against Nazi Germany even before it became a strategic requirement. Canadians of the interwar period grew up listening to the stories of the veterans of World War I (WWI). From a population of approximately eight million during WWI, Canada contributed 628,462 enlisted members, ultimately suffering over 60,661 killed and 172,000 wounded in the war. Their descendants would recognize those sacrifices as noble and accept that they might one day be required to do the same.[16]

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[15] J. L. Granatstein, "Five Lessons We Learned about Canada in Wartime," *Macleans*, August 2014, accessed August 20, 2018, https://www.macleans.ca/news/canada/five-lessons-we-learned-about-canada-in-wartime/; Department of National Defence, *Canadian Army Leadership in the 21st Century: Report of the Army Future Seminar* (Ottawa: Queen's Printer, 2002), 3-4, 11.

[16] Robert Engen, *Canadians Under Fire: Infantry Effectiveness in the Second World War* (Montreal: MQUP, 2009), accessed July 19, 2018, http://ebookcentral.proquest.com/lib/carl-ebooks/detail.action?docID=3332068, 59-60; A. Fortescue Duguid, *Official History of the Canadian Forces in the Great War 1914-1919* (Ottawa: King's Printer, 1938), vii; Paul Fussell, *The Great War and Modern Memory* (New York: Oxford University Press, 1975), 324, 335; Jonathan F. Vance, *Death so Noble: Memory, Meaning, and the First World War* (Vancouver: UBC Press, 1997), 257.

The Great War did not leave positive remembrance for all and the conscription debate of 1917 had divided the nation along provincial and linguistic lines. The *Military Service Act* made all citizens between the age of twenty and forty-five subject, upon activation, to military service. Many, even supporters of the war, saw this as the overreach of a government that was more concerned with Britain's interests than those of Canada. Among registered citizens, ninety-three percent requested exemptions to exclude them from service. The enactment of the measure was unpopular across the country, leading the especially vocal French-speaking *Canadiens* to dodge the draft and stage anti-war demonstrations. The Easter Riots of 1918 in Quebec City brought unprecedented violence and death to the streets of Canada that left an indelible mark on the nation's psyche. The lesson was simple: prime ministers had to avoid conscription to preserve the nation's unity in war.[17]

That had implications for the CA in the interwar period. The *militia myth*, a belief that the nation did not require a sizeable regular army because citizen soldiers would always answer the call, came back in strength with the misplaced belief that it was a source of success in WWI and that it would be possible to grow the CA quickly on the eve of the next war. Additionally, the idea that war might come again was so unpopular that the CA canceled militia training in 1919 and 1920. The acceptance that a professional force was not required led to the creation of a Permanent Force (PF) of only 4,000 members. Soon the CA forgot the lessons of WWI, learned at a heavy cost in blood and treasure, while the PF struggled to survive amid national indifference.[18]

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[17] John Keegan, *Six Armies in Normandy: From D-Day to the Liberation of Paris* (New York: Penguin Books, 1994), 118-120; Serge Durflinger, "French Canada and the Recruitment During the First World War," *Dispatches: Backgrounders in Canadian Military History*, accessed September 15, 2018, https://www. warmuseum.ca/learn/dispatches/french-canada-and-recruitment-during-the-first-world-war/#tabs; Canadian War Museum, "Conscription 1917," Canada and the First World War, October 2017, accessed September 15, 2018, https://www.warmuseum.ca/firstworldwar/history/life-at-home-during-the-war/recruitment-and-conscription/conscription-1917/; Vance, 259-260.

[18] James Wood, *Militia Myths: Ideas of the Canadian Citizen Soldier, 1896-1921* (Vancouver: UBC Press, 2010), accessed July 19, 2018. http://ebookcentral.proquest.com/lib/carl-ebooks/detail.action?

The PF was underequipped, underfunded, and did not have a clear *raison d'être*. In theory, it would provide a structure, with every branch represented, that would form the core in time of war. In practice, its primary task was to keep existing, a micro-army in being. The Non-Permanent Active Militia (NPAM) also suffered from a chronic lack of appropriations and training. At the start of WWII, the PF was too small to conduct any expeditionary operations while the NPAM had too low a level of readiness. United, they formed the basis of the WWII CA, but the force could still not intervene quickly in the European Theater of Operations (ETO).[19]

In the same way, the importance given by Canadians to the military profession declined during the interwar period. Upper mobility was almost nonexistent for officers, due to the priority given to seniority over potential. The model created stagnation by protecting officers unfit for their duties and moving them laterally across the institution. This complacency had negative implications on morale, but also reduced the credibility of the organization in the eyes of the public at large.[20]

With such a small force and the inherent problems of conscription, Prime Minister William Lyon Mackenzie King's policy of *limited liability* embodied the government's attitude towards risk. He would minimize the deployment of an overseas expeditionary force by contributing heavily to the air and naval campaigns as well as focusing on homeland defense. The immediate concern was to reduce the request for soldiers caused by an attritional struggle in the ETO. Therefore, on the battlefield, it aligned well with the British and American approaches. The

docID=3412908, 264-266; John A. English, *The Canadian Army and the Normandy Campaign: A Study of Failure in High Command* (New York: Praeger, 1991), 15.

[19] J. L. Granatstein, *The Generals: The Canadian Army's Senior Commanders in the Second World War* (Calgary: University of Calgary Press, 2005), 14-15, 22-23; C. P. Stacey, *Official History of the Canadian Army in the Second World War: Six Years of War* (Ottawa: Queen's Printer, 1955), 34-35.

[20] Granastein, *The Generals*, 20-21.

CA would avoid risk if possible, but mitigate it deliberately when necessary by using its full strength with the most direct method.[21]

Espoused Values: Social Source of Military Elite, Inspiration, and Command Doctrine

The main inspiration for military education came from British Army traditions. Canadian leadership relied on traditions, practical experience, and social position. The Royal Military College (RMC) had adopted some of the United States Military Academy's practices after WWI, demonstrating the importance of geographical proximity and the United States' growing influence. This mainly translated into an emphasis on technical knowledge and academic success as the primary determinant of promotions. The social source of the military elite would reflect these international influences.[22]

The CA generals working in strategic HQ during WWII were products of the WWI artillery and infantry corps, mostly born in the 1880s, in Ontario, from Anglican, English-speaking parents. The formation's commanding generals had a different profile. They were part of the PF for at least fifteen years, generally putting them in their late thirties, with formal military education. Previously denied opportunities at higher echelons, they gained rank based on merit and at lightning speed as the CA expanded. Ontario still provided about a third of the officer corps, Quebec twenty percent, British Columbia, the Prairies, and the Maritimes accounted for approximatively ten to fifteen percent each.[23]

Francophones represented approximately thirty percent of the population, but only ten percent of officers. Their general lack of interest in the army in the interwar period and little attempt to recruit among French-Canadians explains their underrepresentation. According to J. L.

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[21] C. P. Stacey, *Arms, Men and Government: The War Policies of Canada 1939-1945* (Ottawa: Queen's Printer, 1970), 9, 20, 30; Shamir, 98; Edward Luttwak, *Strategy: The Logic of War and Peace* (Cambridge: Harvard University Press, 2001), 13.

[22] Department of National Defence, *Canadian Army Leadership in the 21st Century: Report of the Army Future Seminar*, 4, 11; Granastein, *The Generals*, 11-12.

[23] Granastein, *The Generals*, 7-9.

Granastein, "the Canadian Army's imperial cast of mind, the built-in biases of military service in an English-speaking British-style army, all conspired to deny French Canadians their due share of the most important army posts." He then posited that "French Canadians, ever conscious of the wrong done to them, hung back and forbore from trying to change the system." In addition to mobilization implications, these dynamics affected the formulation of doctrine and acceptance of risk.[24]

The CA developed a command doctrine based on a rigid, centralized management style that encouraged interoperability. Most Canadian operations in WWII were offensive in nature and executed in keeping with Field Marshal Bernard Law Montgomery's set-piece battle, which relied upon tight centralized control, the concentration of force at the decisive point, reliance on superior firepower, and a tendency to be cautious. This approach enabled shallow penetration of the enemy's line but rarely led to breakthroughs that allowed operational maneuvers in depth. The method accounted for the CA's strengths and weaknesses. They had few available replacements, limited experienced field commanders, and possessed devastating artillery fire and air support capabilities.[25]

In contradiction with Field Marshal Montgomery's advocacy for the use of the Chief of Staff, many Canadian commanders saw their purpose better served when operating from their HQ. From there, they aimed to maintain situational awareness and take key decisions at the appropriate time. The detailed planning required by their doctrine and the lack of staff education

[24] Granastein, *The Generals*, 240-243, 257-258; The 1941 Census data indicates that 3, 483,038 citizens reported being from French origins out of 11, 506, 555 Canadians. See Statistics Canada, "Distribution of the population, by ethnic group, census years 1941, 1951 and 1961," Canada Yearbook (1967), accessed October 15, 2018, https://www65.statcan.gc.ca/ acyb02/1967/acyb02_ 19670197014-eng.htm.

[25] William McAndrew, "Operational Art and the Canadian Army's Way of War," in *The Operational Art: Developments in the Theories of War*, ed. B.J.C. McKercher and Michael A. Hennessy (Westport: Praeger, 1996), 93-97; Dick, 62-65; Penetration was encouraged up to the German mortar groups in depth approximately 3000 meters behind the forward line of troops. See Guy Simonds and Terry Copp, "General Simonds Speaks: Canadian Battle Doctrine in Normandy," *Canadian Military History* 8, no. 2, (1999), 5-6.

influenced their calculus. On the eve of D-Day, there was ample cognitive dissonance in doctrinal concepts that initially hindered the combined arms cooperation. It was not simply a CA problem. As the campaign evolved, the Anglo-Canadian force would move from "doctrinal anarchy to doctrinal uniformity." Canadian doctrine became infantry-centric with armor and artillery in support. Attacks remained mostly set-pieces and the lack of armor thrust in depth had operational implications in controlling tempo.[26]

Because of their professional development and operational linkages, the CA emphasized the same principles of war as the British Army. Maintenance of the objective was vital; though it sometimes seemed that maintenance of the plan was the primary concern. Morale was a component of battle stamina that also encompassed the physical effects of combat. In the CA, explaining requirements to soldiers and maintaining discipline was paramount to battlefield morale. The Army valued surprise at the tactical level in planning to gain and maintain the initiative in execution. The command approach was adapted to motivate literate soldiers from a civilian background.[27]

Field Marshal Montgomery had a direct influence on the espoused values of the CA as the Commander of South Eastern Command in 1941, Eighth Army in 1943, and 21st AG from 1944 to 1945. An inspiring figure, his principles remain fundamental components of the CA command culture to this day. The most influential Canadian officer of the interwar years,

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[26] English, 310; Russell A. Hart, *Clash of Arms: How the Allies Won in Normandy* (Boulder: Lynne Rienner, 2001), 179-180; Quote from Charles James Forrester, *Monty's Functional Doctrine: Combined Arms Doctrine in British 21st Army Group in Northwest Europe, 1944-45* (Solihull: Helion & Company Limited, 2015), 171; Engen, 145-146. 43.0% of infantry officers reported in post-war battle experience questionnaire that they moved in front of the tanks instead of with or behind in 1944-1945 North West Europe campaigns. See Engen, 185.

[27] Shamir, 76-79; McAndrew, 92; Simonds and Copp, 6-8; 21st AG Principles of War described by Montgomery in High Command in War in 1945 were Air power, Administration, Initiative, Morale, Surprise, Concentration, Cooperation, and Simplicity. See Bernard Law Montgomery, *21st Army Group: High Command in War*. 2nd ed. (Ottawa: King's Printer, 1946), 2, 18; ; Fuller's Principles of War published in the 1924 British Field Service Regulations were Maintenance of the objective, Offensive action, Surprise, Concentration, Economy of force, Security, Mobility, and Cooperation. See J.F.C. Fuller, *Foundations of the Science of War* (London: Hutchinson and Co., 1926), 16.

Canadian-born General Sir Arthur William Currie, led the WWI Canadian Expeditionary Force in Europe from 1917 to 1919. Renowned for his detailed planning, he led the Corps to important victories at Hill 70, Passchendaele, Amiens, and Arras, forging the reputation of an undefeated giant. He did so by demanding thorough preparations of his staff to conduct artillery-supported set-piece attacks followed by a methodical consolidation of gains. Both Field Marshal Montgomery and General Currie employed a methodical approach to warfare, which the military institutions of the CA helped ingrain in its officers' minds before and during the war.[28]

Artifacts: Professional Military Education, Organizational Structure, and Technology

For a CA interwar officer, professional development occurred via three distinct levels of education. First, RMC offered a university undergraduate program with an emphasis in mathematics and engineering. Upon graduation, one to two extra years at a civilian university were required to obtain an engineering diploma. As a rule, for every RMC graduate that stayed in the PF, four would seek employment in private firms or the British military. Nevertheless, the CA had nine-hundred and sixty RMC graduates in the Officer Corps during WWII and most of them progressed well.[29]

Second, with a declared objective of maintaining interoperability throughout the Commonwealth, senior captains and junior majors could also compete to earn one of the two positions at the British Staff College at Camberley, England or the unique position available in

[28] Andrew B. Godefroy, *Great War Commands: Historical Perspectives on Canadian Army Leadership, 1914-1918* (Kingston: Canadian Defence Academy Press, 2010), 17; Brian Douglas Tennyson, *Canada's Great War, 1914-1918: How Canada Helped Save the British Empire and Became a North American Nation* (Lanham: Rowman & Littlefield, 2015), 79-84.

[29] Numbers based on a study of RMC graduates from 1876 to 1894. The trend would continue in the interwar period with the limited opportunities provided by the four hundred and fifty strong Officer Corps of the PF. According to Lieutenant-Colonel E.L.M. Burns unpublished papers cited by Granastein from 1927 to 1935, sixty-nine RMC graduates joined the PF, two joined the Royal Canadian Air Force and twenty-eight the British Army. See Granastein, *The Generals*, 10, 13, 17; see Richard Arthur Preston, *Canada's RMC: A History of the Royal Military College* (Toronto: University of Toronto Press, 1969), 127.

Quetta, India. Candidates had to pass the preparatory five-month course at RMC. By 1939, the CA had only forty-five such graduates, approximately ten percent of the PF officers.[30]

Third, Staff College graduates could attend the Imperial Defense College (IDC) to complete a politico-strategic program. General Andrew McNaughton, Chief of the General Staff from 1929 to 1935 and later Commander of the Canadian Army Overseas (CAO), embedded the technical approach to war and the IDC requirement for senior officer progression in the culture. As a result, senior military officials were ready to work at the strategic level, but lacked the operational level education essential to lead corps and armies in the field. There were thirteen IDC graduates at the start of hostilities in 1939. The Staff function suffered from the lack of interwar period professional development at all levels.[31]

Overall, a minority of staff officers were experienced graduate of staff courses, reducing their influence, preventing commanders from delegating and taking full advantage of the Chief of Staff function. It also limited the range of options when developing plans. They needed to be simple and supported by extensive preparation before execution. Since no plan survived the line of departure, this proved an impediment when requiring close air support or artillery re-synchronization. Within CA HQ, the operations officer was first among equals. From an external perspective, the CA operated as a junior partner in a large coalition, reducing its staff influence on campaign direction as they juggled to please the British War Office and the Department of National Defence (DND). Human resources were also a subject of contention.[32]

The regimental system served as the main vector of human resources policy in the CA and did not always enable flexible regrouping and employment of forces. Nevertheless, the mobilization and training plans would ultimately have the largest effect on the CAO.

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[30] English, 97; Howard Gerard Coombs, "In Search of Minerva's Owl: Canada's Army and Staff Education (1946-1995)" (PhD diss., Queen's University, 2010), 65-66

[31] English, 309-311; Coombs, 68-70.

[32] Coombs, 78-79; Shamir, 96; Granastein, *The Generals*, 266; During WWII, RMC offered a staff college course to minimize the impact of interwar neglect and maximize qualified staff officers in the ETO.

Mobilization from volunteers came under serious strain by 1943, capping the CAO at five divisions. By limiting NRMA service to home defense, the government was hindering its ability to reinforce the ETO. It would have an impact on infantry replacements in 1944 and 1945. Besides, retention of excess strength in the Canadian Army Reserve (CAR) drained resources from the Canadian Active Service Force (CASF). Compounding the problem, recruits arrived in Britain undertrained, after five months of basic training in Canada. The readiness of recruits forced additional individual training before collective training. The management and training of Canadian citizen-soldiers remained inefficient throughout the war. The policy mainly reflected Canada's political limitations, as there was no will for a greater commitment of forces. New technology could soon provide a solution.[33]

During the interwar period, the CA did not possess modern technology because of its meager budgets. However, the founding of the *Canadian Defence Quarterly* assisted in creating dialogue among officers on the anticipated impact of technology for future wars. The balance of tank and infantry in a division became the subject of a long debate between Lieutenant-Colonel E. L. M. Burns and Captain G. G. Simonds in 1939. Intellectually, the CA accepted the idea of materiel over men idealized by the government to account for limited human resources, reduce casualties, and bolster the country's economy. Unfortunately, Canada's successful sales of armament abroad and concerns for interoperability slowed the CAF re-equipment program. As a result, the Canadian Royal Armour Corps (CRAC) would only form its first tank brigade in October 1940. The fall of France had demonstrated the value of such a force and politicians theorized about the life-saving role of armor. In contrast, the Canadian Royal Artillery was reequipped quicker than other branches of the CA due to the national production of a modern twenty-five pounder gun.[34]

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[33] Hart, 171-172, 179-181.

[34] Ibid., 66-67, 168-169, 180-182; The first tanks purchased by Canada were two hundred and fifty WWI Renault FT-17. See Hart, 181.

In retrospect, the CA command culture in WWII reflected the ambivalent attitude of the government and population towards war and the military profession, the primacy of British military influence, and the organizational structure and roles assigned within the institution. It balanced the risk to troops with the limited replacements available and the political implications of conscription while leaning towards technological solutions. As 1st CA campaign across North West Europe began, its intellectual framework aimed to enable interoperability and take advantage of superior artillery and air support.

Schein's Model	Shamir's Model	World War II - Elements of the Canadian Command Culture	Command Culture Definition
Basic Assumptions	National attitude towards war	Accepted the legitimacy and the necessity to wage war, Avoid conscription	Command culture is the product of the interrelated cultural elements categorized under basic assumptions, espoused values, and artifacts that influence the activities of leadership, management and decision making in a military organization.
	National attitude towards the Armed Forces	Militia myth	
	Attitude towards risk	Limited liability	
	Attitude towards the military profession	Importance given to the profession declined in the interwar period	
Espoused Values	Source of military elite	World War I Artillery and Infantry Corps mostly born in the 1880s, in Ontario, Anglophones	
	Inspiring military figures	General Sir Arthur William Currie, Field Marshal Bernard Law Montgomery	
	Command doctrine	British Army traditions, Set-piece battle	
	Emphasized principles of war	Maintenance of the objective, Morale	
	Method of problem solving	Detailed planning	
Artifacts	Military academies	Royal Military College, British Staff College, Imperial Defence College	
	General Staff Officer	Limited numbers of qualified officers	
	HQ and Staff organization	Limited use of the Chief of Staff	
	Perception and use of technology	Materiel over personnel	
	Human resources policy	Regimental system	

Figure 1. Summary of World War II Canadian Army Command Culture. Created by author.

Case study – The Falaise Pocket Campaign

Upon successful Allied D-Day landings and failed German armor counter-attacks in June 1944, an attritional struggle began for the vital space required for basing in Normandy. Panzer Group West and German 7th Army, unable to defeat 21st AG, attempted to deny the Allies space for follow-on force buildup, supply dump creation, and airfield occupation. By 18 July, Second British Army, along with Lieutenant-General Guy Simonds' II Canadian Corps (II CC), executed

Operation Goodwood, the envelopment of Caen and the seizure of Bourgébus Ridge, at a heavy cost. On 23 July, General Harry Crerar's 1st CA became operational and launched Operation Spring, aimed at consolidating gains south of Caen. 12th Army Group (12th AG) conducted a successful breakout in the West during Operation Cobra initiated on 25 July while Second British Army executed Operation Bluecoat on 30 July in the center fixing elements of Panzer Group West.[35]

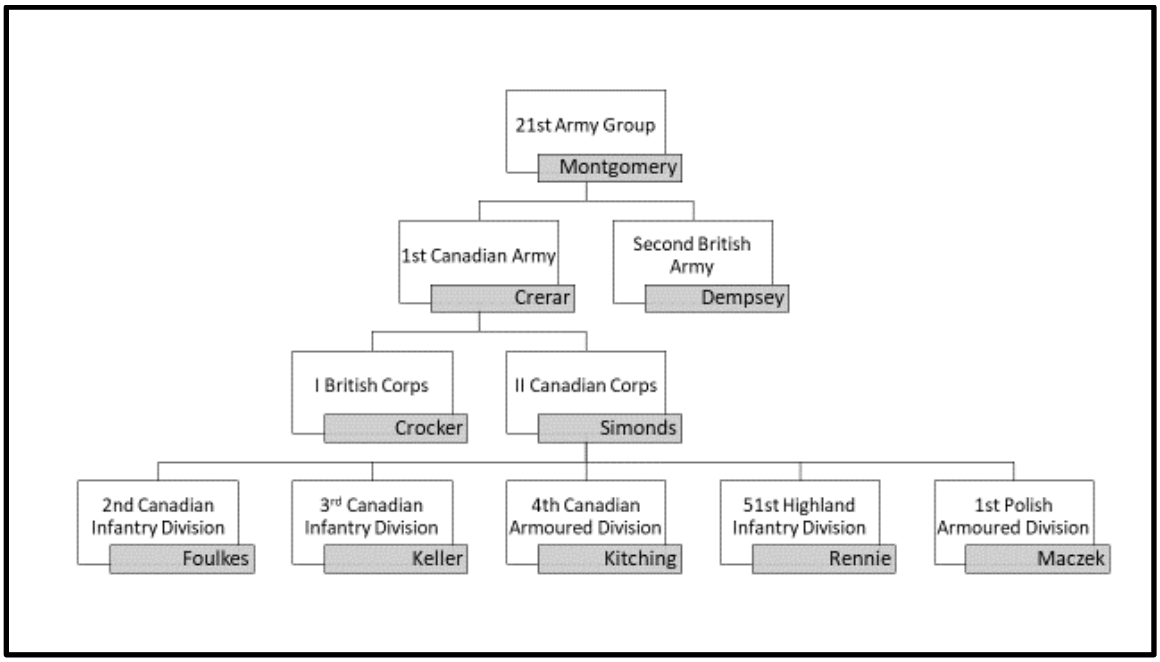

Figure 2. Organization 1st CA as of 6 August 1944. Created by author.

Initially intended to reinforce the effects of Operation Bluecoat, 1st CA's Operation Totalize concept changed due to the successful block of a German counter-attack near Mortain and 12th AG armor thrust on the Alençon-Argentan axis. An opportunity for a double envelopment emerged and with it a possibility to destroy two German armies. Field Marshal

[35] Stephen A. Hart and Johnny Shumate, *Operation Totalize 1944 - The Allied Drive South from Caen* (New York: Osprey Publishing, 2016), 5-6; Operation Atlantic was the Canadian contribution to Operation Goodwood. Operation Spring occurred on 25-26 July 1944; C. P. Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign: The Operations in Northwest Europe, 1944-45* (Ottawa: Queen's Printer, 1960), 176; Bill McAndrew, Donald E. Graves, and Michael J. Whitby, *Normandy 1944: The Canadian Summer* (Montreal: Art Global, 1994), 109-112.

Montgomery ordered 1st CA to break through in the direction of Falaise to render enemy withdrawal difficult.[36]

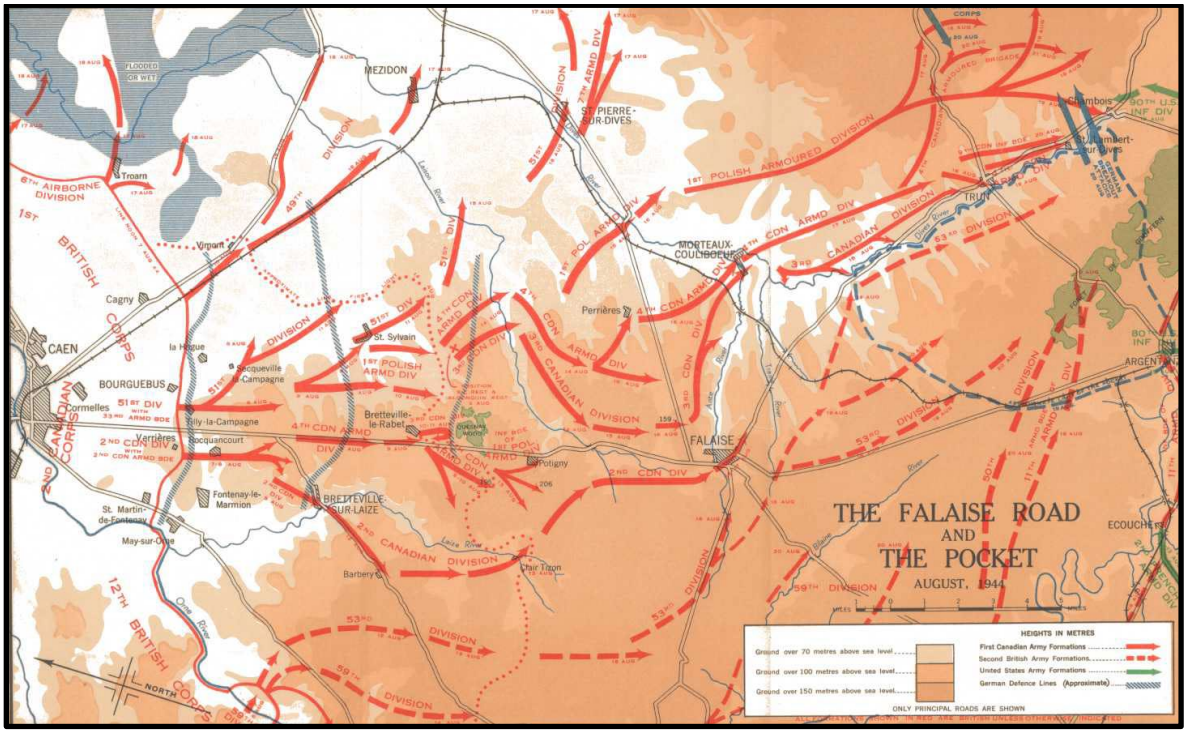

Figure 3. The Falaise Pocket Campaign. Stacey, *The Canadian Army, 1939-1945*, 220.

Operation Totalize (7 to 10 August 1944)

Once again, II CC led the operation. Lieutenant-General Simonds synchronized an aerial bombardment on the initial objectives. As the movement began, the aerial bombardment would shift to the flanks and a heavy artillery barrage of three hundred and sixty guns would support the offensive. Execution would be under cover of darkness with artificial light and orange tracer bullets orienting troops towards their objectives. Moreover, to allow combined arms cooperation

[36] Bill McAndrew, Donald E. Graves, and Michael J. Whitby, *Normandy 1944*, 109-112; Terry Copp and Robert Vogel, *Maple Leaf Route: Falaise* (Alma: Maple Leaf Route, 1983), 90-92; On 4 August, Montgomery ordered Crerar to launch as soon as possible, but no later than 8 August, "a heavy attack from the Caen sector in the direction of Falaise" with two objectives: "break through the enemy positions to the south and south-east of Caen, and to gain such ground in the direction of Falaise as will cut off the enemy forces now facing Second Army and render their withdrawing eastwards difficult-if not impossible and generally to destroy enemy equipment and personnel, as a preliminary to a possible wide exploitation of success." See Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 210-211.

within the armored column modified Priest self-propelled gun vehicles served as infantry transport.[37]

Lieutenant-General Simonds devised a methodical plan in two phases on a narrow eight-kilometer frontage. First, the assault would break through the main German defensive line on both sides of the Falaise road with the 2nd Canadian Infantry Division (2nd CID) reinforced by the 2nd Canadian Armoured Brigade (2nd CAB) on the western flank and the 51st (Highland) Division reinforced by the 33rd British Armoured Brigade on the eastern flank. They would penetrate to their limit of advance and secure a subsequent line of departure for phase 2 from Bretteville-sur-Laize and Poussy-la-Campagne. After a second aerial bombardment, the 4th Canadian Armoured Division (4th CAD) would surge forward on the western flank to seize Fontaine-le-Pin and Point 206. 3rd Canadian Infantry Division (3rd CID) would thrust towards Point 140 on the eastern flank, while 1st Polish Armored Division seized the high ground North of Falaise at Points 165, 170, and 159.[38]

[37] Copp and Vogel, 90.

[38] Ibid.; Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 216-218.

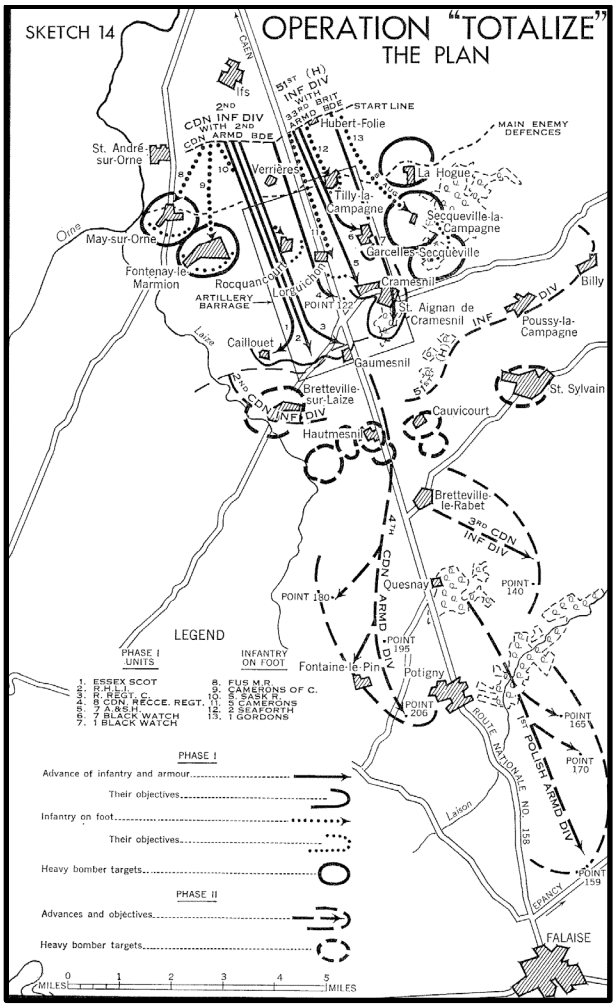

Figure 4. Operation Totalize Plan. Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 217.

The Germans adjusted their disposition of troops on 4 August to augment the number of formations for their counter-attack against 12th AG in the Mortain sector. The 89th Infantry Division (89th ID) relieved-in-place the 1st SS Panzer Division between Caen and Falaise. The main threat originated from the self-propelled anti-tank guns from the former formation as well as integral anti-tank assets from the new one. 12 SS Panzer Division (12SS PZ Div) remained in reserve.[39]

[39] A. G. Steiger, *The Campaign in North-West Europe: Information from German Sources: Part II: Invasion and the Battle for Normandy (6 Jun – 22 Aug 44)* (Ottawa: Queen's Printer, 1952), 92-93; Hart and Shumate, 40-41; Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 221-222.

At 11:00 p.m. on 7 August, the bombers initiated the attack, dropping two-thirds of their ordnance before dust covered the view of their objective, forcing them to abort. Nevertheless, General Crerar reported perfect timing and accuracy, and by 11:30 p.m., armored columns and dismounted infantry crossed their line of departure. When the lead elements started engaging the front line of enemy troops, a rolling barrage began progressing along the axis of advance on a 4,600 meters frontage by a 4,700 meters depth at a rate of eleven kilometers per hour.[40]

As the three concentrated mechanized columns, Essex Scottish (Essex Scot), Royal Hamilton Light Infantry (RHLI) and Royal Canadian Regiment (RCR), thrust forward towards Roquancourt on the western flank, the dust, darkness, and enemy anti-tank fires made it increasingly difficult to maintain tempo and follow the artillery barrage as closely as planned. Between 2:00 a.m. and 3:00 a.m., the three main columns reached their infantry dismounting objectives approximately one hundred minutes behind the rolling barrage. On the eastern flank, the three mobile British columns advanced and faced similar challenges.[41]

Friction played its role as infantry units attempted to regroup in the dark before initiating the assault phase in the Canadian area of operations. The plan changed to account for lost time, the desynchronization of the artillery barrage and upcoming sunrise. The RCR commander, Lieutenant-Colonel J. C. H. Anderson, ordered his infantry to proceed forward, still mounted, onto the objective, an unprecedented approach at the time. By 6:00 a.m., RCR had seized Point 122 with relative ease. The RHLI proceeded according to plan but by 5:30 a.m. no longer possessed momentum due to enemy fires. It consolidated 180 meters short of its objective. The Essex Scot, slowed down by enemy tanks and reorganization, did not begin its assault on Caillouet until 11:00 a.m. It too proceeded onto the objective with a successful mechanized

[40] Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 219-220; Hart and Shumate, 37-40.

[41] Hart and Shumate, 41-47; Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 219.

infantry attack. On the eastern flank, the British 55th Infantry Division reinforced by 33rd British Armoured Brigade reached their objectives along the Cramesnil-Secqueville stretch by sunrise.[42]

The armored columns maneuvered forward to their objectives, bypassing German positions. On both flanks, ground infantry assaults consolidated gains. The 6th Canadian Infantry Brigade (6th CIB) and the British 152nd Infantry Brigade deployed with limited fire and air support. Also, none of those assaults included tanks. Lieutenant-General Simonds assumed that bypassed enemies would not resist vigorously when they realized their predicament. This proved false at May-sur-Orne for Les Fusiliers Mont-Royal and even worse for the Queen's Own Cameron Highlanders of Canada in Fontenay-le-Marmion where accurate German rocket fire and maneuvers threatened their lines of communications. Lieutenant-General Simonds allocated reserved artillery fires to prevent the destruction of the regiment while Major-General Charles Foulkes, 2nd CID commander, redirected the Saskatchewan Regiment from their objective in Roquancourt to link-up with the suppressed Camerons. The British 55th Infantry Division execution on the eastern flank was comparable with the seizure of objectives along the Falaise road in the vicinity of Lorguichon and Tilly-la-Campagne. On both flanks, commanders would require additional resources in the form of armor or artillery to achieve their end state. The use of combined arms proved necessary even for consolidating gains.[43]

In preparation for phase 2, the 4th CAD, the 1st Polish Armored Division (1st PAD) and the 3rd CID staged from their lines of departure, while the United States Army Air Force began bombing the German lines. Once again, about a third of the bombers were unable to drop their ordnance. This time, the German III *Flakkorps* and smoke prevented it. Surprised during the night attack, SS *Oberführer* Kurt Meyer, commander 12SS PZ Div, realized that his second line of

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[42] For discussion on Friction see Carl von Clausewitz, Michael Eliot Howard, and Peter Paret, *On War* (Princeton: Princeton University Press, 1989), 119-121; Hart and Shumate, 44-51; Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 219.

[43] Hart and Shumate, 51-63; Stacey, *Official History of the Canadian Army in the Second World War, The Victory Campaign*: 219; Crocodiles are Sherman tanks armed with flamethrowers.

defense along Bretteville-sur-Laize, Hautmesnil, and St-Sylvain was thin. In keeping with German doctrine, he ordered an immediate counter-attack to gain enough time to reinforce his new line of defense. By 12:52 p.m., the counter-attack faltered across the frontage.[44]

At 1:55 p.m., the two Allied armored divisions initiated the daytime phase of the operation as planned, attacking the second German line of defense. The six hour operational pause built into the plan to enable air bombardments gave 12SS PZ Div time to resettle the front. The Halpenny Force Battle Group (BG) led 4th CAD. Their cautious advance on 8 August failed to seize their initial objective at Brettville-le-Rabet. In Cintheaux, the 10th Canadian Infantry Brigade (10th CIB) mounted a cautious set-piece attack against a platoon position and the seizure of Hautmesnil proved difficult. The inexperience of 4th CAD executing its first operation along with the allocation of a narrow maneuver corridor explains the waste of precious momentum. The division advanced only four kilometers instead of the planned thirteen.[45]

On the eastern flank, the Polish 2nd Armored Regiment and the 24th Lancers rolled into a prepared German engagement area near Robertmesnil. Heavy mortars, artillery fire, and accurate anti-tank fire forced the Polish lead force back to their original line of departure. Upon reorganization, and with strong artillery support, the 1st PAD gained 1600 meters on their subsequent offensive. By nightfall on 8 August, II CC was considerably short of its phase 2 objectives.[46]

Attempting to dictate the pace, Simmonds ordered 4th CAD to renew its attack at night to seize Point 195. Halpenny Force would seize Brettville-le-Rabet while Worthington Force BG attacked to seize Point 195 by dawn. At the same time, the German Army resupplied and

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[44] Hart and Shumate, 63-64; Copp and Vogel, 100; Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 222-223; Steiger, 106-107.

[45] Hart and Shumate, 67-72; Copp and Vogel, 100; The Halpenny Force BG was composed of the Canadian Grenadier Guards, The Lake Superior Regiment, an anti-tank battery, and a Squadron of engineers.

[46] Hart and Shumate, 72-74; C. P. Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 224-225.

reorganized their defense now centered on units of the 12SS PZ Div and reinforced by fragments of the 89 ID. They formed a wedge from Point 195 via Quesney Woods to Point 140, effectively occupying the high ground on the flanks. It provided an excellent position to interdict any central advance along the Falaise road with concentrations of armor hidden from aerial observation.[47]

On 9 August at 12:05 a.m., Worthington Force initiated its operation. Difficulties in last minute regroupings delayed them by four hours, leaving only two hours to cover more than seven kilometers. Trying to make up for lost time and constant contact with the enemy forced them off course to secondary roads. Instead of navigating towards Point 195, west of the Falaise road, Worthington Force was now involuntarily heading for Point 140, east of the road. The German counter-attack and their subsequent isolation enabled its destruction within twenty-four hours. The Governor General's Foot Guard attempted to reinforce, but the relief operation headed towards the intended objective of Point 195, not the area of their actual location. A second attempt by the Canadian Grenadiers Guard towards Point 140 lost twenty-six vehicles to anti-tank fire in ten minutes in a German engagement area. This demonstrated the risks associated with loosely planned and rehearsed night attacks.[48]

Despite the predicament of Worthington Force, 4th CAD's main effort for 9 August was to secure the key terrain close to Point 195 and Quesney Woods to enable subsequent operations to seize Falaise. The Division seized Bretteville-le-Rabet, Langannerie, Grainville-Langanerie, and St-Germain-le-Vasson in a series of set-piece attacks. Still behind the planning schedule, Lieutenant-General Simonds issued orders to 4th CAD that evening to conduct night infiltrations towards Point 195. The 1st Argyll and Sutherlands Regiment did so with skill and without firing a shot. By sunrise on 10 August, 4th CAD was firmly on the objective with anti-tank weapons

[47] Hart and Shumate, 74-75; Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 225.

[48] Hart and Shumate, 76-79; Worthington Force BG was composed of 28th Armoured Regiment and Algonquin Regiment; Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 225-228.

ready to block any German counter-attack. As expected the 26 SS Panzergrenadier Regiment launched a violent counter-attack while the Governor General's Footguard reinforced the Canadian position on Point 195. With the support of massive artillery and tactical air strikes, the Canadians held their ground. On the same day, the 1st PAD broke out in the east, securing St-Sylvain and Soignolles but remained unable to reach Worthington Force north of Point 140.[49]

Still believing he could achieve his objectives for phase 2, on 10 August, Lieutenant-General Simonds ordered 3rd CID to clear Quesnay Woods of the German armor concentration. Two Army Group Royal Artillery (AGRA) and 2nd CAB would support the offensive operations. Regroupings took time and the operation began at 8:00 p.m. By 10:00 p.m., elements of 12SS PZ Div, reinforced by a heavy tank battalion, conducted a successful counter-attack to drive most of the assailant out of Quesnay Woods. By 3:30 a.m. on 11 August, Lieutenant-General Simonds acknowledged the culmination of the offensive and terminated Operation Totalize.[50]

Operation Tractable (14 to 16 August 1944)

Lieutenant-General Simonds believed, rightly so, that Operation Totalize culminated because the two armored divisions failed to exploit success in phase 2. He was right to affirm that they had advanced too cautiously. However, he failed to recognize his role in phasing the operation providing time for the reorganization of German 89th ID and 12SS PZ Div into a coherent defense on the high ground. Based on Field Marshal Montgomery's directive M518, 1st CA ordered II CC to capture Falaise and then Argentan, to close the Falaise pocket. Orders subsequently changed. Second British Army would seize Falaise and conduct the link-up with 12th AG. 1st CA was to drive south and east to seize Trun.[51]

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[49] Hart and Shumate, 83-86; Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 229-230.

[50] Hart and Shumate, 86-87; Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 231.

[51] Copp and Vogel, 112; Hart and Shumate, 90; Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 234.

Operation Tractable was a daylight rerun of Operation Totalize phase 1. This time, smoke would cover the advance of two armored thrusts while heavy bombers would support two hours after initiation. 3rd CID, led by 2nd CAB and reinforced by 9th Canadian Infantry Brigade (9th CIB) using Priest transports, constituted the western prong. The 4th CAD, led by 4th Canadian Armoured Brigade (4th CAB) and reinforced by 8th Canadian Infantry Brigade (8th CIB) also mounted on Priests, formed the eastern prong. Lieutenant-General Simonds ordered the armor elements to bypass resistance and push south to isolate Falaise. The infantry element would clear enemy pockets of resistance to consolidate gains. As regroupings were occurring in preparation for Operation Tractable, 2nd CID attacked to secure high ground west of Falaise and assist the British advance. By 14 August, the division occupied objectives only ten kilometers from Falaise.[52]

[52] Copp and Vogel, 112; Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 236-238.

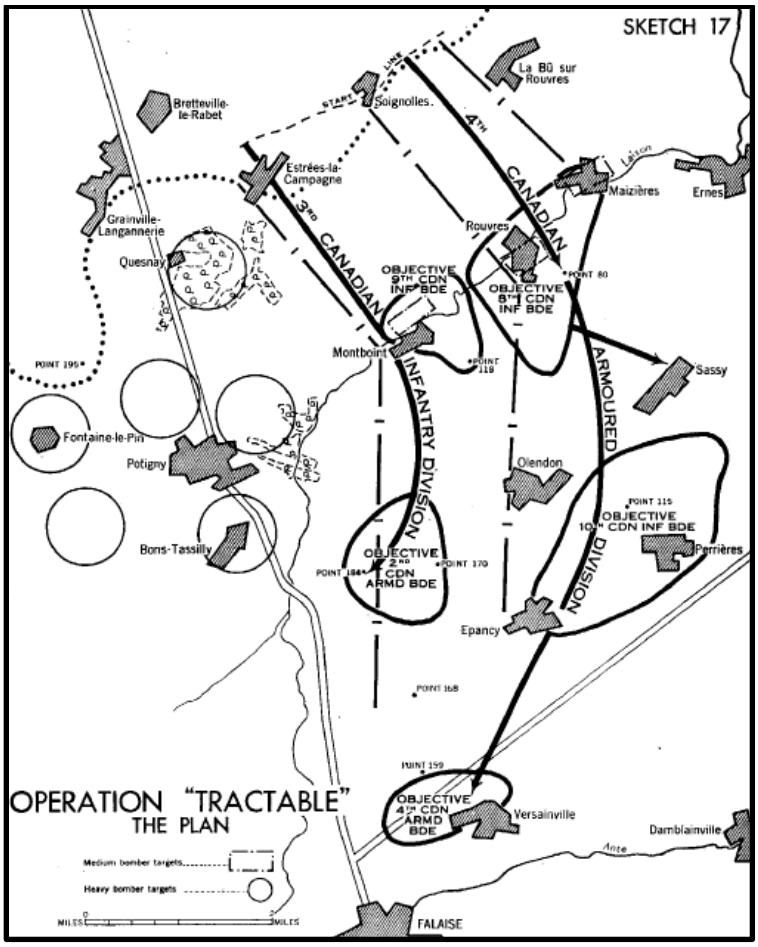

Figure 5. Operation Tractable Plan. Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 239.

The German 85th Infantry Division (85th ID) relieved-in-place 12SS PZ Div to defend the Laison River Valley. The latter formation fell back in reserve and ensured that the front held both physically and morally. The reduced 89th ID defended the center along the Falaise road while the 271st Infantry Division was now operating on the western flank. Once again, the enemy was well entrenched on the high ground across the frontage.[53]

At 11:42 a.m. on 14 August, Operation Tractable was underway, covered by a dense smokescreen that disoriented both sides equally. The advance progressed without major casualties and the two prongs executed crossings across the Laison River. Once across, 4th CAD advanced

[53] Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 248; 12 SS Panzer Division still fielded eighteen Mark IV tanks, nine Panthers, seventeen Tigers, and other mechanized vehicles. They also fielded 88-millimeter anti-tank guns.

rapidly towards Perrières while 3rd CID unexpectedly required extra engineer support for their crossing sites. Subsequently, anti-tank fires slowed them down, but by nightfall, 3rd CID held Point 160. That evening, Field Marshal Montgomery, based on slow Second British Army progress and Canadian successes, ordered 1st CA to seize Falaise while continuing their thrust towards Trun. Thus, on 15 August, 1st PAD attacked to seize Jort and subsequently maneuvered southeast towards Chambois, while 3rd CID and 4th CAD resumed their scheme of maneuver to enable 2nd CID's seizure of Falaise.[54]

On 15 August, 3rd CID fought its way to Soulangy and Point 168 in the vicinity of the Falaise road and met stiff German resistance characterized by accurate anti-tank fires and a night counter-attack. 4th CAD fared no better that day and the advance slowed. On August 16, 12SS PZ Div was now concentrating efforts on 1st PAD, but 4th CAD resumed its advance by seizing bridges at Couliboeuf and Damblainville. 3rd CID maintained the symmetry of the advance by protecting their flank. 2nd CID was poised to clear Falaise. The town was completely isolated by 17 August and cleared on 18 August. By 21 August, Operation Tractable had enabled the final thrust by 1st PAD, 4th CAD, and 3rd CID to close the pocket by linking-up with the United States 90th Infantry Division at Chambois. The Falaise pocket campaign was over.[55]

Analysis

Phase 1 of Operation Totalize was an astounding success. II CC conducted a bold and innovative two division mechanized night assault on a narrow front at relatively low cost when compared with previous breakthrough attempts in Normandy. The corps held the initiative after reducing the initial German line of defense and consolidated up to six kilometers from their line of departure along a seven-kilometer frontage. II CC reduced the German 89th ID to fifty percent

[54] Dick, 187; Copp and Vogel, 114-116; Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 245.

[55] Copp and Vogel, 116, 122; Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 222, 249-250.

caused substantial losses to 12SS PZ Div, and caught the attention of Army Group B as the encirclement of Seventh Army and Fifth Panzer Army became a possibility.[56]

The initiation of phase 2 was an opportunity to exploit gains from innovative phase 1 maneuvers. Phase 2 provided a chance to conduct a deep operational thrust towards Falaise and contribute significantly to the Allies overall plan. Cautious operations gave the control of tempo back to the enemy on 8 August. Lieutenant-General Simonds was ready to take some risks to restore momentum by ordering night attacks. The advance lost momentum on 9 and 10 August as the German Army contested every village. In all, II CC cleared sixteen kilometers across a fourteen-kilometer frontage but failed to secure Falaise as planned.[57]

There is no doubt that Lieutenant-General Simonds held the initiative during phase 1, as he maintained a higher tempo than the enemy during a methodically planned set-piece night attack and repulsed the initial anticipated German counter-attack. He aimed to avoid unnecessary engagements for the lead force and consolidate gains with subsequent troops. As surprise faded, the Canadian instincts reemerged and subordinate commanders advanced cautiously enabling the Germans to reorganize and accelerate their decision-action cycle. The attacks relied too heavily on the use of bombers, which greatly reduced the flexibility of II CC. Once operations began, few possibilities existed for modifying the plan to exploit success. Moreover, the infantry formations assigned to consolidate gains behind the armored thrust lacked the required combined arms resources in armor and artillery to be successful, which created casualties and derailed the movement of artillery forward in support of phase 2. A reliance on close air support instead of

[56] Hart and Shumate, 62-63; Operation Totalize phase 1 casualties were 385 personnel, II Corps seized five of seven mechanized forces objectives and two out of five light forces objectives. The remainder light forces objectives were under allied control by the afternoon of 8 August, See Hart and Shumate, 63; Dick, 187; Panzer Group West becomes 5th Panzer Army on 8 August 1944. See Steiger, *The Campaign in North-West Europe: Information from German Sources: Part II: Invasion and the Battle for Normandy (6 Jun – 22 Aug 44)*, 109.

[57] Dick, 188; Hart and Shumate, 87-88.

bombers could have helped maintain the appropriate tempo and deepened the penetration while accounting for the delayed displacement of artillery forward.[58]

During Operation Totalize, Lieutenant-General Simonds accepted risk by believing that it would ultimately save lives if he could control the tempo. He used imagination and novel approaches to strike in a manner unanticipated by the enemy. Upon the loss of tempo to the enemy, caused by his centralized planning and by subordinate commander's subsequent cautious approach, he reverted mainly to set-pieces with limited maneuver, supported by indirect fires. The 3rd CID attack of 10 August demonstrated the limits of a frontal attack without surprise against a well-entrenched enemy.[59]

The sequencing of phase 1 and phase 2 hindered the operational maneuver intended by Lieutenant-General Simonds. The operational pause, built to enable the second wave of bombardment followed by the resumption of operations, offered a respite that the Germans needed to steady their front and start regaining some initiative. Instead of favoring the 4th CAD and the 1st PAD to concentrate combat power in time and space at the decisive points, it enabled the Germans to do so by creating effective engagement areas anchored around the key terrain they held. Both Major-General George Kitching and Major General Stanislaw Maczek agreed that their troops were inexperienced, but more significantly, the slow advance on 8 and 9 August gave the enemy time to reorient its defense along the narrow maneuver corridors of each division. Both factors certainly played a role in reinforcing the methodical tendencies intrinsic to the Canadian command culture.[60]

General Crerar and Lieutenant-General Simonds, giving more weight to the "lack of drive" of their subordinates than the flaws in their plan, reproduced them during Operation

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[58] Dick, 188-189; US Army, *ADRP 3-0* (2017), 2-7 – 2-10.

[59] Dick, 191; US Army, *ADRP 3-0* (2017), 2-7 – 2-10.

[60] Copp and Vogel, 101; Mark Zuehlke, *Breakout from Juno: First Canadian Army and the Normandy Campaign, July 4-August 21, 1944* (Vancouver: Douglas & McIntyre, 2012), 284-285. US Army, *ADRP 3-0* (2017), 2-7 – 2-10.

Tractable. Therefore, a heavy bombardment was again an integral part of the plan with its limiting factors, to include the risk to friendly troops and the opportunity for the enemy to dictate tempo. Phasing and operational pauses were the results of rigid timetables and extreme importance given to the volume of fire. In short, during these two operations, some commanders like Lieutenant-General Simonds and Lieutenant-Colonel Anderson demonstrated imagination to create success out of the chaotic environment. Nevertheless, the CA command culture weighed heavily on the entire organization and traditional approaches to problem-solving stunted initial innovation. The CA needed to minimize casualties and was inclined to maximize the use of technology to do so. Maneuvering in depth or conducting broad flanking maneuvers could have offered decisive results, but it also created a risk to troops. As a multinational organization, 1st CA's use of a common doctrine helped with interoperability. Commanders, in keeping with the prevailing views inculcated by Field Marshal Montgomery within 21st AG, relied on tight centralized control, the concentration of force at the decisive point, and superior firepower. The method accounted for the CA's strengths and weaknesses: devastating artillery fire and air support capabilities, tempered by a lack of available replacements, and relatively inexperienced field commanders.[61]

Despite the flaws of Operations Totalize and Tractable and the high expectations from Lieutenant-General Simonds, the maneuvers were successful to a previously unseen degree. Operation Totalize displayed Canadian qualities by advancing deeper into the German defenses

[61] Dick, 191-193; After Operation Tractable, Simonds relieved the 4th CAD commander, the 4th Canadian Infantry Brigade commander, and the 6th Canadian Infantry Brigade commander. In July and August 1944, Simonds relieved one division commander, six of nine brigade commanders, and fourteen out of twenty-four battalion commanders. See J. L. Granatstein, *Canada's Army: Waging War and Keeping the Peace* (Toronto: University of Toronto Press, 2002), 277; A wartime report from 21st AG No.2 Operational Research Section assessed that the initial heavy bombing during Operation Totalize was of no assistance in securing the objectives due to its negligible effects on enemy combatants and materiel. It did however acknowledged a limited potential for demoralization. There is no indication that Crerar and Simonds were aware of these findings before Operation Tractable. See report reproduction Terry Copp, *Montgomery's Scientists: Operational Research in Northwest Europe* (Waterloo: WLU Press, 2000) 95-106; Bernard Law Montgomery*, 21st Army Group: Some Notes on the Conduct of War and The Infantry Division in Battle* (Belgium: 21st Army Group, 1944), 17-20.

than any British operations in Normandy. II CC culminated by breaking through a strong defensive position handled by the newly arrived 89th ID and advanced sixteen kilometers before engaging the fresh 85th ID. During Operation Tractable, II CC navigated a potentially difficult river crossing at the Laizon and broke through the German defenses, providing a long-awaited opportunity for the capture of Falaise.[62]

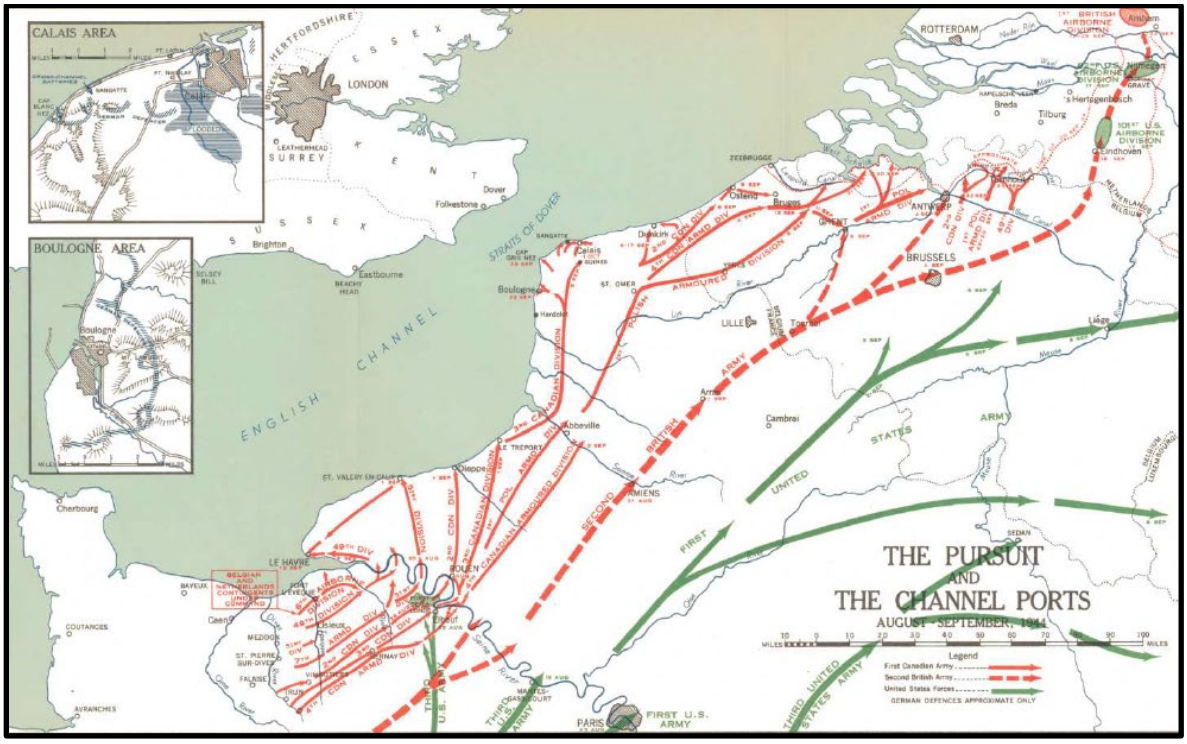

Figure 6. The Pursuit and The Channel Ports. Stacey, *The Canadian Army, 1939-1945*, 231.

Case Study – The Scheldt Campaign

The Falaise pocket campaign ended by isolating a portion of the German 7th and 5th Panzer Armies in Normandy with 21st AG in pursuit of the retrograding forces. It aimed to destroy the enemy in northwest France and Belgium and secure vital port facilities to increase Ally basing and operational reach in preparation for their drive towards the Ruhr. 1st CA advanced along the coast as part of the effort to secure Dieppe, Le Havre, Boulogne, and the Pas

[62] John Prados, *Normandy Crucible: The Decisive Battle That Shaped World War II in Europe* (New York: NAL Caliber, 2011), 213; J. T. Copp, *Fields of Fire: The Canadians in Normandy* (Toronto: University of Toronto Press, 2003), 212-213, 232; Zuehlke, 334.

de Calais. Disappointed by the lack of progress, Field Marshal Montgomery urged 1st CA to accelerate its tempo. However, he refused to commit the resources needed to reach his ambitious goals, creating tension with General Crerar. He also failed to recognize that 1st CA faced the German 15th Army on a narrow forty-kilometer corridor while Second British Army pressed against the recovering 7th Army and 5th Panzer Army. General Crerar had resource limitations. He required 4,318 personnel due to replacement issues that mostly affected the infantry. Further, he lacked transports, ammunition, and bridging equipment because of the priority given to Operation Market Garden.[63]

When General Dwight D. Eisenhower, Supreme Allied Commander, reemphasized to Field Marshal Montgomery concerns about the delay in opening Antwerp, Montgomery directly transferred the problem to General Crerar. Balancing ends, ways, and means remained a challenge, increasing the risk for 1st CA. On 27 September, Field Marshal Montgomery added a significant task to the list of challenges by ordering 1st CA to enable the Allies' use of Antwerp. Naval Commander-in-Chief Admiral Sir Bertram Ramsey had already posited that it required preventing the enemy from carrying out port demolitions, mining and blocking the Scheldt, and capturing coastal batteries.[64]

[63] 2nd CID secured Dieppe on 1 September 1944, I CC took Le Havre on 12 September 1944, 3rd CID secured Boulogne on 22 September 1944, and Pas de Calais on 30 September 1944. See Dick, 244-245, 269, 322-323; Jeffery Williams, *Long Left Flank: The Hard Fought Way to the Reich, 1944-1945* (London: Leo Copper, 1988), 81-82

[64] Ibid.

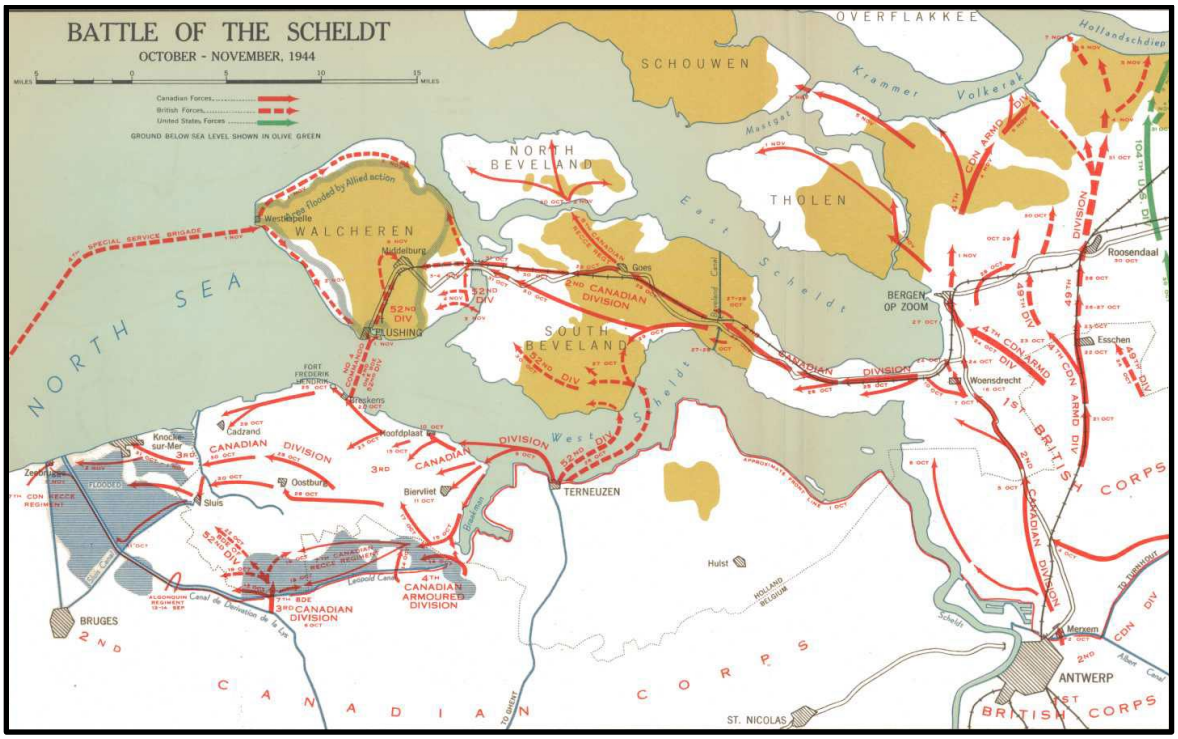

Figure 7. The Scheldt Campaign. Stacey, *The Canadian Army, 1939-1945*, 243.

Securing Access to the Peninsula and Protecting the Flank

On 26 September 1944, General Crerar charged Major-General John Crocker's First British Corps with the responsibility of clearing the enemy from Antwerp and isolating the base of the South Beveland Peninsula. For the task, he attached 2nd CID and 1st PAD to First British Corps. The next day, General Crerar flew back to England for medical treatment, leaving Lieutenant-General Simonds in charge of 1st CA. Major-General Charles Foulkes became II CC commander while Brigadier Holley Keefler took command of 2nd CID. That same day, Field Marshal Montgomery ordered 1st CA to protect British Second Army's flank as it advanced towards the northwest corner of the Ruhr. 1st CA now had to switch its objective sixty-four kilometers east of Roosendaal to Hertogenbosch.[65]

Facing them, Field Marshal Gustav-Adolf Von Zangen's 15th Army had to counter the threat to the Ruhr by retaining the Scheldt Estuary. The German's depleted 346th Infantry

[65] Williams, 95-96.

Division, 711th Infantry Division, the 719th Infantry Division, and the 1018 Grenadier Regiment defended access to the peninsula under 67th Corps. In addition, the Army reserve, BG Chill, received orders to block access to the Peninsula staging from the town of Woensdrecht.[66]

Upon taking command of 1st CA, Lieutenant-General Simonds launched a new planning cycle to reconsider the assumptions and the operational approach to the campaign. He took a fresh look at the German disposition and the advantages held by the defenders. He considered an amphibious operation to clear the island of Walcheren and South Beveland. He was also adamant that the dikes needed to be bombed to flood the island. He understood that this approach would require convincing Prime Minister Winston Churchill, who opposed further bombing of Belgian and Dutch towns. Meanwhile, 3rd CID had to clear the Breskens Pocket, 2nd CID the Beveland Peninsula, and British Commando reinforced would clear Walcheren. Lieutenant-General Simonds created the concept and expected his staff to complete the required work to enable subordinate commanders to execute his vision. His approach to operational planning centered on the commander and demonstrated a high level of flexibility.[67]

On the morning of 2 October, 2nd CID maneuvered through the bridgehead established by the British 49th Division and made progress despite stiff resistance. By 6 October, the division was within reach of their planned objective Woensdrecht. However, the northeast prong of 1st PAD towards Hertogenbosch, ordered to protect the AG flank, progressed more slowly. On 7 October, First British Corps ceased operations to reorganize. 2nd CID returned to II CC while the

[66] Williams, 95-96, A.G. Steiger, *The Campaign in North-West Europe: Information from German Sources: Part III: German Operations in the Sphere of First Canadian Army (23 Aug– 8 Nov 44)* (Ottawa: Queen's Printer, 1954), 38-41, J. T. Copp, "The Battle of North Antwerp" September 1, 2001, accessed October 15, 2018, https://terrycopp.com/2017/05/18/the-battle-north-of-antwerp/.

[67] Granatstein, *The Generals*, 171; Roman Johann Jarymowycz, "General Guy Simonds: The Commander as a Tragic Hero," in *Warrior Chiefs: Perspectives on Senior Canadian Military Leaders* (Toronto: Dundurn Press, 2001), 129.

British Corps received 7th Armoured and 51st Highland divisions to compensate for the extension of its frontage by twenty-four kilometers.[68]

After meeting stiff resistance on the initial assault and based on an intelligence report of a major counter-attack planned for the night of 8 October, 2nd CID transitioned to the defense and defeated the German units. By 11 October, German 67th Corps elements were digging on the Woensdrecht ridge and the dike that supported the rail to Walcheren Island. After repeated attempts, RHLI seized the town on 16 October. That day, Field Marshal Montgomery issued a new directive. At last, the opening of Antwerp became 21st AG priority. In short, the British Second Army was to clear the enemy from Hertogenbosch in a westerly direction, freeing 1st CA to clear a zone north of the isthmus. Once Esschen fell on 22 October, the resistance around Woensdrecht stopped, providing 2nd CID the required space for initiating its clearing of South Beveland.[69]

Operation Switchback: Clearing the Breskens Pocket (6 October to 3 November 1944)

3rd CID scheme of maneuver to destroy the enemy included a deliberate canal crossing by 7th Canadian Infantry Brigade (7th CIB) to create a bridgehead for the breakout of 8th CIB. Subsequently, 9th CIB would conduct an amphibious assault against the enemy's rear near Biervliet in track landing vehicles known as Buffaloes, no later than 36 hours after the beginning of the operation. This set-piece attack aimed to control tempo and minimize risk to troops. The phasing enabled the division to mass troops maximizing firepower at the decisive point while attempting an amphibious operational maneuver to turn the enemy. Across the canal, the German

[68] Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 381.

[69] J. T. Copp, "The Battle of North Antwerp," September 1, 2001, accessed October 15, 2018, https://terrycopp.com/2017/05/18/the-battle-north-of-antwerp/; First British Corps conducted the operation towards Esschen. It was composed of 4th CAD, 1st PAD, British 49th Division and 104th US Division (first US formation attached to 1st CA). See C. P. Stacey, *The Canadian Army, 1939-1945: An Official Historical Summary* (Ottawa: King's Printer, 1948), 234, 236.

64th Division, veterans of the Eastern and Italian fronts, expected to defend the area for four weeks.[70]

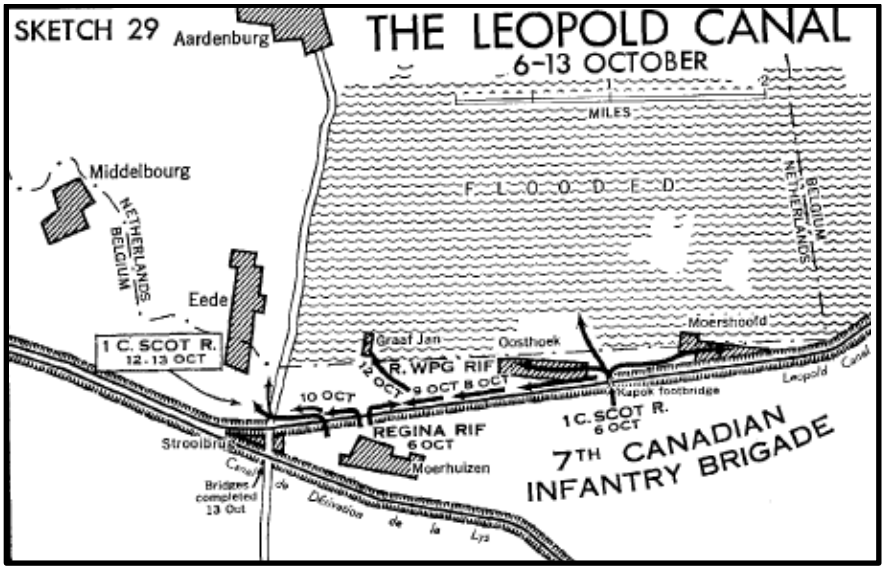

Figure 8. The Leopold Canal. Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 394.

7th CIB's canal crossing started at dawn on 6 October with the innovative combination of Wasp flamethrower vehicles, assault boats, and massed artillery fires. Initially shocked by the violent assault, the 64th Division recovered and mounted a doctrinal counter-attack heavily supported by machine guns and mortar. The 9th CIB amphibious group had difficulties navigating the damaged locks, delaying their actions for twenty-four hours. The bridgehead over the Leopold Canal remained precarious until the landings in the German rear created a turning effect. The night of 8 to 9 October, the naval liaison officer of 1st CA volunteered and successfully led the amphibious group to its two intended beaches. After repulsing a German counter-attack, the brigade's second wave landed under cover of a heavy smoke screen. 9th CIB was within striking distance of Biervliet. The bridgehead gained space at a higher rate than the

[70] Stacey, *The Canadian Army, 1939-1945*, 236; Bill McAndrew, Bill Rawling, and Michael J. Whitby, *Liberation: The Canadians in Europe* (Montreal: Art Global, 1995), 39-40.

Leopold one, which prompted the division commander, Major-General Daniel Spry, to change the plan and deploy 8th CIB to exploit from that approach.[71]

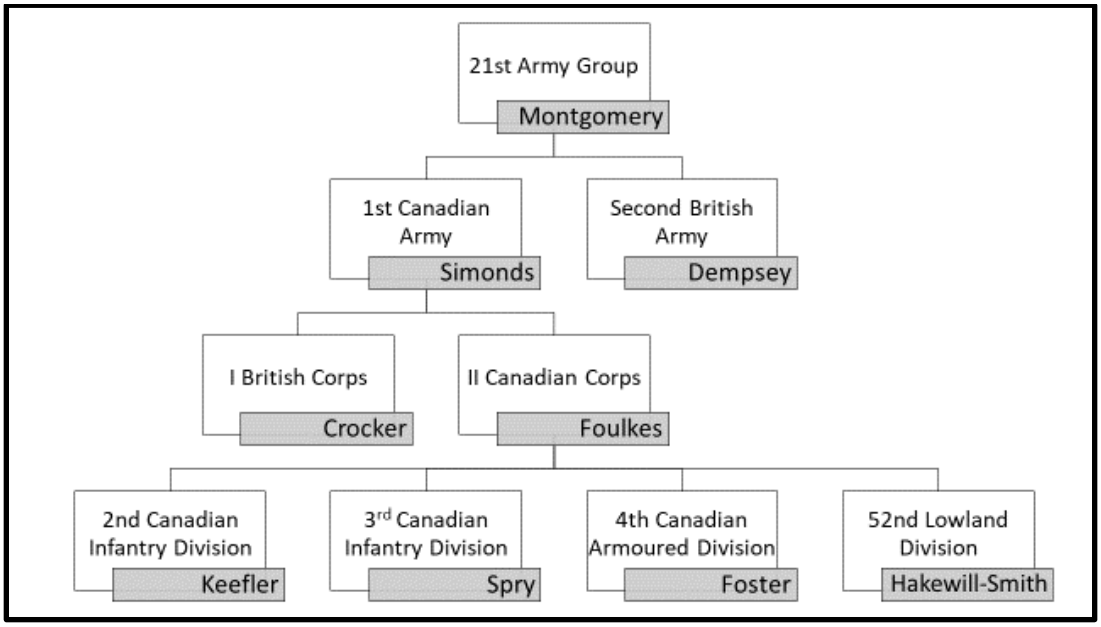

Figure 9. Organization of 1st Canadian Army as of 18 October 1944. Created by author.

Lieutenant-General Simonds reinforced the effort in the south with the addition of 4th CAD to affect a link-up with the elements of 3rd CID in the north-west. By 14 October, the 10th CIB linked-up; negating further need for amphibious logistical support, extending operational reach and reducing risk. On the same day, the Leopold bridgehead started expanding, and by 18 October, 52nd Lowland Division relieved 7th CIB and advanced from their bridgehead. The pocket was now half its original size, but the German 64th Division still held the critical coastal defenses near Breskens. The coastal defenses fell on 22 October after heavy bombardment and artillery fire. Oostburg fell on 26 October, and the occupation of Eberding ended all organized resistance. II CC captured 12,707 prisoners of war.[72]

[71] J. T. Copp, "Battle to Win the Breskens Pocket," March 1, 2001, accessed October 15, 2018, https://terrycopp.com/2017/05/18/ canadian-participation-in-the-world-war-ii-battle-to-win-the-breskens-pocket/.

[72] Stacey, *The Canadian Army, 1939-1945*, 238.

Operation Vitality: Clearing South Beveland (24 to 29 October 1944)

II CC initiated Operation Vitality on 24 October. 2nd CID needed to conduct a rapid advance to secure the near bank of the Beveland canal, cross it, form a bridgehead, and conduct a breakout. 52nd Lowland Division would land on the southern tip of the peninsula to threaten the enemy's rear. The initial clearing went well and 4th Canadian Infantry Brigade (4th CIB) established a bridgehead by 28 October. 52nd Lowland Division had already completed its amphibious assault and linkup between the two forces happened that day. The Division bypassed the enemy's defense successfully in a repetition of Operation Switchback's maneuvers. The two divisions cleared the rest of the peninsula on 29 October. Only a small enemy pocket of resistance remained on the east side of the Walcheren Causeway. The fight for the bridgehead along the causeway went back and forth until 52nd Division relieved 2nd CAD on 2 November.[73]

Operation Infatuate: The Capture of Walcheren (1 to 8 November 1944)

The German 70th Division occupied the strong Walcheren defenses only link to the peninsula by a narrow causeway. Lieutenant-General Simonds, understanding that the center of the island was below sea level, convinced his superiors to blow the dikes at Westkapelle to isolate German defenders in smaller pockets. Once successful, he could reap all the operational benefits of his amphibious force. The updated plan involved a three-pronged assault: one across the causeway from 52nd Lowland Division, one southern amphibious with No. 4 Commando reinforced by a brigade of 52nd Lowland Division, and one western amphibious assault conducted by 4th Special Service Brigade.[74]

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[73] 2nd CID captured 5200 German personnel (KIA unknown), lost 3650 members from 29 September to 2 November 1944. See Stacey, *The Canadian Army, 1939-1945*, 238; Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 403.

[74] Men with medical dietary restrictions formed the German 70th Division demonstrating the extent of use of replacements by 1944. Nevertheless, with appropriate defensive works and proper diet, it proved effective during the campaign; see Bill McAndrew, Bill Rawling, and Michael J. Whitby, *Liberation*, 39; Stacey, *The Canadian Army, 1939-1945,* 240.

In the south, the Royal Air Force bombing and active artillery support enabled a rapid seizure of the port of Flushing. In the west, the bombers had been unable to neutralize the enemy batteries and ground-based artillery was unable to support. Thus, nine assault crafts sank, eight sustained damage out of the twenty-five engaged in the landings. Once ashore, close air support was available, reinforcing the advance with high efficiency. 52nd Division in the east broke through and linked-up in Middleburg on 6 November. By 8 November, the Division had defeated in detail the German 70th Division. The Navy was clearing mines and it would only be a matter of time before Antwerp became open to Ally shipping.[75]

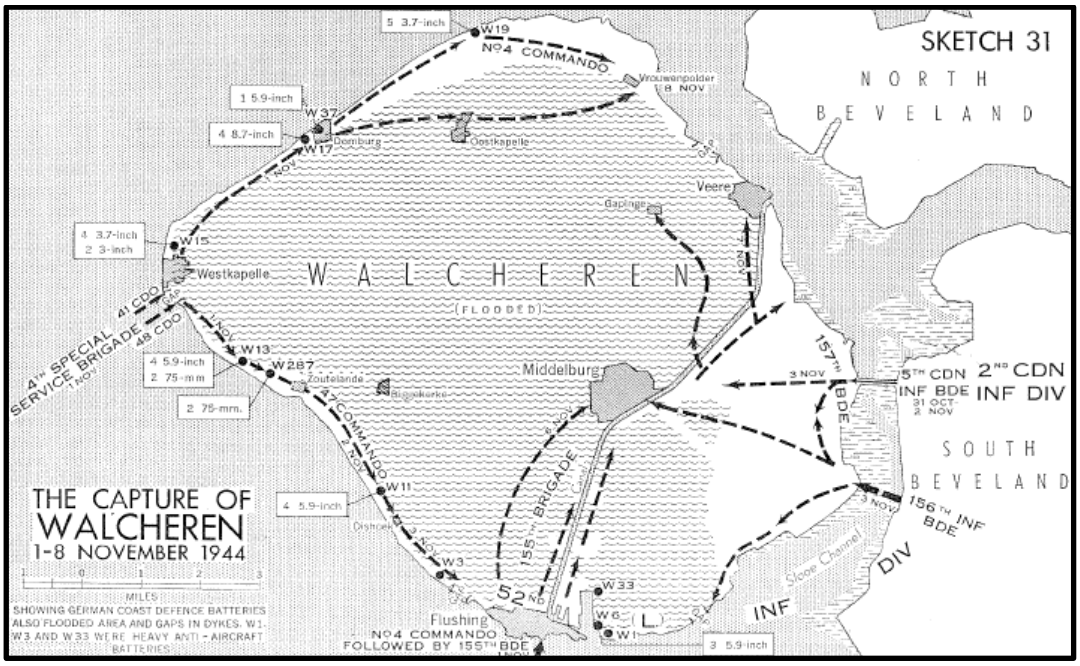

Figure 10. The Capture of Walcheren. Stacey, *Official History of the Canadian Army in the Second World War: The Victory Campaign*, 415.

Analysis

Initially, the Scheldt campaign was more difficult than required due to its low priority within 21st AG. The Canadian command culture emphasized the need to rely on tight centralized control, the concentration of force at the decisive point, and superior firepower. These

[75] On 28 November, the first Allied convoy docked at the port in Antwerp. Between 1 October and 8 November, 1st CA took 41,043 prisoners of war and suffered 19,873 killed, wounded, or missing-in action from all nationalities; see Stacey, *The Canadian Army, 1939-1945*, 241-242.

characteristics helped mitigate the shortage of personnel, mainly key unavailable infantry personnel in the estuary landscape. Therefore, conducting set-piece attacks against a well-entrenched enemy to defeat him methodically proved the most effective approach to maintain tempo while reducing risk.[76]

Indeed, the terrain was conducive to thoroughly planned set-piece attacks with heavy artillery and air bombardment. It was in line with the type of maneuvers inspired by the Great War, with the addition of innovative amphibious landings. The need for mechanized exploitation via armor was not as decisive during the Scheldt campaign, which created less dissonance with the Canadian intellectual framework as dismounted infantry stayed within artillery range. The ability of 1st CA to mass at the decisive point was also key. It became the AG main effort and the means matched the ends, reducing risk and accelerating tempo.[77]

The 1st CA innovated by effectively employing flame-throwers and amphibious track landing vehicles. By doing so, it gained and retained the initiative. It was also experienced and cognizant of the German doctrine of counter-attacks and used its superior indirect firepower to negate its impact. By phasing and transitioning from offense to defense effectively, 1st CA maintained a quicker decision-action cycle without the high speed; impossible to achieve in the flooded environment. The Canadian command culture generally prepared commanders well for that type of campaign. They trained in restrained space in England and were evolving with the lessons learned.[78]

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[76] The casualties in Italy, Normandy and the Scheldt had a significant toll on infantry regiments. French speaking units operated with unilingual English-speaking officers for a while. CA planners had underestimated casualties and overestimated rates of return to the battlefield; see Granatstein, *Canada's Army*, 291-292; US Army, *ADRP 3-0* (2017), 2-7 – 2-10.

[77] J. L. Granastein, *The Best Little Army in the World: The Canadians in Northwest Europe, 1944-1945* (Toronto: Harper Collins, 2015), 124, 168-169; US Army, *ADRP 3-0* (2017), 2-7 – 2-10.

[78] J. T. Copp, *Cinderella Army: The Canadians in Northwest Europe, 1944-1945* (Toronto: University of Toronto Press, 2006), 287-288; US Army, *ADRP 3-0* (2017), 2-7 – 2-10.

In a letter to Lieutenant-General Simonds dated 3 November 1944, Field Marshal Montgomery described the campaign as a great feat of arms:

> "The operations were conducted under the most appalling conditions of ground – and water – and the advantage in these respects favoured the enemy. But in spite of great difficulties you slowly and relentlessly wore down the enemy resistance, drove him back, and captured great numbers of prisoners. It has been a fine performance, and one that could have been carried out only by first class troops. The Canadian Army is composed of troops from many different nations and countries. But the way in which you have all pulled together, and operated as one fighting machine, has been an inspiration to us all."[79]

Ultimately, the nature of the terrain prevented substantial mechanized support during the Scheldt campaign reinforcing the command culture by strengthening the preconceived value of the infantry-centric doctrine and set-piece attacks.

Comparative Analysis

The WWII Canadian command culture described above serves as a generalization of trends across the three levels of culture. Its various aspects influenced operational effectiveness in the ETO in 1944. Comparison of the Falaise pocket and the Scheldt campaigns reveals essential differences in operational and mission variables. Those influence a commander's operational approach. The terrain, composition, and disposition of the enemy played a significant role in the operational effectiveness of 1st CA, illuminating the strength and weaknesses of the intrinsic elements of the command culture.[80]

Operation Totalize and Tractable were combined arms maneuver operations with the aim of creating a breakthrough. Yet, 1st CA's command culture encouraged systematic consolidation of gains. Also, the German Army possessed the advantage of superior armor and anti-tank guns. In other words, 1st CA attacked its opponents' strength with a direct approach. In the Scheldt

[79] Stacey, *The Canadian Army, 1939-1945*, 243.

[80] "An operational environment for each operation differs and evolves as each operation progresses. Army leaders use operational variables to analyze and understand a specific operational environment. They use mission variables to focus on specific elements of an operational environment during mission analysis." see US Army, *ADRP 3-0* (2017), 1-2.

campaign, the infantry-centric engagements supported by artillery and the lack of German armor provided a better chance of success. There, 1st CA had the advantage of using amphibious means to maneuver and attack the enemy's weak point through an indirect approach.[81]

During the Falaise pocket campaign, set-piece attacks were not suited to enable exploitation because the rigid phasing enabled the enemy to retain or regain the initiative, generally between bombings. In the Scheldt campaign, the restricted terrain and the numerous canals that created a serious obstacle to maneuver encouraged set-piece attacks. Therefore, deliberate planning and careful neutralization of the enemy with indirect fires constituted an advantage.[82]

During the Falaise pocket campaign, the risk of operational maneuvers increased due to enemy capacity to conduct massive armor counter-strokes with superior materiel. Besides, there had been no training for deep penetrations during the interwar period or in England. Innovation and evolution in the form of night attacks, bombing, and Priest infantry carriers remained an important part 1st CA's success. Still, the set-piece attacks deeply ingrained in the command culture remained the doctrine of choice.[83]

In the Scheldt campaign, the use of airpower and amphibious capabilities provided a position of advantage for the Canadians. In addition, the requirement for rapid exploitation of success with deep armor thrust did not exist. The enemy was already, by its own strategic choice, isolated. The lack of infantry brought on by the difficulties involved in mobilization reduced 1st CA's willingness to take risks, but resources resulting from its role as the 21st AG main effort helped attain its objectives. The interoperability enabled by common doctrine helped in this

[81] English, 306; Granastein, *The Best Little Army in the World,* 165.

[82] Dick, 192; Copp, *Cinderella Army*, 287.

[83] English, 306; Hart, 180; Copp, *Fields of Fire*, 262.

multinational context. In short, the requirement of the campaign aligned well with the CA command culture, which increased operational effectiveness.[84]

Conclusion

The command culture of the CA in WWII reflected the ambivalent policy of the government towards war and the population's perception of the military profession, the British military influence, and the organizational structure and roles assigned within the institution. On the battlefield, it reduced the ability of second echelon forces to create cognitive disruption but enabled interoperability within 21st AG. The command culture did not encourage the use of mechanized operational maneuvers to exploit but made great use of superior firepower. It limited risk to troops to prevent the hardship and political liability of conscription.

The underlying assumptions of the WWII CA command culture had significant effects on operational effectiveness. By 1943, the attitude towards war created mobilization issues as the number of volunteers dwindled. Since the government dreaded the political implications of conscription as illustrated by its policy of limited liability, it lowered access to means, which reduced the acceptance of risk at the operational level. The attitude toward the CA in the interwar period continued to influence effectiveness during the war. Growing the CA in such a drastic way meant inexperience at every level. Combined with the high amount of training required to prepare, the force encouraged centralized management and tight control as exemplified by the inflexible phasing of Operation Totalize. On the one hand, the main British inspiration for military education had the benefit of favoring interoperability, which was important in a multinational 1st CA subordinate to 21st AG, particularly in the Scheldt campaign with four major contributing nations. On the other hand, the focus on technical knowledge reinforced the need to approach operational problems methodically, sometimes at the expanse of tempo as demonstrated during the Falaise pocket campaign.

[84] Williams, 164; Granatstein, *Canada's Army*, 290.

The espoused values of the WWII CA command culture built on the underlying assumptions. The source of the military elite did not encourage a diverse force, weakening mobilization efforts. In turn, it contributed to an eventual lack of replacements, particularly in the infantry corps, as observed in the Scheldt campaign. Moreover, most of the senior leaders came from the infantry and artillery corps, which influenced their perception of risk, tempo, and phasing. Inspiring figures like Field Marshal Montgomery and General Currie stimulated methodical and rigorous planning. For 1st CA, General Currie's perfected rolling barrage, now supplemented by heavy air bombardment played an essential role in northwest Europe. Field Marshal Montgomery's set-piece battle, which relied upon tight centralized control, the concentration of force at the decisive point, reliance on superior firepower, and a tendency to be cautious was an integral part of the operational approach. It was highly effective in the Scheldt campaign but had limits when bold mechanized operational maneuvers were required.

The artifacts of the WWII CA command culture were the visible expression of the two other levels. While British interwar professional military education had increased interoperability of 1st CA, it had limited numbers of qualified personnel. The lack of qualified personnel affected the ability of commanders to delegate to their staff and augment the overall flexibility of their plans. A lack of officer development in peacetime decreased reliance on them when facing a fluid environment and stiffened the planning process. Observed several times in the Falaise pocket campaign, the regimental system did not offer integral combined arms groupings. Often, operations stopped to allow time for regrouping, which affected tempo. The CA fully embraced technology during the war, attempting to maximize its lethal and protective attributes to save lives. 1st CA remained infantry-centric with other arms in support. In the Falaise pocket campaign, it proved a disadvantage while the Scheldt campaign was suited to the traditional approach.

Overall, the WWII Canadian command culture is a useful framework to explain the successes and challenges of 1st CA from an operational perspective. As demonstrated, both

campaigns contained plenty of innovations, but generally, 1st CA operations aligned with the command culture. In the Falaise pocket campaign, the operating environment created more obstacles to operational effectiveness than during the Scheldt. Remembering this, culture is vital to the modern practitioner as it shapes CA's approach to LSCO.

Indeed, the current principles of war, adopted in 1946, are a synthesis of Canada's experience in WWII. They come from the command culture of the time and influence operational art to this day. The current emphasis on the maneuverist approach creates potential dissonance when looking at mechanized warfare. If some aspects of the command culture are the same, the mechanization of the CA continued after WWII. The doctrine now clearly requires the CA to create cognitive disruption of the enemy in depth—a capability that the CA has never tested against a peer enemy in LSCO. However, being cognizant of the WWII CA command culture can help prepare for the next conflict. As theorist John Boyd argued, cultural tradition, heritage, and previous experience have a notable impact on the orientation phase of the decision-action cycle. There resides the opportunity of learning from our past tendencies to create new ways to answer doctrinal requirements. As seen in WWII, the command culture did not prevent innovation and evolution on the battlefield, but peacetime preparations shaped the force and were critical to operational effectiveness. Awareness of the command culture through professional military education remains vital in shaping the future CA.

Culture being a living phenomenon, there is no doubt that the CA command culture has developed since 1945. Deeply rooted elements within each level of culture remain, but further study of its development in the age of limited wars and peacekeeping operations would deepen our understanding of all the elements that form the 21st Century CA command culture. The rise of the United States as a superpower, the creation of the United Nations, the creation of the North Atlantic Treaty Organization, and the creation of the North American Aerospace Command have significantly affected the culture from an external adaptation perspective. In addition, the 1968 *Canadian Forces Reorganization Act*, the 1969 *Official Language Act*, the 1982 *Constitution Act*

including the *Charter of Rights and Freedom*, and the 1985 *Multiculturalism Act* were sources of internal integration. Ongoing operations in Afghanistan, Iraq, Syria, and Mali will continue to play a role in transforming the Canadian command culture. Conversely, when preparing for LSCO, reviewing the WWII command culture's implication on operational effectiveness offers essential insights into the tendencies of the CA. As General retired Rick Hillier, Canadian Chief of Defence Staff from 2005 to 2008 posited, "I can point out places, people, and events where our leadership for the Canadian Forces was simply not present, let alone effective; fortunately, I can also point out those places and occasions where we got it right. Building on our history and using what occurred in years past to inspire and sustain us in the present and in the years to come was something that we did get right."[85]

[85] Schein, 1; Morton, 232-233, 239, 247, 258, 277; Quote from Rick Hillier, *Leadership* (Toronto: Harper Collins, 2010), 128.

Bibliography

Beevor, Antony. *D-Day: The Battle for Normandy*. New York: Penguin Group, 2014.

_____. *The Second World War*. New York: Back Bay Books, 2013.

Brooks, Randy. "The Principles of War in the 21st Century: Operational Considerations." AMSC-3 Thesis, Canadian Forces College, Toronto, ON, 2000.

Canadian Army. *Canadian Army Doctrine Note 16-01 Land Operation Doctrine, An Updated Summary*. Ottawa: Queen's Printer, 2016.

_____. *B-GL-300-001-FP-001*, *Land Operations*. Ottawa: Queen's Printer, 2008.

_____. *B-GL-300-003-FP-001*, *Command in Land Operations*. Ottawa: Queen's Printer, 2007.

Canadian War Museum. "Conscription 1917." Canada and the First World War, October 2017. Accessed September 15, 2018. https://www.warmuseum.ca/firstworldwar/history/life-at-home-during-the-war/recruitment-and-conscription/conscription-1917/.

Campbell, Kevin T. "The Allied Campaign in Western France – Operational Lessons." Monograph, Operations Department, US Naval War College, Newport, RI, 1993.

Clausewitz, Carl von, Michael Eliot Howard, and Peter Paret. *On War*. Princeton, NJ: Princeton University Press, 1989.

Clausewitz, Carl von and Hans Wilhelm Gatzke. *Principles of War*. Mineola: Dover Publications, 2003.

Coombs, Howard Gerard. "In Search of Minerva's Owl: Canada's Army and Staff Education (1946-1995)." PhD diss., Queen's University, 2010.

Copp, J. T. *Cinderella Army: The Canadians in Northwest Europe, 1944-1945*. Toronto: University of Toronto Press, 2006.

_____. *Fields of Fire: The Canadians in Normandy*. Toronto: University of Toronto Press, 2003.

_____. *Guy Simonds and the Art of Command*. Kingston: Canadian Defence Academy, 2007.

_____. *Montgomery's Scientists: Operational Research in Northwest Europe*. Waterloo: WLU Press, 2000.

_____. "How Did We Defeat the German Army in Normandy?" May 25, 2017. Accessed August 19, 2018. https://terrycopp.com/2017/05/25/how-did-we-defeat-the-german-army-in-normandy-by-terry-copp/.

_____. "Pocket of Destruction: Closing The Falaise Gap." May 19, 2017. Accessed August 19, 2018. https://terrycopp.com/2017/05/19/pocket-of-destruction-closing-the-falaise-gap/.

_____."Battle to Win the Breskens Pocket." March 1, 2001. Accessed October 15, 2018. https://terrycopp.com/2017/05/18/ canadian-participation-in-the-world-war-ii-battle-to-win-the-breskens-pocket/.

_____."The Battle of North Antwerp." September 1, 2001. Accessed October 15, 2018. https://terrycopp.com/2017/05/18/the-battle-north-of-antwerp/.

_____. "To the Last Canadian?: Casualties in the 21st Army Group." *Canadian Military History* 18, no. 1, (2012): 5. Accessed August 21, 2018. http://scholars.wlu.ca/cmh/vol18/iss1/2.

_____. "Breakthrough to Falaise: Mistakes on the Road to Success." *Legion Magazine* 105, (March 2013). Accessed August 19, 2018. https://legionmagazine.com/en/2013/03/breakthrough-to-falaise-mistakes-on-the-road-to-success-army-part-105/.

Copp, Terry, and Robert Vogel. *Maple Leaf Route: Falaise*. Alma: Maple Leaf Route, 1983.

_____. *Maple Leaf Route: Caen*. Alma: Maple Leaf Route, 1983.

Delaney, Douglas E. *Corps Commanders: Five British and Canadian Generals at War, 1939-45*. Vancouver: UBC Press, 2011. Accessed July 19, 2018. http://ebookcentral.proquest.com/lib/carl-ebooks/detail.action?docID=3412684.

Department of National Defence. *Waypoint 2018: The Canadian Army Advancing toward Land Operations 2021*. Ottawa: Queen's Printer, 2015.

_____. *Canadian Army Leadership in the 21st Century: Report of the Army Future Seminar*. Ottawa: Queen's Printer, 2002.

_____. *A-PA-005-000/AP-004, Leadership in the Canadian Forces: Conceptual Foundations*. Ottawa: Queen's Printer, 2005.

D'Este, Carlo. *Decision in Normandy*. New York: Harper Perennial, 1994.

Dick, Charles. *Decisive and Indecisive Military Operations*,Volume 1. *From Victory to Stalemate: The Western Front, Summer 1944, Modern War Studies*. Edited by Theodore Wilson. Lawrence: University Press of Kansas, 2016.

Duguid, A. Fortescue. *Official History of the Canadian Forces in the Great War 1914-1919*. Ottawa: King's Printer, 1938.

Durflinger, Serge. "French Canada and the Recruitment During the First World War." Dispatches: Backgrounders in Canadian Military History. Accessed September 15, 2018. https://www. warmuseum.ca/learn/dispatches/french-canada-and-recruitment-during-the-first-world-war/#tabs.

Ellis, John. *Brute Force: Allied Strategy and Tactics in the Second World War*. New York: Viking, 1990.

Engen, Robert. *Canadians Under Fire: Infantry Effectiveness in the Second World War*. Montreal: MQUP, 2009. Accessed July 19, 2018. http://ebookcentral.proquest.com/lib/carl-ebooks/detail.action?docID=3332068.

English, Allan D. *Understanding Military Culture: A Canadian Perspective*. Montreal: MQUP, 2004. Accessed July 19, 2018. http://ebookcentral.proquest.com/lib/carl-ebooks/detail.action? docID=3330644.

English, John A. *The Canadian Army and the Normandy Campaign: A Study of Failure in High Command*. New York: Praeger, 1991.

Forrester, Charles James. *Monty's Functional Doctrine: Combined Arms Doctrine in British 21st Army Group in Northwest Europe, 1944-45*. Solihull: Helion & Company Limited, 2015.

Fuller, J.F.C. *Foundations of the Science of War*. London: Hutchinson and Co., 1926.

Fussell, Paul. *The Great War and Modern Memory*. New York: Oxford University Press, 1975.

Globe and Mail. "Canadian Army Statistics." October 17, 1945. Accessed September 20, 2018. https://www.warmuseum.ca/cwm/exhibitions/ newspapers/canadawar/army_e.shtml.

Godefroy, Andrew B. *Great War Commands: Historical Perspectives on Canadian Army Leadership, 1914-1918*. Kingston: Canadian Defence Academy Press, 2010.

Granatstein, J. L. *The Generals: The Canadian Army's Senior Commanders in the Second World War*. Calgary: University of Calgary Press, 2005.

_____. *Canada's Army: Waging War and Keeping the Peace*. Toronto: University of Toronto Press, 2002.

_____. *The Best Little Army in the World: The Canadians in Northwest Europe, 1944-1945*. Toronto: Harper Collins, 2015.

_____. "Five Lessons We Learned about Canada in Wartime." *Macleans*, August 2014. Accessed August 20, 2018. https://www.macleans.ca/news/canada/five-lessons-we-learned-about-canada-in-wartime/.

Hart, Russell A. *Clash of Arms: How the Allies Won in Normandy*. Boulder: Lynne Rienner, 2001.

Hart, Stephen A, and Johnny Shumate. *Operation Totalize 1944 - the Allied Drive South from Caen*. New York: Osprey Publishing, 2016.

Hillier, Rick. *Leadership*. Toronto: Harper Collins, 2010.

Jarymowycz, Roman Johann. "General Guy Simonds: The Commander as a Tragic Hero." In *Warrior Chiefs: Perspectives on Senior Canadian Military Leaders*, edited by Bernard Horn and Stephen John Harris, 107-141. Toronto: Dundurn Press, 2001.

Keegan, John. *Six Armies in Normandy: From D-Day to the Liberation of Paris*. New York: Penguin Books, 1994.

Kuffert, L. B. *Great Duty: Canadian Responses to Modern Life and Mass Culture, 1939-1967*. Montreal: MQUP, 2003. Accessed July 19, 2018. http://ebookcentral.proquest.com /lib/carl-ebooks/ detail.action?docID=3330701.

LeBlanc, Scott Simon Gerald. "Breaching the Ramparts: The 3rd Canadian Infantry Division's Capture of Boulogne in World War Two." Masters Monograph, School of Advanced Military Studies, US Army Command and General Staff College, Ft. Leavenworth, KS, 2016.

Liddell Hart, Basil Henry. *Strategy*. 2nd ed. New York: Meridian, 1991.

Luttwak, Edward. *Strategy: The Logic of War and Peace*. Cambridge: Harvard University Press, 2001.

McAndrew, Bill, Donald E. Graves, and Michael J. Whitby. *Normandy 1944: The Canadian Summer*. Montreal: Art Global, 1994.

_____. *Liberation: The Canadians in Europe*. Montreal: Art Global, 1995.

McAndrew, William. "Operational Art and the Canadian Army's Way of War." In *The Operational Art: Developments in the Theories of War*, edited by B. J. C. McKercher and Michael A. Hennessy, 87-102. Westport: Praeger, 1996.

McKee, Alexander. *Caen, Anvil of Victory: Formerly "Last Round against Rommel*." New York: St. Martin's Press, 1984.

Milner, Marc. *Stopping the Panzers: The Untold Story of D-Day*. Lawrence: University Press of Kansas, 2017.

Montgomery, Bernard Law. *The Memoirs of Field Marshal Montgomery*. New York: The New American Library, 1959.

_____. *21st Army Group: Some Notes on the Conduct of War and The Infantry Division in Battle*. Belgium: 21st Army Group, 1944.

_____. *21st Army Group: The Armoured Division in Battle*. Holland: 21st Army Group, 1944.

_____. *21st Army Group: High Command in War*. 2nd ed. Ottawa: King's Printer, 1946.

Morton, Desmond. *A Military History of Canada*. 5th ed. Toronto: McClelland & Stewart, 2007.

Muth, Jörg. *Command Culture: Officer Education in the US Army and the German Armed Forces, 1901-1940, and the Consequences for World War II*. Denton: University of North Texas Press, 2013.

Osinga, Frans P.B. *Science, Strategy and War: The Strategic Theory of John Boyd*. New York: Routledge, 2007.

Prados, John. *Normandy Crucible: The Decisive Battle That Shaped World War II in Europe*. New York: NAL Caliber, 2011.

Preston, Richard Arthur. *Canada's RMC: A History of the Royal Military College*. Toronto: University of Toronto Press, 1969.

Richer, Léopold. "La Loi King Votée aux Communes et au Sénat." *Le Devoir*, June 21, 1940. Accessed September 20, 2018. https://www.warmuseum.ca/cwm/exhibitions/newspapers/canadawar/conscription_e.shtml

Schein, Edgar H. *Organizational Culture and Leadership*. 3rd ed. San Francisco: Jossey-Bass, 2004.

Shamir, Eitan. *Transforming Command: The Pursuit of Mission Command in the U.S., British, and Israeli Armies*. Stanford: Stanford Security Studies, 2011.

Simonds, Guy, and Terry Copp. "General Simonds Speaks: Canadian Battle Doctrine in Normandy." *Canadian Military History* 8, no. 2 (1999): 13.

Stacey, C. P. *The Canadian Army, 1939-1945: An Official Historical Summary*. Ottawa: King's Printer, 1948.

_____. *Official History of the Canadian Army in the Second World War: Six Years of War*. Ottawa: Queen's Printer, 1955.

_____. *Official History of the Canadian Army in the Second World War: The Victory Campaign: The Operations in Northwest Europe, 1944-45*. Ottawa: Queen's Printer, 1960.

_____. *Arms, Men and Government: The War Policies of Canada 1939-1945*. Ottawa: Queen's Printer, 1970.

Statistics Canada. "Distribution of the population, by ethnic group, census years 1941, 1951 and 1961," Canada Yearbook, 1967. Accessed October 15, 2018. https://www65.statcan.gc.ca/acyb02/1967/acyb02_ 19670197014-eng.htm.

Steiger, A.G. *The Campaign in North-West Europe: Information from German Sources: Part II: Invasion and the Battle for Normandy (6 Jun – 22 Aug 44)*. Ottawa: Queen's Printer, 1952.

_____. *The Campaign in North-West Europe: Information from German Sources: Part III: German Operations in the Sphere of First Canadian Army (23 Aug– 8 Nov 44)*. Ottawa: Queen's Printer, 1954.

Tennyson, Brian Douglas. *Canada's Great War, 1914-1918: How Canada Helped Save the British Empire and Became a North American Nation*. Lanham: Rowman & Littlefield, 2015.

US Department of the Army. *Army Doctrine Reference Publication (ADRP) 3-0, Operations*. Washington, DC: Government Printing Office, 2017.

_____. *Army Doctrine Reference Publication (ADRP) 6-22, Army Leadership*. Washington, DC: Government Printing Office, 2012.

_____. *Army Doctrine Reference Publication (ADRP) 6-0, Mission Command*. Washington, DC: Government Printing Office, 2012.

_____. *Field Manual (FM) 3-0, Operations*. Washington, DC: Government Printing Office, 2017.

US Marine Corps. *Marine Corps Doctrinal Publication (MCDP) 1, Warfighting*. Washington, DC: Government Printing Office, 1997.

Vance, Jonathan F. *Death so Noble: Memory, Meaning, and the First World War*. Vancouver: UBC Press, 1997.

Van Creveld, Martin L. *Command in War*. Cambridge: Harvard University Press, 1987.

_____. *Fighting Power: German and US Army Performance, 1939-1945*. Westport: Greenwood Press, 1982.

Vandergriff, Donald E, and Stephen Webber. *Mission Command: The Who, What, Where, When and Why: An Anthology*. Kabul: Vandergriff and Webber, 2017.

Williams, Jeffery. *Long Left Flank: The Hard Fought Way to the Reich, 1944-1945*. London: Leo Copper, 1988.

Williams, Michael Paul. "The Rough Road to Antwerp: The First Canadian Army's Operations along the Channel Coast." Masters Monograph, School of Advanced Military Studies, US Army Command and General Staff College, 2014.

Wood, James. *Militia Myths: Ideas of the Canadian Citizen Soldier, 1896-1921*. Vancouver: UBC Press, 2010. Accessed July 19, 2018. http://ebookcentral.proquest.com/lib/carl-ebooks/detail.action? docID=3412908.

Zuehlke, Mark. *Breakout from Juno: First Canadian Army and the Normandy Campaign, July 4-August 21, 1944*. Vancouver: Douglas & McIntyre, 2012.