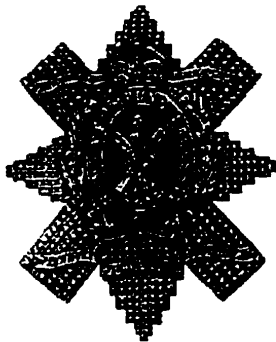


*THE  
"FIGHTING SEVENTH":*

The Evolution & Devolution of Tactical Command and Control  
in a Canadian Infantry Brigade of the Great War

by

Ian M. McCulloch



A thesis submitted  
in partial fulfilment of the requirements  
for the degree of Master of Arts in War Studies  
at the Royal Military College of Canada  
Kingston, Ontario

March 1997



National Library  
of Canada

Acquisitions and  
Bibliographic Services

395 Wellington Street  
Ottawa ON K1A 0N4  
Canada

Bibliothèque nationale  
du Canada

Acquisitions et  
services bibliographiques

395, rue Wellington  
Ottawa ON K1A 0N4  
Canada

*Your file* *Votre référence*

*Our file* *Notre référence*

The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.

L'auteur conserve la propriété du droit d'auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

0-612-22774-X

*This work is respectfully  
dedicated*  
to my first cousin (twice removed),



**Captain Colin Carrigan, MC & Bar,**  
1st Battalion, Royal Munster Fusiliers,  
killed while leading his company  
in an attack on the D-Q Line, 2 September 1918

&  
my great-uncle,



**Lieutenant William Barrett-Lennard, MC,**  
The Royal Canadian Regiment,  
who, seriously wounded in the attack on the Marcoing Line,  
lived to tell the tale to a ten year old boy  
some 45 years later.

## ABSTRACT

During the past decade, several scholarly works have examined Canadian military participation in the First World War, but their focus has primarily been at two levels: one is the high command and the interaction between politicians and generals; the other, the combatant soldier and his experiences in combat as related in published anthologies, general works, journals, diaries or imaginative literature. The appeal of these two aspects of war is not to be wondered at and both have their merits. However, study of command and control at the operational and tactical levels of the First World War has largely been ignored, possibly because it lacks the emotive content of the former two areas. Command history, however, has merits of its own, in that it lays bare the actual conduct of the world's first full scale industrial war.

Like the other parts of the art of war, command also has its own history, which is, to a limited extent, autonomous and independent of other components. Developments in any one of the components almost always entails a change in the rest, as the various elements of command systems such as intelligence, communications, training, administration and supply interact with one another, as well as with the processes of command. The evolution of command, in brief, is as complex as that of any other part of war. This thesis examines the complex *gray area* of Canadian command and control in the First World War within an infantry brigade and its evolution at the tactical level as well as its devolution of functions and responsibilities.

Command as an effective process is susceptible to Clausewitz's "friction of war". External factors causing friction range from the technical (eg. the lack of voice communications beyond the battalion HQ) to the sociological (eg. the human dimension of "leadership" or, perhaps, shoddy staff work). Organizational changes, technological innovations and measures taken to enhance command and control systems were

attempts to apply more control to a chaotic battlefield. Artillery fire support, intelligence-gathering, aerial and ground reconnaissance, telephones and the development of wireless, the employment of machine-guns and tanks, and the trend towards combined arms warfare are all examples of catalysts that designed the shape of the new modern warfare and are examined in this thesis on a chronological basis. Accompanying the new design was a requirement for a shift in the application of command techniques or “the process” to control the new tactical systems . This shift can be termed “Darwinian” in that the lethal environment and emerging technologies demanded evolutionary adaptation in order for Canadian troops to survive and, at the same time, achieve their military mission.

By the end of the Great War, the Canadian command paradigm of 1918 did not resemble the 1914 paradigm, just as 1918 tactics, equipment, weapons and military organization did not resemble their 1914 antecedents. As the nature of war is usually unpredictable by peacetime armies, it is important to examine historical examples that stress the need for structuring and placing essential command functions in place before any war occurs. How the command paradigm shift took place deserves closer historical examination which this work begins.

Ian M. McCulloch

## *CONVENTIONS & ABBREVIATIONS*

A plethora of military jargon, acronyms and abbreviations have always been part and parcel of military life, and thus invariably find their way into military history. The list following this text is included to alleviate the burden, not only upon the reader but the author as well, who saves valuable space by not having to constantly spell out repetitious titles, ranks, appointments etc. Although not historically correct, Canadian Infantry Division has been abbreviated to CID, though CIB for Canadian Infantry Brigade was the accepted practise of the day. All non-military abbreviations used in the chapter footnotes, including the various archives, libraries and organizations consulted, are also found in this list of abbreviations.

I have not generally used the elaborate pedantic official system of nomenclature for battles as found in the Official Histories, but have followed the more straightforward, popular usage by which, for example: “The Somme” is the whole battle fought between June and November 1916; “Passchendaele” or “3rd Ypres” is the whole of the autumnal fiasco in 1917; and, “The Hundred Days” is the semi-open warfare advance from Amiens to Mons. The only deviations from the norm are Canadian-specific battles like the Avion Raid, Mt Sorrel and Vimy (which was in fact, part of the battle of “Arras”).

Throughout the text, as a rule, I have capitalized trench and objective codenames as they were used in the staff duties of the day. If any codenames appear in lower case within the body of a quotation, then it is because they appear so in the original. Time is not shown using the military style 24 hour clock, as most regimental histories and operational orders used the conventional mode of the day.

AA.....	Anti-Aircraft
ABRC.....	Advanced Brigade Report Centre
A&Q.....	Administration & Quartermaster General
ADC.....	Aide-de-camp
Adj. ....	Adjutant
AG.....	Adjutant-General

ANZAC.....	Australian & New Zealand Army Corps
Appx.....	appendix
Arty.....	Artillery
ASC.....	Army Service Corps
Aux.....	Auxiliary
BBO.....	Brigade Bombing Officer
BEF.....	British Expeditionary Force
BGGS.....	Brigadier-General, General Staff
BGO.....	Brigade Gas Officer
BGS.....	Brigadier, General Staff
BGen.....	Brigadier General
BM.....	Brigade Major
BMG Coy.....	Brigade Machine Gun Company
Bn.....	Battalion
BOH.....	British Official History
Bty.....	Battery
BWA.....	Black Watch Archives
CAMC.....	Canadian Army Medical Corps
Capt.....	Captain
Cav.....	Cavalry
CB.....	Counter-Battery
CBO.....	Counter-Battery Officer
CBC.....	Canadian Broadcasting Corporation
CCB.....	Canadian Cavalry Brigade
CCHA.....	Canadian Corps Heavy Artillery
CCWS.....	Canadian Corps Wireless Section
CCTS.....	Canadian Corps Training School
CE.....	Canadian Engineers
CEF.....	Canadian Expeditionary Force
CFA.....	Canadian Field Artillery
CFR.....	Commissioned from the Ranks
CGA.....	Canadian Garrison Artillery
CGS.....	Chief of the General Staff
CIB.....	Canadian Infantry Brigade
CID.....	Canadian Infantry Division
CIGS.....	Chief of the Imperial General Staff
C-in-C.....	Commander-in-Chief
CMG.....	Companion of the Order of St Micheal and St George
CMGC.....	Canadian Machine Gun Corps
CMR.....	Canadian Mounted Rifles
CO.....	Commanding Officer

Col.....	Colonel
Coy.....	Company
Corp.....	Corporal
CQMS.....	Company Quartermaster Sergeant
CSM.....	Company Sergeant Major
DA&QMG.....	Deputy Adjutant & Quartermaster General
DCM.....	Distinguished Conduct Medal
DGO.....	Divisional Gas Officer
Div.....	Division
D-Q Line.....	Drocourt-Queant Line
DSO.....	Distinguished service Order
Engr.....	Engineer
FOO.....	Forward Observation Officer
FSR.....	Field Service Regulations
Gen.....	General
GHQ.....	General Headquarters
GO.....	General Order
GOC.....	General Officer Commanding (usually Div or higher)
GS.....	General Staff
GSO 1: and 2&3.....	General Staff Officer, 1st, 2nd or 3rd Grade
HE.....	High Explosive
HMG.....	Heavy Machine Gun (Vickers or Colt)
HMT.....	His Majesty's Transport
HQ.....	Headquarters
"I".....	Intelligence
i/c.....	in command
Inf.....	Infantry
KCB.....	Knight Commander of the Order of the Bath
KR.....	King's Regulations
LCol.....	Lieutenant-Colonel
L/Cpl.....	Lance-Corporal
LdSH.....	Lord Strathcona's Horse



LMG.....	Light Machine Gun
LO.....	Liaison Officer
LOB.....	Left Out of Battle
Lt or 2/Lt.....	Lieutenant or 2nd Lieutenant
L of C.....	Line of Communications
Maj.....	Major
MC.....	Military Cross
MG.....	Machine Gun or Manuscript Group
MM.....	Military Medal
MO.....	Medical Officer
MP.....	Military Police
MUA.....	McGill University Archives
MRBMD.....	McGill Rare Book and Manuscript Department
NAC.....	National Archives of Canada
NCO.....	Non-Commissioned Officer
NWMP.....	North-West Mounted Police
OC.....	Officer Commanding
OM.....	Overseas Minister
OMFC.....	Overseas Military Forces of Canada
OO.....	Orderly Officer
OP.....	Observation Post
Op.....	Operation
OR.....	Other Rank
PF.....	Permanent Force
PPCLI.....	Princess Patricia's Canadian Light Infantry
PT.....	Physical Training
RA.....	Royal Artillery
RAF.....	Royal Air Force
RCD.....	Royal Canadian Dragoons
RCHA.....	Royal Canadian Horse Artillery
RCR.....	The Royal Canadian Regiment
RE.....	Royal Engineers
RFA.....	Royal Field Artillery
RFC.....	Royal Flying Corps
RG.....	Record Group
RHC.....	Royal Highlanders of Canada
RMC.....	Royal Military College
RN.....	Royal Navy

RNWMP.....	Royal North-West Mounted Police
RO.....	Routine Orders
RSM.....	Regimental Sergeant Major
RSO.....	Regimental Standing Orders
SAA.....	Small Arms Ammunition
SBR.....	Special Box Respirator
Sgt.....	Sergeant
SO.....	Standing Orders
SOS.....	Struck off Strength or emergency call for arty fire support
Sqn.....	Squadron
TM.....	Trench Mortar
VC.....	Victoria Cross
VRC.....	Victoria Rifles of Canada
WD.....	War Diary
WO.....	War Office
YMCA.....	Young Men's Christian Association

## TABLE OF CONTENTS

Abstract.....	i
Conventions & Abbreviations.....	iii
Table of Contents.....	viii
List of Figures.....	ix
Acknowledgements.....	x
Introduction- <i>“Defining Command”</i> .....	1
Chapter One - <i>“Start-State”</i> .....	15
Chapter Two - <i>“Standing-Up”</i> .....	55
Chapter Three- <i>“The Year of Learning-How” - 1916</i> .....	86
Chapter Four - <i>“The Year of Professionalization” - 1917</i> .....	143
Chapter Five - <i>“The Year of Mobility” - 1918</i> .....	196
Conclusion - <i>“Keeping One’s Freedom of Action”</i> .....	264
Appendix A - List of 7th CIB Comds & COs.....	276
Appendix B - Short Histories of 7th CIB Units.....	278
Note on Sources.....	281
Bibliography.....	287

## LIST OF FIGURES

Figure 1 - War Establishment (WE) - Infantry Bn HQ Coy -1916.....	29/30
Figure 2 - WE - Infantry Rifle Coy -1916.....	32
Figure 3 - WE - Infantry Brigade HQs - 1914-1917.....	39
Figure 4 - WE - PPCLI Rifle Coy - 1916.....	70/71
Figure 5 - 42nd Bn Personnel with Former Military Service - 1915.....	76
Figure 6 - Schematic Layout of of Cable Grid - 1917.....	175
Figure 7 - Schematic of 42nd Bn in Assault Formation - Vimy, 1917.....	186
Figure 8 - Schematic of German "Elastic" Defence -1917.....	192
Figure 9 - Infantry Platoon Organization - 1918.....	242
Figure 10 - Trench Mortar Communication Network.....	247

## ACKNOWLEDGEMENTS

I would first like to acknowledge the generous assistance and wise counsel of my thesis advisor, Doctor Desmond Morton, Director of the McGill Institute for the Study of Canada. Dr Morton has, over the last three years of study, always made time for me, despite the heavy demands placed on him by a myriad of people, ranging from the Minister of National Defence and the Canadian media, to his undergraduates, graduates and colleagues he interacts with on a daily basis in his busy job. His suggestions, encouragement, caustic wit, and friendship have been invaluable in this, my first real venture into 20th century Canadian military history. In large measure, this thesis on a First World War topic was inspired by his own research and studies on Canadians in the Great War and, to a lesser degree, by the wealth of fascinating material on the subject I found lying at my fingertips in the Black Watch Archives whilst in command of the Regiment. To the archivists of that regimental institution - Maura Pennington, Johanna Douglas-O'Neill, and Linda Brown - I owe a big thanks for bringing many items to my attention.

I would also like to express my gratitude to Dr Ron Haycock who gave me the "green light" to proceed with this topic and was also instrumental in finding some much needed cash to help quarter and victual an unsponsored grad student "laying siege" to the NAC in September-October 1996. I also wish to thank Capt Justin Schmidt-Clever who kept me administratively on track this past year, Dr Al English who helped me focus clearly on the various levels of war in his War Studies 500 class, and the Ottawa crowd at the NAC comprising Tim Dube, Paul Marsden and my good friend, Tim Cook, who all made many useful suggestions and helped me out enormously in their respective areas of expertise.

Last but not least, I wish to give special thanks to Roy Henley, 97, of Sydney BC, Frank Flory, 97, of Woodside, California, and Alf de Gruchy, 101, of Montreal, Quebec, for graciously sharing their memories and experiences of trench warfare with me. The more I learned, the more my respect and admiration for these three surviving "Jocks" of the 42nd Bn, Royal Highlanders of Canada, grew. Here's to the all of the Jocks of *The Gallant Forty Two* and their brethren in *The Fighting Seventh* - "There's nane like ye and, probably, will ne'er be again!"

## INTRODUCTION

### “DEFINING COMMAND”

**One of the least controversial things that can be said about command and control is that it is controversial, poorly understood, and subject to wildly different interpretations. The term can mean almost anything from military computers to the art of generalship: whatever the user wishes it to mean.<sup>1</sup>**

K.L. Moll, “*Understanding Command and Control*,” 1978.

**For I am a man under authority, having soldiers under me: and I say to this man, go, and he goeth, and to another, come, and he cometh...**

*Book of Matthew, 8:9. New Testament*

In the modern day world of military jargon and acronyms, command and control (C2) and its derivatives - command, control and communications (C3); command, control, communications and computers (C4); command, control, communications and intelligence (C3I); and command, control, communications, intelligence and interoperability (C3I2) - offer a bewildering, complex and indigestible array of definitions to the command historian.

The centurion in the New Testament probably has the most straightforward approach and understanding of what command is all about. His definition highlights the function of command: that is, the giving of orders to subordinates and the power to do so emanating from above. The centurion exercises command in the name of the authority invested in him by his superiors, and, when he deems it necessary that one man must go and the other must come for the successful achievement of the mission, he tells them to do so and thereby exercises control. Thus, within a headquarters, which is made up of a commander and his staff, one might say the commander *commands* by taking the major decisions, and his staff *control* by turning those decisions into detailed

---

<sup>1</sup> K.L. Moll, cited in George E. Orr, *Combat Operations C3I: Fundamentals and Interactions*, Research Report No. AU-ARI-82-5, (Maxwell Air Force Base, Alabama: Air University Press, July 1983) 23.

orders and issuing them for execution. At the other end of the spectrum, the lowly platoon commander in deciding to execute a left flanking on a pillbox once he has crossed the battalion start line is exercising his command mandate, then places the control measures in place by allocating tasks to his various sections who execute them to achieve the mission.

The definition of command and control taken together that will be used for the purposes of this thesis is:

The exercise of authority and direction by a properly designated commander over assigned forces in the accomplishment of the mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities and procedures which are employed by a commander in planning, directing, coordinating and controlling forces and operations in the accomplishment of the mission.<sup>2</sup>

The command function is found in the first sentence. It has not changed essentially since the Stone Age. As Martin van Creveld has noted, "the problem of commanding and controlling armed forces, and of instituting effective communications with and within them, is as old as war itself."<sup>3</sup> The resources and means by which command is facilitated, however, such as communications, intelligence, standard operating procedures, organization, staff work, etc., *has* changed. It is the second and third part of the above definition which will provide the focus for this study - the command system or "arrangement of personnel, equipment, communications, facilities and procedures" and the command process. The latter operates in a cyclical fashion, starting with incoming intelligence, followed by an estimate or evaluation of the situation, continuing through to the commander's decision, and then progressing through planning, transmitting of orders to subordinate forces, execution by those forces, and finally revision of intelligence using feedback such as after-action reports from below.

---

<sup>2</sup> Frank M. Snyder, *Command and Control: The Literature and Commentaries*, (Washington, DC: National Defence University Press Publications, 1993) 11.

<sup>3</sup> Martin van Creveld, *Command in War*, (Cambridge, Mass: Harvard University Press, 1985) 1.

In essence, this process is the transformation of information into directives, and then, directives into action, and requires the commander to make decisions which can be of three types: operational, organizational, and informational. Frank Snyder writing for the *Command and Control Research Program* at the National Defence University notes:

We customarily think of commanders as focusing primarily on operational decisions about the employment of their forces, but such decisions are made only in the light of prior organizational and information decisions. Prior *organizational* decisions have established a chain of command for the execution of operational decisions, as well as establishing a structure for the flow of reports, and for the intermediate processing of information. *Information* decisions are made by commanders to establish what they believe the situation to be, and how that situation relates to the mission they are trying to accomplish. Although information decisions are not articulated, a commander's *operational decisions* (about what actions subordinate commanders are to take) are always preceded by information decisions about what is actually happening.<sup>4</sup>

The Duke of Wellington would concur having once said, " I have spent all my life trying to guess what lay on the other side of the hill."<sup>5</sup> Ultimately, the essentials of action by the commander are *knowing* and *seeing*, then *deciding*. Our chosen definition of command and control evokes the personal nature of command, especially the fact that it is vested in an individual who, being responsible for the "direction, coordination and control of military forces" is then legally and professionally accountable for everything those forces do or fail to do. Thus one of the dominant characteristics of the command function is its human dimension.

Leadership, courage, professional expertise and sound judgement have a direct impact on effective command, not only in combat, but also in the selection and preparation of future commanders who will embody creative thinking, decisiveness and a will to win. This human dimension of command and control, however, will not be explored in great depth in this thesis except when it emerges as a positive or negative factor in the examination of 7th Canadian Infantry Brigade (7th CIB) as a case study.

---

<sup>4</sup> Snyder, *Command and Control*, 13.

<sup>5</sup> Arthur Wellesley cited in A.L. Rodgers *et al. Surveillance and Target Acquisition Systems*, (Oxford: Brassey's Defence Publishers, 1983) 157.



Tactical command for the purposes of this study will be taken to be the command and control functions required to operate effectively in tactical warfare and achieve combat success.

In the abstract, tactical warfare may be considered as a combination of three elements: *mobility*, *protection* and *offensive power*. Down through military history, these three elements have interacted continuously, though it has only been in the last century that a vast increase in firepower and technology has created the need for carefully designed combinations of mobility, protection and additional offensive power in the form of supporting firepower to neutralize or destroy that of one's opponent. Tactical command by extension therefore becomes the process of integrating, coordinating and directing the all arms tactical system.<sup>6</sup>

In 1907, a British staff officer wrote:

We have gotten into the fashion of talking of cavalry tactics, artillery tactics, and infantry tactics. This distinction is nothing but a mere abstraction. There is but one art, and that is the tactics of the combined arms. The tactics of a body of mounted troops composed of the three arms is subject to the same established principles as is that of a mixed force in which foot soldiers bulk largely. The only difference is mobility.<sup>7</sup>

This plea to consider the concept of "combined arms" was not new. In preceding centuries, the trend of commanders was to combine the arms at progressively lower levels of organizations insuring greater cooperation between them, and by combining their actions, maximizing the effect of their various capabilities. This need for greater coordination and established procedures also arose from the use of railroads and the telegraph which, in turn, created the need for specialized personnel and thus gave birth to the first general staff.

The need for interarm cooperation was never more critically apparent than in the trench stalemate fostered and perpetuated in the first four years of the First World

---

<sup>6</sup> Jonathan M. House, *Toward Combined Arms Warfare: A Survey of 20th Century Tactics, Doctrine and Organization*, [Research Survey No.2], (Fort Leavenworth, Kansas: Combat Studies Institute, 1984) 4.

<sup>7</sup> Gerald Gilbert, *The Evolution of Tactics*, (London: Hugh Reeves Ltd., 1907) 183-84.

War. The mobility denied several armies, which stared at each other over a No Man's Land dominated by protection (trenches, pillboxes, barbed wire, minefields) and offensive power (machine guns, trench mortars, quick-firing artillery) could only be regained by close coordination of infantry (mobility), artillery (offensive power) and a fledgling armour corps (which theoretically combined all three elements).

Rawling, in his study of technology and the Canadian Corps entitled *Surviving Trench Warfare*, has chronicled how Canadians specifically adopted and adapted lessons from the Somme, Verdun and the March Offensive [1918] "to construct a tactical system which would allow them to cross no man's land, capture the enemy defences, and hold them against counter-attack." This system, he argues, involved mobility and offensive power at two levels: "the battalion, [which] made its way towards its objective while the artillery kept enemy soldiers in their protective dugouts" and "the platoons that...then fought their own separate battles against trench systems and pillboxes and fought to hold onto the ground they had gained." While Rawling is explicit in how Canadian amateurism came to be replaced by a quiet grim professionalism "of men who knew there was no other way out but to see the thing through," his masterly analysis neglects to conclusively identify the adhesive thread or master glue that held the new combined arms or "tactical" system of artillery, infantry and armour together - an effective command and control process and system to integrate and direct that attack system.<sup>8</sup>

The factors that improved the span of control, the speed of decision making, and leadership ability in the Canadian Corps have not been adequately covered in any type of historical treatment of the First World War. The attack doctrine or "tactical system" worked out by the Canadians was not developed merely in response to technological and tactical necessities alone, but demanded by the constant requirement in war to master uncertainty, or as Clausewitz has termed it - "the friction of war".

---

<sup>8</sup> Bill Rawling, *Surviving Trench Warfare: Technology and the Canadian Corps 1914-1918*, (Toronto: University of Toronto Press, 1992) 6-7.

Van Creveld has noted in his book *Command in War* that there are two basic approaches commanders have historically taken to reduce the friction and uncertainty. One is the enhancement of certainty through rigid discipline, standard operating procedures and a centralized command and staff system. The other is to recognize that battle is a chaotic and disorderly affair and therefore one should decentralize authority and command down to the lower command levels, leaving some autonomy and flexibility to one's subordinates.<sup>9</sup> In *The General*, C.S. Forester's classic tale of how one fictional British general achieved success in the War, Lieutenant-General Curzon assures himself that "there was going to be no muddling in his corps. Everything was going to be exact, systematic, perfect - to Curzon the adjective 'systematic' implied a supremely desirable quality."<sup>10</sup> Curzon, a fictional amalgam of several real-life British commanders epitomises the search for comfort of certainty and order by being "systematic" and the futility of trying to impose an artificial order on the chaos of war.

This study will highlight how the Canadians adapted and refined British command and control functions which favoured the first approach to suit their own attack doctrine as did other colonial troops and some of the more innovative British divisions. The need to decentralise command, ensure high standards of individual combat skill and the adoption of flexible tactical systems by the Canadians were copied almost directly from the tactical developments in the German army in contrast to that of the British Expeditionary Force (BEF).<sup>11</sup>

---

<sup>9</sup> See especially his chapter "The Timetable War" in *Command in War*, 155-188. For an entire book on the subject see Martin Samuels' recent *COMMAND or CONTROL? Command, Training and Tactics in the British and German Armies 1888-1918*, (London: Frank Cass, 1995). The latter does not include exceptions to the rule such as the Canadian or Australian Corps, no doubt as this would weaken his thesis. Also see Tim Travers "Epilogue: 1918 and the Franco-German-British Armies in Comparison" in his *The Killing Ground: The British Army, the Western Front and the Emergence of Modern Warfare 1900-1918*. (London: Allen & Unwin, 1987) 250-62.

<sup>10</sup> C.S. Forester, *The General*, (Harmondsworth, Middlesex: Penguin Books [reprint 1965] 1936) 183.

<sup>11</sup> LGen Arthur Currie would write in *Canadian Operations During the Year 1918* [Interim Report] (Ottawa: Dept of Militia and Defence, n.d.) 23, that "translations of captured German documents bearing on the latest tactics" were "carefully studied, and to a large extent, inspired our training."

The reasons for the British Army's continual tactical failures and the ensuing trench stalemate were myriad and are adequately covered in other studies, but one fundamental reason looms above the rest. Technical innovation was not accompanied by tactical reform. "Interarm cooperation was rudimentary" state historians Shelford Bidwell and Toby Graham, "and the use of cavalry was a fiasco." Others such as Tim Travers, Jack English, and Paddy Griffith have all reinforced this perspective, but acknowledge that a minor tactical revolution had taken place by 1918 which saw the common wave and linear barrage approach give way to fighting in small groups or "fire-teams" accompanied by closer inter-arm cooperation.<sup>12</sup>

It was not a "top down" process, however, as the BEF continued to be a rigid, centralised command structure. While the need for tactical and technical innovation might have been recognized at the highest levels of command, it could not be implemented, as the officers in the command hierarchy were unwilling to change their command process and arrangements to accommodate new innovations. As Bidwell and Graham have noted,

Tactical innovation may well originate from a single bright idea, or from a staff reassessment of the lessons of previous operations, but it cannot be brought about simply by the issue of orders and instructions or pamphlets, or new manuals. The fighting units have to be re-educated from generals down to corporals and privates. A sad example of the consequences of ignoring this basic rule was the reorganisation of the British infantry divisions early in 1918, and the adoption of a poor copy of the new German system of flexible defence in depth; by decree, without consultation, or time for retraining and re-indoctrination. The Fifth Army, overextended in frontage *and in depth*, was completely overrun and only the determination of Haig and the valour of the troops prevented a total collapse of the British position.<sup>13</sup>

In other words, doctrine must be effectively explained and disseminated to the commanders who are expected to use it. Secondly the commanders must *believe* that the doctrine can be effective with the organizations, weapons and troops available. The

---

<sup>12</sup> Shelford Bidwell and Dominick Graham, *Coalitions, Politicians & Generals: Some Aspects of Command in Two World Wars*, (London: Brassey's, 1993) 53; Tim Travers, *The Killing Ground*, *in passim*; Jack English, "Great War 1914-18: The 'Riddle of the Trenches,'" *Canadian Defence Quarterly*, Vol 15, No.2, (Autumn 1985) 41-7; Paddy Griffith, *Battle Tactics of the Western Front: The British Army's Art of Attack, 1916-18*, (New Haven: Yale University Press, 1994) 65-84.

<sup>13</sup> Bidwell & Graham, *op. cit.*, 53.

dissemination and actual acceptance of tactical and technical innovations will invariably come up against the fact that professional soldiers naturally rely on past experience. A crusty battalion commander, for example, may unconsciously expect platoons to function as they did when he was a lowly lieutenant in a previous war. And thus while experience is a priceless asset to any army, it can sometimes act as a retardant and distort the process of change if new emerging technologies and doctrine mean rendering parts of that older experience (as well as the owners of that outdated corpus of wisdom) obsolete.

In the Canadian Corps, a relatively autonomous organization within the Imperial whole, the chances for tactical and technical innovation were significantly greater than in a British corps. The latter was a “hollow horse” compared to its Dominion cousin, normally controlling a sector and planning battles for whatever divisions passed in and out of its control. Sir Julian Byng, a British cavalry officer, on taking command of the Canadian Corps in June 1916, was quick to realize that he virtually had his own small self-contained army in the Canadian Corps. It was an organization he could train and influence without the continual “top-down” interference from a BEF command structure that, according to Travers, “paralysed open discussion, made innovation difficult and allowed faulty decisions to stand when subordinates knew of serious problems.”<sup>14</sup> Lieutenant-General E.L.M. Burns, a brigade signals officer in the First World War, believed that the operational advantages conferred by the homogeneity of four Canadian divisions firmly fixed in a permanent national corps could never be underestimated. It was

...a great advantage to the Canadians, at Vimy and in later battles, [and meant] that they always operated together, under a corps commander whom they could *trust*, and whose *methods* [emphases mine] and abilities they knew and understood. In contrast, British divisions moved about from one corps to another, and sometimes suffered from misunderstandings arising from different operational and administrative practises in the different corps, and personality clashes

---

<sup>14</sup> Travers, *How the War Was Won: Command and Technology in the British Army on the Western Front, 1917-1918*, (London: Allen & Unwin, 1992) 176. Travers notes that the British armies, corps and divisions were forced to “produce their own ideas and tactics.”

between officers on the divisional and corps staffs.<sup>15</sup>

Trust is a two-way street in the command process. On the one hand, trust and confidence in the methods of one's commander are essential for the good morale of troops who are to be the executors of his attack doctrine. On the other, the commander must have trust in his troops that they are reliable and capable of working within that doctrine. While British professionals had a tendency to overestimate the amount and quality of training necessary for their rank and file to perform effectively in war (especially their New Army recruits who paid for that "top-down" distrust in their reliability and retention capabilities at the Somme), Canadian amateurs, through emphasis on good training, thorough preparation and detailed planning (all activities falling squarely within the responsibility of command), put *methods* in place that would stay abreast of tactical and technical changes and be flexible enough to adapt when necessary.

As the top British command structure was so cumbersome and unyielding in taking the lead in tactical innovation, it fell to the corps and division commanders to improvise. Desmond Morton has noted that 'since GHQ and its army headquarters offered little more than grand directives and windy principles, corps and divisions had to develop specific tactics for the tough problems that the Germans regularly created.'<sup>16</sup> In this regard, Byng and

---

<sup>15</sup> E.L.M. Burns, *General Mud: Memoirs of Two World Wars*, (Toronto: Clarke, Irwin & Co. Ltd., 1970) 35.

<sup>16</sup> Desmond Morton, *When Your Number's Up*, (Toronto: Random House, 1993) 162; Graham has noted that even at the corps and divisional levels of the BEF, the unsolved problems in the forward area were not being addressed. In the BEF, the corps was the usual formation in which planning responsibility for battle was vested, but its assigned "divisions tended to lose their identity or at least lose control of their own operations. Battalions bloomed, faded, and were cut down even more quickly." This meant that as divisions rotated in and out of corps for various battles and campaigns, the voices of divisional infantry staff "were treated as voices on the wind. This is why the message that reached the higher staffs from division after division as it came out of the Somme battles bore no fruit for nearly a year". By contrast, dissemination of new ideas and the lessons of the battlefield in the Canadian Corps required significantly less time. Graham, "Observations on the Dialectics of British Tactics, 1904-45" in Ronald Haycock & Keith Neilson, eds., *Men, Machines and War*, (Waterloo: 1988, p.62-63]

his staff were not shy and had the brains and courage to experiment. After rebuilding the CEF from the “bottom-up” after the Somme battles, Vimy would be the testament of their labours.

Later, under Byng’s protégé and successor, Sir Arthur Currie, the Canadian Corps became the spearhead of the BEF: no “glorious institution of soldiery” states Rawling but “a gathering of technicians.” He notes that Canadian soldiers and their commanders readily “agreed on common means to different ends - the technicians to keep their skins and the managers to achieve their mission.” Thus Canadian soldiers were “less sheep led to the slaughter than thinking people who set their minds to the challenges of survival and, in the process, contributed to the defeat of a well-trained and well-motivated enemy.”<sup>17</sup> Bidwell and Graham underscore Rawling when they write “the great change in tactics...probably started from below, in the form of a popular movement, the produce of the psychology of men in dangerous or difficult situations, who gather round any leader who seems sure of what he has to do.”<sup>18</sup>

Canadian commanders, it should be noted, were amateurs to modern industrial warfare as were most of their Imperial counterparts, but they did not bring an inordinate amount of pre-conceived ideas or doctrinal baggage with them. Indeed, it was their naivete which probably saved the day at Second Ypres, a situation in which more combat-experienced troops and commanders would probably have understood what was happening, and would promptly have “bunked”.

Graham has attributed superior Canadian tactical performance in the Great War to the fact that the CEF was divorced from a peacetime military structure such as the British model which saw the various combat arms laying proprietary claim to weapons and combat functions and then operating in splendid isolation of one another. The aversion of traditional British arms and corps like cavalry and artillery to the creation of new ones, he argues, was not apparent in their Canadian contemporaries as

---

<sup>17</sup> Rawling, *Surviving Trench Warfare*, 223.

<sup>18</sup> Bidwell & Graham, *Coalitions...*, 54.

evidenced by the pioneering attempts in machine-gun employment and tactics.<sup>19</sup> Jack English concurs, noting that “the Canadian soldier more readily embraced new weapons like the mortar than say, the British gunner who preferred not to change his horse for something that resembled a drainpipe.”<sup>20</sup> Canadians were thus not constrained by the curse of arms institutionalism.

Most Canadian commanders learned on the job. Given the static nature of the war from 1915 to 1917 “the tactical shortcomings of [Sam] Hughes’s under-trained appointments was [sic] not crucial as long as they had some talent for seeing to the needs of their men,” according to Stephen Harris.<sup>21</sup> Sir Archibald “Batty Mac” Macdonnell, first commander of 7th CIB, keenly observed that until 1918, all the Canadian Corps battles were largely set-piece affairs based on static trench lines, and, as a result, rarely placed a premium on the imaginativeness or tactical good sense of platoon, company, and battalion commanders. By the time the Corps began to conduct the more open manoeuvre warfare of the last 100 days, some of these officers had been killed, cashiered, replaced or had used their time in the trenches to learn what they should be doing.<sup>22</sup> A 97 year-old veteran, Roy Henley, commenting on company officers in his battalion, concurs, saying “the leadership in the 42nd was good with a few exceptions. As far as tactics go, most junior officers got sorted out one way or the other on patrols or raids.”<sup>23</sup>

All this is not to say that the Canadians had discovered some secret command formula that allowed them perform at a more superior level than their British or French

---

<sup>19</sup> Graham, *op. cit.*, 60-62.

<sup>20</sup> English, *The Canadian Army and the Normandy Campaign*, (Westport: Praeger, 1991) 16.

<sup>21</sup> Stephen J. Harris, *Canadian Brass: The Making of a Professional Army, 1860-1939*, Toronto: University of Toronto Press, 1988) 120.

<sup>22</sup> A.C. Macdonell cited in Harris, *op. cit.*, 120.

<sup>23</sup> R.E. Henley Letter to author dated 2 Feb 1995.



counterparts. As William Stewart has so comprehensively illustrated in his excellent study, *“Attack Doctrine in the Canadian Corps, 1916-1918,”* Canadian commanders essentially adopted British methods as a model, then adapted, amended and fine-tuned them to fit their own attack doctrine. When British methods did not fit, they were merely ignored or new Canadian measures substituted. Therefore, good command procedures, and the arrangements to facilitate them, underpinned Canadian tactical efficiency more than any innate superiority.<sup>24</sup>

The staff, which has been characterised as a “nervous system animating the lumbering body of the army” making “possible the articulation and flexibility which alone render it an effective military force” also deserves mention, as it is another essential facet of the modern command system.<sup>25</sup> English, and others, now believe that much of the tactical effectiveness of the Canadian Corps “sprang from the skill of its high-quality British staff officers, three of whom rose to become Chief of the Imperial General Staff (CIGS). In a highly positional war that left little room for strategic manoeuvre, tactical innovation effected through meticulous staff work was critical.”<sup>26</sup>

This thesis is primarily concerned with the command systems and process that were refined and adapted in the Canadian Corps at the tactical level of command. It will therefore examine the historical evolution and devolution of tactical command functions and arrangements that occurred *within* a Canadian infantry brigade, thereby, providing a better understanding of the resulting tactical effectiveness of the Canadian Corps as a whole. While the principle functions of command did not change, the command system or “arrangements” had to evolve over a four-year period at every

---

<sup>24</sup> William F. Stewart, *“Attack Doctrine in the Canadian Corps, 1916-1918,”* [unpublished MA thesis, University of New Brunswick, 1982] 228-29, 247-48.

<sup>25</sup> Michael Howard cited in English, *op.cit.*, 89.

<sup>26</sup> *Ibid*, 16; C.P. Stacey, “The Staff Officer: A Footnote to Canadian Military History,” *Canadian Defence Quarterly*, Vol.3, No.3, (Winter 1973/74) 43-49; Harris, *Canadian Brass*, 70; D.E. Macintyre, *Canada at Vimy*, (Toronto: Peter Martin Associates, 1967) 113; Morton, *When Your Number’s Up*, 113; and I.M. McCulloch, “Bungo and the Byng Boys: General Sir Julian Byng on the Road to Vimy Ridge,” *The Beaver: Exploring Canada’s History*, Vol. 76:6, (December 1996/January 1997) 20-27.

command level of the brigade - from brigade commander down to section commander - evolving in tandem with the tactical, technological, and organizational changes that took place in order to address the problems of trench warfare and, later on, the open style of manoeuvre warfare.

The factors that have determined the way tactical command is exercised “are few and easy to identify” according to Van Creveld. “The subdivision of the army into units and the existence of a proper chain of superior and subordinate commanders subject to some kind of discipline; the nature of the available communications technology including the constraints...it imposed; the nature of the predominant weapons in use; and finally the ethics of the period and its view of the commander’s proper functions - these factors, in their manifold interactions and combinations, have determined the scope and effectiveness of tactical command from the beginning of recorded history to the present day.”<sup>27</sup> Doctrinal, organizational, tactical and technological factors all had impacts on one or all of the levels of command within 7th CIB at various times, thereby necessitating constant adjustments and adaptations to the evolving attack doctrine, tactical system and control measures Canadian soldiers needed to survive and win in their lethal environment. These impacts or catalysts for change thus provide the recurring themes for examining the evolution of tactical command at each level in 7th CIB from its formation in December, 1915 to the Armistice in November, 1918.

Chapter One will examine the organizational start-state of the CEF and some of the given factors such as the shortage of staff-trained personnel, politically-imposed equipments, primitive communication systems and their “constraints”, lack of up-to-date doctrine and training philosophies - the “ethics of the period”, and finally, national prerogatives which, to a certain degree, dictated the shape and nature of the Canadian command system and process used during the First World War. Chapter Two will chronicle the raising of the four key building blocks of the 7th CIB - the

---

<sup>27</sup> Van Creveld, *Command in War*, 41.

infantry battalions - as well as its support troops and the creation of the brigade HQ and its staff. Chapters Three, Four and Five will look at 7th CIB's growth and maturity as a fighting formation on a yearly basis (1916 through 1918) and how its command systems at all levels evolved in tandem with other changing factors. Chapter Six will provide an assessment and overview of how the tactical command paradigm underwent a dramatic shift from the one extant in 1914 to the one utilised and refined in the last 100 Days of the War.

## CHAPTER ONE

### “START-STATE”

**The way in which each military institution is directed, trained, equipped, and staffed is influenced by factors on the dialectical plane: the political, social, cultural, and economic history of the nation it serves, as well as the characteristics of the political leadership and the current domestic and foreign trends acting on the leadership and the nation. As a result of the dialectical influence, there is a difference between armies when they meet, even if both are organized and equipped in a similar manner, have trained from the same texts, and have striven for the same results.<sup>28</sup>**

Dominick Graham “Stress Lines and Gray Areas”  
in *Military History and the Military Profession*

The CEF was styled on the British army and its regimental system. On the outbreak of war, its newly-appointed commanders religiously read every British training manual they could lay their hands on.<sup>29</sup> Acclaimed as one of the first great national institutions, the CEF was surprisingly dominated by British-born soldiery (36.8%) and other foreign-born Canadian immigrants (11%). While only three percent of the British total were experienced ex-British army regulars or reservists, they were the most influential group in terms of helping the fledgling Canadian battalions organize, train and fight as many regimental histories will attest.<sup>30</sup>

---

<sup>28</sup> Graham, “Stress Lines & Gray Areas: The Utility of the Historical Method to the Military Profession.” in David Charters *et al*, *Military History and the Military Profession*, (Westport: Praeger, 1992) 149.

<sup>29</sup> Various personal copies of *Imperial Army Service* pamphlets and privately printed booklets with titles such as “*Training of an Infantry Company*” by Major E. Kirkpatrick published in 1914 still exist in the Black Watch Archives [hereafter BWA] in Montreal, their inside covers annotated with the names of various regimental officers: E.C. Evans, a 1915 platoon commander in the 42nd, later a company commander; Peers Davidson, later CO of the short-lived 73rd Bn, whose copy of the previously mentioned book has numerous sentences neatly underscored, including this one on the first page which reads: “Time and thought are necessary, if the principles contained in [FSRs] are to be translated into such intelligent action that men trained on the lines laid down may be capable of doing their duty in real warfare, without first undergoing a bitter and costly schooling of useless casualties or, perhaps, even of defeat”; several booklets bear the name of John and Walter Molson, both Great War platoon commanders in the Regiment.

<sup>30</sup> J.L. Granatstein and J.M. Hitsman, *Broken Promises: A History of Conscription in Canada*, (Toronto: Oxford University Press, 1977) 23-4; Morton, *When Your Number's Up*, 277-79.

Despite these British influences, the 1st Canadian Infantry Division (1 CID), which later grew to become the Canadian Corps, was inherently different from its British counterpart in 1914-15. Dialectical factors from the outset ensured that Dominion troops would have a distinct Canadian mindset, look and approach to war. An examination of these factors and those enunciated in the *Introduction* are necessary in order to understand the context in which 7th CIB was created in 1915 - its "start-state" for the upcoming three years.

## Personnel and Equipment Factors

**An ignorant officer is a murderer. All brave men confide in the knowledge he is supposed to possess; and when the death trial comes, their generous blood flows in vain. Merciful God! How can an ignorant man charge himself with so much bloodshed? I have studied war long, earnestly and deeply, but yet I tremble at my own derelictions.<sup>31</sup>**

Sir Charles Napier

While 1st CID mimicked the organizational establishment of the British 29th Division on paper, it lacked the trained personnel to man the structure.<sup>32</sup> Military professionalism in Canada before the war had been virtually non-existent and thus, when militia staff-trained Canadian officers showed up at Valcartier camp, they were "quite capable of maintaining order in, and providing instruction for, scattered battalions of one thousand men," according to Stephen Harris. Managing a division of fifteen thousand men, however, "was a problem of different magnitude and beyond their competence."<sup>33</sup>

---

<sup>31</sup> Sir Charles Napier quoted in R.A. Fitton, ed., *Leadership: Quotations From the Military Tradition*, (San Francisco: Westview Press, 1990) 144.

<sup>32</sup> A.F. Duguid, *Official History of the Canadian Forces in the Great War, 1914-1919*, General series, Vol.I: Chronicle, August 1914-September, 1915, (Ottawa: King's Printer, 1938) 147[hereafter referred to as OH].

<sup>33</sup> Harris, *Canadian Brass*, 94.

This lack of ability stemmed from the systemic neglect of Canada's small regular force. Harris has argued that the Canadian Permanent Force (PF) which emerged between 1871 and 1915 "was generally lacking in expertise" and professionalism because it mirrored precisely the period in which amateur soldiering was flourishing. Harris notes:

When [amateur soldiers] entered politics, they carried with them the belief that they were at least the equal, if not superior, to the regular army in all areas except the latter's adherence to red tape. As a result, these amateur-soldier politicians were reluctant to concede greater knowledge and expertise to the permanent force, and they had the power to ignore its advice and to thwart its every attempt to assert professional independence.<sup>34</sup>

This unfortunate mindset would take almost two years of hard fighting and bloodletting overseas to dispel. Compounding the problem was the Minister of Militia's decision to send Canada's only regular infantry unit, The Royal Canadian Regiment (RCR), to Bermuda. While this gesture was useful to the British (in that it freed an Imperial garrison battalion for immediate service in France), this cadre of experienced Canadian regulars, many with South African War experience, were conspicuously absent from Valcartier. RCR NCO's could have been used in the essential training of raw recruits, while RCR officers could have been used to leaven the inexperienced composite militia battalions, brigade HQs and fledgling divisional HQ, covering off key command and staff positions without offending too many regimental sensibilities.<sup>35</sup>

One very egotistical sensibility, however, stood in the way. As Harris has put

---

<sup>34</sup> *Ibid.*, 6-7, 80-81.

<sup>35</sup> Several RCR officers managed to secure appointments in the First Contingent: Colonel J.C. MacDougall, Military Secretary of Divisional Headquarters; Brevet LCol A.H. Macdonell, DSO, GSO 2, 1st CID; Maj & Temp LCol H. Kemmis-Betty, Brigade Major, 2nd CIB; Maj F.A. Lister, OC Div Sigs Coy; Capt & Temp Maj J.S. Brown, DAQMG, the Contingent; Capt E.W. Pope, Staff Capt, 3rd CIB; Capt C.B. Costin, Orderly Officer (OO), 3rd CIB; Capt M.M. L. Garon, attached to RCD; Lt & Temp Capt M.K. Greene, OO, 2nd CIB; Lt & Temp Capt R.J. Brooke, Adjt, 1st Bn CEF; Lt & Temp Capt J.S. Lyne-Evans, Adjt, 12th Bn, CEF; Lt & Temp Capt G.W. Cox, Asst Adjt, 8th Bn, CEF; CSM & Temp Lt A.A. Turner, Asst Adjt, 8th Bn, CEF; and CQMS & Temp Lt S.T.H. Raddall, MG Officer (MGO), 8th Bn, CEF. R.C. Fetherstonhaugh, *The Royal Canadian Regiment, 1883-1933*, (Montreal: The Royal Canadian Regiment, 1936) 199 [hereafter referred to as *RCR Hist.*].

it, this common sensical approach would have flown in the face of Sam Hughes's "desire to return to the old Saxon days when there was no such thing as a regular soldier." and explains why only 80 PF instructors were on hand to train the nucleus of Canada's first army contingent at Valcartier.<sup>36</sup> In their demanding work, they were ably assisted by a motley crew: ex-British regulars and territorials, Canadians who had served in other foreign armies, Canadian militia veterans of the previous war and even the odd RNWMP officer. But the value of regulars' or ex-regulars' "expert" knowledge lay primarily in converting civilians into basic soldiers. As Morton has concluded, "there was a limit to what veterans could teach....The ex-regulars had last fought in South Africa, and very few had encountered the increased [British] professionalism of the pre-1914 years." Instead, like the instructors of Kitchener's New Army, they knew mainly of peacetime garrison life, with its "long hours of drill, guard mounting, and polishing; even longer evenings in the canteen or the sergeants' mess; with a little old-fashioned tactical training in case a war interrupted *real soldiering*."<sup>37</sup>

The command structure of the Canada's first two contingents was therefore strongly influenced by blatant political partisanship rather than any adherence to policies, practises and principles of a professional army. Harris, in comparing the experience and qualifications of the Canadian militia officer corps as a whole with those of the officers chosen for the first and second contingents, has found that Hughes knowingly ignored practical experience in staffing the command appointments. Of nearly 60 officers holding senior command and staff appointments in the military districts at home, only four were accepted in the CEF, and of these, only one was slated to command a brigade. The rest of the overseas brigadiers were promoted from militia lieutenant-colonel's rank and one existing militia brigadier dropped one rank in

---

<sup>36</sup> Harris, *Canadian Brass*, 100; *OH*, 89-90; Rawling, *Surviving Trench Warfare*, 16.

<sup>37</sup> Morton, *When Your Number's Up*, 75.

order to command an overseas battalion.<sup>38</sup>

It has been noted earlier, however, that experience, while an asset, can also be a hindrance. In the case of the Canadian Corps, it has not been significantly proven that Sam Hughes's favouritism was bad for the command structure of the organization. "The brigadiers and colonels Sam Hughes selected at Valcartier would lead the Canadian Corps for the rest of the 1914-18 war," writes Morton. "Some of them proved less than brilliant, and a few broke under the strain, but it is not obvious that better officers were available."<sup>39</sup>

A brigade commander after the war, however, noted that the political interference took its toll in unneeded stress on those in command for the first two years of the war. "We were mobilized in an atmosphere of politics and until we got to France, no man felt safe in his job," wrote BGen Alex Ross, then a battalion commander. "We always had a feeling of repression. It took a long time to shake this bogey but under General Currie this completely disappeared!"<sup>40</sup> From a professional perspective, and not wishing to get ahead of the study, one might ask why some "political-appointees" should have had the right to feel "safe in their jobs." Very few senior Canadian officers had experience of battle, and of those who did, R.E.W. Turner was demonstrably the least successful of the original brigade and divisional commanders, VC notwithstanding. Indeed, with Sam Hughes's departure, the cliques that had been built up in the older divisions during his tenure were broken up by transferring officers to other divisions and some 15 battalion commanders and two brigade commanders were transferred, promoted or removed from the Corps from 15

---

<sup>38</sup> Harris, *op.cit.*, 11.

<sup>39</sup> Morton, 15; Harris, 99-100.

<sup>40</sup> McGill University Archives [hereafter MUA], *Col Hugh M. Urquhart Papers*, Acc. No. 393 [hereafter *UP*]. BGen Alex Ross Interview.



October 1916 to 1 April 1917.<sup>41</sup>

Thus, when news of Hughes's resignation reached France in November 1916, it was the more professionally-minded officers and men of the CEF who walked "with sprightlier step...clear eyes...cleaner cut..." J.C. Creelman, an artillery officer and Hughes-appointee himself, crowed euphorically: "The Mad Mullah has been deposed. The Canadian Baron Munchausen will be to less effect...The greatest soldier since Napoleon has gone to his gassy Elbe, and the greatest block to the successful termination of the war has been removed. Joy, oh Joy!"<sup>42</sup>

Sir Julian Byng's first taste of the repressive atmosphere that permeated Canadian command at all levels came within a few days of taking over the Canadian Corps on 28 May 1916. One of his divisional commanders, M-Gen M.S. Mercer, had been killed in a German surprise attack in the Canadian sector at Mount Sorrel. Byng received a message shortly afterwards which read: "Give Garnet 3rd Division - Sam." Garnet was Hughes' son, commanding a brigade in the First Division. Byng ignored it and appointed Brigadier-General L.J. Lipsett to the vacant divisional command position, an ex-British regular whom he considered to be better qualified.<sup>43</sup>

Sam Hughes' political interference was not just confined to making appointments within the Corps' chain of command, but extended to senior staff positions as well. Even those senior officers who had directly benefitted from his open bias against regulars with formal staff training began to regard him as a major menace to the efficiency of the Canadian Corps. This new attitude on the part of senior Canadian officers in France, Harris argues, was due to "the emergence of an entirely new sense of professional awareness within the Canadian Corps". After Vimy, all the naive assumptions that Canadians had an innate talent to wage war and, therefore,

---

<sup>41</sup> Hugh M. Urquhart, *Arthur Currie*, (Toronto: J.M. Dent & Sons Ltd., 1950) 192; Stewart, "Attack Doctrine", 96.

<sup>42</sup> NAC, MG 30 E 8, *John C. Creelman Diary*, 30 July 1915.

<sup>43</sup> UP, BGen Farmar Interview.

needed neither professional military education nor experience on the modern battlefield to do a good job, were gone.<sup>44</sup>

Byng's four divisional commanders - Hughes-appointees all - no doubt filled him in on Hughes' belief that it was the Minister's God-given right to appoint political cronies with no experience of battle to senior staff and command positions. This, coupled with Hughes' amateurish championing of arms and equipment which had already proven useless at the front, and the Minister's intolerance towards any advice to reform the bloated training, reinforcement, and administrative organization he had built up to serve the Corps at home, in England and in France, were major dissatisfiers in the Corps. Hughes's resignation, five months after Byng's assumption of Corps command, was a welcome relief to all concerned and meant that the development of a professional staff could proceed without further external influence.

That professional staff was necessitated by the sheer size and complexity of the improvised mass army of the BEF of which the Canadian Corps was an integral part. Staff-trained officers in Canada's small pre-war Regular Force, however, were few and far between and not necessarily of top ability. The 1914 Militia List shows only eight serving officers as having passed the Camberley Staff College. These, plus the four officers then actually at the College, were a very small cadre indeed upon which to staff the large force that the CEF was to be in the field by the end of the war. Of these dozen Camberley-trained officers, several were not even used as staff officers. One became a divisional commander and three rose to brigade commands.<sup>45</sup>

Although the officer corps was never less than 70 per cent Canadian-born for much of the war, most key general staff (GS) appointments within the Canadian field formations were filled by British officers. These were the first-grade appointments at divisional and Corps headquarters and the senior general staff and administrative

---

<sup>44</sup> Harris, "The Canadian General Staff and the Higher Organization of Defence, 1919-1939," in B.D. Hunt & R.G. Haycock, eds., *Canada's Defence: Perspectives on Policy in the Twentieth Century*, (Toronto: Copp Clark Pitman Ltd., 1993) 70.

<sup>45</sup> Stacey, "The Staff Officer...". 47.

appointments at Corps. Byng, and later Arthur Currie, were blessed with a cast of high calibre British regular staff officers who were well-connected to the rest of the BEF. C.P. Stacey observed that the British War office (WO) in the Great War was clearly “more intelligent than it is given credit for” as it “had sent the Canadian Corps the very best [staff] officers it had....” Lt-Col D.E. Macintyre, the Corps’s first Canadian divisional GSO 1, concurs and wrote in his autobiography that Canada “should be forever grateful” for the services of these senior British officers.<sup>46</sup>

They were top-level men who went on to higher appointments in their own service later. Three of them, Sir John Dill, Lord Alanbrook and General “Tiny” Ironside were of such calibre that they became Field Marshals. Prominent among such officers were men like Major General C.H. Harington, Brigadier General P. De B. Radcliffe, [Brigadier General] N.W. “Ox” Webber, Brigadier General G.N. Farmar and many others of outstanding ability. They felt that in us they had good raw material but it was necessary to spell things out for us in more detailed form than it would have been for professionals...and so we came to be a well-forged weapon in the hands of the Commander....In time, these staff officers, with the exception of a few excellent men who remained with us to the end, retired to make way for Canadians trained at staff courses and in the hard school of war.

At first, Canadian officers provided by the units to higher formation HQs as “staff learners” were the misfits and cast-offs that their commanding officers (COs) wished to get rid of, but the system started to work so that “by the summer of 1917 in the Canadian field formations, there were 14 Canadian GS officers, and 12 Imperial; there were 18 Canadian administrative staff officers and only one Imperial; there were nine Canadian brigade majors (BMs), and five Imperial.”<sup>47</sup>

No front line regimental officer worth his salt thought well of the red-tabbed staff officer, that is, until they had gone back themselves to work on the staff and experienced the work involved. A young engineer officer sent from his unit to work as a “staff learner” on the Corps staff wrote home to his father. “There is nothing finer I know of than the Imperial officer of the type who has taken his work seriously. Much of the success of the Canadian Corps is, I think, due to their splendid staffwork. They

---

<sup>46</sup> *Ibid.*, 47-48; Macintyre, *Canada at Vimy*, 113.

<sup>47</sup> Stacey, 47.

have good material to work with, of course, and they all seem to think the world of the Canadian 'Tommy'." <sup>48</sup>

Morton acknowledges that most Canadian and British staff officers of the Great War were not the stereotypical blunderers that they have been made out to be. On the contrary, they were the operational keys to tactical success. "In fact, the staff officers shaped the course of the war in its grandeur, its misery and outcome." he claims. "Their plans moved the millions of men and the mountain of shells around Europe to create the stalemate on the Western Front and, in the end, they devised the techniques and tactics that broke that stalemate in 1918." <sup>49</sup>

The staff worked for commanders, one of the subjects of this study. A.M.J. Hyatt in a previous study has found that the general officers commanding (GOC) the divisions and brigades of the Canadian Corps were overwhelmingly Canadian-born and Ontario-raised, Protestant, English-speaking, married, and of urban residence at the outbreak of the war. He has also noted that most were, on average, two years older than their British counterparts, almost half had attended the Royal Military College (RMC) or Canadian university and that 40% of them had served in South Africa as young officers. Of the 59 generals serving in France and England, 17 would be wounded and one killed in action - MGen M.S. Mercer. <sup>50</sup>

If every Canadian officer was an amateur when it came to trench warfare, the same could be said for most British officers. But there was one aspect of waging war that demanded professionalism. It was primarily in the practical, no-nonsense areas of good administration and logistics that British staff officers or staff-trained Canadian regulars would have to be called in to cover off key appointments before, and after, the

---

<sup>48</sup> McGill Rare Book & Manuscript Dept, Capt W.E. Fetherstonhaugh to Father, Letter dated 9 August 1917 in *War Letters & Diaries of R.C. Fetherstonhaugh*, Vol III, 96.

<sup>49</sup> Morton, *op.cit.*. 113.

<sup>50</sup> AMJ Hyatt, "Canadian Generals in the First World War and the Popular View of Military Leadership," *Social History*, 12/24, (November 1979) 418n. Mercer's successor, MGen Louis Lipsett, was also killed at the front by a sniper but was commanding a British division at the time.

First and Second Canadian contingents got to England. This was essential if the Canadian formations, and later the Corps, were to be able to “plug into” other British formations and the BEF as a whole.

Equipping, clothing, and transportation of Canadian soldiers, however, would be driven by political idealism rather than operational necessity. Sam Hughes’s desire to turn the Canadian contingents into travelling exhibits of Canadian manufacturing expertise was not motivated by his zeal to ensure Canadian troops were the best-equipped at the Front, but his simplistic conviction that anything Canadian-made was better than British. Thus, a vast range of Canadian equipments, non-standard weapons and vehicles were imposed on a fledgling, amateurish command system, items which would eventually prove practically unsound and operationally ineffective for the rigours of modern industrial warfare. While their “weeding out” should have been logically and systematically carried out by those in command, most were eliminated only by trial and error, and sometimes, unfortunately, at the cost of human lives.

Before Canadian troops even got on the firing line, their tightly fitting Canadian-made khaki tunics split at the seams, their Canadian-made boots dissolved in the mud of Salisbury Plain and their cheap Canadian-made wool and cotton greatcoats failed to keep out the cold English rain and winter wind. Poorly-designed Oliver web equipment, condemned 15 years earlier during the South African War, had to be replaced by British Webb equipment. The entire fleet of Canadian vehicles, 853 Bain wagons, an agricultural pattern wagon entirely unsuited to wartime conditions, and a variety of non-standard motor vehicles, had to be replaced by a long-suffering British WO who had been promised a fully-equipped division. Perhaps the ultimate absurdity was the McAdam shield-shovel, ordered and issued by Sam Hughes. Inspired by a pre-war Swiss design which saw it being used either for digging or as a bullet-proof protective shield, it could perform neither function adequately. The WO ended up supplying tool carts for the Canadian Engineers as well as hob-nailed boots and loose-

fitting tunics for each soldier of the CEF prior to their departure for France.<sup>51</sup>

But it was in some of the most crucial areas, in terms of operational fighting effectiveness, that deficiencies were noted. Despite serious reservations held by the lower rank and file about the Canadian-made Ross rifle and the American-made Colt machine guns, Canadian formations would have to fight with Hughes's politically-chosen weapons and suffer the consequences for them at Second Ypres, Festubert, Givenchy and Mount Sorrel. It was not until the latter battle in June 1916, by which time Canadian soldiers had been throwing away their Canadian-made weapon on the field of battle for a year and picking up the British-made Lee Enfield, that the Ross Rifle was retired from active service, except for its continued use as a sniper rifle.

A future corps commander would claim that the politically-imposed weapon had caused more unnecessary casualties than any other factor in the war, and, despite commanders objections to its continued use up the functional chain of command, they were ignored on the dialectical level.<sup>52</sup> It would take no less a personage than Field-Marshal Sir Douglas Haig to sway the balance of opinion against the Canadian service rifle. He would report to the British WO on 28 May 1916, the same day of Byng's taking command of the Canadian Corps, that "the Ross is less trustworthy than the Lee-Enfield, and that the majority of the men armed with the Ross Rifle have not the confidence in it that is so essential that they possess." By the end of June, those Canadians serving in France had exchanged their Ross rifles for Lee-Enfields. The 4th CID retained their Ross rifles until it moved to France in mid-August.<sup>53</sup>

The Colt heavy machine gun (HMG) was the heaviest and least mobile automatic weapon issued to the Canadian infantry in the First World War. Not only

---

<sup>51</sup> G.W.L. Nicholson, *Official History of the Canadian Army in the First World War: Canadian Expeditionary Force, 1914-1919*, [hereafter *CEF*] (Ottawa: Queen's Printer, 1962) 25-36; *OH*, Vol.I, 77-84, 145-46 & Vol.II, Appxs 203-205, 210-212, 214-215, 221, 227.

<sup>52</sup> For detailed saga of the Ross Rifle see *OH*, Vol.II, Appx 111.

<sup>53</sup> Haig cited in Rawling, *Surviving Trench Warfare*, 65.

was it difficult to keep clean in a trench environment, it was according to Rawling, “a logistical nightmare,” with “a total of 348 pieces, including tools and spare parts, as opposed to 123 for the Vickers and ninety for the Lewis.”<sup>54</sup> One of its earliest critics was Arthur Currie while commanding the 2nd CIB at Second Ypres. “The reports received are almost unanimous in condemning the gun,” he wrote, “and I have reluctantly come to the conclusion that the weapon is, from its complicated mechanism and cumbersome mounting unsuited for service conditions and is liable to fail at critical moments when machine gun fire is essential to save the situation.”<sup>55</sup>

By mid-1916, all battalions were equipped with the Lee-Enfield rifle, hand grenades, rifle grenades, the bayonet and the Lewis light machine gun (LMG) which replaced the Colt. The LMG was considered a company weapon and was issued on a scale of two per company. It was capable of giving a high volume of direct fire, but it was prone to stoppages and could not fire in the indirect role.

In close support of the infantry battalion were the trench mortars (TM) and the HMGs held at the brigade level, the latter initially being the Colt withdrawn from the infantry battalions, later replaced by the Vickers in June 1916. Formed into 16-gun companies controlled by the brigade HQ in April 1917, the HMG could be fired directly or indirectly. Indirect fire, however, was still not properly understood at this time and direct fire remained the standard, favoured tactic of the day by the BEF. Overall, the machine gun remained a complex weapon requiring specialist training, and not many battalion or brigade commanders in 1915 fully understood their tactical potential.<sup>56</sup>

The standard TM issued to the infantry by 1916 was the 3" Stokes mortar. The TM company consisted of two groups of two sections of two mortars each and were

---

<sup>54</sup> *Ibid.*, 38.

<sup>55</sup> Currie cited in *Ibid.*, 38.

<sup>56</sup> LCol C.S. Grafton, *The Canadian "EMMA GEES"*, (London, Ont: Hunter Printing Co., 1938) 60; Rawling 20-21.

held at the brigade level for command and control purposes. TM personnel were drawn from the infantry battalions of the brigade they served, and similar to the early mindset which saw poor quality officers being sent to the staff, the brigade TM company regularly received the problem cases and unwanted ORs of the units. The predictable result was that, from the outset, Canadian TM companies were not as effective as their German counterparts because of their poorly trained and motivated crews. The excessive weight of the weapon and its high rate of fire which necessitated a large load of ready-to-hand ammunition seriously hampered its mobility. As battalion commanders became more convinced of the need for more responsive and immediate firepower in the attack, they took measures to ensure a better calibre of men went to serve the guns.<sup>57</sup>

---

<sup>57</sup> Stewart, "Attack Doctrine". 21; NAC MG 30 E 15, *Griesbach Papers* [hereafter *Griesbach*], File 11.



## Command Structure, Responsibilities and Organizational Factors

Nothing more essentially tends to the maintenance of regularity and good order than a definite system of chain of responsibility which should extend from the highest to the lowest grade.<sup>58</sup>

Article 15, "Duties of Commanding Officers of Units",  
*CEF Units - Instructions Governing Organization and Administration, 1916.*

Command may be defined as a function that has to be exercised more or less continuously, if the army is to exist and to operate....The responsibilities of command, apart from the obvious and often by no means trivial job of looking after itself, are commonly divided into two parts. First, command must arrange and coordinate everything an army needs to exist - its food supply, its sanitary service, its system of military justice, and so on. Second, command enables the army to carry out its proper mission, which is to inflict the maximum amount of death and destruction on the enemy within the shortest possible period of time and at minimum loss to itself.<sup>59</sup>

Martin van Creveld, *Command in War*.

The infantry of the Canadian Corps outnumbered all other arms. At the bottom of the chain of command was the private soldier. On either side of him were his most intimate comrades-in-arms, the members of his rifle section, a small squad of about a dozen men headed by a corporal. Each rifle section was part of a rifle platoon of four sections, led by a subaltern ( a second-lieutenant or full lieutenant) and assisted by a second-in-command (2 i/c), usually a sergeant. When officers were unavailable, the platoon sergeant would command, the second sergeant in the the platoon moving up to the 2 i/c position. Some private soldiers were battalion specialists: machine gunners, scouts, signallers, snipers, bombers, cooks, and storemen. These soldiers were kept apart from the rifle companies and formed into their own special sections at the battalion level (see Figure 1) under a loose company organization commanded by the battalion second-in-command (2 i/c), usually a major.

---

<sup>58</sup> BWA, Article 15, "Duties of Commanding Officers of Units," *Instructions Governing Organization and Administration - Canadian Expeditionary Forces Units*, [hereafter *CEF Org & Adm*] (Ottawa: Government Printing Bureau, 1916) 5-6.

<sup>59</sup> Van Creveld, *Command in War*, 5-6.

At the start of war, the lowest commander referred to in King's Regulations & orders (KR&Os), (the standing administrative orders of the peacetime British Army

<b>WAR ESTABLISHMENT - INF BATTALION HQ (1916)</b>					
	Officers	Warrant Offrs	S/Sgts & Sgts	Rank & File	TOTAL
CO	1	--	--	--	1
Bn 2i/c - Major	1	--	--	--	1
2nd Major	1	--	--	--	1
Adjt	1	--	--	--	1
Asst Adjt	1	--	--	--	1
Quartermaster	1	--	--	--	1
RSM	--	1	--	--	1
Regt QM Sgt	--	--	1	--	1
Orderly Room Clk	--	--	1	--	1
Sgt-Drummer	--	--	1	--	1
Sgt-Cook	--	--	1	--	1
Sgt-Shoemaker	--	--	1	--	1
TRANSPORT					
Tpt Offr (not auth)	1	-	--	--	1
Tpt Sgt	--	--	1	--	1
Dvrs (1st line tpt)					
For vehicles	--	--	--	9	9
For spare animals	--	--	--	2	2
PIONEERS					
Pioneer Sgt	--	--	1	--	1
Pioneers	--	--	--	10	10
SIGNALLERS					
Sig Officer	1	--	--	--	1
Sergeant	--	--	1	--	1
Corporal	--	--	--	15	15
Privates	--	--	--	16	16
MEDICAL					
Orderlies for MO				16	16
Stretcher Bearers				2	2

WAR ESTABLISHMENT - INF BATTALION HQ (1916)					
MG SECTION Subaltern Sergeants Corporals Privates Drivers (1st line)	1		2	1 24 6	1 2 1 24 6
Batmen				11	11
ATTACHED Paymaster AMC Armourers	1 1	-- --	-- 1	-- 5 --	1 6 1
	Officers	Warrant Offrs	S/Sgts & Sgts	Rank & File	TOTAL
<b>TOTAL HQ (incl atts)</b>	<b>11</b>	<b>1</b>	<b>11</b>	<b>102</b>	<b>125</b>

FIGURE 1<sup>60</sup>

which covered from organization and duties to staffs, promotions, training, transfers, discharges, discipline, clothing, equipment, reports and returns) which was specially reprinted from 1912 on the outbreak of the war, was "the subaltern" to whom no tactical responsibilities were delegated. Instead, it merely stated that "all subaltern officers will be trained and instructed in the routine of the orderly room and the quartermaster's office, and will undergo a practical course of instruction in the armourer's shop."<sup>61</sup>

This, of course, was a reflection of the peacetime British regular army and bore no relevance to junior officers facing modern industrial war for the first time. It also reflected the fact that infantry platoons were merely an administrative convenience rather than tactical entity. Subalterns were actually "company officers" who would control a half-company or detachment as required. The booklet entitled "Infantry

<sup>60</sup> Information extracted for chart from *CEF Org & Adm*, 22; and W.R. Lang, *The Organization, Administration and Equipment of His Majesty's Land Forces in Peace and War* [hereafter *HMLF in Peace & War*], (Toronto: Copp Clark, 1916) 118.

<sup>61</sup> *King's Regulations and Orders for the Army - 1912* [reprint 1 August 1914] hereafter *KR&Os*, para 114, 22.

Training- Four Company Organization” published by the WO on 10 August 1914 firmly established four platoons within a four company organization, and described some of the duties not only of the platoon commander, but of the section commander. It stated that a section was to be commanded by a non-commissioned officer (NCO) and was to be considered “the normal fire-unit.” Sections were to be “numbered consecutively throughout the rifle company from 1 to 16” and “the men of each section kept together in barracks as well as the field” in order that they would “acquire the spirit of comradeship and learn to repose confidence in each other while the section commanders will be accustomed to command, and to act when necessary on their own judgement.” To this end, the section commander had to “know his men thoroughly, and be responsible generally for their discipline and efficiency.”<sup>62</sup>

The same manual was also more explicit on the role and functions of the platoon commander. He was responsible for the training of his command in accordance with higher instructions and never to forego his functions of “guidance and control.” He was to “exercise continuous supervision over the work of his subordinate commanders” and “to ensure the development of their initiative.”<sup>63</sup> By 1916, Canadian platoon commanders on joining their units were additionally charged in the “Instructions Governing Organization and Administration” for CEF Units, “to provide themselves with a nominal roll of their platoons,” and “to make themselves acquainted with the disposition, age and service of each of their men” and to be completely responsible to their company commander.<sup>64</sup>

---

<sup>62</sup> *Infantry Training - [4-Company Organization]* hereafter *IT*, (London: HMSO, [reprint 1916] 1914) xv.

<sup>63</sup> *Ibid.*, 4.

<sup>64</sup> *CEF Org & Adm*, 7; In early 1916, Capt Herbert Molson, a company commander in the 42nd Royal Highlanders, one of 7th CIB's four battalions, would chastise Royal Ewing, one of his four platoon commanders (later the CO in 1918) for not knowing all the names of the soldiers in his platoon. Ewing protested that it was difficult to remember the names of more than 30 men, especially when the list was continually changing due to replacements. At the next pay parade, with Ewing at his side, Molson called out the names of every single man in the company in alphabetical order without the aid of a nominal roll. Shirley E. Woods, *The Molson Saga, 1763-1983*, (Scarborough: Avon Books of Canada, 1983) 218-19.

Four platoons formed the fighting strength of an infantry company which, with various administrative and specialist personnel attached, ran to some 227 men commanded by a major or captain in 1916 (see Figure 2). This was not the case, however, when the first Canadian contingent had formed at Valcartier. In the years leading up to the war, the rifle company had come into its own on the battlefield. Because of need for greater dispersion necessitated by the lethal effect of the rapid-fire rifle, it had become apparent that it was impossible for one commander to control the detailed movements of a battalion using his voice.

A rifle company, however, could still be influenced by one commander on the

<b>WAR ESTABLISHMENT - RIFLE COY (1916)</b>						
Rank/Position	Officers	Warrant Officers	S/ Sgts & Sgts	Buglers/ Drummers	Rank & File	<i>TOTAL</i>
Coy Comd	1Maj/Capt	--	--	--	--	1
2i/c	1 Capt/Lt	--	--	--	--	1
Subalterns	4	--	--	--	--	4
Coy Sgt Maj	--	--	1	--	--	1
Coy QM Sgt	--	--	1	--	--	1
Sgts	--	--	8	--	--	8
Buglers/Drumrs (StretchBearers)	--	--	--	4	--	4
Corporals	--	--	--	--	10	10
Privates	--	--	--	--	188	188
Dvrs (1st line)	--	--	--	--	3	3
Batmen	--	--	--	--	6	6
<b>TOTAL Coy</b>	<b>6</b>	<b>0</b>	<b>10</b>	<b>4</b>	<b>207</b>	<b>227</b>

**FIGURE 2<sup>65</sup>**

ground and, although it was generally considered to be too weak to carry out a battlefield mission on its own, the company gradually came to be regarded by 1914 as

<sup>65</sup> Information extracted from *CEF Org & Adm*, 23; and *HMLF in Peace & War*, 117.

the true fighting unit in which voice control could still be effective. The battalion remained the smallest tactical unit, that is, the smallest body of men that could be safely employed independently from a brigade.<sup>66</sup>

Western nations experimented with battalions of four and eight companies before the war, striving to find the optimum balance. By 1914, the general consensus was for battalions of four companies and the British were among the last European nations to switch. The Canadians, who had formed eight company battalions at Valcartier followed the British example, but not until they had subjected the infantry rank and file of their CEF battalions to a farcical changing from eight to four companies, four to eight, and then back to four on the Salisbury Plain. “Each change disrupted training, spread confusion, and, since the Contingent had far more officers than it needed, heightened tensions,” writes Morton. “In the familiar Canadian way, disappointed officers blamed politics or regional favouritism for their own demotion or exclusion.”<sup>67</sup>

The company in 1914 was the acknowledged “principal training unit in the battalion” and the WO booklet “Infantry Training” considered it “essential” that it should be regarded as “a self-contained unit.” The company commander was responsible for his platoon and section commanders’ training as well as capable subordinates “to take the place of each leader should the need arise.”<sup>68</sup> KR&Os outlined his administrative duties. A company commander was “charged with the equipment, ammunition, clothing and public stores appertaining thereto, and is accountable for them to his C.O.” He was also responsible for the feeding of his men, and was to pay particular attention “to the cleanliness of the men and to that of their clothing, arms, accoutrements, and barracks or quarters.”<sup>69</sup>

---

<sup>66</sup> English, *On Infantry*, (New York: Praeger, 1984) 4.

<sup>67</sup> Morton, *When Your Number's Up*, 33.

<sup>68</sup> *IT*, 4.

<sup>69</sup> *KR&Os*, 22.

At the next level was the battalion, commanded by a lieutenant-colonel and comprising a battalion HQ company (see Figure 1) and four rifle companies (see Figure 2), of 35 officers and 998 men, for a total of 1033. Its actual fighting strength, based on the four rifle companies, however was closer to 800 bayonets. However, when specialist sections or platoons such as the Scouts and Bombers were created which were not on the official establishment, they were invariably drawn from the rifle companies, thereby reducing those sub-units' bayonet strength.

The infantry battalion was an administrative as well as a fighting unit, which not only trained and organised its members for combat, but fed, paid and clothed them, arranged for their leave and saw to their health, spiritual health and recreational needs. Thus the battalion figured largely in the lives of most Canadian infantrymen, as it was large enough to minister to their personal needs, but not so large as to be impersonal. Often recruited from a particular town or community, all officers, and most NCOs and soldiers within the battalion, knew each other by sight.

It is at this level of command that the responsibilities of command first become apparent. The very scope of planning and directing the activities of some 1000 individuals required the use of a small staff and a selection of subordinate commanders. It also required a well-recognized set of procedures: *routine* orders which promulgated daily routine administration; *standing* orders, which detailed how troops were to react in certain situations, as well as detailing basic principles and duties to be observed in the execution of all phases of war (these semi-permanent orders also insured that existing regulations were adapted to local conditions such as trench warfare and also negated the need for constant repetition in routine or operational orders); and, *operational* orders, the type most familiar to historians and laymen, giving explicit tasks and coordinating troops in all tactical operations such as battle, road moves, reliefs-in-place, and reconnaissance. The latter orders would also include any pertinent information regarding supply, transport, ammunition, medical and other services of maintenance specific to the operation.

The duties of commanding officers (COs) of units at the start of the war were

explicitly laid out in the KR&Os. Besides the standard admonishment “to be responsible under his commission to THE KING for the maintenance of discipline, efficiency, and proper system in the unit under his command,” a CO was also required: to possess a thorough knowledge of Military Law and of all rules and regulations; “to discountenance any disposition in his officers to gambling, drinking or extravagance” or “practical jokes”; to pay particular attention to the health of his troops; “to *supervise* and *control* [author’s emphasis] all duties performed by those under his command”; to be accountable for public equipment and stores; to be responsible for the correct receipt and issue of all supplies, promulgation of orders, regimental funds, training of officers, conduct reports, etc.<sup>70</sup>

The field, however, entailed a completely different set of command responsibilities, actions requiring human thought and decision vice set-piece routines and administration. These actions could be output-related vice functionally-related. These aspects of tactical command required the CO to manoeuvre his troops in battle so as to close with the enemy. This included, for example, the gathering of intelligence, the planning and monitoring of operations, coordinating with flanking formations, arranging for fire support and providing timely reports on battle conditions and developments to the brigade HQ. In essence, the processing of information, then, acting upon it. With “knowing” and “seeing” being essentials of the command function and process, the CO depended heavily on his small staff in order to make command decisions.

First in seniority and importance was his battalion 2 i/c, usually a major, an understudy always on hand to take his place in his absence, thus ensuring continuity of command. Major Agar Adamson, a PPCLI officer writing to his wife in 1915, explained that his job as Bn 2 i/c was “to be responsible for discipline and to see that

---

<sup>70</sup> KR&Os, 20-21.



*the system* [author's emphasis] is working."<sup>71</sup> He was assisted in this supervisory role by the Regimental Sergeant Major (RSM), the most senior NCO in the battalion, who would act as the CO's advisor on all matters pertaining to the rank and file such as discipline, promotion and morale. The RSM would accompany either the CO or 2i/c on his daily rounds.

The battalion 2i/c also acted as the *de facto* company commander for all battalion HQ personnel including the machine gunners, signallers, pioneers, scouts, medical staff etc. "They are widely separated and all over the shop," Adamson wrote and therefore his job was "to ensure all received and understood battalion orders or special after-orders which are a daily occurrence." A widely-experienced regimental officer who would later become CO, Adamson outlined his additional duties to his wife:

A 2i/c remains behind to clear up camp, and with an interpreter pay all claims for damages, also billeting fees, following on a few days later. He is also responsible for the funds of the Regiment apart from the actual pay of the men and the wet and dry canteen. He has to go over the trenches on a "by day" and "by night" basis and is responsible for the supply of reserve ammunition and to generally take as many troubles off the CO's hands as possible. He messes and lives with the CO and should be ready at any time to take over the Regiment.<sup>72</sup>

In battle, the 2 i/c, as senior major, might command the assaulting companies on the ground while the CO remained behind at battalion HQ to man the telephone links to Brigade HQ. Or, depending on the personality of the CO, the roles might be reversed. Sometimes both would stay back, the CO delegating field command to a senior company commander and retaining his 2 i/c as a troubleshooter he could dispatch to anywhere on the battlefield when *the system* was breaking down. During the Somme battles, when the "Left-Out-of-Battle" (LOB) policy was introduced, the 2i/c might find himself back in the transport lines waiting to come forward with other officers and NCO's to replace battle casualties, in his particular case, the CO.

---

<sup>71</sup> NAC, MG 30 E 149, *Agar Adamson Papers* [hereafter *Adamson*], Letter to wife dated 12 Feb 1916. Unless otherwise stated, all letters cited are addressed to Adamson's wife.

<sup>72</sup> *Ibid.*

The Adjutant, the CO's principal staff officer, was another important figure in the battalion chain of command and essential to its smooth functioning. KR&O's recommended that he "be of superior intelligence and strength of character, energetic, capable of hard work and a good horseman." His duties were "to supervise every detail in connection with the daily regimental routine and administrative business" and was assisted in this by the battalion orderly room. He was also responsible "to exercise general supervision over the manner" in which all NCOs performed their duties with special supervision over all clerks in the battalion and the band. He also had a special responsibility for the discipline and training of junior officers, though this was less apparent in the field, where officers lived and messed together on a company basis. All documents, records, reports and returns passed by his desk and the promulgation of all routine and standing orders flowed from his pen.<sup>73</sup>

Finally, on the administrative side, the Quartermaster (QM) was a key player to the efficient maintenance and supply of the battalion. If the CO could find a competent, reliable officer to fill this appointment, then half his worries were solved and battalion morale could be maintained at a high level. During the war, regimental histories are full of accounts of how QMs and company QM Sergeants ensured that rations, water and ammunition "never failed to reach the front line if it were humanly possible to get them forward" or that whenever a unit came out of the line or an engagement, perhaps bedraggled, cold and wet and shot to pieces, "whatever comfort could be created was awaiting the Battalion."<sup>74</sup>

If the 2i/c, RSM, QM and Adjutant can be termed the administrative "eyes and ears" of the battalion commander, the Scout Officer, performing the intelligence gathering function for his CO, could be called his tactical "eyes and ears". The Scout Officer was responsible for ensuring that the entire battalion frontage was covered by

---

<sup>73</sup> *KR&Os for the Canadian Militia*, (Ottawa: 1917) 20.

<sup>74</sup> C.B. Topp. *The 42 Battalion (CEF) Royal Highlanders of Canada in the Great War*. [hereafter *42nd Hist.*](Montreal: Gazette Printing Co., [1931]) 8.

snipers and observation posts (OPs), as well as the detailing and coordination of all patrols (as well as debriefing them). All data collected would be sent on to higher HQ, his principal contact there, the Brigade Intelligence Officer or Staff Captain Intelligence ("I"). He was also in constant touch with the company commanders to gather any useful information that their frontline sentries could provide as well as responsible for keeping the battalion's map of No Man's Land up to date. As a consequence, he was the most informed officer on the terrain that lay in and outside a battalion commander's area of responsibility, and thus key to any of the CO's command decisions on patrolling, raiding, preparing defensive contingency plans, etc. The importance of this officer in the execution of tactical command was finally fully recognized in the spring of 1918 by the addition of one officer to each battalion establishment (to be known as the Intelligence Officer) for the sole purpose of collation, analysis and dissemination of intelligence.<sup>75</sup>

Brigade was next above battalion in the chain of command. By 1916, a Canadian brigade consisted of four battalions of infantry, a MG company and a TM company, all commanded by a brigadier-general. In 1914, an infantry brigade HQ was a small affair: one brigadier-general (BGen); two staff officers, consisting of a Brigade-Major (BM) who looked after operational matters including intelligence, and a staff captain, who looked after all supply and logistical matters; a veterinary officer; and 23 other ranks (ORs) consisting of 3 postal clerks and an assortment of other clerks, batmen, grooms and military policemen - a total of 27 all ranks. By 1916, the Canadian establishment for a brigade was 8 officers and 31 ORs ranks for a total of 39 all ranks (See Figure 3). This was partially a reflection of the surplus of officers in England in 1915 and General Alderson's bid to alleviate the problem by having staff

---

<sup>75</sup> For a detailed and complete account on the duties and responsibilities of the Battalion Scout Officer (and later Intelligence Officer) read Maj J.E. Hahn's excellent Chapter VII entitled "Battalion Organization" in *The Intelligence Service Within the Canadian Corps 1914-1918*, (Toronto: The McMillan Company of Canada, 1930) 69-85; and the 7th CIB "Terms of Reference for a Scout Officer" in *Capt Wallis's Collection* [hereafter *WC*] of WW1 scrapbooks held at the MUA under MG 2039 (Acc. No.2627), Vol. I. All letters cited from WC are addressed to his mother unless cited otherwise.

learners understudy the establishment officers.<sup>76</sup>

Establishments at division and brigade for staff officers were subsequently doubled up and after the battle of 2nd Ypres, the benefit of such a command arrangement fully justified. It gave the formations “the ability to operate 24 hours a day” and “maintain personal touch with subordinate and adjoining commanders.” Duguid, the Official Canadian Historian noted that “the double establishments were retained in Canadian formations throughout the war.”

<b>WAR ESTABLISHMENT - BRIGADE HQs</b>				
FORMATION	OFFICERS	OTHER RANKS	HORSES	TOTAL PERSONNEL
BEF 1914.....	4	23	23	27
CEF 1915.....	8	31	30	39
CEF 1917.....	12	34	--	46

**FIGURE 3<sup>77</sup>**

Their value, he maintained, was “particularly noticeable in the complicated and continuous operations of 1917 and 1918.”<sup>78</sup> By 1917, staff officers in Canadian infantry brigade HQs had risen by another 50% for a total of 12 officers and 34 ORs, giving them a distinct advantage over their British cousins, though British brigades’ spans of control were reduced from four battalions to three in 1918, giving them less troops to command and control.<sup>79</sup> The staff officers at a brigade HQ represented the three branches of the British staff system one could find running through every level of command from brigade through divisions, corps, armies and eventually to GHQ. The General Staff or “G” branch was responsible for the fighting details and those closely

<sup>76</sup> *OH*, 148; *CEF*, 38; *HMLF in Peace & War*, 92; and *Field Service Pocket Book*, (London: HMSO, 1914) Section I “War Establishments”, 7.

<sup>77</sup> Information extracted for chart from *HMLF in Peace & War*, 92: and, *Field Service Pocket Book*, 7.

<sup>78</sup> *OH*, Vol. II, 416-17.

<sup>79</sup> *WC*, Vol.I, 3rd CID Personnel Listing.

allied with it: all operations, training, intelligence duties, inter-communication and general military policy and procedures. The Adjutant-General or “A” branch was responsible for all matters of discipline, law, record, supply of personnel, medical matters, sanitation and cleanliness of living quarters. The Quartermaster-General or “Q” branch was responsible for all matters of supply, ordnance, transportation, permanent works, provision of material requirements, postal and veterinary services.<sup>80</sup>

The most important officer in the brigade command structure, other than the commander, was his Brigade Major (BM), his principal staff officer, who controlled and coordinated the three branches from the main HQ. Unlike British brigades in which the BM would have to staff all operational, training and intelligence matters himself, BMs in Canadian brigades had an extra staff captain known as the Staff Captain Intelligence or “I” to assist them and their commanders. One former battalion scout officer sent to Brigade as a new Staff Captain “I” in 1915 remarked that nothing much had changed from his old job except the scale. “[I do] maps, reports, reconnaissance, scouts, snipers and observers. This is right in my line as it is just the work that I was doing in battalion only now I deal with the four battalions covering the whole brigade front instead of just my own scouts on one battalion front.”<sup>81</sup> His own small support staff included 12 observers, two draughtsmen, one aerial photograph interpreter, and a clerk.<sup>82</sup> The commander’s ADC or “Orderly Officer” was often used as an extra duty officer to assist the BM and the Staff Captain “I” in their work. All GS officers usually became proficient at doing all of the jobs found within the HQ as leave, courses, wounds and sickness would take key players away and the more junior officers were expected to fill in.<sup>83</sup>

---

<sup>80</sup> *HMLF in Peace & War*, 91-94.

<sup>81</sup> NAC, MG 30 E 241, *LCol D.E. Macintyre Diary*, 130.

<sup>82</sup> Hahn, *op.cit.*, 86.

<sup>83</sup> *WC*, Vol.I. Letters dated 26 March 1916 and 20 May 1916.

Another essential officer always found at the main brigade HQ, though technically not on the staff, was the brigade Signals Officer (BSO), commanding a field section of the Divisional Signals Company. This essential company which played a pivotal role in the command and control function of formation HQs was a hybrid organization of the Canadian Engineers (CE) who were responsible for line telegraphy, and the Canadian Signals Corps or CSC, who were responsible for telephones and visual signalling. Despite the obvious duality in the provision of communications, these responsibilities remained in place for the duration of the war.<sup>84</sup>

The BSO and his men's importance was spelled out in no uncertain terms in the 1915 *Signalling* pamphlet. "Signallers must remember that the sole object of their existence is to keep the commanders in touch with the various parts of his force and to enable his plans to be promptly and smoothly executed."<sup>85</sup> His section (in fact, a small platoon), comprised 26 other ranks whose jobs ranged from telegraph operators (usually CE sappers), linesmen and despatch riders to drivers and grooms. Essentially, it was divided into two components: office staff and linemen. The linesmen had the job of laying and repairing telephone line, one of the most dangerous jobs in trench warfare, as it was usually done in the open while exposed to artillery fire and small arms fire.

The signal office at main HQ was the nerve centre of the brigade, "which had to be systematically run in order to ensure that all messages and despatches had been properly delivered and registered and reached their proper destination" remembered Burns, a BSO in the Great War. "Most communication was by line telephone, and the brigade office had a switchboard of twenty lines or so....Another important element in the section was the telegraph operators...professionals who had either worked on wire

---

<sup>84</sup> John Moir, *History of the Royal Canadian Corps of Signals, 1903-1961*, [hereafter *Sig. Hist.*](Ottawa: Queen's Printer, 1962) 9.

<sup>85</sup> *SIGNALLING: Morse, Semaphore, Station Work, Despatch Riding Telephone Cables Map Reading*, Imperial Army Series, (London: John Murray, 1916) 13.

services for commercial telegraph companies or for railroads.”<sup>86</sup>

Last, but not least, the BSO was responsible for looking after the “runners.” “They were the men attached from the battalions of the brigade,” recalled Burns, “and their task was to carry written orders, administrative instructions and general ‘bumf’ on foot to the battalions and other units. When the lines were cut and there was no alternative means of communication, they had to carry the messages by hand, usually through shellfire. In action forward of battalion, the battalion and company runners were usually the only dependable way of getting messages through.”<sup>87</sup>

The other key staff officer found in a brigade HQ establishment was the captain responsible for all A & Q matters. Known as the Staff Captain “A&Q”, he was usually located in the Brigade Rear HQ close to the various units’ transport lines and quartermasters’ storage wagons, ready to hand for coordinating the issue of supplies, ammunition and equipment to the brigade’s units. The veterinary officer was usually located with him, as well as any other attached officers such as the Paymaster or Chaplain.<sup>88</sup>

The brigade was the smallest tactical formation of the First World War, and its main function was to train and direct men in trench warfare and the various phases of war. Like the division at the next higher level, it kept a permanent establishment, keeping its original infantry regiments throughout the war, though attachments, through tactical necessity as well as those created by a myriad of reorganisations, came and went like the wind. And while some historians believe that British brigades “did not often develop a sense of solidarity or esprit de corps” during the war, it certainly occurred in some British and most Canadian brigades which gave themselves nicknames such as “The Stonewall Eightieth”, “The Iron Sixth” and “The Fighting

---

<sup>86</sup> Burns, *General Mud*, 10-12.

<sup>87</sup> *Ibid.*, 10-12.

<sup>88</sup> *WC*, Vol.I, Letter dated 29 October 1916.

Seventh” respectively.<sup>89</sup>

Beyond brigade lay the division, which was the smallest tactical formation possessing all - or nearly all - combat arms (3 infantry brigades, four artillery brigades) combat support arms (machine guns, trench mortar units, engineer, cyclist and signal companies) and combat service support units (medical, transport, supply, and veterinary services, etc.). Cavalry regiments were usually brigaded separately. Thus the division formed the basis of the field army according to Field Service Regulations (FSRs) as it was “a self-contained formation comprising all arms and services in due proportion, complete in itself with every requisite for independent action.”<sup>90</sup>

## Doctrinal, Tactical and Technological Impacts on Command

Without an efficient system for the transmission of information and orders, an army is much in the position of a man who is blind, deaf, and to a great extent, paralysed. The airmen, cavalry and scouts who are its eyes and ears cannot transmit swiftly, surely and accurately to the general who is its brain the information in regard to the enemy which is essential alike for the success and safety of an army; and its brain in turn is unable with certainty to control its movements so as to strike at the enemy or ward off his attacks.<sup>91</sup>

SIGNALLING, *Imperial Army Series*, 1916.

The first few months of the fledgling 1st Canadian Infantry Division’s (1st CID) life were spent sorting itself out logistically, before it could seriously focus on training. The 1st CID organized and staffed itself according to the existing British models as best as it was able. On arrival in England and of a mind to progress beyond mere close order drill and basic musketry training, it found a British Army very set in its ways.

---

<sup>89</sup> Tony Ashworth, *Trench Warfare, 1914-1918: “The Live and Let Live” System*, (London: Macmillan, 1980) 9; G.G.D. Kilpatrick, *Odds and Ends from a Regimental Diary*, (Montreal: [privately printed] n.d.) in *passim*; Ralph Hodder-Williams, *Princess Patricia’s Canadian Light Infantry 1914-1919* [hereafter *PPCLI Hist*] Vol.I, 88.

<sup>90</sup> *Field Service Regulations*, [hereafter *FSRs*] Part II, (London: HMSO, [reprint with Amdts- October 1914] 1909) 25.

<sup>91</sup> *SIGNALLING*, 1-2.



The infantry was not considered a technical arm like the artillery corps, with its own regimental staff to take care of infantry issues, developments and doctrine.

Nevertheless, the infantry was considered to be the master arm, and would be regarded as such for most of the Great War, though more intelligent military experts had already noted that operations had been subsumed into a massive siege operation, in which artillery ruled the battlefield and engineers were becoming crucial for mobility and protection. Graham blames the regimental system for impeding any formation of an infantry corps that could have taken the lead in interarm cooperation or training that would be needed to break the stalemate of the trenches:

The Army *was* the divisions of twelve marching battalions. The rest of the Army existed to support the infantry. Brigade and divisional staffs acted *in loco parentis* in tactical and technical matters for the infantry. Not until one reached GHQ was there a brigadier general of staff (BGS), one of whose responsibilities was issuing pamphlets on infantry tactics, or a BGS (operations) who was concerned with infantry methods in specific operations. Tactical cooperation between services was no one person's particular responsibility, and techniques in it spread by osmosis and varied widely.<sup>92</sup>

The training manuals for the infantry in 1914 therefore reflected a splendid ignorance of other arms available on the modern battlefield, such as mortars and quick-firing artillery. Machine guns were acknowledged in passing as useful accessories in the defence. Before the Somme and even before the War, the British military (and by extension the Canadian military) had had copious evidence and examples of the ascendancy of firepower in modern warfare, but no one seemed to have taken any heed. Great slaughter had occurred on both sides of the Atlantic prior to World War One: Shiloh, Antietam, Fredricksburg and Cold Harbour in the American Civil War and Gravelotte-St. Privat in the Franco-Prussian War had amply demonstrated the devastating power of rifled and breech-loading musketry with their increased rates of fire on massed infantry attacks.

John Keegan notes that "by 1914 the infantryman fired fifteen rounds per minute, a machine-gun 600, and an artillery piece, discharging shrapnel shell filled

---

<sup>92</sup> Graham. "*Observations on the Dialectics of British Tactics*", 62.

with steel ball, twenty rounds."<sup>93</sup> This weight of fire would essentially be ineffective if the infantry remained under cover, but if it rose to advance in the attack, it might destroy a battalion of men in a mere few minutes. The machine-guns that scythed down the men of 7th CIB at Regina Trench at the Somme had been acknowledged as extremely valuable in colonial wars, had been used to good effect in the South African War, and had been reported on in detail after the Russo-Japanese War. But oddly, the success of new weapons technology was either conveniently forgotten, or in the case of the Japanese's success over a continental military power, explained away as an aberration.

Travers, Bidwell, Graham and Rawling have examined the impacts of British/Canadian morale, firepower and technology before and during the war in detail, and there is a general consensus that the central problem faced by senior British officers and staff seems to have been a severe mental difficulty in integrating or "linking" together what were really two different entities or realities of war. On the one hand, there were the moral or human qualities such as dash, elan, *esprit de corps*, courage (what Travers calls "the cult of the offensive and psychological battlefield"); and on the other hand, fire power and new weapons, the technological sphere of the battlefield.<sup>94</sup>

The key element in the failure of the British command to adapt quickly to new, and not so new, technologies that they could have reasonably expected to encounter on the European battlefield was a reluctance to enunciate new defensive and offensive doctrines particular to the new circumstances of trench warfare. Doctrine in general before the war was restricted to a few paragraphs in field service training pamphlets which stressed the attack. An 1905 FSR publication entitled "Combined Training" is a perfect example. It readily acknowledged that "fire action has increased greatly...for

---

<sup>93</sup> John Keegan, *The History of Warfare*, (London: Hutchinson, 1993) 362.

<sup>94</sup> Travers, *The Killing Ground*, 62-78; Bidwell & Graham, *Firepower*, 1-4, 38-58; Rawling, *Surviving Trench Warfare*, 3-7.

the three arms: Artillery altogether, infantry almost wholly, and cavalry to a great extent....” And while the “superiority of fire...render[ed] the decision of the conflict possible...although the bayonet still plays an important part”, it stated that *how* that attainment of fire superiority was to be achieved was impossible to define. In hindsight, the only explanation for this reluctance to establish any type of standing operating procedures for infantry-artillery cooperation is that the writers did not envisage trench or defensive warfare on such a vast scale. Instead, they chose to view future warfare as principally one of limitless mobility, unhindered by the increased firepower and protection capabilities they knew all modern European armies to possess. That the other two important ingredients of tactical warfare were ignored is illustrated in this one paragraph:

For the attainment of superiority of fire no fixed rules can be laid down. The first condition is an intelligent use of ground, not only on the part of the commander, but of all officers and men; and on no two battlefields are the physical features exactly alike. The second condition is the concentration of superior power at the decisive point; and on no two battlefields are the elements that constitute this power identical. It is impossible therefore to fight battles in accordance with a sealed pattern. Even the formations in which the troops approach the enemy or occupy a position must vary with the circumstances; and, in like manner, there can be no normal procedure for the combination of rifle and artillery fire.<sup>95</sup>

It is true there were numerous training documents and pamphlets in 1914 such as FSRs entitled *Operations* or *Infantry Training* which contained some basic principles of the Attack and Defence, but they were mostly full of platitudes about the virtues of the attack and a seemingly mystical faith in its eventual success: "The main essential to success is to close with the enemy, cost what it may. A determined and steady advance lowers the fighting spirit of the enemy...." Equally, though the effect of an attack might be influenced "by the ground and the enemy's fire", the main determinant will "be the resolution and determination of the leaders in the front line". In essence then, any doctrine or "sealed pattern" was perceived as constrictive and potentially damaging to "the morale or human factor in war" and "depriv[ing] men in

---

<sup>95</sup> FSRs, *Combined Training*, Part I. (London: HMSO, 1905) 100-101

the attack of their desire to close with the enemy at all costs."<sup>96</sup>

Travers is careful to note, however, that the British Army was not rejecting doctrine or fixed fire-power tactics because they might be wrong, but because they did not fit the Edwardian image of war as *a human battlefield* (author's emphasis), in other words, the Edwardian human paradigm of war.<sup>97</sup> And while the Army Staff College "insisted that war demanded teamwork from all four branches...no one from Haldane's controversial new General Staff imposed any cooperation on the gunners, sappers, cavalry and foot-sloggers, or developed a doctrine of how the British Army would fight a modern war," writes Morton. "Sadly, the Army would learn the hard way."<sup>98</sup>

Before the War, doctrine, firepower and technology were thus viewed with caution, but their very necessity and presence caused the older chestnuts of discipline and courage to be re-emphasized and held to the fore. One has only to read General Sir Ian Hamilton's comments on I.S. Bloch, a Jewish banker who had predicted the lethality of firepower and the stalemate of the trenches in an industrial war in his 1899 book *Is War Now Impossible?*, to realize that the British high command was definitely part of the problem. Hamilton, one of Britain's brightest intellectuals, a first-hand observer of the Russo-Japanese War, and one of her most influential, professional soldiers, was well-qualified to have perhaps come to the same conclusions as Bloch, but he could not make the intellectual leap from the pre-1914 paradigm.

He wrote:

All that trash written by M. de Bloch before 1904 about zones of fire across which no living being could pass heralded nothing but disaster. War is essentially the triumph, not of a chasse-pot over a needle gun, not of a line of men entrenched behind wire entanglements and fire-swept zones over men exposing themselves in the open, but of one will over a weaker will...the best defence to a country is an army formed, trained, inspired by the idea of attack.<sup>99</sup>

---

<sup>96</sup> *IT*, 120-147; *FSRs, Operations*, Part I, (London: HMSO [reprinted 1914], 1909) 131-145.

<sup>97</sup> Travers, *op.cit.*, 252-53.

<sup>98</sup> Morton, *op.cit.*, 30.

<sup>99</sup> Hamilton cited in Travers. *The Killing Ground*. 44.

At the outset of the War then, technique, method and calculation were ignored and replaced by a pervasive attitude on the part of British commanders that, if troops had the courage and will to cross the fire-swept zone, led by officers setting the example and preceded by significant amounts of artillery fire to destroy the enemy (artillery conquers, infantry occupies), then the stronger-willed army imbued with offensive aggressiveness would triumph. This is not to imply that “will” would not remain as an essential requisite for any commander contemplating a set-piece attack. Sheer courage on countless occasions however would take the place of cunning, ingenuity and resourcefulness, until the lower rank and file and junior leadership had had enough.

Rawling notes that when Canadian troops first arrived in France, the emphasis was on the “local attack”, involving limited objectives assaulted by battalion or brigade-sized units. Thus Canadian soldiers were repeatedly and mechanically put through the procedures to be followed before, during and after an assault. The assaulting infantry were told to leave their trenches at the same time with bayonets fixed, and to reach their objective without firing a shot. The platoons were supposed to rush across no man’s land in alternate rushes without attempting to support one another by rifle fire. When the infantry had moved to within 50 yards of the enemy trenches, commanders would then give the signal to move forward as one body and seize the trench. Before and during this movement, the artillery, firing on the enemy’s trenches, would then lift its fire from its target as their own infantry closed with it or, as was more usually the case, on a pre-arranged timing. It would then fire in depth behind the intended objective in order to isolate it from any enemy reinforcement or counter-attack attempt.<sup>100</sup> This format seems to have persisted right up until the battles of the Somme, when it was replaced by the new “creeping barrage” and its equally linear companion, the infantry assault wave, in which the commanders were to ensure

---

<sup>100</sup> Rawling, *op.cit.*, 23.

that “the pace be moderate, and on no account must a wild rush be allowed.”<sup>101</sup>

Commanders could have been under no illusions as to their own ability to command and control this new type of battle. The 1914 *Infantry Training* pamphlet, written before the scale of trench warfare was even known, had clearly stated that success in any local attack would “depend in a great measure, on the clearness of the orders which commits [a battalion commander’s] leading companies to the attack, and the definite objectives which he gives to each company in the original firing-line,” - ie. control measures had to be put in place *before* the battle. It went on to state that it was of great importance that “a battalion should not be hurried into action without good reason, but that time should be taken for a survey of the ground, for the issue of orders, and for instructions to be given by company commanders to their subordinates and to the men” - what is called, in today’s modern military parlance, “good battle procedure”. In effect, battle procedure is the efficient working of the command system or process whereby troops are launched into battle knowing their missions and objectives clearly through careful preparation and training. Given the nature of trench warfare, battle procedure would become critical to any tactical success and its very mechanism dependent on good command procedures and doctrine.

In the same document, however, the question of how the support of other weapon systems was to be incorporated into the attack is sketchy (the artillery to “use rapid fire when the infantry ...is seen to be in need of assistance”). The commander of the battalion MG section is mentioned, however, and before any attack, he and the company commanders were to be taken to a vantage point over which they could survey the ground to be traversed. “There, each would be informed of his objective, “his part to play” and the objectives “of other portions of the force in their neighbourhood.”

Before the creation of 7 CIB in December 1915, some defensive doctrine in the Canadian Corps had been clearly spelt out, despite the BEF’s apparent focus on the

---

<sup>101</sup> *Notes For Infantry Officers on Trench Warfare*, (London: HMSO, March 1916) 59; *IT*, 139.

offensive. As early as March 1915, Canadian brigades were told that “the cardinal principle of the defensive scheme of the Division is a determination to hold the front trenches at all costs.” [original statement underlined]. To ensure this principle was upheld, brigade commanders were specifically instructed that their immediate drill, upon the enemy seizing a portion of their designated sector, was to launch an immediate counter-attack. “Experience has proved that even if the enemy succeeds in gaining a trench, he requires time to re-organize before making further advance and that a prompt counter-attack nearly always drives him out of the captured trench,” they were told. Brigade and battalion commanders were specifically ordered to ensure that their “defensive schemes” within their respective areas of responsibility included “plans for prompt counter-attacks” with designated “jumping off lines” from the support trenches. But this document entitled “Principles of the Defence” and issued by the general staff of 1 CID, reached down even lower than the level of brigade and battalion, stating that “a definite scheme of work for each night must be drawn up by every company in the trenches and a definite task given to each individual or party.”<sup>102</sup>

Trench warfare was still new in 1915. By 1916, however, it had not gone away, and the GHQ of the BEF, though still of the mindset it was merely a temporary aberration, was forced in its *Notes for Infantry Officers on Trench Warfare* to acknowledge “the importance assumed by trench warfare and the progress made in the application of field fortification and in the science of the attack and defence of elaborate systems of trenches.” “Nevertheless...,” it stated, “it must be clearly understood that trench fighting is only a phase of operations, and that instruction in this subject, essential as it is, is only one branch of the training of troops. To gain a decisive success, the enemy must be driven out of his defences and his armies crushed in the open.”<sup>103</sup>

This longing for mobility, held in check essentially by weaponry (firepower)

---

<sup>102</sup> *OH*, Vol.II, Appx 270.

<sup>103</sup> *Notes for Infantry Officers on Trench Warfare*, 5.

and field fortifications (protection), recognized that the enemy had to be driven out of his defences before the British way of waging war could be successfully realized. If weapons technology was responsible for the gridlock, some reasoned, why couldn't technology provide them with a way out? And while recourse to new technological inventions was seen as a possible panacea, it would ultimately only make the battlefield a more lethal place.

Some inventions created tactical surprise for a fleeting moment like gas, and others had limited tactical success such as tanks. However, the most important area of technological innovation that could have truly enhanced the commanders' ability to control the ever-increasing chaos of modern industrial war as well as breaking through the stalemate created on the battlefield by the triumvirate of machine-guns, barbed wire, and quick-firing artillery was good communications technology. Historically, the afore-mentioned triad has always been traditionally identified as the main culprit for heavy casualties at the tactical level, but the lack of communications between the troops in combat and the commanders responsible for providing artillery support, sending in reserves or ordering up immediate counter-attacks was also a significant factor in many failed attacks and the subsequent heavy death toll.

The state of the communication art in 1914 within the Canadian contingents consisted of teaching signallers in the infantry battalions or artillery batteries how to use semaphore flags and lamps. Once they had got to France, however, they found that visual signalling (which grew to include rockets and flares) was only good in a quiet sector, and that all methods were vulnerable to weather conditions, not to mention, extremely vulnerable to the smoke and shrapnel of battle. The field telephone, which required laying line, became the most convenient and reliable means of communication then available.

Initially, laying line was the responsibility of the brigade and divisional signallers. In the battle zone, signallers found their job to be one of the most dangerous. When laid on the surface, wire was extremely susceptible to enemy shelling and, *ipso facto*, so were the long-suffering line crews who had to go out and



repair the cut and broken line in the open, usually under the cover of darkness. To ensure effective communication which could withstand a heavy bombardment as well as the daily routine of trench warfare (where even their own troops could be guilty of disturbing line), their only recourse was to deep-bury the cable. This required intensive labour and it was a constant struggle to obtain infantry work parties as well as sufficient quantities of wire to hook up all units of a division or brigade. The 1st CID would set the standard in March 1915 with the following principle:

Prompt communication is of the utmost importance. The general principle is that each company in the trenches should be in telephonic or telegraphic communication with the battalion Headquarters, that each Battalion should be in direct communication with Brigade Hd. Qrs. And with the two battalions on its immediate right and left, and that each brigade be in direct communication with divisional Hd. Qrs. and with the Brigade on its immediate right and left. Wire should be so laid that a cut in one place does not interrupt communication. Of equal importance is co-operation between Infantry and Artillery. Brigadiers will see that their battalions in the front line trenches are in direct communication with the batteries allocated to their Sub-Section.<sup>104</sup>

Thus infantry signallers also added linemen to their repertoire of communication skills and, by the end of 1915, line laid as far forward as company HQs and important observation posts such as those belonging to the Forward Observation Officer (FOO) of the artillery was commonplace. After 2nd Ypres and before Neuve-Chapelle, it became standard practice in the BEF to have all wires triplicated, as well as laddered across at intervals to one another, thus maximizing the chances of at least one route remaining open after the wires had received a number of hits. It also became policy that wires were not to be laid along roads or trenches which might be registered by German artillery, but across open fields where shells were less likely to fall. Given that the HQs of various battalions, brigades and divisions were miles apart, establishing this communication network as well as providing the sections to repair it under fire was a herculean task.<sup>105</sup>

From 1914 to 1916, commanders quickly learned that once their troops had

---

<sup>104</sup> *OH*, Vol.II, Appx 270.

<sup>105</sup> Robin Prior and Trevor Wilson, *Command on the Western Front: The Military Career of Henry Rawlinson, 1914-18*, (Oxford: Blackwell Publishers, 1992) 33; Rawling, 8.

gone “over the top” and were committed to an assault, all effective voice control ceased, until line could be laid forward and communications re-established. Indeed, as early as 1914, battalion commanders were told in the *Infantry Training* pamphlet that their “personal powers of control...upon the battlefield [were] limited.” As visual signalling was susceptible to the fog of war and required expert signallers on both ends, pigeons and human runners (the Germans used dogs) were used to send urgent messages and requests back from assaulting troops. The former were unreliable and latter were slow and expensive in men, especially under heavy bombardment. Messages going forward to instil some form of command and control were nigh impossible unless the commander went forward himself to make his voice heard.

One general termed the Great War as “the only war ever fought without voice control” contrasting it with the Second World War in which wireless radio ensured that a commander’s voice could be carried right up to the forefront of combat and thus be an influencing factor.<sup>106</sup> Radio-telephony as it was known in 1914, whilst available as a technology since 1910, was not used extensively in the First World War. Wireless sets were heavy and fragile, and regarded almost as a toy, rather than a feasible and practical tool to facilitate command and control. While they were later improved significantly so they could operate effectively in aeroplanes and provide aerial observers the means of telling their artillery where their shells were falling, they were too bulky to be carried forward under battlefield conditions.<sup>107</sup>

Thus the telephone and telegraph lines became the chief tool of command and control in the defence, and the static and immovable nature of the medium transferred itself to the command process. As MGen “Boney” Fuller commented:

As the general became more and more bound to his office, and, consequently divorced from his men, he relied for contact not upon the personal factor, but upon the mechanical telegraph and telephone. They could establish contact, but they could accomplish this only by dragging subordinate commanders out of the firing line, or more often persuading them not to go into it.

---

<sup>106</sup> General Sir Robert Moulton, RM, cited in John Terraine, *The Smoke and the Fire: Myths and Anti-Myths of the War, 1861-1945*. (London: Sidgwick and Jackson, 1980) 179.

<sup>107</sup> Morton, *When Your Number's Up*, 135.

so that they might be at the beck and call of their superiors. In the [First] World War, nothing was more dreadful to witness than a chain of men starting with a battalion commander and ending with an army commander, sitting in telephone boxes, improvised or actual, talking, talking, in place of leading, leading.<sup>108</sup>

Tactical innovation ultimately, and not technological innovation, however, (ironically incorporating part of the old paradigm of the Edwardian soldier being unfettered with doctrine and thus displaying initiative) would ultimately resurface as an answer to the "riddle of the trenches" in some corps of the British Army, but more pronouncedly in the less-traditionally ridden Canadian and ANZAC Corps. The method to effect these changes and develop innovative solutions to tactical problems would be tackled "bottom-up": firstly, by battalions effecting their own experimental reorganizations and tactics internally; secondly, by brigades supporting their units' after-action commentary and following up recommendations for better methods and organizations in accomplishing their tactical mission; and finally, higher command ensuring that promising developments or lessons learned from within certain formations of the Canadian Corps were disseminated back down the chain of command to receive the exposure they deserved. Such a free flow of ideas on how the tactical mission was to be achieved was an indication of a professional and honest approach by Canadian commanders to ensure that their command system was working to its optimal potential. Thus a command and control process would evolve within the Canadian Corps, developed, tested and refined by its divisions, brigades and battalions in the crucible of battle.

---

<sup>108</sup> J.F.C. Fuller, *Generalship: Its Diseases and Their Cure*, (London: Faber and Faber, 1933) 61.

## CHAPTER TWO

### “STANDING UP” -

#### THE CREATION OF THE SEVENTH CANADIAN INFANTRY BRIGADE

The Brigade has always been a source of pride and joy to me, and when sorrow came into my life, and my only son was killed in action, it was the Brigade that saved me - pulled me through and comforted me....When we first mobilized at Mont de Cats, my job was to weld four of the finest battalions Canada sent to the war into a real Brigade - a military Machine that would run smoothly and well. Above all, I was anxious that the Brigade be a military family, we would all love and be proud of.<sup>109</sup>

MGen A.C. “Batty Mac” Macdonell’s undelivered Farewell Address to 7th CIB, 9 June 1917.

When the 7th CIB came into being, its first commander undoubtedly left his mark on it for the remainder of the war, though his successors were certainly able and gallant men in their own right. But Sir Archibald Cameron Macdonell, KCB, CMG, DSO was unique, a throwback to the Highland chieftains of yore, known politely amongst his peers and the officer corps as “Fighting Mac.” The rank and file simply referred to him as “Batty Mac”. G.R. Stevens, who served as a private in the PPCLI and was eventually commissioned in the regiment during the First World War, remembered Macdonell’s forward style of command from the outset.

“Batty Mac, our brigade commander, was crazy as a coot in many ways,” he recalled. “I saw him actually get wounded one day. He was wearing...square-pushing jodphurs...bright white....Somebody said ‘Be careful, sir, there’s a sniper’ and he said ‘Fuck the sniper’, climbed up to get a look and the sniper took him through the shoulder and he went ass over applecarts into his shellhole from which he had emerged....My god, his language! You could hear him for miles around!”<sup>110</sup> The

---

<sup>109</sup> *WC*, Vol.1, Undated transcript of Address. Various portions of it can be found in the various Regimental histories and another copy is in MG 30 E 20, *A.C. Macdonell Papers*, annotated in the general’s own hand. “This address was not delivered. I simply couldn’t. So galloped off.”

<sup>110</sup> NAC, RG 41. CBC Radio Transcripts of *Flanders Fields* [hereafter *CBC*], PPCLI, G.R. Stevens.

furious Macdonell got out of the shellhole and went back to retrieve his walking stick, whereupon another bullet passed through his left arm breaking the bone. Another officer who witnessed the episode recorded that “there is no doubt he would have been killed but for the fact the German sniper was so excited shooting at a General that he couldn’t aim straight!”<sup>111</sup>

BGen Macdonell was perhaps one of the most eccentric, indomitable and beloved officers to have commanded troops in the First World War. Cpl Will Bird of the 42nd Bn remembered his brigade commander riding up to say farewell at Chateau de la Haie: “Everyone had a good word for him and stories of his decisions and actions were legion.” But when it came time for Macdonell to actually speak, “the old fire-eater seemed overcome with emotion...put his horse to the gallop and left without saying a word.”<sup>112</sup> Stevens described him in *A City Goes to War*, the Regimental history of the 49th Bn, as an officer of “a breed whose passing has left this world a poorer place - colourful, fearless, flamboyant in language, canny in battle, unabashedly sentimental and emotional over his men, who in turn regarded him with joy and pride: they treasured his eccentricities, they boasted (yes, and lied) concerning his highly individual behaviour.”<sup>113</sup>

Macdonell started his military career by attending RMC where he excelled at games and academics. At the end of his course at the College, his report from the examiner in Civil Engineering was, contrary to many academic reports, an accurate prediction. It read: “A man of marked ability who ought to rise rapidly in his profession and be an acquisition to any staff, on account of his high personal

---

<sup>111</sup> MG 30 E 241, *LCol D.E. McIntyre War Diary*, 130.

<sup>112</sup> Will R. Bird, *Ghosts Have Warm Hands*, (Toronto: Clarke Irwin & Co., 1968) 56.

<sup>113</sup> G.R. Stevens, *A City Goes to War*, [hereafter *49th Hist.*], (Brampton, Ont: Charters Publishing Co., 1964) 33.

qualities.”<sup>114</sup> On 29 June 1886, Macdonell graduated and was awarded a commission in the Royal Artillery of the British Army. Due to financial difficulties in his family, he was unable to accept, but at once joined the Canadian Militia as a subaltern. Two years later, on 6 April 1888, he became a lieutenant in the Canadian Mounted Infantry of the PF. The following year, however, saw him transfer into the RNWMP in which he had a distinguished career for the next 18 years, counting service time in South Africa.

Macdonell went to South Africa as a squadron commander in Lord Strathcona’s Horse, winning a DSO and several mentions in dispatches before being severely wounded and being subsequently evacuated back to Canada for a lengthy convalescence. Eager to get back, however, he was given command of the newly-formed 5 Canadian Mounted Rifles (CMR) but it arrived in Cape Town a few days after hostilities had ceased. On return to Canada, Macdonell went back to the RNWMP but later transferred to Lord Strathcona’s Horse. He was the regiment’s commanding officer at the outset of war.<sup>115</sup>

An intelligent and worldly-wise man, Macdonell predicted in a letter dated 5 August 1914 to his nephew, Hugh Wallis, that “the war is likely to be a long one and many contingents will likely go, at least so it looks to me, & I firmly believe we shall win in the end, but Germany will take a lot of beating indeed.” Wallis would become his uncle’s Orderly Officer (OO) in 7th CIB HQ in December 1916, but not before joining the 16th Bn at Valcartier as a private, experiencing Second Ypres and serving as a platoon commander and scout officer with the 13th Bn, CEF, Royal Highlanders of Canada. Macdonell’s prescient letter to his nephew, although unsuccessful in getting his headstrong relative to wait before enlisting, offers some interesting insights on his immediate prospects as a PF cavalry officer:

---

<sup>114</sup> R.G.C. Smith, ed., *As You Were! Ex-Cadets Remember*. Vol. I, (Kingston: The RMC Club of Canada, 1984) 115-21.

<sup>115</sup> *Ibid.*, 115-21; see also unpublished *Biography of Sir A.C. Macdonell* by A.E. Kennedy-Carefoot in NAC MG 30 E 20.

They seem to be giving the cavalry the go bye altogether and I may have to accept an infantry command, a thing more or less incompatible to me. However in wartime, the unfortunate professional soldier must take what he is offered, one can't hang back, but I am much worried over the prospect. Colonel Steele considers that (as in the past) all plums will go to the eastern wirepullers.<sup>116</sup>

Macdonell went to the UK with the First Contingent, and later France, as the Commanding Officer of Lord Strathcona's Horse. After a brief stint as acting-commander of the Canadian Cavalry Brigade, Macdonell's pocket diary records on 17 December 1915: "Told officially I am to command 7th Infantry Brigade. Gazette to follow shortly." More interesting, however, are the rough notes in the back of the same diary, however, which give his outline credo on how commanding officers are to command in his new brigade. They read in part:

Orders - When you receive an order:  
Say what am I wanted to do? When  
am I intended to do it, then finish  
your appreciation.  
1st eliminate self  
Get ambition to do the best for [all]...  
Read your orders carefully and  
say, Would I know what to do, etc.  
Learn to check orders carefully with the map.

Points for COs Care of men,  
think of them all the time  
How can they be kept dry, fed & spared  
  
work, etc. shld be second nature

Discipline Nothing without march  
discipline [illegible] keeps their place.  
Inspection of arms shld be 2nd nature  
Duty of an officer ditto in Infantrymen's  
feet.

HQs, Men & Horses

In battle habit is everything  
Position of an O.C.'s [sub] units...  
Make more use of horses and men mtd, etc they will help  
tremendously. CO should keep in close  
touch with General....officers  
should never be glued to comd HQs

---

<sup>116</sup> WC, Vol. I, Macdonell Letter to nephew Hugh Wallis dated 5 August 1914.

but try to anticipate events by being forward. Get the habit of frequent visits at regular intervals...<sup>117</sup>

The brigade commander refers to “habit” twice in his notes, stating that “in battle, habit is everything”. What does he mean? Macdonell, a veteran soldier, knew that battle was a chaotic affair and that in order to retain some semblance of control in combat, “standard operating procedures” (or “immediate action drills” in today’s modern parlance) would provide the troops with a model or response to follow in times of extreme stress. Also of interest is his personal emphasis upon the importance of orders, his “directives” or operational decisions through which he would exercise command. He tells his COs he wants them to stop and analyse their mission first, do a time appreciation, then to formulate a plan to execute it thoughtfully and intelligently. He also stresses the administrative aspects of his commanding officers’ responsibilities towards their troops and weapons in order to maintain his brigade operationally effective.

Finally, he is concerned with the passage of information and maintaining communications with his battalions. A cavalryman himself, and aware of the importance of timely intelligence and constant contact, he reminds his COs that they have horses. While he is not thinking of horses being useful in trench warfare, he is considering them no doubt as a means to speed up face-to-face contact while out of the line or during training. His command philosophy is clear in his closing remarks. He wants his battalion commanders to be well forward and constantly visiting the men, anticipating their needs as well as the enemy’s intentions and pending events.

While some of the above may have sounded like motherhood to the military man (two of his four COs were fellow regular officers, one Canadian, one British), Macdonell was impressing his personal style of command on his subordinates and setting in place his command arrangements. He wanted to be perfectly clear on how the command process was to work within 7th CIB so that his “military Machine would

---

<sup>117</sup> NAC MG 30 E 20, *Macdonell Pocket Diary, 1915*.



run smoothly and well". And while the units he would "weld" together were undoubtedly "four of the finest battalions Canada had sent to the war", only one was a veteran battalion while the other three had no field experience whatsoever.

When the decision was made to form the 3rd CID towards the end of December 1915, it was decided that the new division should be formed in France rather than in Canada or the UK. For its senior ranking brigade, it absorbed the Canadian Corps Troops Infantry Brigade (a two-day wonder) which was renamed Seventh Canadian Infantry Brigade (7th CIB) on 22 December 1915. Macdonell's new command comprised The RCR (commanded by LCol. A.H. Macdonell, his cousin), the PPCLI (LCol H.C. Buller, DSO), the 42nd Bn, CEF, Royal Highlanders of Canada (LCol G.S. Cantlie) and the 49th Bn, CEF, Edmonton Regiment (LCol W.A. Griesbach). Of these four battalions, only the PPCLI were experienced veterans, having come from a year's hard fighting and distinguished service with the 80th Brigade in the 27th British Division. The RCR, at that time the only PF battalion, had arrived in France in November 1915 after 11 months garrison duty in Bermuda and had spent some time with 2nd CIB doing work-up training followed by a stint of work parties. The two remaining units, the 42nd and the 49th had both arrived in France one month earlier in October 1915, and had been placed under the aegis of 1st CID for trench warfare training. This consisted of no more than two 48 hour tours in the front line and the same period in reserve, followed by two months of relentless navvy work as unofficial pioneer battalions.<sup>118</sup>

With the formation of 7th CIB, however, incessant labour behind the lines would cease and four very different infantry battalions would find themselves together for the duration of the war. A short examination of each battalion as to their commanding officers, officer and NCO cadres, recruiting, experience levels and training is now required in order to understand how the dynamics of command would

---

<sup>118</sup> CEF, 134; PPCLI Hist, Vol I, 91-92; RCR Hist., 218; 42nd Hist, 20; 49th Hist, 32-33.

evolve and operate within 7th CIB over the next three years of fighting.<sup>119</sup>

## THE ROYAL CANADIAN REGIMENT - "THE SHINO BOYS"

We were the 49th's bosom pals, in the line and out. The Pats were an acquaintance and no more. We did not associate with them, although we held nothing against them. But the Shino Boys had our sympathy.<sup>120</sup>

L/Cpl Will R. Bird,

42nd Bn, CEF, Royal Highlanders.

The senior infantry battalion of the brigade, the RCR had a proud and distinguished reputation to live up to when it arrived in France in November 1915. It claimed the Infantry School Corps as its ancestor and had seen action in the Riel Rebellion and South Africa. The only PF battalion in the CEF, it quickly acquired its nickname, "The Shino Boys", from the other battalions of the brigade for its obsession in keeping up appearances by shining its boots and buttons whenever out of the line.

Their longest-serving CO of the war "was something of a martinet, a great believer in the merits of close-order drill, discipline, smart deportment, and physical training to redeem careless characters and establish recruits as alert, steady Royal Canadians," recalled Robert England, a former RCR Scout Officer in the war.<sup>121</sup> As a result, the other battalions of 7th CIB were not required to do as many Guards of Honour as battalions in other brigades were wont to do, as the RCR was always invariably chosen. This, coupled with an aggressive fighting spirit that extended beyond the parade square, gained the RCR the grudging respect of its sister battalions.

And while other rank and file sympathized with their RCR counterparts, the

---

<sup>119</sup> Complete listings of the GOC's 7th CIB and all 7th CIB units including some photographs can be found at Appx A. Short chronological histories of each regiment can be found at Appx B.

<sup>120</sup> Bird, *Ghosts*, 184.

<sup>121</sup> Robert England, *Recollections of a Nonagenarian in the Service of The Royal Canadian Regiment*, (Victoria:[privately printed] 1983) 2.

RCR officers were regarded by the brigade's other battalion officers as somewhat beyond the pale. "They were trained much like the French," recalled a 49th Bn officer. "The officers saw their men in the lines, but outside, the men were on their own. They had a darn good battalion mainly because they had good sergeants."<sup>122</sup> One might say The RCR resembled a Guards regiment more than a French one, for The RCR certainly aped the elite British regiments by importing Guards drill sergeants to teach its men drill while at rest and sending its junior officers to the various Guards regiments on attachment training. On balance, however, RCR subalterns, according to England, were constantly reminded of "[their] primary duty - ensuring the welfare of our men," and regardless of external prejudices held of the PF battalion, Canadian sensibilities were still very much to the fore. Lt. England noted in his memoirs: "Steve Allan spent two weeks with the Grenadier Guards, and while he was impressed with their discipline and competence, he was disturbed by the gap between the meagre comforts and rationing of the men and the high standard of the officers' mess and affluent style."

At the outbreak of war, The RCR numbered approximately 800 all ranks but were dispersed in company sized-garrisons across Canada. Concentrating at Halifax, the Regiment was immediately authorized a strength of 1030 all ranks before proceeding to Bermuda on garrison duty. A Regimental Depot was also authorized, its staff, numbering 136 all ranks, to be drawn directly from the battalion's ranks before departure. This necessitated a large draft of 400 CEF volunteers from Valcartier to round out The RCR's war establishment. Thus 40% of the regiment at outbreak of war were not PF soldiers in the true understanding of the term at all, but the same raw material that filled the ranks of the Sam Hughes' battalions at Valcartier.<sup>123</sup>

These recruits who arrived in Halifax the day before the regiment's departure were "clothed in Militia uniforms and mufti...many possessing a fine physique...the

---

<sup>122</sup> *CBC*, 49th Bn, G.D. Kinnaird.

<sup>123</sup> *RCR Hist*, 198-203.

average of their intelligence high.” By the end of their 11 month stay in Bermuda, however, sequestered with some of the best army instructors Canada had to offer, all recruits had become Royal Canadians without exception, no one, except the men and officers themselves, was able to tell the difference between an original PF soldier and the former CEF volunteer.<sup>124</sup>

The RCR were organized as a ten company battalion, an arrangement short-lived as it quickly adopted the eight-company model on arrival in Bermuda. Four months later, on 1 February 1915, it re-organized to the four-company British model, each company consisting of four platoons, “which could, when circumstances so required, function independently more satisfactorily than the former half-companies,” explained the Regimental History. The rank of Colour Sergeant, in existence in the British Army for more than 100 years, disappeared in the new plan and was replaced by that of Company Sergeant-Major (CSM). Simultaneously, the rank of Company Quartermaster-Sergeant (CQMS), a new rank in the infantry, was instituted, the CSM being responsible for training and discipline and the CQMS for matters relating to pay, clothing and equipment.<sup>125</sup>

At the same time, the Battalion Machine Gun Section equipped with only two Maxim Guns, received an additional four Colt .303 HMGs. As the Colts arrived in Bermuda without instructions as to their use and, as no officer or man in The RCR had seen one before, it was necessary to strip the guns to ascertain the principle and details of their action. The regimental history notes: “Under Lieut. Cock [later 7th CIB’s first Brigade MG Officer], a study of the guns was made, after which there was written and printed a handbook, believed to be the first manual on the Colt gun ever compiled for use in the British Army.”<sup>126</sup>

During its Bermuda sojourn, the RCR followed a rigid routine of guard and

---

<sup>124</sup> *Ibid.*, 201.

<sup>125</sup> *Ibid.*, 206.

<sup>126</sup> *RCR Hist.*, 207.

training duties, the latter focussing mainly on musketry, close order drill and physical fitness training. The latter process weeded out 113 “inferior men...unsuited to the Regiment’s needs” early on and these were sent back to Canada by 13 December 1914. A fresh draft of 116 recruits arrived a week later by way of the Halifax depot bringing the battalion back up to strength. After the news of the battle of 2nd Ypres, The RCR was, unsurprisingly, “chafing at the circumstances which kept them from action at the front” and their greatest wish was finally granted on 13 August when they sailed back to Canada to re-kit before sailing for France. The week prior to boarding the **SS Caledonian** for France was spent turning in sun helmets, exchanging khaki drill uniforms, trading their Ross Mark II rifles for Ross Mark IIIs, and the entire battalion having to re-sign attestation papers for France.<sup>127</sup>

LCol A.H. Macdonell, DSO, (known as “Long Archie” or “Archie Angus” to distinguish him from his cousin, LCol Archibald Cameron Macdonell, commanding Lord Strathcona’s Horse) took command of the battalion on its arrival in the UK on 7 September 1915. LCol Macdonell was one of a handful of PF officers to have come over with the First Contingent in which he served as the GSO 2 of 1st CID. Under his supervision, The RCR conducted musketry, bombing and other training at Shorncliffe Camp for a period of eight weeks. The Regiment crossed the Channel for France on 1 November 1915.<sup>128</sup>

Of interest on the manifest was a Lieutenant A.C. Campbell, listed as the Battalion Bombing Officer, a position not found on any Canadian battalion’s war establishment, but one driven by functional necessity because of bombing tactics evolving at the front. Dudley Douglas Spencer, an RCR Bombing Sgt, remembered that the bombing specialist was necessary very early on in the war as “there were 14 different kinds of bombs and all with different detonators.”<sup>129</sup> Later, when the standard

---

<sup>127</sup> *Ibid.*, 205, 208-10.

<sup>128</sup> *Ibid.*, 212.

<sup>129</sup> *CBC*. RCR. Sgt. Dudley Douglas Spencer.

bomb became the Mills, however, the mystique of the bomb would disappear, every combatant in the trenches becoming proficient in its use.

Until the creation of 7th CIB, The RCR would undergo frontline routine with units of 2nd CIB for a two week period, then provide seemingly endless working parties until mid-December. While the soldiers performed backbreaking work, platoon commanders, specialist officers and company commanders were loaned to the veteran 1st CID battalions to understudy their peers and learn about their administrative and training duties.<sup>130</sup>

And while The RCR can be said to have been physically fit, well-disciplined and psychologically prepared for active duty, their preparations for trench warfare can only be charitably described as rudimentary, no more extensive or profound than those of its sister battalions, the 42nd and 49th battalions. The only way of really learning the ropes was to actually do it, as the only veteran battalion of 7th CIB could readily attest.

---

<sup>130</sup> *RCR Hist*, 216-18.

## THE PRINCESS PATRICIA'S CANADIAN LIGHT INFANTRY - "THE PATS"

Recruits poured into Ottawa from all over the country, though the majority were from the West where many [British] veterans had sought a new life after leaving the army. Now they were prospectors, trappers, guides, cow-punchers, prize-fighters, farmers, professionals and business men, and above all, old soldiers...<sup>131</sup>

Jeffery Williams, *First in the Field...*

We didn't have much to do with the PPs as we were a bit in awe of all the gong ribbons a lot of them wore from South Africa....<sup>132</sup>

Pte Roy E. Henley, 42nd Bn, CEF, Royal Highlanders of Canada.

By the time the PPCLI joined the Canadian Corps in December 1915, their battalion composition was changing dramatically, but many of their key command positions were still covered off by the "old sweats" or veterans of the Regiment. The Regimental History claims dolefully that "Bellewaerde Ridge is the grave of the 'Originals' and their reinforcement from the First Canadian Contingent", but G.R. Stevens, a reinforcement from the 2nd University Company states that "though the regiment had been badly cut up...it was very much still an old soldier battalion" when he arrived in September 1915. "They had their own feelings," remembered Stevens, "not only about newcomers - the new drafts - but about Canadians in the first instance. You originally had to have a service medal to get in."<sup>133</sup>

On the eve of the outbreak of war, a wealthy Montrealer named Andrew Hamilton Gault had proposed the formation of a regiment to be composed of ex-British servicemen then living in Canada and offered to contribute \$100,000 towards equipping it. The Canadian government accepted the offer on 6 August 1914, and two days later formal approval was given by the British WO. Her Royal Highness, Princess Patricia

---

<sup>131</sup> Jeffery Williams, *First in the Field: Gault of the Patricias*, (St Catherines: Vanwell Publishing Ltd., 1995) 63-64.

<sup>132</sup> R.E. Henley Letter to author dated 2 Feb 1995.

<sup>133</sup> *PPCLI Hist.*, Vol. I, 74; *CBC*, PPCLI, G.R. Stevens.

of Connaught, daughter of Canada's Governor-General consented to give her name to the privately-raised regiment - Princess Patricia's Canadian Light Infantry.

Mobilization was completed by 18 August 1914 and after travelling to the UK with the First Contingent and a brief stay in England, the PPCLI was serving in France by 24 December 1914 as part of 27th British Division. Remaining under British command until December 1915, the regiment took part in many famous battles, the foremost of which was the battle of Frezenberg.<sup>134</sup>

Their founder, Major Hamilton Gault, returned from special leave in Canada to the battalion in December 1915 to find that his battalion of tough ex-British regulars had changed its character and style under the influence of the reinforcements drawn from the University Companies. Over the space of a few short months, it had become the best educated Canadian regiment on the Western Front. The latter circumstance was the result of an expedient solution to a critical oversight. As the Regiment had been privately raised, no provision had been made for replacing the casualties of the PPCLI by the Canadian government in the original charter or agreement authorizing its creation.<sup>135</sup>

As one PPCLI historian has noted, "It was soon apparent after the regiment first went into action that if they were to remain in existence, a constant flow of reinforcements would be needed. Friends in Canada solved the problem by recruiting through the universities. Six companies were formed from this source." The Student's Union at McGill became the mobilization centre and, as a result, the "University Companies Reinforcing PPCLI" as they were officially known, were often mistakenly referred to as the "McGill Companies". In fact, every university in Canada contributed its fair share of professors, graduates and undergraduates, as did several "Ivy League" universities in the States. The first of these reinforcement companies

---

<sup>134</sup> Michael Mitchell, ed., *DUCIMUS: The Regiments of the Canadian Infantry*, (Ottawa: Queen's Printer, 1992) 26.

<sup>135</sup> Williams, *op.cit.*, 62-63.



arrived at the end of July 1915 to join the battalion at Armentieres. The second came on 1 September 1915, and the men of three more companies were with it when it fought at Sanctuary Wood and the Somme in 1916.<sup>136</sup>

The character of the original battalion was almost guaranteed by the conditions of enlistment drawn up at its formation. "Preference," pronounced the recruiting posters, would "be given to ex-regulars of the Canadian or Imperial Forces; or men who saw service in South Africa." Out of a total strength of 1098 all ranks, the original records show that "1049 had been with the Colours and possessed 771 decorations or medals; 456 had seen war service." The Regimental History noted that "less than 10 percent of the 'Originals' were of Canadian origin" however; "almost 65 percent were Englishmen, roughly 15 percent Scots, and ten percent Irish." Two rifle sections of one platoon were composed entirely of ex-Guardsmen, another two of ex-Riflemen, and yet another of English public school boys. The History claimed that "every regiment of the [British] Regular Army but one was represented on a PPCLI battalion parade. There is no matching the composition of the 'Originals' in the history of British arms."<sup>137</sup>

Gault's biographer notes that "the Originals and the college boys" were wary of one another at first. "For the most part, the men who had joined in 1914 were older and had been brought up in the rough school of the ranks of the British Regular Army." Apparently, the arrival of the university men also coincided with the appearance of jam in the rations, and while "the instinctive reaction of the 'old sweats' was to trade it for wine in the local estaminets...they were appalled to see that the new boys actually ate the stuff and appeared to like it. What was worse, many of the newcomers refused their rum ration and even showed an incomprehensible preference

---

<sup>136</sup> CBC, PPCLI, G.R. Stevens; Jeffery Williams, *The Princess Patricia's Canadian Light Infantry*, (London: Leo Cooper, 1972) 15-16; *PPCLI Hist.*, Vol. I, 28-29, 80-83.

<sup>137</sup> *PPCLI Hist.*, Vol.I, 7-10.

for milk over beer.”<sup>138</sup>

The older soldiers quickly began the military education of the younger by relieving them of pay in games of chance and by object lessons in how to make up one's own personal kit deficiencies. Gault's biographer concludes that both factions quickly “grew to respect each other” and the regimental elders quickly bestowed their war craft upon the grateful newcomers. In return, as “some of the Originals were becoming too old for the rigours of war,” one consequence was that “the end of a long day's march often saw husky university men carrying two rifles.”<sup>139</sup>

One outcome of having such a splendid rank and file was the immediate recognition of the valuable pool of potential officers the Regiment represented by Canadian Corps HQ. A situation which would bode well for other Canadian and British battalions, however, would have a mixed, but ultimately, deleterious effect on the PPCLI. The Regimental History boasts that of their 1200 university men, 330 PPCLI soldiers became officers, surely a record amongst Canadian battalions of the First World War. Of the 330 men commissioned from its ranks, 104 served as officers in the PPCLI, 100 served in other units of the CEF, and a further 131 served in British battalions and the RFC.<sup>140</sup> In the latter case, the PPCLI can be said to have been the precursor of the CANLOAN program in the Second World War, not to mention a quasi-officers' training battalion, responsible for sending many fine, war-experienced junior leaders to officer other CEF battalions. What this loss of its finest junior leaders had on the battalion can only be guessed at, but Agar Adamson, a rifle company commander writing to his wife one month after the PPCLI had joined 7th CIB complained: “We have now been asked to submit the names of 100 NCO's and men to get commissions in the CEF which will make a deuce of a hole in our depleted

---

<sup>138</sup> Williams, *First in the Field*, 105.

<sup>139</sup> *Ibid.*, 105.

<sup>140</sup> *PPCLI Hist.*, Vol.II, 63.

battalion!"<sup>141</sup>

When the PPCLI joined 7th CIB, they were equipped with short Lee-Enfields and Vickers machine guns, and, as the former "was universally coveted...all through the Canadian Corps, wise men of the Regiment did not leave their rifles lying about even in billets."<sup>142</sup> But the Regiment not only looked different outwardly. Internally, it was used to a different command system - the standard operating procedures of its previous brigade. Adamson was under no illusions that they had traded a comfortable, well-understood billet in a veteran, professional brigade only to join an "amiture [sic] army". He wrote to his wife two weeks after joining 7th CIB:

I think both the division and brigade staffs are doing their best but they have had no experience and are in a shocking muddle. Orders are issued one moment and cancelled the next. We are in a constant state of change and jump, and so are they, nothing runs smoothly and none of the staff are sure of themselves. Very unlike the brigade they took us from where every officer had been a staff officer for years. I should not be surprised if they put us into the trenches and forget to relieve us.<sup>143</sup>

The PPCLI establishment in no way resembled the other three infantry battalions,

PPCLI RIFLE COMPANY - 1916						
	Officers	Staff Sgts/Sgts	Corporals	L/Cpls	Rank & File	TOTAL
OC (Maj/Capt)	1	--	--	--		1
2i/c (Capt/Lt)	1	--	--	--		1
Subalterns	4	--	--	--		4
CSM	--	1	--	--		1
CQMS	--	1	--	--		1
Sgts	--	8	--	--		8
Corporals	--	--	8	--		8
L/Cpls/Ptes	--	--	--	16	180	196

<sup>141</sup> Adamson, Letter dated 27 January 1916.

<sup>142</sup> *PPCLI Hist.*, Vol.I, 94.

<sup>143</sup> Adamson, Letter dated 5 January 1916.

PPCLI RIFLE COMPANY - 1916						
Coy Cooks	--	--	--	--	3	3
O-Mess Cook	--	--	--	--	1	1
Coy Police	--	--	--	--	2	2
Batmen	--	--	--	--	6	6
CSM's Batman	--	--	--	--	1	1
Coy Storeman	--	--	--	--	1	1
Grooms	--	--	--	--	7	7
Anti-Gas Sect	--	--	--	1	4	5
Sanitary Men	--	--	--	--	2	2
TOTAL	6	10	8	17	207	248

FIGURE 4<sup>144</sup>

having originally based its structure on a British Guards regiment. Its rifle company structure had evolved in tandem with gas warfare and the importance of bombing in trench combat. Of note in the company establishment shown in Figure 4 is the gas section comprising one L/Cpl and four men "in charge of Vermond [sic] Sprayers used to spray the trench and dugouts after gas attacks" and two military policemen. By contrast, on 20 December 1915, Canadian divisions were ordering their battalions to detail two men *per battalion* to be in charge of Vermoyal sprayers and other gas equipment.<sup>145</sup>

Not shown on the company establishment was the PPCLI's internal platoon organization which comprised three rifle sections and one bombing section. Adamson noted in February 1916, two months after joining 7th CIB, that "the left section of each platoon consists of nothing but Grenadiers...Every man in the whole company carries two bombs and knows how to throw them. The men in the left section of each platoon

<sup>144</sup> Information extracted from footnote reference at 146.

<sup>145</sup> Tim Cook, "No Place to Run: The Canadian Corps and Gas Warfare in the First World War", [hereafter "Gas Warfare"] (Kingston, Ont: RMC [unpublished MA thesis] 1995) 104-105.

carries his bombs in an “apron” that can hold 14.”<sup>146</sup> By contrast, the other 7th CIB battalions had a bombing platoon held at the battalion level and these were invariably stationed in bombing dugouts to be found in the support line.

We thus have evidence of an organizational restructuring within a Canadian battalion in order to provide additional tactical firepower down at the platoon level almost a full year before the official reorganization that took place throughout the CEF in front of Vimy Ridge during the winter of 1916/17. The PPCLI organization could have been a tactical innovation borrowed from their old British brigade, a regimental “quiff” implemented whilst under British command and tolerated by their masters because they were “Canadian”, or an expediency implemented once they were under Canadian command, but what is truly important is how the section illustrates the “bottom-up” approach soldiers took in addressing the new tactical realities of war and their need for immediate, responsive firepower at the lowest levels of the infantry chain of command. The five men per company detailed as the anti-gas section armed with Vermoyal sprayers also indicates a slightly more sophisticated approach to the dangers of gas warfare than that evident in other Canadian battalions of the time, a defensive expedient in ensuring the lethality of the trenches was reduced to an acceptable level.

The regiment had had three superb COs, all British, from its inception to joining 7th CIB: the much-beloved first CO, LCol Francis “Fanny” Farquhar, DSO, a Guards officer and former Military Secretary of the Governor-General, who died of wounds received at St Eloi March 1915; LCol H.C. “Teta” Buller, DSO, the original Adjutant and a former Rifle Brigade officer, who replaced him, only to be wounded at Ypres in May 1915; and LCol R.T. Pelly, DSO, a former Loyal North Lancashire officer who replaced Buller, but was later sent to command a British battalion. When Buller returned, minus an eye, to command the regiment in December 1915, Pelly left to command a British battalion.<sup>147</sup>

---

<sup>146</sup> Adamson, Letter dated 14 February 1916.

<sup>147</sup> See detailed biographies of all PPCLI COs in *PPCLI Hist.*, Vol. II, 71-72.

At that time, it is obvious that the Princess Patricias were the most experienced trench fighters in 7th CIB, let alone their division. Curiously, there is no evidence whatsoever that their Brigade and Divisional commanders or their respective staffs recognised this fact by insisting they share their hard-won experience in helping train their sister battalions in the brigade or division. The staffs were too busy training themselves. Instead, the other infantry battalions would have to learn by trial and error.

### **The 42nd Bn, CEF, ROYAL HIGHLANDERS OF CANADA (BLACK WATCH) - "THE FORTY-TWAS"**

The Forty-Niners, drawn from the open prairies, the bush country and the great rivers, found in the hard-fighting 42nd Battalion (Royal Highlanders of Canada) all that they asked for as comrades and fighting men. Each drew assurance and inspiration from being beside the other. This was in no sense disparagement of the other battalions of the Brigade. The Royal Canadian Regiment was a regular unit and as a consequence somewhat set in its ways; the Princess Patricias, with its mixture of British Army veterans and college boys, was a little exotic and sophisticated for the taste of the Westerners. Contrariwise, the "Jocks" of the Black Watch, despite their long and proud tradition, could not be suspected of putting on the dog...<sup>148</sup>

G.R. Stevens, *A City Goes to War*.

The Royal Highlanders of Canada (RHC) from Montreal provided three battalions to the CEF: the 13th Bn who sailed with the First Contingent in 1914 and fought with 1st CID to "save the situation" in the first gas attack in April, 1915 at Second Ypres; the 42nd Bn who followed in their footsteps to the UK and France and fought with 3rd CID; and, the 73rd Bn which went to France for a brief but gallant period with the 4th CID only to be broken up after Vimy to provide reinforcing drafts to the other two battalions of the Regiment.

The Royal Highlanders were the senior Highland regiment of the Dominion and one of the oldest regiments of the active militia of Canada. In 1905, they had become

---

<sup>148</sup> *49th Hist.*, 59-60.

allied with The Royal Highlanders (Black Watch) who were thereafter referred to as the parent regiment. As little difficulty was encountered in raising the first RHC battalion for active service, a second was quickly recruited in Montreal in the winter and spring of 1915. Originally allocated the battalion number "44th", their CO, LCol G.S. Cantlie, requested that a switch be made with another newly-formed unit bearing the numerical designator "42nd" so that the battalion could bear the same historic regimental number as the Imperial Black Watch. Sam Hughes, the Minister of Militia readily agreed to the request, and by 1 May 1915, the 42nd was up to strength and had completed some basic training.<sup>149</sup>

Cantlie, a CPR executive, had commanded the RHC since 1909 and was a good friend of Sam Hughes. When war came, Cantlie was travelling in England and the Minister of Militia instructed him to remain there in order to act as liaison officer between the Canadian department and the British WO. The next senior RHC officer, LCol J.G. Ross, was in civilian life the head of a Canadian firm of chartered accountants and, he too, was quickly commandeered by Hughes to head the Canadian Army's Pay Corps. Thus the command of 13th Bn of the First Contingent devolved upon Maj F.O.W. Loomis and Cantlie had to wait until the second RHC battalion was raised in order to command a CEF battalion. Loomis would command in turn, a Black Watch battalion at 2nd Ypres, a brigade, and the 3rd CID, reaching MGen's rank and receiving a knighthood. But it was Cantlie who was accorded the respect and reverence of his Regiment before and after the war. As the Regimental History relates, Cantlie became

the "father of the regiment". He took pride in the fact that he had never been other than a regimental officer; he continued on the active strength of the Regiment until his death at ninety years of age. He had then been an active serving officer, the Commander of its second service battalion, and of its reserve battalion during the First World War, Honorary Lieutenant-Colonel of its First Battalion and Honorary Colonel of the Regiment. In all, he was on the active strength for a period of seventy-one years, surely a unique record in the history of any British regiment. Erect with grizzled grey moustache, always immaculately turned out and surrounded by devoted personal servants who had served in the regiment, he became the very epitome of a

---

<sup>149</sup> *42nd Hist.*, 3-10; Paul Hutchison, *Canada's Black Watch: the First Hundred Years*, (Montreal: RHC Armoury association, [reprint 1987] 1962) 64-66.

story-book British Colonel. On ceremonial occasions he marched in uniform with the regiment until almost the end. For many years at Church Parades he stood at the saluting base which, after the First World War, was usually in front of his Sherbrooke Street residence.<sup>150</sup>

Basic training was essentially musketry practise and close-order drill for the rank and file. One of the Regimental Histories records that “the officers and prospective NCOs [of the 42nd] were put through an intensive course of training under the supervision of Colour-Sergeant J.K. Beveridge, a South African veteran of the Imperial 1st [Bn] Black Watch and a former drill instructor at Sandhurst, who before the war had been brought out by Colonel Cantlie as a drill instructor for the Canadian regiment.” Though Beveridge’s contribution was mainly drill, he conducted courses for NCOs on administrative detail as well, eventually receiving the rank of honorary captain and serving as the first and only QM of the battalion for the duration of the war.<sup>151</sup>

Beveridge was not the only former British NCO to find a key post in the 42nd. A survey of the battalion’s initial composition reveals that, of the 58 senior NCOs (WOs, Staff Sgts, Sgts, and L/Sgts), five were listed as having previous service in the Imperial Forces, another five as South Africa veterans, two ex-PF servicemen, another as an ex-RNWMP officer and one had served as a US Navy rating. The majority, however, were listed as Canadian mililiamen, and not necessarily all came from the ranks of the RHC. What is striking, however, is that 47 of the 58 senior NCOs (90%) were British-born in contrast to the officers who were, almost to a man, Canadian-born. Only seven out of 41 officers (17%) claimed British birth. Also of interest is, whereas 25% of the NCO cadre claimed to have previous regular force or active service experience, all 41 officers of the 42nd (with the exception of the previously-mentioned QM) were militia officers.

---

<sup>150</sup> Hutchison, *op.cit.*, 50-51, 59-61.

<sup>151</sup> *42nd Hist.*, 8.



<b>42ND Bn PERSONNEL WITH FORMER SERVICE - 1915</b>				
	Officers	SrNCOs	Rk & File	TOTAL
Cdn Militia	40	44	254	338
Ex-Imp. Forces	1	5	180	186
SA Veterans	--	5	14	19
Ex-PF	--	2	14	16
RNWMP	--	1	--	1
Foreign Service	--	1	6	7
<b>TOTAL</b>	41	58	388	487

**FIGURE 5** <sup>152</sup>

If one includes militia service, then 487 all ranks out a total of 1043 ( nearly 50%) had had some form of military training before embarking on the S.S. Hesperian on 10 June 1915. The value of that previous training, however, was questionable given the modern industrial war the 42nd would soon face. For every British veteran that a CEF battalion might have leavening its ranks, there was a limit to the useful knowledge they could impart as noted in a previous chapter.

An example of a typical 42nd company commander was Herbert Molson, a close friend of Hamilton Gault, who might have joined the PPCLI except for the fact that he lacked military experience. Instead Herbert enrolled with the 42nd at the invitation of his close friend George Cantlie. "Herbert's father-in-law took a dim view of Herbert's patriotism, on the grounds that a man in his fortieth year with a young family had no business volunteering for front-line duty," records the chronicler of the Molson family history. Notwithstanding these objections, Herbert Molson qualified as a captain following a course at the Royal School of Infantry, Halifax in February 1915, and returned to take up command of a rifle company.<sup>153</sup>

---

<sup>152</sup> Information compiled from *42nd Bn Nominal Roll of Officers, Non-Commissioned Officers and Men*, CEF, Issued with Militia Orders, 1915, BWA.

<sup>153</sup> Woods, *The Molson Saga*, 215.

When the 42nd arrived in Plymouth Harbour on 19 June 1915, the troops remained on board ship until the next morning when they disembarked and marched to waiting trains. Alighting at Shorncliffe in a raging thunderstorm, the battalion settled down under canvas in the St. Martin's Plain Camp alongside the 49th Bn from Edmonton, the start of a long, enduring friendship.

"We got off the train in the pouring rain and that's when we got a soft spot in our hearts for the Forty-Niners who would serve alongside us later in Seven Brigade over in France," remembers L/Cpl Alf de Gruchy, 100, the last "Original" of the 42nd still alive. "You see, they'd put up everything for us - our tents, cookhouses, latrines, the lot!"<sup>154</sup> Together for the next four months at Shorncliffe, the two CEF battalions would share the misery and cold while marching to and from musketry training at Hythe Ranges, route marching around the countryside and spending their idle moments together. An Edmontonian wrote home: "We are so much together that it is now a password that if anyone wants to find the Forty-Second, look for the Forty-Ninth and vice versa. On the football field, on the baseball diamond, in the canteen, they hear our rival battlecries, but we are always friends and companions."<sup>155</sup>

It is interesting to note that on arrival in England, the "Forty-Twas" were armed with the short Lee-Enfield and completed their musketry training at Hythe with this rifle. Shortly before the battalion's departure for France however, it was re-armed with the Ross Mark III and obliged to undergo a further intensive course on this weapon at the Lydden Spout Ranges.<sup>156</sup> In addition to the training, the CO had to play politician behind the scenes in order to keep his battalion alive. Many other units arriving from Canada were finding out to their dismay that they were to be broken up and used for reinforcements. Such an atmosphere played upon the morale of all ranks as this letter dated 22 July 1915 from Lt Royal Ewing to his brother in Montreal

---

<sup>154</sup> Alf de Gruchy, Personal interview with author, 10 February 1995.

<sup>155</sup> *49th Hist.*, 60.

<sup>156</sup> *42nd Hist.*, 12n.

illustrates:

We came out in Divisional Orders the other day to reinforce the 13th and 15th, and were not any too cheerful, as no one knows where the officers get off. They have actually taken 450 men from the 43rd who came over just before us. Col. Cantlie and Bart McLennan went up to town to see Sam Hughes, and the order is not to be carried out until S. gets back to Canada, so we have a breathing spell and hope to go as a unit yet. It will be a great shame if they split us up.<sup>157</sup>

The harbinger, however, that a battalion was deemed fit for France was a Royal visitation and seven weeks later, on 3 September 1915, Lt Ewing wrote exultantly to his brother:

As you probably know by now, we're going as a unit. Ourselves and the 49th Edmonton, a dashed good Regiment, have been chosen from the training division to act as Corps Troops, and we will be attached to Headquarters. This means that we will probably leave for the front in two weeks. We are naturally awfully pleased to be going together, as only a few days ago a draft was demanded from us. It appears it was a mistake.... We were reviewed with the other Canadians by the King and Lord Kitchener yesterday, the 42nd and 49th being the only troops outside the 2nd Division that were inspected, the remainder of the training division being used to line the roads.... [The 42nd and the 49th] were in one part by [them]selves, and could see the 2nd Division, who certainly looked fine. The King, just as he was passing our end of the officers' line, remarked, "A very fine battalion," and asked who we were etc. and Lord K. wore a cheerful smile.<sup>158</sup>

A fortnight later, the two battalions went to France on 9 October 1915, and were billeted at Fletre, a village in the Kemmel sector. The 42nd were attached for eight days to the 3rd CIB, 1st CID, "for training purposes", or perhaps more accurately, acclimatization. It was with "deep satisfaction" that all ranks of the 42nd learned that they were to go into the line for the first time with their regimental comrades of the 13 Bn, RHC. The 42nd Bn History records:

Platoons going into the line from day to day received practical and thorough instruction from the 13th whose officers and other ranks, with months of experience behind them, left nothing undone to assist their sister unit; and to them, for their sound example, the 42nd owes a debt of gratitude. The routine of trench warfare was soon picked up; trench stores, funk holes, gas alarms, bath mats, braziers, sentry reliefs, primus stoves, snipers' plates, listening posts, "Blighties," ration parties, water tins, "cushy" billets, S.O.S. rockets, defence schemes, parcels from home, flying pigs, Toc Emmas [trench mortars - TM], and so on were articles and terms with which all ranks rapidly became familiar. Before long, the officers and men were using all the strange new words and phrases that grew out of this life in muddy ditches with the facility of

---

<sup>157</sup> BWA, *Ewing Letter Collection* [hereafter *Ewing*], 4 -5.

<sup>158</sup> *Ewing*, 7 - 8.

veterans.<sup>159</sup>

Using the vocabulary, however, did not veterans make, and on completion of their very cursory introduction to trench warfare (48 hours in the line and 48 in reserve) the battalion was attached for the better part of two months to the HQ 1st CID on 25 October as a works battalion. The battalion rank and file were employed in large working parties to assist in the building of a secondary defence line, much of the time under fire and slogging through mud and rain in the hours of darkness. And although the Regimental history puts a brave face on the affair, morale was starting to visibly sag. A 42nd platoon commander later recalled: "We got fed up doing these working parties and marching such long distances before we reached the communication trenches: falling over bathmats and wire while carrying supplies for the engineers. We were glad to see the end of it and to go into the line as a unit...to be part of the fighting forces." L/Cpl Alf de Gruchy concurs: "When we finally got sent up the line, we were tickled pink to escape the backbreaking work."<sup>160</sup>

Little, if no training was achieved in these two months of navy work except that men and junior officers got to know each other under very trying conditions. Once brigaded with The RCR and PPCLI in the Kemmel Sector, the close friendship developed with the 49th in England continued unabated. "In the estaminets," remembers Roy Henley fondly, "it was 'The Windmills' [49th] that always backed us up when we sang that old refrain:

The RCRs, got medals and bars  
For doing fuck all in Bermuda!"<sup>161</sup>

From an officer's perspective, however, as most 42nd Bn officers were McGill men, and Hamilton Gault the founder of the PPCLI had formerly been an RHC officer in Montreal, the PPCLI were socially and professionally acceptable to the Black

---

<sup>159</sup> *42nd Hist.*, 16.

<sup>160</sup> *CBC*, 42nd Bn, P. Ackerly; de Gruchy Interview, 10 February 1995.

<sup>161</sup> R.E. Henley, Letter to author dated 2 February 1995.

Watch. Brothers Percy and Hebert Molson served in the PPCLI and 42nd respectively, as did others of the famous Montreal ale clan and society, cementing inter-regimental ties at the officer level by blood as well as by common *alma maters*, marriage and business associations.<sup>162</sup>

Like the PPCLI, which officered itself primarily from its own junior ranks, the 42nd similarly would reach low for its command material during the war. One recruit who joined as an “Original” in Montreal with his friends remembered his new company commander welcoming them with the words: “You men have joined a very fine regiment and some of you may become officers one day.”

“We looked at each other and grinned,” recalled Capt Percy Ackerly, an ex-Territorial who went over as a Corporal in 1915 and rose to the rank of CSM at Passchendaele before receiving his commission. “We thought that to be highly unlikely in a regiment like the Black Watch which had the name, at that time, for being somewhat of a family compact...However, it did turn out that a great many of the men who had no connections at all with the regiment prior to that time did receive commissions.”<sup>163</sup>

The week after Christmas, 500 men and all officers of the 42nd received gas training as did the other battalions of the brigade, a move precipitated by the German’s first use of phosgene gas on 19 December 1915. On 31 December 1915, New Years Eve, the 42nd received the news they wished to hear. It was informed that 7th CIB would take its first operational tour in the trenches on 8 January 1916, relieving the 1st CIB of the 1st CID. The 42nd Bn’s real training was about to commence.<sup>164</sup>

---

<sup>162</sup> For a social perspective of the Canadian officer corps as it pertained to Canada’s largest city, Montreal, useful references are Hutchison’s *Recollections of a Canadian Lawyer*, (Montreal: [privately printed], 1968) 23-35, and his *Five Strenuous Years: the McGill Chapter of Alpha Delta Phi during the Great War*, (Toronto: [privately printed, n.d.] *in passim*; Ewing, *in passim*; Woods, *The Molson Saga*, 188-238; and Williams, *First in the Field*, 9-62.

<sup>163</sup> CBC, 42nd, P. Ackerly.

<sup>164</sup> *42nd Hist.*, 23.

## The 49th Bn, CEF, EDMONTON REGIMENT - "THE FORTY-NINERS"

Col Griesbach imbued all ranks...with his searching, stirring and unbeatable spirit. The Battalion never lost the firm imprint of his guiding hand. He had fine, gallant, brainy officers and splendid material in the other ranks. He firmly believed in them and faith begets faith...-men full of horse sense, thrust and courage...splendid, capable resourceful fighters...<sup>165</sup>

MGen Sir A.C. Macdonell on the CO and Men of the 49th.

The last, but not least, of 7th CIB's fine infantry battalions, was the 49th Bn from Edmonton, which was raised from "scratch". William Antrobus Griesbach, an ex-Conservative mayor of Edmonton and a militia major serving with the 19th Alberta Dragoons, found his recall awaiting him when he arrived with his unit in the UK in October 1914. His immediate return was requested in order that he could command a new infantry battalion being raised in Edmonton for active service.

The son of a RNWMP officer, Griesbach had left law studies to serve as a CMR trooper in South Africa, and on his return home, had become a lawyer and militia officer. He was an ideal choice - "a well-known resident with active service and militia experience, a westerner with the common touch that transcends all other qualities in leadership." The Regimental History goes on to claim "he was of the breed that has provided so many great commanders in the field - a student of military affairs who believed in throwing away the book if it transgressed the dictates of common sense. He was not the sort of man that Sam Hughes cared for, for he stood in no awe of his superiors...."<sup>166</sup>

He was one of the earliest critics of the Ross Rifle, being the president of a Court of inquiry in 1910 to investigate the jamming of two Ross rifles out of every batch of 50. Griesbach wrote in *I Remember*: "The extractors were apparently too

---

<sup>165</sup> *49th Hist.*, 50.

<sup>166</sup> *Ibid.*, 13.

weak to withdraw the exploding shell case after firing...Great numbers of officers and men had no confidence in the weapon at all as a military arm. Criticism of the rifle got to mean the critic was attacking Sam Hughes, whereas a man who praised the rifle extravagantly attracted such favourable attention from the minister that it sometimes resulted in an appointments and promotions for which the individual was not fitted."<sup>167</sup>

Griesbach's immediate priority on his return to Edmonton was to select a cadre of key officers around which his infantry battalion could take shape. As a cavalry man, he first felt the need for a first-class infantry adjutant and succeeded in securing the services of A.K.Hobbins, an ex-Imperial officer. Griesbach afterwards wrote:

When he enlisted I immediately appointed him lieutenant and adjutant. He left his mark on the Battalion. His handling of junior officers and NCOs was invaluable. He was the complete old soldier; whenever the unit entered a new area, Hobbins would be off to see who else was in the neighbourhood. Invariably he met someone he had known at Karachi or Singapore during his Imperial service; they always seemed pleased to see him and out of these contacts we seldom if ever went short of anything. When we found ourselves on the wrong side of King's Rules and Regulations he could always recall a Royal Warrant promulgated in 1878 or thereabouts that put a different complexion on the whole affair.<sup>168</sup>

Of his four company commanders, three had seen service in South Africa or with Imperial Forces. His RSM, Arthur Robinson, had seen long service in an Irish regiment and, when in April 1915 he was commissioned, was replaced by Henry Hobbs, another Imperial with 20 years service in the Royal West Kent Regiment. The History records that

Regimental Quartermaster-Sergeant R.S. Kay was a canny Scot who had heard every old soldier's excuse without number. Of the company sergeants-major, Ronald C. Arthurs had had eleven years service with the Devonshire Regiment....His fellow [CSMs] were all out of British regiments. Of the company quartermaster-sergeants, H.B. Capon had Imperial service, J.F.E. Carman, a brother of Bliss Carman the poet, was a Canadian Garrison artilleryman, and H.E. Floen had begun his career as an officer in the Norwegian Army. When this latter fine soldier lost his leg, the Queen of Norway provided a replacement.<sup>169</sup>

The recruiting doors opened on 4 January 1915 and by the end of the first week

---

<sup>167</sup> Griesbach cited in *49th Hist.*, 11.

<sup>168</sup> Griesbach cited in *Ibid.*, 14.

<sup>169</sup> *Ibid.*, 14-16.

367 men had been accepted and an equal number rejected. "The medical officer has weeded out misfits as ruthlessly as a gardener weeds a plot of ground," wrote one successful applicant. "We are compelled to admit we are a fine body of men." Another recruit wrote of the colourful choice, "there are a lot of Moccasin Bills among [us] - lumberjacks, rivermen and railway construction men - bohunks, terriers, groundhogs and gandy dancers." Within a fortnight, the battalion was recruited to full strength.<sup>170</sup>

The Edmonton *Bulletin* reported: "An analysis of the attestation papers of the men who have enlisted...shows that 32% have seen active service in the field, 57% have had regular military service and 80% have had previous military training...." Initial training was conducted inside Edmonton's Exhibition Building as winter weather precluded field training. By mid-April, field training had commenced and at end-May, the orders came to entrain for Montreal.<sup>171</sup>

The 49th Bn embarked for England on the *HMT Metagama* on 5 June 1915 with a strength of 35 officers and 975 other ranks. The unit was predominantly British-born with 460 English, 225 Scots, 48 Irishmen and 21 Welshmen. There were 208 native-born Canadians, 28 Americans, and 20 from other parts of the world. Its officers, the History boasts, were typical "representatives of Edmonton, with overtones of the frontier." Their ranks included no less than 11 civil or construction engineers, five retired soldiers, three RNWMP officers, three technical civil servants, three lawyers, three businessmen, two University of Alberta academics, an architect and a member of the Alberta Legislative Assembly.<sup>172</sup>

On the trip over, LCol Griesbach, a devoted student of the evolving trench warfare in France, was concerned about German machine gun superiority and wrote a letter to the Edmonton *Journal* on the subject. The British establishment of machine

---

<sup>170</sup> *49th Hist.*, 17.

<sup>171</sup> *Ibid.*, 17.

<sup>172</sup> *Ibid.*, 20.



guns, he observed, was being raised, rather belatedly in his opinion, to four guns per battalion. The Germans already had eight; he openly mused that the City of Edmonton might not wish her boys to go into combat having only half the firepower of the enemy. The reaction to this letter penned in mid-Atlantic was immediate. The Edmonton Board of Trade notified the Minister of Militia that it was presenting four additional Colt HMGs to the 49th Bn and that a subscription list had already been opened for such a purpose. That the battalion indeed got the extra firepower is confirmed by its War Diary (WD) at the Somme, September 1916, which mentions the Battalion Colts in action long after their original issue of four had been withdrawn on the creation of the 7th CIB MG company in April 1916, and those weapons being subsequently replaced by Vickers in July 1916.<sup>173</sup>

On arrival in England in June 1915, the 49th took up residence at Shornecliffe, a week before the arrival of the 42nd Bn. The History records that “the training was relatively uncomplicated - the parade square, the route march, the firing range.” Thus the 49th “toiled in the mornings in formation drill on the square, just as though men still fought shoulder to shoulder; in the afternoon they swung away on long route marches, just as though Shanks Mare must carry them wherever they needs must go.”<sup>174</sup>

LCol Griesbach, ever conscious of the overblown Canadian training establishment in Britain and politically astute, started to worry, like his colleague, LCol Cantlie, whether his battalion would ever go to France as a complete unit or be broken up to supply drafts. At the time, there were only plans for two divisions and Alberta was already represented in 1st CID by the 10th Bn and in the 2nd CID by the 31st Bn. In his military appreciation, he readily saw there was no apparent room for another infantry battalion on either divisional establishment, and given that both these battalions

---

<sup>173</sup> *49th Hist.*, 21; NAC RG 9 III D 3, Vol. 4940, *49th Bn War Diary* [hereafter *49th WD*], “Report on Operations of 49th Bn 15th to 18th September 1916.”

<sup>174</sup> *49th Hist.*, 22.

hailed from southern Alberta, Griesbach, a man of action, again took pen in hand. He wrote to Sam Hughes and demanded representation in the field for the capital city of Edmonton and northern Alberta in order to pre-empt any possible relegation of the 49th to a reinforcement role. The Minister of Militia's reply is not recorded, but the inspection of the battalion along with the 42nd by the King and Lord Kitchener on 2 September 1916 spoke louder than words and the 49th were in France as Corp Troops two weeks later.<sup>175</sup>

As in the case of The RCR and 42nd Bns, the Edmontonians were attached to units of 1st CID for introduction to the arts of trench warfare. Two western battalions were entrusted with the induction of the newcomers - the 5th (Saskatchewan) Bn and the 7th (British Columbia) Bn. After no more than two 48 hour tours in the front line by two companies at a time and the same period in reserve, the "strong backed newcomers" entered "the Navy Phase" as the the 49th's Regimental Historian termed it, and went out each night on large working parties "lugging forward wire, duckboards and revetments and remaining to dig and drain" the reserve trenches of 1 CID. During the month of November, "78 working parties, 24 carrying parties and one wiring party represented the Battalion's contribution to the safety and improvement of the trench system."<sup>176</sup> One Edmontonian wrote home to his mother, "The defence of freedom is not so much dangerous as excessively onerous. It does not afford me with the remotest opportunity of killing a Hun. Instead, it has converted me into a beast of burden; when I am not bearing loads I am digging, digging, digging. The battlefield is my garden, where no flowers bloom nor any fruit grows."<sup>177</sup> Deliverance from such penal servitude came with the "standing-up" of the 7th CIB on 20 December 1915, and the 49th took its place alongside it "bosom pals" the "Forty-Twas" as well as the "Pats" and "The Shino Boys."

---

<sup>175</sup> *Ibid.*, 23.

<sup>176</sup> *49th Hist.*, 29-31.

<sup>177</sup> Cited in *49th Hist.*, 31.

## CHAPTER THREE

## 1916 - THE YEAR OF "LEARNING-HOW"

The Somme battle revealed all too clearly that valour was not enough. Without the requisite tools of battle, personal courage merely made more corpses in the rain. As a result, many had begun to feel there was something deeply wrong in military methods that hurled flesh and blood against field fortifications. It seemed obvious to those who troubled to think that a greater dispersal of bodies or a greater weight of metal, or both, were keys to victory on the modern battlefield; also, that there must be an improvement in communications before large numbers of men could be manoeuvred efficiently against modern defensive positions.<sup>178</sup>

G.R. Stevens, *A City Goes to War*.

The year 1916 was the first year of the war that the BEF and CEF could really come to grips with the problems of trench stalemate. The year saw the introduction of new weapons technologies (new gases, new gas masks and tanks) and new applications of existing technologies (grenades, TMs, MGs, mines and artillery) with a view to improving assault forces' capabilities in the attack or improving trench defence systems to place them on par with those of the enemy who had a definite superiority in defensive weapons. Other technologies or applications sought to improve a commander's ability to communicate (wireless, aeroplane contact patrols) while others sought to improve the health and sanitation arrangements under his command to ensure he had maximum manpower on the firing line.

The introduction of each new weapon or application had a corresponding effect on existing command and control arrangements at the brigade level, some cascading right down to the platoon level in units. New requirements begat specialist officers and NCOs in new organizations, some of which were brigaded under brigade control (brigade wiring sections, brigade grenade companies, brigade machine gun companies

---

<sup>178</sup> *49th Hist.*, 65.

and brigade light trench mortar batteries) while others were established in the infantry battalions, normally of platoon strength but usually called sections (scout platoons, bombing platoons, machine gun platoons).

New applications of artillery, such as the creeping barrage, begat new tactics producing a corresponding ripple effect in training doctrine. The onus of coordinating and controlling all these new developments fell upon commanders assisted by their staffs. Together they were required to amend and refine the common doctrine for command already in use in the BEF and CEF as well as make new arrangements for new organizations. Standardized “arrangements” for control (staff work, SOPs, visits) were the result. The human element of trust, one of the cornerstones of command, had been initially been bolstered by the Canadian soldier’s discipline, his regimental pride, and the personal example of his officers and NCOs. After the Somme however, his trust would have to be earned by knowledgeable and efficient commanders and thus the year 1916 was the year of “learning-how”.

## HISTORICAL OVERVIEW

In order to capture the process of command rather than merely the external shell of the means at its disposal, it is necessary to ask how things could have been done on the basis of available means but also how, on this or that occasion, they were in fact done.....On pain of becoming a mere theoretical exercise, a study of the development of command must include a great deal of plain operational history.<sup>179</sup>

Martin van Creveld, *Command in War*.

As battle was the crucible in which the combat procedures and arrangements of units and the brigade were forged, tested, then re-forged again, a brief overview of the major “shows” is required to keep a historical perspective of why major reorganizations took place, new tactics were introduced and doctrine developed.

---

<sup>179</sup> Van Creveld, 12.

The three major engagements of the Canadian Corps in 1916 - the St Eloi Craters fiasco, Mt. Sorrel and the Somme battles - reflected the inexperience and the continuing amateur nature of the organization. "Deft coordination of all the components of the Corps, careful preparation prior to battle and skilled use of artillery resources that would characterize the Canadian performance in 1917 and 1918 was absent," writes Stewart.<sup>180</sup> Some progress had been made towards a more professional and efficient force, but too many officers and men still had to learn their jobs. Not only was the staff of 7th CIB raw, its parent formation, 3rd CID had only been "stood up" in the winter of 1915/16 and declared operationally ready as a division in March 1916. Even more woefully unprepared was the 4th CID which would land in France in mid-August 1916, forego the careful acclimatization process and contact training previously enjoyed by the other three Canadian divisions, and be committed to battle the following month. Of the three "shows" of 1916, 7th CIB would find itself deeply involved in the latter two actions, the first one defensive, the second, offensive.

The defensive battle, Mt Sorrel, "constituted only a small, localized operation of little or no significance to the outcome of the war" according to historian D.J. Goodspeed, "...in comparison with the monstrous battles of Verdun, the Somme and Passchendaele..."<sup>181</sup> In the operational scheme of things, it was a spoiling attack against the 3rd CID in the hopes of tying down British forces and preventing their transfer to Picardy for the pending Somme offensive. It can essentially be viewed as a fight of three rounds: the Germans winning the first two, but the Canadians winning the all-important third. Its three phases consisted of: the initial German attack on 2 June and the uncoordinated and abortive Canadian hasty counter-attacks on 3 June; the second German attack on the afternoon of 6 June; and, the successful, Canadian deliberate counter-attack launched in the early morning of 13 June by the veteran 1st

---

<sup>180</sup> Stewart, *Attack Doctrine*, 42.

<sup>181</sup> D.J. Goodspeed, "Prelude to the Somme: Mount Sorrel, June 1916," in Micheal Cross and Robert Bothwell, eds., *Policy By Other Means*. (Toronto: Clarke & Irwin, 1972) 147.

CID, which forced the Germans to relinquish most of their gains. The strategic aim of the German operation was not achieved and tactically the Germans could claim little better than a draw, for the original front was established in most of the sector.<sup>182</sup>

For BGen Macdonell and 7th CIB, Mt Sorrel would be their first defensive battle as a brigade. "The June Show", as it came to be called, occurred at the apex of the Ypres Salient, a comparatively flat piece of terrain, dominated in the south-easterly portion by a low wooded hill known as Mt Sorrel. Practically all the ground held by 3rd CID in the forward area was still wooded at this stage in the war, its frontage of 2500 yards running from the Menin Road in the north, south to Mount Sorrel inclusive.

As a control measure, this in turn was divided into two brigade frontages of which 7th CIB had responsibility for the left and the 8th CIB the right on the day of battle. Each brigade defensive scheme called for two battalions in the front line, one in support and one in brigade reserve. The 7th CIB's two front line battalion sub-sectors were known as the Hooze sector on the left, the line running through the ruins of the village of that name, and the Sanctuary Wood sector on the right. Both of these sectors were dominated by Mt Sorrel and two other hills to their south in the 8th CIB sector. Thus the PPCLI History notes: "It was early recognized that if the Germans made a determined attempt to reach Mt Sorrel, this front line would be quickly blown out of existence. The defence scheme for Sanctuary Wood and Hooze was therefore dependent upon resistance which might be provided by the second or R-line."<sup>183</sup>

On the morning of 2 June 1916, German artillery fire on the 3rd CID's area developed into the heaviest bombardment endured by British troops up to that stage in the war. Trenches and their garrisons holding them vanished in clouds of dirt and dust, while whole trees in Sanctuary Wood were hurled skyward by the bursting shells. After exploding four large mines slightly forward of Mt Sorrel, the German infantry overwhelmed the 8th CIB front line trenches and captured the important high ground as

---

<sup>182</sup> *CEF*, 148-9.

<sup>183</sup> *PPCLI Hist.*, Vol. I, 99.

well as Hills 61 and 62 by nightfall.

The PPCLI, as right forward battalion in the Sanctuary Wood sector, was on the northern flank of the main German assault. Its right forward rifle company was virtually annihilated at the outset by artillery fire but its left forward company shifted left to help the survivors and together they grimly fought back. Nicholson's Official History rightly states: "Credit for temporarily checking the enemy's right wing belongs to the [forward] Patricias....As the Germans surged eastwards, its rifles volleyed into the enemy's right rear. [They were] to hold out successfully for eighteen hours, isolated from the rest of the battalions and with all their officers killed or wounded."<sup>184</sup> The PPCLI CO was killed leading the remnants of his two other rifle companies in repeated counter attacks up and down the support and communication trenches of 8th CIB during the afternoon, buying valuable time for the RCR support companies and two 42nd Bn rifle companies trying to shore up the R-line 500 yards to the rear of the PPCLI. Two other 42nd rifle companies were sent over the brigade boundary into Maple Copse at the rear of 8th CIB's collapsed front line in order to prevent the brigade being flanked from that direction.

In essence, the first German success at Mount Sorrel had obliterated all brigade boundaries, and the most desperate and important fighting of 7th CIB - the defence of Warrington Avenue and Lover's Walk by the PPCLI on the afternoon of 2 June, and the counter-attack of the 49th Bn the next day - took place largely on 8th CIB territory.

The RCR, the left forward battalion in the Hooge sector had minimal activity on its frontage but soon had to turn its right flank towards the enemy once the survivors of the PPCLI front line companies withdrew to the R- Line. BGen Macdonell liaised with the British formation on his left flank and arranged for British troops to take over the RCR's responsibilities beyond Hooge so they in turn could shift right. HQ 3rd CID was fighting its first defensive battle without the benefit of a commander. MGen M.S. Mercer had been killed by German artillery while on

---

<sup>184</sup> CEF, 150.

reconnaissance in the 8th CIB sector, and the latter formation's commander wounded and captured.

Once HQ 3rd CID had confirmed that the 8th CIB frontage had been indeed captured, it ordered 7th CIB at 5:30 pm, 2 June, to restore the situation, giving BGen Macdonell, two battalions from its reserve brigade, 9th CIB. Corps intervention later revised the initial plan and set the time for a coordinated divisional counter attack, reinforced by 1st CID units, for 2:00 am the following day. An immediate counter-attack by 7th CIB, however, was virtually impossible, whoever was ordering it. The brigade's reserve bn, the 49th, which had stood to since 10:00 am, 2 June, was far to the rear in Ypres and had to come forward through smashed-in trenches and an unceasing hail of HE, shrapnel and tear gas shells, as did the two 9th CIB battalions which were still further to the rear.<sup>185</sup>

BGen Macdonell ordered the 49th CO to physically coordinate and command the attack on the ground forward, but due to darkness, confusion wrought by the heavy bombardment and lack of communications, the 2:00 am "Zero Hour" for the attack was repeatedly delayed until 7:00 am the following day. The 7th CIB attack did not go in with the others on their right flank as two 9th CIB battalions failed to show up at the assembly area on time. Finally, an exasperated LCol Griesbach, ordered the only battalion in position, his beloved 49th, to attack alone in broad daylight at approximately 9:00 am. With virtually no artillery preparation, the Edmontonians suffered 358 casualties in the space of a few short minutes, achieving nothing.<sup>186</sup> The 42nd History described it as a "forlorn hope", as no other supporting attacks on the right from 1st CID accompanied it, thus allowing the Germans to concentrate maximum firepower on the lone battalion advancing in the open.<sup>187</sup> The 49th's losses on 3 June were only surpassed by the veteran PPCLI battalion who had suffered over

---

<sup>185</sup> *49th Hist.*, 44.

<sup>186</sup> *Ibid.*, 44-45.

<sup>187</sup> *42nd Hist.*, 52.



400 casualties, though these were sustained over a twenty four hour period rather than in a mere 20 minute timespan.

With two battalions severely mauled, a CO killed and a failed counter attack to its credit, the battered 7th CIB was finally relieved on 5 June 1916 to rest and recuperate from its first battle and to reflect on some important lessons learned with regard to command and control in combat. Less than two and half month later they would be sufficiently rested and reorganised, given some basic assault training, and sent to take their turn in the “meat grinder” battles further south, known collectively as the Somme.

The offensive on the Somme had a threefold purpose: to relieve pressure on the French armies at Verdun; to inflict as heavy losses as possible on the German armies; and, to aid allies on other fronts by preventing any further transfer of German troops from the west. In a sense, it was also a spoiling attack such as that conducted by the Germans at Mt Sorrel but on a much grander scale and with more horrific consequences and effects. Fortunately, the Canadian Corps was not involved for the first two months but in late August, received orders to move to the Somme and began replacing 1st ANZAC Corps on 30 August.<sup>188</sup>

The high British expectations of 1 July had been blown away by intense machine gun and artillery fire which had inflicted just over 60,000 casualties in one day. The stereotypical image of First World War combat - long linear waves of heavily burdened infantrymen plodding ahead to shudder and falter as Maxims mowed them down - was one born of the Somme. When the Canadians arrived, the British front line had advanced 7000 yards and was roughly shaped in an arc which began at Thiepval in the west, ran east for two miles to Courcellette, then bent to the south-east to connect with the French at Combles.<sup>189</sup>

The 3rd CID, containing 7 CIB, was to be employed both in September and

---

<sup>188</sup> *CEF*, 165-67.

<sup>189</sup> *Ibid.*, 166.

October on the narrow front bounded on the north by the winding Ancre River and on the south by the line of the Albert-Bapaume road which bisected the town of Courcelette. As the left forward division of the Canadian Corps, 3rd CID had the role of facing Ancre Heights to the north and securing a defensive left flank to the general Corps attack being pressed forward astride the Albert-Bapaume road. On 15 September, the Canadian Corps was ordered to attack on a two division frontage, 3rd CID left forward with one brigade up (8th CIB) to provide flank protection, and 2nd CID right forward to attack the forward defences in front of Courcelette. 7th CIB was called up to exploit the success of 2nd CID in front of Courcelette pushing in between 8th CIB on its left and 5th CIB on its right. The 7th CIB secured the FABECK GRABEN Trench with the 42nd Bn and the PPCLI with minimal trouble and casualties thereby securing 5th CIB's left flank as it captured Courcelette with relative ease.<sup>190</sup>

The 7th CIB's luck ran out the very next day, however, as German defenders rallied and stiffened their defences with a fresh brigade of battle-hardened Marines. The RCR and 42nd battalions going forward early the next morning with little artillery preparation, hoped to exploit to the next line of trenches, but suffered heavy casualties as a result of their unimaginative effort. Taken out of the line to refit, 7th CIB would be committed to battle the following month in 3rd CID's continuing futile attempts to take the infamous REGINA trench. This time, the 49th Bn and the still weakened RCR would make disastrous unsupported frontal attacks, and although The RCR would break into the trench system, it would be repulsed by repeated counter-attacks and sustain over 70% casualties. A PPCLI Sergeant at the end of the Somme would characterise the REGINA experience as "the moment of truth" for the men of 7th CIB. G.R. Stevens would recall: "We went into the Somme in the same spirited dedication as the earlier battles, and we came out with a bad taste in our mouths."<sup>191</sup>

---

<sup>190</sup> *CEF*, 171.

<sup>191</sup> *CBC*, PPCLI, G.R. Stevens.

## COMMAND PERSONALITIES, PHILOSOPHIES, AND PROCEDURES

**A successful commander assures the accomplishment of his mission through personal presence, observation, delegation of authority, allocation of resources and supervision. He does not over supervise. While his direct personal touch with subordinates is essential, he must establish policies within which his staff can take action during his absence. He fosters initiative and self confidence in subordinate commanders by permitting them latitude within the scope of their responsibilities. This is developed during training.**<sup>192</sup>

“The Exercise of Command” in *The Army, CF ....1996*.

Today’s definition of the exercise of command could be taken directly from “Batty Mac’s” style book. His forward presence, observation and supervision abilities were legendary and are commented upon repeatedly in his subordinates’ memoirs and letters. Lt Ewing of the 42nd wrote: “our Brigadier... is a corker - quite an old boy, but very active. He used to be up in the trenches at all hours of the day and night.”<sup>193</sup> The 42nd WD was equally effusive: “During two months under the command of Brigadier-General Macdonell he had made himself respected for his tireless activity and much beloved for his interest in all of us.”<sup>194</sup> Even the highly critical Maj Adamson of the PPCLI was grudgingly forced to admit, though somewhat pompously: “I am quite pleased with our Brigadier, General MacDonald [sic]. He is always on the job and seems to know his job, and is most considerate...He can be depended upon to use good judgement and not rush into any sudden uncalled for move....”<sup>195</sup>

Whether BGen Macdonell’s near fatal encounter with a German sniper exhibited good judgement is a matter for debate, but as a commander he was adamant that he would be well forward in the defence maintaining direct personal contact with his

---

<sup>192</sup> “Command and Control in Battle,” *The Army, The Lessons Learned Information Warehouse CD*, (Kingston: Dept of National Defence, July, 1996) Section 2, Para 803, n.p.

<sup>193</sup> *Ewing*, 28.

<sup>194</sup> NAC RG 9 III D 3, Vol. 4938. *42nd War Diary* [hereafter *42nd WD*], 22 Feb 1916.

<sup>195</sup> *Adamson*, Letter dated 20 Jan 1916.

subordinates. This meant his staff had to cope in his absence and there is some evidence that it struggled initially prior to Mt Sorrel. The BM does not appear to have been as dynamic or keen as his commander on the “standing-up” of the Brigade, for as Macdonell noted drily in his diary on 23 December 1915: “Major Foster, Royal Lancs. reported as Brigade Major and left at once on leave.”<sup>196</sup> Lt Hugh Wallis gives us a quick sketch of Foster’s background when he wrote to his mother on 6 January 1916: “The Brigade Major has now arrived and seems a very decent and capable officer. He was at one time on the staff of the Lieut. Governor of India and was recently on the staff of one of Kitchener’s divisions.”<sup>197</sup> Foster would be wounded before the Mt Sorrel battle and temporarily replaced by Capt Cecil Critchely, Staff Capt “I”, who would subsequently be wounded shortly after and replaced by Capt Basil Wedd of Toronto from HQ 3rd CID.

If Macdonell had no say in his choice of BM, he certainly could handpick the rest of his staff, a personal priority on learning he would command an infantry brigade. Lt Wallis wrote home that “Uncle Archie has asked me to go to his Brigade as Orderly Officer [OO], or what it amounts to, as A.D.C. to himself.” Wallis’ initial perception of a brigade staff appointment was that it meant “a bed to sleep in, comparative safety, and many other advantages lucrative and otherwise,” though this first impression would be rudely shattered as the year wore on. On 28 June 1916, the older and wiser OO would write : “The great objection I have to this place is that I get very little sleep whether there is a show on or not!”<sup>198</sup>

Capt Critchley, BGen Macdonell’s PF adjutant from Lord Strathcona’s Horse, would come over to fill in as the Staff Captain “I”. That Critchley did not have any experience of intelligence work or how an infantry brigade operated was insignificant to Macdonell. Critchley could learn on the job. Macdonell’s attitude was one that

---

<sup>196</sup> NAC, MG 30 E 20, *Macdonell Pocket Diary 1915*, 23 December 1915.

<sup>197</sup> *WC*, Vol. I, Letter dated 6 Jan 1916.

<sup>198</sup> *WC*, Vol. I, Letters dated 25 December 1915 and 28 June 1916.

prevailed throughout the BEF with regard to professional intelligence work. "It was continually held [pre-1914] that the best man to help a commander assess the capabilities of enemy infantry was an infantryman and the best man to judge the potential threat of cavalry was a cavalryman," wrote the British Intelligence Corps historian. For an officer to devote his career to Intelligence was "in most Generals' opinion, a short-sighted policy which would lead to an officer having a specialized and narrow outlook to problems which required a wide and practical background of military experience."<sup>199</sup>

Lt Wallis, as a former infantry battalion Scout Officer, became an indispensable assistant to Capt Critchley. "I am going to attach myself to Capt [Tom] Rush on the 'Q' side of the staff for the next few weeks as far as possible," Wallis wrote home, but the arrangement was only allowed by Critchley on the condition that Wallis "still take a hand in the 'I' side, paying particular attention to Sniping, Observation and Maps."<sup>200</sup> Capt Rush was another Strathcona import, having served as Macdonell's regimental QM prior to his staff job. Critchley would be promoted Major after Sanctuary Wood and would act as BM at the Somme battles when Wedd went out with pneumonia.<sup>201</sup>

Numerous references in Macdonell's diary indicate his preoccupation in finding a good Brigade Machine Gun Officer (BGMG), visiting no less a personage than BGen Harington at Corps to discuss the matter. Eventually his cousin "Archie Angus" Macdonell commanding The RCR supplied him with the indomitable Capt H.T. Cock,

---

<sup>199</sup> B.A.H. Parritt, *The Intelligencers: The History of British Military Intelligence up to 1914*, (Ashford, Kent: Int Corps Assoc., 1983) 1.

<sup>200</sup> WC, Vol. I, Letter dated 30 May 1916.

<sup>201</sup> As a matter of interest, Cecil Critchley's father, Oswald, and brother, Jack, were both Strathcona officers as well, his 66-year old father signing up as the Regimental MGO at the outbreak of war with Colonel A.C. Macdonell's approbation. His younger brother Jack, a regular officer and senior subaltern served while Cecil himself was serving as Adjutant. Jack rose to the rank of LCol and command of the Strathconas, but was mortally wounded in March 1917. A second brother, Walter, served as a popular, hard-drinking major in Calgary's 10th Bn and later transferred to the RFC. Cecil would make a name for himself as an exemplary trainer as will be seen later and finish the war as a brigadier-general. A.C. Critchley, *Critch! The Memoirs of Brigadier-General A.C. Critchley*, (London: Hutchison, 1961) *in passim*.

(known in that Regiment during and after the war as “Hairy Tremendous”), the PF officer who had authored the CEF manual on the Colt HMG while serving in Bermuda. Lt George Macdonald, PPCLI, whom Macdonell claimed as one of his own clan and affectionately called “Seorus Agraith” (Red George) in all correspondence, became the Brigade Grenade Officer (BGO), and later replaced Critchley as Staff Capt “I” when the latter was promoted and became BM.<sup>202</sup>

One area in which Macdonell had no initial say was in his battalion commanders. “Archie Angus”, his cousin commanding The RCR, he knew intimately. Griesbach was a cavalry officer acquaintance, a former CMR trooper he had served with in South Africa as well as a son of a former RNWMP colleague. LCol Cantlie of the 42nd and LCol Buller were unknown factors to him, though both respectable officers and gentlemen.

His impressions of Buller are not recorded, but his nephew wrote home while the Brigadier was away on leave: “Col Buller was here while Uncle Archie was away; he is an extraordinarily fine man; in fact most of the P.P.s are. Maj Gault is a wonder; one of the most remarkably clever and well bred men I know.”<sup>203</sup> Maj Agar Adamson, who replaced Maj Gault while away in Canada on special leave, gives us a fuller measure of the man writing to his wife in January 1916: “Buller is full of energy and always on the go night and day, crawling about the trenches, finding new ways to do a relief in the event of the regular communication trenches being blown in, also examining the wire in front and personally going out in all the listening posts.” The PPCLI History adds: “No one more faithfully lived up to the high tradition that an officer asks no man to go where he will not go himself.” A former Rifle Brigade officer and the battalion’s original Adjutant, Buller “had a keen humour and a nice sense of proportion to aid him in adapting the traditions of a crack regiment to the men he was called to command, without abandoning any of the principles of rigid discipline

---

<sup>202</sup> NAC, MG 30 E 20, *Macdonell Pocket Diary-1915*, entries for 23 and 28 December 1915.

<sup>203</sup> *WC*, Vol. I, Letter dated 30 May 1916.

and 'form' which were so finely characteristic of him." One of his sergeants remembered him as "a man of great sympathy and personal charm" while Griesbach in his diary called him "Pindar", a reference to a greatly respected lyric poet of Grecian times.<sup>204</sup>

That Buller was fully qualified to command the PPCLI was never in doubt, but a strange episode occurred in late January calling his position into question and clearly illustrating the political reach of the unforgiving Minister of Militia. On 21 January 1916, General Alderson, the Corps Commander summoned Buller back from the line and told him that the Canadian Government wished to have Gault, as a Canadian, command the PPCLI. They offered Buller a new battalion of Mounted Rifles. Buller replied that, if they saw fit to remove him, his place would be with his old regiment, The Rifle Brigade. If they had no confidence in him, he would ask to be relieved of his command. This attempt to supposedly "Canadianize" command of the PPCLI occurred while Hamilton Gault, the founding officer was away on leave. Gault's biographer writes:

The few officers who knew of it were convinced that Sam Hughes...resented the former independent status of the Patricias and was attempting, as a sop to his inflated ego, to impose his will upon them. Transparently, the removal of their British commanding officer was not designed to further the policy of "Canadianization" of key appointments: Buller was being offered the command of another Canadian regiment. They [also] remembered Hughes attempt to gain direct control of the Patricias by moving them from Levis to Valcartier [in 1914] and how, after [the battle of] Frezenberg, he had tried to replace their officer casualties with unqualified political friends...It was difficult for them, not being devious and suspicious political animals, to divine his motives, but they resented this gratuitous affront to an officer to whom they were devoted.<sup>205</sup>

When Gault returned and learned of the politically-inspired plan, he was furious. He met with Macdonell and went to see the Corps Commander who he advised that, if Buller were removed, he would refuse to take his place and ask for a transfer to another regiment. The biographer notes that "Alderson had already suffered

---

<sup>204</sup> Adamson, Letter dated 19 Jan 1916; *PPCLI Hist.*, 136; *CBC*, PPCLI, G.R. Stevens; *Griesbach*, Diary, 2 May 1916.

<sup>205</sup> Williams. *First in the Field*, 100-101.

from Hughes' interference in the internal operations of his command. No more was heard of the matter."<sup>206</sup>

LCol George S. Cantlie was a CPR executive-turned soldier and the least-experienced of Macdonell's COs. The senior RHC officer at the front (though the younger Loomis had already become a Brigadier), Cantlie had strong Conservative connections in Montreal and knew Sam Hughes personally. Griesbach referred to him privately in his diary as "The Vacuum Cleaner," perhaps a reference to Cantlie's thirst for knowledge, but more likely an epithet deriving from the principal action of the machine in question.<sup>207</sup>

Cantlie was the personification of the long-serving militia officer and had commanded the Royal Highlanders of Canada since 1909, one of the most prestigious and socially elite regiments in the country. When uncertainty arose over whether units in the UK would be sent to France or broken up for reinforcements, Cantlie had not hesitated in using his political connections in England and Canada, as Griesbach had done, to ensure his battalion made it over intact. And though the "Forty-Twa" was undoubtedly Macdonell's favourite battalion, for it allowed him to play the role of Highland chieftain, quote Gaelic proverbs and join the officers in Scottish singalongs according to the 42nd's padre, he was tight-lipped about his opinions of the 50-year old Cantlie. Macdonell's nephew, Hugh Wallis, it must be noted, was a Royal Highlander, having been commissioned in that Regiment after 2nd Ypres. When Macdonell wrote to a friend in Canada in December 1915, and commented that the tactical shortcomings of Hughes's undertrained appointees was not crucial "as long as they had some talent for seeing to the needs of their men," he could very well have been thinking about officers of Cantlie's ilk.<sup>208</sup>

Cantlie remained in command of the 42nd for operations at Mt Sorrel and the

---

<sup>206</sup> *Ibid.*, 101.

<sup>207</sup> *Griesbach*. Diary, 2 May 1916.

<sup>208</sup> Kilpatrick, *Odds & Ends*, 24; Harris, *Canadian Brass*, 120.



Somme, but disappeared off to England in December 1916 as part of Byng's reshuffling of battalion and brigade commanders. Given a DSO in the New Year's Lists, as well as the command of a new Reserve battalion, Cantlie obtained for himself a face-saving position commensurate with his advanced age and front line experience. It also allowed him to act as regimental quality control for the officers and men being sent as reinforcements to the three (soon to be two) Black Watch battalions in France, a task which appealed to his fierce sense of honour and regimental pride. "To reject the inferiors and secure the right calibre the Colonel dared anything," wrote the Regimental Padre. "Little he cared for Red Tape or the ultimatums of Argyle House, London - so be it that he got men of the right stuff for the R.H.C."<sup>209</sup>

Griesbach, an ex-cavalry officer in command of infantrymen, was a man after Macdonell's own heart. Six days after the latter's return to HQ 7th CIB from sick leave in the Spring, the Brigadier wrote to the CO of the Edmontonians and, in no uncertain terms, assessed his abilities.

"A Good Commanding Officer makes a Good Regiment." Many have not the personality necessary at all to command men [underlining by Macdonell]. You have and I congratulate you on it. I should like to congratulate you also in the straight and fearless way in which you have reported on the Ross rifle. If only all COs would write or speak out as straight (not only about the rifle; also about all things concerning their commands) smooth working and officering would be largely increased.<sup>210</sup>

The men of the 49th shared their brigade commander's high opinion of their CO, calling themselves "Billy's Own". "One of his greatest characteristics," remembers a former platoon commander, "was that an officer had to look after his men, and he drilled that into his officers. You couldn't come out of the line without first of all seeing your men bedded down and fed before you could take your own pack off and look for your own billets."<sup>211</sup> Griesbach was also a good Conservative and past-mayor of Edmonton, but no friend of Sam Hughes, or Sam Steele for that matter.

---

<sup>209</sup> Kilpatrick, *op. cit.*, 25.

<sup>210</sup> Griesbach, File 11, Letter dated 12 May 1916.

<sup>211</sup> CBC, 49th, G.D. Kinnaird.

He had two failed attempts at running for Parliament before the War, but would be successful before the War was through, serving as an absentee Union member.<sup>212</sup>

Arriving back from his convalescence in hospital, BGen Macdonell must have also taken stock of the new CO of The RCR who had replaced his cousin in April. In his absence, LCol A.H. Macdonnell, DSO, had left to take command of the 5th CIB on BGen David Watson's promotion to command the newly forming 4th CID in the UK. LCol Claude Hill, a PF officer of 15 years service prior to the War, came to the brigade with 18 months experience as Bn 2 i/c of the 24th Bn, Victoria Rifles of Canada (VRC), in 2nd CID. It was Hill who would earn the nickname "The Shino Boys" for The RCR the day after he took command. The Regiment coming out of the line in the Salient on 21 April was greeted with the new CO's orders "that all kit must be cleaned and all buttons kept shined when the unit was in billets behind the front line," reported The RCR History. "Some grumbling resulted; but the Permanent Force officers, with a strong belief in the efficacy of smartness in enhancing morale, welcomed the orders and supported the Commanding Officer's stand with a firmness that soon ended all opposition."<sup>213</sup>

Whenever Macdonell visited the battalions or higher HQs, he always took a staff officer with him, usually his nephew Hugh Wallis, and later in his tenure, his other nephew, Harold. Hugh's brother, Capt Harold Wallis of the 16th Bn, came to 7th CIB in October to replace his brother as OO. Hugh Wallis had moved up to Staff Captain "I" in September replacing George Macdonald wounded at the Somme. The flexibility of brigade staff officers is shown when he wrote his mother: "Capt [P.E.] Coleman has been away on leave so I have been looking after A&Q while Harold has been on "I" for me. I am OC Rear HQ consisting of the interpreter and myself; [the paymaster] is on leave and the veterinary officer at division, so I have my hands full." Two weeks later he wrote "this short tour in charge of A&Q of the Brigade has given

---

<sup>212</sup> See *49th Hist*, 4, 6, 11 and 19.

<sup>213</sup> *RCR Hist.*, 225.

me a great chance to learn things which I have not had an opportunity of doing before.”<sup>214</sup>

That Macdonell allowed his fledgling staff some latitude within the scope of their responsibilities is evidenced by remarks made by Wallis during the temporary command of 7th CIB by F.O.W. Loomis (14 March - 5 May), standing in for Macdonell while he recovered from his wounds. Loomis arrived from the UK in March 1916 to replace the CO of The RCR who had temporarily assumed command on his cousin's wounding. The latter officer, LCol A.H. Macdonell was already slated for a brigade command on account of his seniority, staff training and experience, but he could not be confirmed in the command of 7th CIB, for as Maj Adamson explained to his wife, “it is always the custom to appoint someone out of the Brigade for fear of favouritism might be suspected towards their old unit.”<sup>215</sup> Impartiality was thus seen to be an important facet of brigade command in which a single decision could send hundreds of men to their deaths. Having one's relatives serving on one's immediate staff though, strangely enough, was not considered a conflict of interest, probably reflecting a cultural extension of the British regimental system where countless families and relatives served in their “family” regiment.

After serving only 12 days under the newly-promoted BGen Loomis, Lt Wallis was writing home: “I hope Uncle Archie will be back soon; otherwise I shall resign;...F.O.W.L. my old battalion O.C. is in command here now.” Three weeks later, he was more emphatic about Macdonell's return:

Nothing will please me so much as Uncle Archie's return; everyone is just sort of standing by until he comes back. I don't seem able to do a thing under the present regime although the G.O.C. is very decent to me, everyone has difficulty carrying on because of his perpetual interfering and directing. I often feel like asking to go back to the regiment, but must wait and have all the information I can, to give to Uncle Archie.<sup>216</sup>

---

<sup>214</sup> *WC*, Vol. I, Letters dated 9 and 29 October 1916.

<sup>215</sup> *Adamson*, Letter dated 19 Feb 1916.

<sup>216</sup> *WC*, Vol. I, Letters to Harold Wallis dated 7 March 1916 and 16 April 1916 respectively.

The Loomis “regime” serves to highlight Macdonell’s personal command style and philosophy. Loomis’s apparent over-supervision trampled the trust and confidence that had been slowly building up within the HQ staff as they learned their trade prior to the sniping incident. Loomis was the commander that took the brigade on its first tour into the dreaded Ypres Salient. It is not apparent from unit war dairies, regimental histories or letters that Loomis ever visited the forward battalions, thus making his presence felt to the troops under his command. Macdonell, hearing of his HQ’s malaise via various visitors to his convalescent hospital, reappeared on 6 May 1916, before his wounds had truly healed, the doughty warrior convinced his clansmen needed him. A relapse, however, in the third week sent him back for several days, causing LCol Buller, PPCLI, the senior CO, to move across as acting-brigade commander, but at least Loomis had moved on to 1st CID.

During the first of the two major operations of 1916, the battle of Mt Sorrel, the picture that emerges of Macdonell is a cool, calm, collected commander, working behind the scenes to ensure a coordinated effort and trying make sure his troops were in the right place at the right time with the right resources. In occupying the northern half of the Salient he had always been concerned about the high ground on his right flank to the south where even the most limited penetration could bring the enemy into his right forward battalion’s rear. However, through his foresight and planning he had sought permission from 8th CIB when they had occupied their sector prior to the battle, to position No. 3 Company PPCLI in that brigade’s rear area in case of such an eventuality. He and LCol Buller had readily appreciated that if the enemy were to gain Warrington Avenue, a communications trench which angled back from the 1st CMR’s front to his reserve line, his entire brigade position would be compromised.<sup>217</sup>

In essence, his brigade “vital ground” ( ground, which if lost, renders the commander’s position untenable) was in another brigade’s area of responsibility. By wisely anticipating the enemy’s possible actions through a worst possible scenario

---

<sup>217</sup> *PPCLI Hist.*, 107-110.

approach, Macdonell ensured before the battle ever began that he had balance - a better chance of defending his sector than if he had slavishly adhered to brigade boundary lines on a map. One could readily agree with a brigadier commenting in 1917 that "the battle 'command' is today subordinated to the battle 'preparation'. Our fights are won or lost before we go into them."<sup>218</sup> Though Victor Odlum was referring to the set-piece assault, his comments certainly have some validity for the British trench defences of 1916, especially those in the Ypres Salient where the enemy was consistently blessed with the initiative and dominating ground. How the defensive battle was to be fought had to be well thought out beforehand and discussed and rehearsed from the battalion level of command right down to the platoon. Each battalion commander was responsible for having his own battalion defensive scheme.

During the 2-3 June battle, command and control at the brigade level of front line troops was, for all intents and purposes, completely lost as all communications were cut by shellfire except for The RCR on the extreme left. LCol Griesbach wrote after the battle that he "could not conceive how higher command can influence the defence of positions without some better means of communication than now exist. As it stands, an attack might engulf the whole of the frontline troops, and the fugitives' arrival at the Brigade HQ might be the first intimation of the fact."<sup>219</sup> But as most enemy assaults were accompanied by a massive barrage, defenders usually had more than adequate warning.

When it was obvious the German artillery barrage of 2 June was abnormally heavy and not abating, BGen Macdonell had ordered the 49th to "stand-to" at 10:00 am and be ready to go forward. He did not need orders from higher command to understand the essentials of his mission. It was a standing order to hold the front line at all costs, a task which his veteran Patricias, bearing the brunt of the attack that day, knew only too well. The regiment's steadfast performance and delaying actions gave

---

<sup>218</sup> NAC, MG 30 E 300, *Victor Odlum Papers*, Vol.21, Letter to John Nelson dated 4 Nov 1917.

<sup>219</sup> *49th WD*, "Rpt on Counter-Attack Mt Sorrel" dated 8th June 1916".

Macdonell the requisite time to shift his forces to consolidate the R line and to move additional troops to the rear of 8th CIB. Forward of the R-line, the battle became very much a company and battalion commanders' "show", local initiatives and common sense dictating the defence.

The only failure in Macdonell's conduct of the brigade defensive battle could be said to been the abortive counter attack of the 49th. Once the orders were issued for this attack, Macdonell had no control over the proceedings, having delegated authority for its ultimate conduct and launching to LCol Griesbach, his designated commander on the ground. However, like a true commander, he recognized that delegation of the task did not necessarily absolve him of the responsibility for its failure and that he must ultimately share some of the guilt as he had delegated a task to a subordinate without fully ensuring that subordinate had the requisite resources on time to accomplish the task, in this instance - adequate artillery fire support and the additional manpower of two 9th CIB battalions placed under his command for the operation. After the battle, Macdonell shielded LCol Griesbach's actions in ordering his sole counter attack battalion forward in the doomed assault (a decision which must have taken a great deal of soul-searching on Griesbach's part, as it was his own command) and took full blame for all mistakes upon himself in his official report to higher HQ stating:

In reviewing the work done by the 7th Brigade, perhaps the proudest thing I can say is 'the machine worked smoothly and well.' It follows that the mistakes - and what military operation takes place without them? - were my own. Let the splendidly gallant officers and men who carried out my orders faithfully unto death and held the single line trench at that time was our only bulwark against defeat, receive their measure of earned praise full to overflowing.<sup>220</sup>

This propensity of Macdonell for downwards loyalty secured for him the love and respect of his subordinates. One battalion commander told Macdonell's biographer, A.E. Kennedy-Carefoot, that "in his early army history when he was "on the mat" before his superiors, Macdonell [had] stood by him splendidly. Such loyalty to one of his subordinates was unforgettably appreciated by the hapless victim."

---

<sup>220</sup> Macdonell cited in *42nd Hist.*, 58.

Griesbach, in an interview with Currie biographer Hugh Urquhart after the war, acknowledged that the officers and men under Macdonell's command, "could only be attacked through him, which is alright up to a point, but which has its disadvantages. In short, I would say that with General Mac it was a religion to stand up for his subordinates on every occasion."<sup>221</sup>

In retrospect, BGen Macdonell could have told higher HQs before his brigade counter-attack went in, that their timing for an immediate counter attack had long since passed and that he had not been allocated nearly enough time for what was really the mounting of a deliberate counter-attack. Currie commanding 1st CID certainly did, but it didn't help. At the time of the Corps order being issued at 8:45 pm in the evening of 2 June, several factors dictated that the latter form of assault was the type actually required: the Germans had already been consolidating their gains around Mt Sorrel for some six hours; the troops who would have to be used for the counter-attack were several miles from their projected forming-up places and would have no time for reconnaissance; artillery fire plans would have to be prepared without accurate information on the new enemy positions; nothing had been done to silence or neutralize the enemy artillery which was still in great preponderance around the Salient.

In short, every basic principle for ensuring a successful deliberate counter attack would be ignored under the pretence that an immediate counter attack was being mounted and these oversights could therefore be excused. Goodspeed notes that "in light of all this it is difficult not to regard Byng's order as an emotional rather than a rational reaction. Whatever the reasons for the order were, it was, as always, the troops who had to pay for the mistake. In the event, and not surprisingly, almost everything that could go wrong did go wrong."<sup>222</sup>

That Macdonell actually believed the ordered counter-attack could actually

---

<sup>221</sup> NAC, MG 30 E 20, A.E. Kennedy-Carefoot unpublished *Biography of Sir A.C. Macdonell*, 157; UP, Griesbach Interview.

<sup>222</sup> Goodspeed, *op.cit.*, 153.

succeed is not recorded, but at least the PPCLI and 49th Bn Histories note his more immediate concern as being the PPCLI's precarious state, verging on breakdown. "Not to attack," recorded the 49th History, "meant leaving the Patricias to their fate." The death of the PPCLI's CO, the serious wounding of their 2 i/c, as well as many other senior officers and senior NCOs being killed or wounded, had left the command and control of that battalion in the hands of a few officers and NCOs, most of whom were wounded. The PPCLI History confirms in a rather convoluted fashion that "the Patricias in the line had borne the strain of twenty-four hours of constant bombardment and fighting superbly; but though they were still 'perfectly cheerful' they were becoming physically and nervously exhausted."<sup>223</sup>

That Griesbach's performance as Macdonell's designated counter attack commander was subject to possible censure after the fact can be readily deduced from the former's meticulous recording of events with supporting documentation attached in his final report. In fact, the paperwork would seal the fate of one of the supporting battalion commanders who would demonstrate a distinct lack of moral fibre during the final hours leading up to the counter-attack.<sup>224</sup> A closer examination of the command problems facing the articulate and highly-opinionated Griesbach is therefore valuable in highlighting how primitive command and control procedures still were in mid-1916.

The choice of Griesbach's battalion by Macdonell, the only uncommitted unit of his brigade, to be the nucleus of the counter-attack, was well-founded in that they were immediately to the rear of the sector, were familiar with the sector and its ways forward and had actually seen the ground over which the attack was to be made. These were critical advantages they had over the two attached battalions from 9th CIB, the 52nd (Lake Superior) and 60th (VRC) Bns making their way up from further in the rear. From their perspective, Griesbach's counter-attack failed because of four

---

<sup>223</sup> *49th Hist.*, 45; *PPCLI Hist.*, 133.

<sup>224</sup> See numerous messages, sketch maps, company narratives etc. attached to *49th WD "Rpt on Counter Attack Mount Sorrel"* dated 8th June 1916.



principal reasons:

...the lateness of the hour, about midnight on the 2/3rd inst., at which orders were received, after our O.C. had had a consultation with the G.O.C. 7th Canadian Brigade, allowed little or no time for the proper instruction of Company Commanders and men, as not a moment could be lost in proceeding to a position which was at least three miles distant...No guides were provided beyond Yeomanry Post....The movement from our initial position to the position finally reached was made during our artillery's preliminary bombardment and the enemy's violent retaliation.... the position of the officer i/c operation [Griesbach] was not indicated and much valuable time was lost in efforts to locate him and arrange for proper co-operation and co-ordination.<sup>225</sup>

This excerpt from the War Diary of the 52nd Bn, Goodspeed believes is "a thoughtful assessment of the fiasco, but behind the restrained and reasoned language, bitterness shows through - not unreasonably, because in its move forward, the 52nd Battalion lost very heavily without ever having an opportunity to engage the enemy."<sup>226</sup> In addition, it lost its well-liked CO, LCol Hay, killed on the approach march, as well as a major, two lieutenants and seven sergeants. Obviously, they held Griesbach and 7th CIB responsible for not having a designated location for the counter-attack forces to "marry-up" with the attack commander, the lack of guides, and the lack of time for battle procedure. In addition, the higher command were also culpable for their failure by inviting a heavy counter-bombardment at the crucial moment they were trying to go forward. These are valid criticisms and Griesbach seems to have no explanation of why he was not back to receive the CO's of these two units at a conspicuous location. Macdonell, however, could have given the RV location to the CO of the 52nd verbally at his HQ, who then failed to pass it on before being killed shortly afterwards in the heavy German artillery fire.

At 2 am, 3 June, Griesbach was in the R-line with Capt Molson's B Company who reported to HQ 7th CIB that he had "just seen Colonel Griesbach and had a conference with him and that...Colonel Griesbach wishes you to know that the situation is different from what he believed from previous information and, as the 52nd have not

---

<sup>225</sup> 52nd Bn WD quoted in Goodspeed, *op.cit.*, 153-4.

<sup>226</sup> *Ibid.*, 153.

arrived, he cannot commence counter-attack at the moment. The R Line is being strongly held and he will advise you more fully himself when he finds out the situation on the right flank where we are given to understand the Germans are pushing ahead in MAPLE COPSE.”<sup>227</sup> This was the first postponement of the counter-attack.

In Griesbach’s defence, he was now in receipt of the latest intelligence which put him in the difficult position of launching a counter-attack virtually into the unknown. Feeling the need for more information he went to the right flank to assess the situation, but unfortunately left no control measures (ie. instructions, or guides) in place should the COs of the two errant support battalions eventually show up in B Coy’s position. Ironically, the 42nd Regimental History notes: “It is of interest to note that both [LCol] Gascoigne of the 60th and [LCol] Hay of the 52nd passed through the 42nd position in the R Line in search of Colonel Griesbach. Shortly after passing Captain Molson’s headquarters, [LCol] Hay was killed.”

The heavy German shelling, which killed the CO of the 52nd, and disrupted and demoralized his troops as well as those of the 60th, was intentionally designed to sow confusion, disorder and uncertainty in the Salient - in essence, to break down Canadian command and control and prevent any counter-attacks being mounted against their own troops digging in and wiring on Mt Sorrel. After the two 9th CIB battalions were heavily shelled, one account confirms the Germans’ successfully achieved their aim: the Canadian battalions “dispersed” and “the night wore away in frantic endeavours to reassemble and reorganize them.”

Sometime after 2:30 am Griesbach found the two battalions still huddled in the R- lines. Immediately noting that the 60th Bn were closer to his assembly area than the 52nd in the R-line, he changed the original orders that had designated the 52nd as the right forward battalion in the pending attack and made the 60th the new assault battalion which would attack alongside his 49th Bn. The 52nd would adopt the 60th’s previous role as the follow-on support battalion. This not only made sense from the

---

<sup>227</sup> *49th WD*, 8 June 1916.

physical location of the units on the ground but also recognised that the former battalion's CO was dead and their 2 i/c seriously wounded.

The night's activities, however, had unfortunately unnerved the 60th's CO and, in an investigation after the battle, he was subsequently removed from his command. Griesbach notes that when he told LCol Gascoigne of the change in plan sometime after 3:30 am, the 60th's CO told him he would need at least two hours to get organized and forward to join the 49th. At 6:10 am, however, just fifty minutes before the 1st CID counter-attack was due to go in on 7th CIB's right flank with Zero-hour slated for 7:00 am, the 60th had still not shown up in the assembly area near YEOMANRY POST. Griesbach went back to find out where the 60th were and why they were not moving. He found them still in their original position. When Gascoigne was questioned why he had not moved, he feebly cited the absence of one of his companies which was still lost. Griesbach then offered him the choice of a rifle company from the 52nd or 42nd and verbally ordered him to move immediately. Gascoigne said he would need an additional two hours to pass orders. Griesbach then deliberately placed the order in writing and returned to wait for the 60th at the assembly area.<sup>228</sup> Griesbach would wait in vain and finally the PPCLI History notes the 49th's ill-fated attack went in at 9 am - alone. A final stark message sent by Griesbach at 8:00 am by runner, a full hour after the 1st CID counterattacks had gone in, scarcely conceals the counter-attack commander's frustration. Logged in at B Company, 42nd Bn at 10:00 am that morning, it had come via Major Gray, acting-CO of the PPCLI. It tersely read:

Major Gray:

Sir - The 49th Battalion is now ready to make a counter-attack, but as I am unable to find the 52nd and 60th Battalions who were to assist, will you ask the companies of the 42nd on your left to cooperate.

W.A. Griesbach, Lt-Col.

---

<sup>228</sup> *Ibid.*

Captain Molson:

Will you cooperate in the above attack.

D. Gray, Major.

To this plea for help, Capt Molson replied:

Major Gray:

The 60th Battalion passed through us and is now on our right and the R-line is blocked with men. The 52nd Battalion are also here. If you wish us to co-operate in addition, I am at your orders.

Herbert Molson, Captain.<sup>229</sup>

Nothing ever came of this latter offer of assistance as it had been already overtaken by events. The 49th's abortive counter-attack was by this time one hour old. However, it well illustrates the old military adage that "In action it is better to order than to ask." In his final report, BGen Macdonell stated that the 49th's attack was carried out with great dash and gallantry but seeking to add some positive note or "spin" on its blatant futility adds rather lamely that its "moral effect on the Germans seems to have held them back from pressing attacks on our Brigade front."<sup>230</sup> The actual reason why German troops had halted where they did was because they had reached their assigned objectives and were following orders to consolidate. Having analysed the attacking German formations' orders and war diaries, Nicholson concludes that "fortunately for the Canadians, no German officers had the initiative to exceed instructions and capitalize on success."<sup>231</sup>

Both Griesbach and Macdonell, who would rise to higher rank, would carry away some important lessons in command, one of the most important being the ebb and flow of human dynamics within the nature of conflict. Both were already cognizant of the fact that conflict was fundamentally a clash between hostile and independent wills

---

<sup>229</sup> *Ibid.*

<sup>230</sup> Macdonell cited in *42nd Hist.*, 134.

<sup>231</sup> *CEF*, 150.

and that their enemy was capable and determined to interfere with their plans and actions in order to further his own aims. The Mt Sorrel battle reinforced for both men that nothing ever happens exactly as expected or as intended. Subordinates get lost and killed, orders will be misunderstood (intentionally or unintentionally), the enemy will do something unexpected, almost every action will take longer than anticipated and operations will often fall short of the desired effect. Thus effective approaches to command had to first recognize the existence of these conditions and be able to deal with them, either through back-up mechanisms such as alternate means of communications or by commanders placing themselves at the right locations where they could best influence the battle.

Griesbach's second biggest concern in post-battle analysis, after the obvious one regarding manpower and the lack thereof, was firepower. He was highly critical of his artillery support and claimed the 18- pounder gun was "much too light to answer to the [German guns]. The method of control by the FOO who may or may not be able to observe, and who are not in touch with the frontline troops is quite unsatisfactory. Our heavy guns fired frequently but appeared to be firing in rear of the enemy's front lines."<sup>232</sup> By contrast, however, this same criticism would have been a blessing for the 1st CID and the 8th CIB battalions on his right flank as the heavy artillery, unsure of the exact locations of the enemy's new positions and without the benefit of registration, shelled their own troops unmercifully.

Griesbach also criticised the new Brigade TM organisation claiming that no guns had supported his attack. "These guns would have been of the utmost value in support of the counter-attack made by the 49th Bn," he wrote afterwards. TMs, he believed, would have given his infantry "the *immediate* control of artillery which could then have been directed *immediately* upon points requiring *immediate* attention."<sup>233</sup> There can be no doubt that in this statement that Griesbach, as an infantry battalion

---

<sup>232</sup> 49th WD, 8 June 1916.

<sup>233</sup> *Ibid.*

commander, was demanding more responsive and immediate firepower in the attack.

Griesbach's vindication as a good CO was reflected in his solid performance in future battles with his promotion to Brigadier the following year. In his farewell letter to Macdonell is a revealing commentary on the latter's command philosophy in action. Griesbach wrote: "Your treatment of those under you has had a result which you may not have foreseen - your Commanders have always been free men - free to serve you without fear of anything underhanded. Proud to have your commendation and too proud to merit your censure." Another letter after the war, (Griesbach having served yet a second time under Macdonell in 1st CID), would be even more frank, stating: "To you I owe more than I can say. Friendly and constructive criticism, sound advice, generous encouragement and appreciation - all these and more I have received at your hands. I have not only had justice from you but also mercy, and at times, was more in need of mercy than justice."<sup>234</sup>

At the Somme, Macdonell's performance can be termed mechanical, not because of professional failings or tactical oversights, but because he was smitten with a dark depression after receiving the news of the death of his only son, Ian, flying with the RFC. Distraught and distracted, he felt he could not devote his full and proper attention to the pending attack. According to his biographer, he went to HQ 3rd CID and had a personal interview with MGen Louis Lipsett. "He asked to be excused from the attack." Lipsett expressed sympathy but told him it was out of the question and that he must command the attack.<sup>235</sup> After the 15/16 September attacks, Macdonell was granted special leave to go to the UK and console his wife. Lipsett, no doubt, thought that his decision would be the best tonic for the GOC 7th CIB and Macdonell would later acknowledge that "when Sorrow came into my life, and my only son was killed in

---

<sup>234</sup> NAC, MG 30 E 20, *A.C. Macdonell Papers*, Letter from LCol W.A. Griesbach dated 11 Feb 1917 and Letter from BGen Griesbach dated 21 Feb 1919.

<sup>235</sup> *Ibid.*, A.E. Carefoot-Kennedy unpublished "*Biography of Sir A.C. Macdonell*", 155.

action, it was the brigade that saved me - pulled me through and comforted me.”<sup>236</sup>

The attacks that 7th CIB were called upon to mount at the Somme have been termed “deliberate” though in fact they were poorly coordinated “hasty” attacks. MGen Lipsett himself recognised that Macdonell’s men’s achievements on the 15 September 1916 were essentially the combination of good luck and good reconnaissance work. He wrote afterwards:

The problem which faced the commander of the 7th Brigade was a hard one. Four and a half hours only were available to march five miles over difficult country devoid of landmarks, through enemy barrages, to deploy for attack in broad daylight in a captured and partially obliterated German trench, the whereabouts of which was not known, except from the map, to the battalion commanders, and to launch the attack, on a two-battalion front at 6 P.M. Nevertheless, owing to the previous excellent reconnaissance work of the regimental scout officers and scouts who had been sent ahead, and who met their battalions en route, all battalions were in their places on time, and the attack went forward punctually.<sup>237</sup>

That luck played a part in the afternoon’s proceedings is underlined by the following revelation in the 42nd’s Regimental History: “No detailed Battalion operation order was issued owing to lack of time and so hurriedly was the whole undertaking carried out that it is doubtful whether anyone, except the officers and a few of the NCOs, had any definite understanding of the exact task and even these necessarily had but slender knowledge of it.”<sup>238</sup> The Brigade was thus launched and Macdonell’s command and control capabilities with regards to the attacking battalions thus ended. The onus fell upon the battalion commanders to carry the attack forward.

Macdonell still retained command and control of his support and reserve battalions however, units which he could feed into the battle as he saw fit and thus still influence the outcome. He also controlled the reserve elements of the Brigade MG Coy and TM Battery. The battalion commanders, to a degree as well, became impotent as their assault companies went forward from their designated jumping off lines. The CO

---

<sup>236</sup> *WC*, Vol. I, Undelivered BGen Macdonell Farewell Speech to 7th CIB, 9 June 1917.

<sup>237</sup> MGen Lipsett cited in *PPCLI Hist.*, 165-66.

<sup>238</sup> *42nd Hist.*, 77-78.

usually stayed back with the reserve company and HMGs or in a nearby dugout. The Battalion commander's role in battle was to act as a sort of advanced report centre for his forward companies to report back to so information could be relayed back to the Brigadier or laterally to flanking units. He too could manoeuvre his reserve and HMGs, request reinforcements or artillery support, liaise laterally with flanking units, or order withdrawals or realignments as required.

The 42nd Bn as left forward assault battalion secured all of its assigned objective, a portion of FABECK GRABEN trench, with moderate casualties, while the PPCLI on the right got its left and right flanking assault companies into the same trench system but failed to secure a 200 yard stretch in the middle. Major Charles Stewart, the senior PPCLI commander for the attack, had his own company dig in 100 yards short of the FABECK GRABEN and threw out a screen of Lewis guns and bombers to cover this operation. This was a fortuitous decision, as the Germans believed that the whole of FABECK GRABEN had been lost. An example of how German communications had been completely disrupted was the subsequent heavy bombardment of their own densely-packed men stranded forward in the 200 yard section of uncaptured trench, while Stewart's men looked on with some satisfaction.<sup>239</sup>

At 6:15 pm, Macdonell ordered the 49th Bn forward, though at 7:30 pm Stewart reported back that there was no sign of the 49th moving forward to support him and that all PPCLI officers, except for himself, were casualties. This message took over four hours to reach his CO at the PPCLI Battalion HQ located approximately one mile behind him, due to a heavy German SOS barrage that had come down as a result of the 7th CIB's initial attack. The 49th's orders to advance over open ground in the face of such artillery fire had wisely been countermanded by Griesbach on his own initiative, and Macdonell had their movement forward postponed until 8:30 pm.<sup>240</sup>

---

<sup>239</sup> *PPCLI Hist.*, 172.

<sup>240</sup> *PPCLI Hist.*, 169-173; *49th WD*, "Rpt on Operations of 49th. 15th to 18th September 1916" dated 20 September 1916.



A second message sent by Stewart directly to Griesbach fared better than his first. He informed the 49th CO, just before 8:30 pm, that although he had partially reached his objectives, he was out of touch with the 42nd and his left flank company and believed the enemy to be between them and his troops in an intervening stretch of the FABECK GRABEN trench. Griesbach thereupon decided to make his advance forward, with three companies abreast in attack formation. As the advance was made in darkness over rough ground, pocked with craters and strewn with wire, two companies ended up in the rear of the 42nd position, missing the enemy-held portion of trench on their right. They passed through the 42nd and stopped to consolidate halfway between the FABECK GRABEN trench they had just crossed and the next trench system, the ZOLLERN GRABEN. They occupied a sickle-shaped trench on the reverse slope of a large chalk mound running back to the 42nd's position and waited until first light for further orders. Meanwhile the third assault company on the right ended up on the left flank of the PPCLI facing the enemy in FABECK GRABEN. This latter company shifted right across the front of the enemy-held portion of the trench on learning of their mistake and took over from the 42nd in the section of FABECK GRABEN through which its other two companies had passed earlier.<sup>241</sup>

Griesbach moved up afterwards with his reserve company, as well as his battalion's private section of four Colt HMGs, losing his entire Bn HQ to an enemy shell in the advance. He took up a position roughly behind Stewart. Griesbach's RSM, though seriously wounded, became his acting-Adjutant. A shell later the next day would again obliterate Griesbach's small HQ and he would end up using three privates from the reserve company to run his advanced HQ. After the battle, no doubt reflecting on his three forward companies' erratic night navigation, Griesbach would make an interesting commentary on the primitive state of maps and their use in 1916, essential items in maintaining any semblance of control or calling down artillery fire: "In an operation, only one map should be used so that reference to any point on the

---

<sup>241</sup> *49th WD*, 20 September 1916.

map authorized would be clear and distinct and refer only to the map used," Griesbach wrote. "This, of course, is an elementary point, but the map in use between Brigade and myself is not the map in use between my officers and myself and it was sometimes difficult to transpose terms and information."<sup>242</sup> One wonders which edition or scale of map the artillery were using if such was the case. As well, the quality and accuracy of maps were suspect in 1916, prompting one PPCLI officer after Vimy to comment: "Mapping had improved enormously by 1917....I remember my map of Sanctuary Wood. It was a very rough thing. That was 1916, but the maps we got a Vimy were first class jobs and you knew, if you could read a map at all, exactly where you had to go."<sup>243</sup>

Following 7th CIB's successful 15 September attack on FABECK GRABEN, Macdonell was ordered the next day to capture ZOLLERN GRABEN a preliminary to a surprise attack on ZOLLERN REDOUBT by the 9th CIB. It was stressed to the 42nd and The RCR, the designated assault battalions, that ZOLLERN GRABEN had to be captured 'far enough westwards to enable the [subsequent] 9th CIB attack on the Redoubt to form up with its flanks secured." Macdonell's orders at 1:30 pm on 16 September instructed the 42nd and The RCR to assault and seize the ZOLLERN GRABEN at 5:00 pm. Before zero hour, the 49th and PPCLI were to clear the remaining 200-yard portion of the FABECK GRABEN trench still under German control between the two units, securing it as the jumping-off line. This latter half of the Brigade mission was achieved in a spontaneous, unplanned 15 minute operation around 4:00 pm, but the 5:00 pm attack by the 42nd and The RCR attack was a disastrous failure.<sup>244</sup>

Good battle procedure and the necessary steps to mount a deliberate attack were inexplicably shelved, a decision no doubt based partially upon the uncharacteristic ease

---

<sup>242</sup> *Ibid.*

<sup>243</sup> CBC, PPCLI, G.R. Stevens.

<sup>244</sup> *RCR Hist.*, 249-50; *42nd Hist.*, 82-4.

in which the previous day's attacks had been made, as well as the faulty premise and hopes of higher command that the German defences were crumbling. The RCR, who had been in brigade reserve the day before, sent two companies overland at 3:30 pm through harassing German artillery fire and up into FABECK GRABEN alongside the 42nd for the pending assault. "As arranged, the barrage was to have fallen on Zollern Graben at 4:40 pm," states the RCR History, "but at this hour there was no sign of the concentrated shelling that had been expected. Minute after minute passed, each an eternity to the men of The Royal Canadian Regiment and their Highland comrades on the left, who realized that, unless the barrage struck heavily on the objective before the attack at 5 pm, death ... in No Man's land inevitably awaited them." When the barrage fell it was "feeble" and far beyond the objective. To the waiting RCR companies the artillery effort was "a message pregnant with disaster."<sup>245</sup>

Likewise, the 42nd CO in his report after the battle stoically wrote that "the artillery was faulty and meagre" and that his men immediately "realized the position as quickly as the officers and NCOs" that they were going to certain death. "But in view of the coming attack at 6:30 pm on our left by 9th Brigade, and definite orders to secure ZOLLERN beforehand; there was no alternative." The 42nd Padre's account added, "no finer appreciation of the men and officers of this Battalion could be offered than the fact to a man they responded knowing precisely the hazard, if not the certainty of being checked. Every man went over the parapet with splendid spirit and courage. Within a hundred yards 50% of the effective force were casualties, and it speedily became clear to those in command that further progress would result in little short of the annihilation of the force."<sup>246</sup> The RCR companies got no more than a dozen yards, the German Marines standing up on their parapets to get better aim and their undamaged machine guns laying down an enormous weight of concentrated fire on the

---

<sup>245</sup> *Ibid.*, 250.

<sup>246</sup> *42nd WD*, "Rpt of CO on Operations near Courceleite 17/17th September 1916"; 42nd Padre cited in *42nd Hist.*, 83.

attacking “Royal Canadians” whose portion of the jumping off line was closer to the objective. Needless to say, the 9th CIB attack was cancelled.

For the attack on REGINA trench by the 49th Bn and The RCR the following month, the situation was depressingly the same. The PPCLI History states that “the attempt on Regina Trench on October 8 was the bad hour of the 7th Brigade’s splendid history.”<sup>247</sup> It was a Corps attack with 7th CIB as left forward brigade and the 9th CIB on the right within their own division’s assigned sector. Though the three assaulting companies of the RCR crawled as close as they could behind their creeping barrage and thus got into REGINA trench system with minimal casualties, their real trouble started with failure on their flanks. The 43rd Bn of 9th CIB on their right failed to make any headway, which left The RCR’s right flank open and exposed to counter-attack. On the left, their sister battalion, the 49th, was “very severely handled by the enemy” according to their CO, pinned down, then lost to view. Griesbach’s three assaulting companies entered the wrong trench system, then sent back erroneous reports that they were in REGINA trench when in fact they were actually in KENORA. The RCR having seized their final objective with relative ease, were thus surrounded on three sides by German marines and boxed in on the fourth by a German barrage pummeling No Man’s Land to prevent their reinforcement. Running out of bombs and small arms ammunition and unable to receive any support from the Patricias to the rear, the RCR were to all intents and purposes, strangled to death. The few survivors of the three assault companies were forced to retreat back to their jumping off trenches through artillery and marines firing at their backs. When the regulars of The RCR were relieved and marched out of battle, only 140 all ranks remained.<sup>248</sup>

LCol Griesbach had some terse things to say in his report on this disastrous brigade attack. “Our field artillery is, in my opinion, quite useless for wire cutting and

---

<sup>247</sup> *PPCLI Hist.*, 187.

<sup>248</sup> *RCR Hist.*, 254-58; NAC, RG 9 III D 3, Vol. 4910, *RCR War Diary* [hereafter *RCR WD*] “Rpt on Operations from 15 September to 17th September 1916.”

the destruction of the enemy's works," he wrote. "All ranks agree that a seven minute barrage placed upon the enemy's front and rear lines was little better than a warning to him that an attack was about to be made." The wire, though cut in some places, still constituted an obstacle, he stated, as the machine guns were still operable and covering the gaps. In bombing clashes, the cylindrical stick bombs of the enemy, he claimed, were outranging the Mills bombs by as much as 12 feet. These were not excuses for failure, but the words of a battalion commander frustrated at the many disadvantages his troops faced before they could even close with the enemy.<sup>249</sup> Griesbach wanted, as did Macdonell's other commanders, to rectify such shortcomings so that officers and men stood a better fighting chance the next time round. A PPCLI officer observed: "The follow up battles at REGINA trench were failures to put it mildly. Everyone then realized that there was something missing in our scheme of things. We were losing men we shouldn't lose, simply because of bad timing, faulty organization, wrong weapons, and other factors, which simply meant that by comparison with our enemy, we were still an experimental formation."<sup>250</sup>

One of the most important factors in the command decision-making process, however, received immediate attention from Byng as the result of the ongoing Somme battles and this was in the area of intelligence-gathering. Sir Arthur Currie wrote after the war:

Here perhaps occurred the greatest advance in the employment of comprehensive methods of front line Intelligence, patrols and scouting, brigade observers and observation posts and all other inter-communication, front line listening apparatus and its protection, the interpretation and wide distribution of aeroplane photographs, the extension of artillery intelligence, the rapid preparation and distribution of tactical sketches, mosaic aeroplane photographs, trench maps, etc. The extensive nature of the operations, whereby numbers of prisoners were taken who required rapid examination and handling, made this feature of the intelligence work at this time most important, and from this period dates the development which later became the basis of that larger organization which was put into motion during the following year.<sup>251</sup>

---

<sup>249</sup> *49th WD*, "Rpt on Operations of the 49th on 8th October 1916."

<sup>250</sup> *CBC*, PPCLI, G.R. Stevens.

<sup>251</sup> Hahn, *The Intelligence Service*, xix.

## TECHNOLOGICAL AND ORGANIZATIONAL IMPACTS ON COMMAND

The British command system at the Somme may in part be explained, though scarcely excused, as arising naturally from the circumstances of trench warfare and the technology of the time. Their vision obstructed by countless craters and the fountains of earth sent up by thousands of shells and millions of bullets, commanders in the rear had an impossible task in keeping touch with their men in front without a reliable portable wireless....Since this was a war of machines that relied for their functioning on an incessant, well-coordinated stream of ammunition and spare parts, a considerable degree of centralization was absolutely indispensable in the preparatory stage and, not unnaturally (centralization is a highly contagious disease), tended to extend itself to the actual battle also.<sup>252</sup>

Martin van Creveld, *Command in War*.

One of the most immediate tactical concerns facing the 7th CIB on “standing up” was the German’s introduction of a new gas on 19 December 1916. British troops in the line at Wieltje, north of the Canadian Corps’s sector, were taken by surprise when the Germans released phosgene, a gas eight times deadlier than the chlorine gas used at 2nd Ypres. The British suffered 1069 casualties, 116 of them dying, the high rate caused through the difficulty of detecting the new gas by smell and a faulty alarm system.<sup>253</sup>

The fear of phosgene brought about “a new set of gas discipline reforms within the Canadian Corps,” notes Tim Cook in his well-researched 1995 study of the Canadian Corps and gas warfare, *No Place to Run*. A report received from GHQ a few days after the attack urged the Canadians to strengthen their gas discipline before phosgene was used against them.<sup>254</sup> For 7th CIB, this warning manifested itself as a day’s gas training at La Lavrette for all officers in the brigade, as well as 500 ORs from each of its infantry battalions. Conducted in the last week of December 1915, the day’s session was described by the 42nd War Diary as “a very successful and

---

<sup>252</sup> Van Creveld, 166-67.

<sup>253</sup> Cook, *Gas Warfare*, 90-92.

<sup>254</sup> *Ibid.*, 104.

instructive gas demo.”<sup>255</sup> However, no centralized policy was forthcoming and the brigade was left to its own devices to come up with an effective gas alarm system.

Initially, responsibility for anti-gas measures in the Canadian battalions was treated much the same as trench foot. It was the CO’s responsibility. As the regular application of whale oil to feet under supervision was seen as the cure-all to prevent rampant trench foot in one’s command, so too, was the issue of a gas mask, with some basic procedures on how to wear it, deemed adequate for a CO to prevent any unnecessary gassing of his battalion.

Good gas discipline and effective control measures, as Cook has chronicled, were more than just the simple action of simply masking up. It was a complex issue involving psychological as well as tactical and technical factors and on 9 January 1916, GHQ took its first lumbering steps in trying to implement an anti-gas doctrine, albeit piece-meal. It ordered that all battalion officers should practise gas alarms and conduct investigations into how to warn those in the rear during an attack. Canadian divisions responded by issuing Klaxon horns which could be heard up to a mile in the rear to their frontline battalions. Their sounding was to be regarded as an imminent gas attack and all gas helmets were to be immediately donned. Along with the horns, individual companies set up gas alarms made from whatever could be found in the trenches, the beating on empty shell casings and other metal objects being the preferred method to rouse sleeping soldiers.<sup>256</sup>

The Canadian Corps, which did not yet have a Gas Section or designated staff officer to look after gas training or doctrine, took it upon themselves to advise the divisions from the rear when the wind was blowing favourably (usually under 15 mph) for the enemy to launch a gas attack. It also designated that an area 3 miles back of the front line within Corps boundaries was to be known henceforth as the Alert Zone. All battalions situated in this Alert Zone were to have “gas guards” in addition to normal

---

<sup>255</sup> *42nd WD*, 29 December 1915.

<sup>256</sup> Cook, *op.cit.*, 106-7.

sentries posted, to “thin out areas of line which were very close to the Germans” and to ensure all troops travelled and slept “with their gas helmets within reach at all times.”<sup>257</sup>

After the 2nd Division’s ill-fated fiasco at the St Eloi Craters, wherein Canadians were again subjected to chlorine gas (though most of the cloud blew north onto British units), the First Army announced that the increased use of gas by the Germans had forced them “to decentralize the work of instruction in preventative measures against gas.” The tactical employment of a weapon now had a cascading effect on the staff officers and training techniques at all levels of command.

The Corps was instructed on 23 May 1916 to appoint Divisional Gas Officers (DGOs), who in accordance with their commanders, were to instill gas discipline in their troops. They were to organise divisional gas schools which, by means of lectures and demonstrations, would pass on the latest information on defensive gas measures. They were also responsible for ensuring the division had an adequate supply of anti-gas appliances, that regular inspections of the troops’ gas helmets were undertaken and that frontline and support dugouts were properly constructed with blanket doors to protect against gas.<sup>258</sup>

The DGOs could not expect to be able to inspect 15,000 men, so, in turn, created the position of Brigade Gas Officers (BGOs) and delegated them most of their supervisory responsibilities. The BGOs were given the authority to travel freely into the front line to check on gas defences and discipline, but this responsibility was further delegated by 7th CIB to specially-designated Battalion Gas NCOs in each rifle company. These battalion specialists were made exempt from company duties as their gas duties included gas drills, inspection of gas helmets, dugouts and appliances as well as providing assistance to company officers during gas alerts.<sup>259</sup>

---

<sup>257</sup> *Ibid.*, 107.

<sup>258</sup> *Ibid.*, 119.

<sup>259</sup> *Ibid.*, 120-121.



In August 1916, the British introduced the best gas mask of the war, the Small Box Respirator (SBR). Lighter, more comfortable and able to withstand higher concentrations of gas than previous helmets, the SBR was effective and promoted immediate confidence on the part of the rank and file. Ironically, the Canadians who “had been the first in the BEF to suffer the effects of gas in their heroic stand in the Ypres Salient,” notes Cook, “...were among the last to receive the SBR which finally gave proper protection against poison gas.”<sup>260</sup>

After the Somme, the whole gas technical chain of command was formally named and organized as the Canadian Gas Services and Battalion Gas Officers were finally introduced to fill the gap between the BGOs and the company Gas NCOs. Capt Hugh Wallis, now the Staff Captain “I” of 7th CIB, wrote up the terms of reference for the new battalion position at HQ, citing that the battalion specialist would be primarily responsible for: “assisting at the inspection of gas box respirators and goggles” and making “such local repairs as are possible”; inspecting “daily all Strombas horns and other gas alarms” as well as ensuring “sentries posted know how they should be used”; ensuring all blanket doorways were fitted and “kept in good order”; collecting soil samples during and after a gas attack; ensuring “all anti-gas fans were in proper places and serviceable condition” as well as maintaining “in his possession a map showing the position of all Gas apparatus in the section”; reporting “to the Adj any deviation from gas rules”; and, being “responsible that every man in the battalion has been through the gas test.”<sup>261</sup>

But the onus did not rest solely upon the unit representative. To ensure the widest dissemination of information on this aspect of warfare which respected no rank or trade, all infantry and artillery officers of a brigade, (ie. all those normally found within the Alert Zone) were also notified that they would have to attend a compulsory three-day course in gas instruction at the Divisional Gas Schools in order to better

---

<sup>260</sup> *Ibid.*, 138-9.

<sup>261</sup> WC, Vol. I, 7th CIB “Terms of Reference for the Battalion Gas Officer”, undated.

understand the role of gas on the battlefield and how to better protect the soldiers under their command. In addition, it has already been noted that the PPCLI had anti-gas sections at the company level before the introduction of company gas NCOs in the rest of the Corps, showing the priority the Patricias placed on having an immediate response to a deadly weapon. This new approach to gas warfare in 1916 with its new procedures, new equipment, the creation of new staff positions at HQs, the creation of specialist positions within units, and a new emphasis upon training and timely dissemination of information to all ranks, were all measures that, according to Cook, brought "some control to the inherent chaos introduced by the gas war."<sup>262</sup>

Another area in which higher command was struggling to bring new improved technologies to assist it in the command and control problems of trench warfare was in communications. As previously discussed, signals technology was essentially "line dependent" and the year 1916 can be termed the year of the "deep bury" in this regard. The 7th CIB assisted the Canadian Corps in burying the first six foot deep cable in the entire BEF around the Mt Kemmel sector in early 1916. During the period 1 April to 30 June a uniform system of deep buries was constructed on the whole Corps front. Telephone circuits from observation posts scattered on Mt Kemmel and the neighbouring spurs were included in the network, a total of 420 miles of metallic-coated line being laid.<sup>263</sup>

Deep buries in the actual Salient were impossible due to the waterlogged nature of the ground, though some attempts had been made to utilize the underground sewers of the city to the rear. While this benefitted divisional to brigade communications, as has been shown in the historical discussion of the Mt Sorrel battle, line communications for the brigades to units in the Salient went out very early. Subsequently, the whole question of coordinating effective defensive fire for one's own troops and ensuring the timely movement of reserves to threatened sectors of the line

---

<sup>262</sup> Cook, 121.

<sup>263</sup> Moir. *op.cit.*, 18-19.

was very much based on the garbled information coming back via runner and other alternate sources, basic professional instincts, a bit of raw luck and a resolve to march to the sound of the guns.

The Somme, 7th CIB's first taste of the offensive, presented different though not unfamiliar problems. Prior to the "Big Push", much thought had gone into the myriad problems presented by mounting an offensive on a grand scale including the maintenance of command and control. The two main communication problems were: firstly, preparing an adequate and safe system of deep buries to allow intercommunication within the sector from which the assault was to be launched; and secondly, to bridge No Man's Land successfully during the attack and to carry forward the main cable system as soon as possible thereafter.

The British put months of unremitting work into solving the first problem, establishing over 7000 miles of deep buried cable for the forward line system and another 43,000 miles of line in overhead construction farther back out of artillery range.<sup>264</sup> By the time the Canadians arrived on the Somme end-August and fought at Courcellette in September, however, these deep buries and line communications were of no help whatsoever in solving the second problem: how to communicate across the churned-up ground of No Man's land once the attack had gone in.

In fact, as has been shown in the historical discussion of 7th CIB's abortive attack on REGINA trench 8 October, the lack of communications with the forward battalions was the key to the Brigade's failure. Rawling has claimed that this lack of communication, which persisted throughout the war, caused as many casualties as machine guns and quick-firing artillery because of the crucial disconnect between the troops in combat and the officers responsible for sending in the reserves or providing artillery support. "As a result, men died in hopeless, unsupported assaults or were

---

<sup>264</sup> *Ibid.*, 19.

overwhelmed by counterattacks [sic] after capturing their objectives.”<sup>265</sup> Macdonell and his reserve battalion commander had no way of knowing that The RCR’s position in REGINA trench on 8 October was precarious and that their local success should be reinforced with more men, bombs and ammunition. The RCR’s subsequent expulsion from the REGINA trench, and the heavy casualties they sustained going back to their original jumping-off place, could have been avoided if effective communications had existed and fresh troops had been committed forward by the Brigade. BGen Macdonell’s ability to command and control the battle once the troops had launched was therefore limited by the existing technology. His ability, and others like him, to influence the battle once joined, was virtually nil for the duration of the War.

One historian has likened formation commanders to gunners with their ordnance. They could carefully prepare, load and aim their gun, notes Stewart, but once the projectile had left the barrel, they had no control over its flight. As they didn’t have the technological ability to control their troops, they were thus limited to improving the delivery system, the actual gun which would fire their battalions forward with the best results. As well, they could recognise their technological limitations and thus ensure the type of projectile (the battalion) they fired, was as self-sufficient as possible, well-briefed on the overall intent of its mission, and encouraged to use its initiative.<sup>266</sup>

Machine gun technology did not change dramatically in the war but the tactical employment and organization of them did. This saw corresponding changes in the levels of command in which some variants would be controlled and utilized at the brigade level, while other lighter variants would be cascaded down to the company level to increase the defensive and offensive firepower of the infantry. Initially, each battalion had a Machine Gun Officer (MGO) who was usually granted a certain degree

---

<sup>265</sup> Rawling, “Communications in the Canadian Corps, 1915-1918: Wartime Technological Progress Revisited.” *Canadian Military History*, Vol. 3, No. 2, (Autumn 1994) 7.

<sup>266</sup> Stewart, *Attack Doctrine*, 18.

of autonomy according to the Canadian Machine Gun Corps (CMGC) historian. Calling themselves the “Suicide Squads”, the battalion MG sections, “so often left to [their] own devices in training and outside the regimentation of the battalion, developed and individuality of [their] own....If there was any envy of the M.G.O. [by other platoon commanders], it was that he was allowed to wear spurs and riding boots, rather than that he commanded concentrated firepower equal to a company of infantry.”<sup>267</sup>

The Brigade MGO (BMGO) was an appointment made at the outset of war at the formation level but for training purposes only. As the CMGC historian notes, “the machine gun sections were part and parcel of the battalions. The BMGO did not have command of the guns in action, except those in reserve or explicitly placed under his direction. He performed a valuable function, however, in co-ordinating training when the sections were out of the line.”<sup>268</sup>

By the time 7th CIB was stood up in December 1916, the BMGO position had assumed greater importance in terms of the tactical defence. His responsibilities, besides acting as the GOC’s principal machine gun advisor, included supervision of the tactical deployment of all brigade MGs to ensure that interlocking fires were achieved across the entire brigade frontage and that battalions had not committed their MGs too far forward where they could be easily observed and knocked out by shellfire.<sup>269</sup> In fact, Macdonell’s search for a BMGO in December on learning he would command an infantry brigade was not motivated by his desire to have a good trainer and staff officer. He was shopping for a commanding officer as the Canadian Corps had received authorization six weeks earlier to form Brigade MG companies (BMG Coys) on 29 October 1915. The 1st CID and 2nd CID were setting up their new companies at the same time Macdonell was “standing-up” his brigade. The formation of the BMG Coys was “the most important step to be taken in establishing of Machine Gunnery as a

---

<sup>267</sup> Grafton, *The Canadian “EMMA GEES”*, 41.

<sup>268</sup> *Ibid.*, 30.

<sup>269</sup> *Ibid.*, 29-30, 41.

separate arm with tactics peculiarly its own and intermediate between those of infantry and artillery” the Corps History states.<sup>270</sup>

The 7th CIBMG Coy was authorized on 13 March 1916 whilst Macdonell was away wounded, but his handpicked officer was in command, Capt H.T. Cock. Cock wrote of his new organization’s formation on the first page of the War Diary:

The scheme of the organization was that Lewis Guns would replace the machine guns in the battalions and that the battalion MG personnel, transport and everything would be withdrawn from the battalions and form the Brigade MG Company. The Brigade MG Officer automatically commanded the MG Company.... The scheme was [later] modified....drafts from England were sent, with a nucleus of the Battalion MG sections going to the Brigade MG Company, the exact proportion being left to the Brigade.<sup>271</sup>

It took another month for the BMG Coy to become fully operational as the 7th CIB went to the Ypres Salient, the battalions retaining their guns and battalion organization there until sufficient personnel had been trained on the Lewis guns and these new company weapons issued. As of 24 April 1916, the 7th CIBMG Coy War Diary recorded that all four infantry battalions had handed over four HMGs each - four Colts from the RCR, 42nd and 49th Bns, and four Vickers from the PPCLI.<sup>272</sup>

There is evidence that at least three of the four battalions retained unofficial HMG sections within their battalion establishments despite the withdrawal of their authorized HMGs to form the BMG Coy. It will be recalled that the 49th received four additional Colts to its establishment, purchased by the Edmonton Board of Trade at the CO’s suggestion, and these were definitely used at the Somme. These extra 49th guns are probably what caused PPCLI Major Agar Adamson to observe somewhat enviously on joining the Canadian Corps on 30 November 1917 that “some of the Regiments in the CEF have more than the laid down establishments [of machine guns] and have done good work with them.” As well, he noted “the friends of [Percival] Molson offered to

---

<sup>270</sup> *Ibid.*, 37.

<sup>271</sup> NAC, RG 9 III D 3, Vol. 4983, *7th Canadian Brigade MG Company WD* [hereafter *BMG WD*], 1 April 1916.

<sup>272</sup> *BMG WD*, 24 April 1916.

give us 6 machine guns” but his British CO, LCol Buller, had turned them down because the PPCLI didn’t have the extra wagons, horses or ammunition allocations to support the additional weaponry.<sup>273</sup> After Buller’s death at Mt Sorrel however, the PPCLI somehow obtained four Colt guns and created a Battalion section consisting of “5 NCOs and 20 men”, for this section was “attached for duty” in October 1916 with the BMG Coy on the Somme, six months after their Vickers were turned in. It is not recorded whether The RCR turned in their two Maxim guns when they received their four Colt Guns in Bermuda, and therefore it is quite possible they retained them and took them to the UK and, subsequently, to France. Only the 42nd Bn appears to have abided by the establishment laid down.

The Colt’s replacement in the battalions by the Lewis gun was definitely not mourned by Canadians as was the case of the Vicker’s replacement by the Lewis in the British battalions. Paddy Griffith notes that “the Lewis appears to have received a disappointingly suspicious-welcome from the front line soldiers, since it was seen as displacing the greatly appreciated Vickers MMG, yet failing to offer sufficient compensating advantages in weight, simplicity or reliability.... The Lewis gun was a 47-shot weapon with heavy drums that could be fired off in five to six seconds and were hard to fill compared to the Vickers 250 rounds per belt.”<sup>274</sup> But the Canadians never having had the luxury of the Vickers, immediately accepted the gun, as evidenced by one 7th CIB’s CO’s comments after the 15 September 1916 attack on FABECK GRABEN trench.

“The Lewis guns were everywhere and extremely serviceable,” wrote LCol Griesbach effusively. “This gun cannot be beaten for its weight and portability.”<sup>275</sup> In contrast to his disparaging remarks about the ineffectiveness of TMs at Mt Sorrel and the loss of their potential firepower, the Lewis gun represented the portable, *immediate*

---

<sup>273</sup> Adamson, Letter dated 30 November 1915.

<sup>274</sup> Griffith. *Battle Tactics*, 130.

<sup>275</sup> 49th WD, “Rpt on Operations of 49th, 15th to 18th September 1916” dated 20 September 1916.

firepower that infantry battalions craved. They could take it in with them on the assault and have it ready to fire at fleeing defenders or to consolidate their captured position against the inevitable counter-attack. Control of their use at the company level in the attack saw them placed on the flanks of the second wave, ostensibly to protect vulnerable flanks if supporting attackers on either flank failed to keep up.

The Colt in the Canadian BMG Coys would be replaced by the Vickers in July 1916, effectively making the tactical control of this HMG more remote from the infantry line and infantry control. This shift occurred in very much the same manner as it had for artillery in the 19th century, which became “more centralised during the Napoleonic Wars, and again during the American Civil War, in the interests of developing its full tactical effect.”<sup>276</sup> The HMG, used in a light artillery role firing in the indirect mode as early as the Somme 1916, led Canadians to be regarded throughout the BEF as the leaders in machine gun tactics. Jack English writes that the Canadian machine gunners led by LCol Raymond Brutinel, (later BGen) proved “particularly innovative in massing their heavy variants in batteries and fighting them as tactical entities to support attacks as well as defences.”<sup>277</sup>

Eight Lewis guns were initially issued to the 7th CIB battalions on a scale of two per company. The PPCLI History notes that their new LMG aroused the immediate interest of their enemy in the Salient in April 1916, goading “the Wurttembergers opposite into shouting across No Man’s Land: ‘Where in hell did you get all the machine guns?’”<sup>278</sup> By the end of the Somme battles, the issue per battalion would be increased to 16 Lewis guns, thus permitting one LMG per platoon by the end of the year.<sup>279</sup> This newfound firepower in each of the company’s four platoons, coupled with the grenade, would give rise to a reorganization and re-emphasis on the

---

<sup>276</sup> Griffith, 130-31.

<sup>277</sup> English, *The Canadian Army*, 17; Bidwell & Graham, *Firepower*, 123.

<sup>278</sup> *PPCLI Hist.*, 106.

<sup>279</sup> Bidwell & Graham, *op.cit.*, 122.



platoon as the tactical fighting unit on the battlefield and would first be tested at Vimy in 1917.

Trench mortars (TMs) or “Toc Emmas” as troops referred to them in generalistic terms, were weapons highly suited to trench warfare due to their high angle trajectory. Taking heed of lessons learned from the Russo-Japanese war, the German and Austrian armies had equipped their infantry with mortars of light and medium calibre prior to the First World War. The British and French armies, however, had not followed suit and thus were inferior not only in quantity but also quality of mortars when trench warfare set in. Improvisation became the order of the day for the Allies and various forms of apparatus for hurling bombs into enemy trenches were devised, even extending to catapults launched with string or elastic. By early 1915 however, the BEF had developed two heavy TMs - the 4-inch and the 3.7-inch, and a light TM - the 2-inch.<sup>280</sup>

In the Canadian Corps, by summer 1916, TMs were allocated according to their calibre: each infantry brigade had under its command a light trench mortar battery, equipped with 3-inch Stokes Guns, and each divisional artillery brigade had a battery of six heavy 9.45-inch TMs, and two batteries of four 6-inch Newtons. The Germans by contrast, however, had almost twice the number: 50 TMs per division as opposed to the 36 operated by the Canadians. When the light TM groups of 7th CIB were stood up in March and April 1916 respectively, they were initially equipped with a mixture of 4-inch, 3.7 inch and 3-inch Stokes which did not make their task easy in terms of mobility or ammunition re-supply.<sup>281</sup> However on 28 March 1916, the Commander-in-Chief of the BEF, Sir Douglas Haig, would write “all reports agree as to the efficiency of the 3-inch Stokes mortar” and declared his intention of substituting it for the other

---

<sup>280</sup> Griffith, *op. cit.*, 104-7; Rawling, *Surviving Trench Warfare*, 179; Guy Hartcup, *The War of Invention: Scientific Developments 1914-1918*, (London: Cassell, 1988) 63-68; and Bidwell & Graham, *op. cit.*, 123-4.

<sup>281</sup> Rawling, *op. cit.*, 179.

types of light and medium TMs.<sup>282</sup>

Rawling notes that though TMs were “an important weapon in the Canadian Corp’s arsenal, ...no one felt the need to form a Trench Mortar Corps to parallel the Machine Gun Corps.”<sup>283</sup> This observation goes some way in explaining the somewhat patchy track record of the Brigade TM companies in 1916. Because there were no vocal TM enthusiasts or advocates such as the Canadian machine gun fraternity’s high priest of automatic fire, Brutinel, there was very little developmental thought given to tactical procedures, deployment and the potential of the TM in the offense. Its personnel found themselves in a political limbo between the artillery and the infantry, neither arm initially wanting to take responsibility for it or provide it with guidance. Bidwell and Graham have termed the TMs “the Cinderellas” of the Army - “The Gunner had no wish to leave his horse for ‘a bit of old drainpipe’. The battalion commander consigned men to mortars as he did to the Machine-Gun Corps: “Will you take my award - or go to trench mortars?” The historians note that after the War “mortars drifted into oblivion” only “to be revived again in 1939-45.”<sup>284</sup>

Eventually by 1918, the brigade TM batteries would be fully integrated into the artillery fire control system, but in 1916, they were “free-lancers”, on-call to battalion commanders who wished to use them to mete out retaliation against German TM bombardments or to support a battalion raid.<sup>285</sup> As the Stokes’ fighting range was about 400 yards, it usually had to be fired from just behind its own front line trenches. This made them unpopular amongst the rank and file in the front-line as “first-use” tended to upset the equilibrium of the “live and let live” attitude that existed in certain sectors of the line. While the TM crew could “shoot and scoot”, the unfortunate

---

<sup>282</sup> Haig cited in Hartcup, *op.cit.*, 67.

<sup>283</sup> Rawling, 179.

<sup>284</sup> Bidwell & Graham, 124.

<sup>285</sup> See numerous requests by unit COs in NAC, RG 9, III D 3, Vol. 4980, 7/C/1 *Trench Mortar Bty War Diary*, 29/4/16 OC 42nd, 8/5/16 OC PPCLI, 17/7/16 OC RCR.

occupants living in the trench they shot from had to grin and bear it when the enemy responded with instant and invariably, very destructive retribution.<sup>286</sup>

The lack of any dynamic development of the TM in the offensive role can be partially explained by the tendency of infantry battalions to send their least desirable, and one might deduce least motivated, infantrymen and officers to the organization. LCol Griesbach of the 49th, the most vocal critic of TMs after the defensive Mt Sorrel battle, pulled no punches after the offensive attack on the REGINA trench. Venting his spleen on the lack of any visible fire support he wrote: "The Stokes Gun is a good gun: the personnel leaves much to be desired. This unfortunate weapon is always in trouble: always late; usually without ammunition; the crew in one place, and the ammunition elsewhere. With good personnel, this gun could give good service."<sup>287</sup>

In fairness to the TM organization, their weapon at this stage of the war was designed for the static defence and not the assault. It was not particularly portable. The barrel alone weighed 50 lbs, and the mortar mountings were so heavy that they were generally jettisoned at the first opportunity. This subsequent lack of mountings usually meant it had to be hand-held, thus creating a high incidence of inaccuracy. Command and control of the weapon was limited to an environment where fall of shot could be observed directly or relayed back by telephone. In the assault, despite being an indirect fire weapon and capable of providing overhead fire, tactics and procedures had not been worked out in any detail by brigade staff or the company officers in charge of them. In the defence, the TM ammunition was usually stockpiled forward in large quantities or carried forward by hand by infantry fatigue parties. In the assault, gun crews were incapable of carrying any significant amounts of ammunition forward unless assisted by a reserve company of an assault or support battalion.

By contrast, the new darling of the infantry, the Lewis gun, fared no better in the development of offensive tactics. Introduced into the Canadian infantry roughly the

---

<sup>286</sup> For a detailed discussion on this aspect see Ashworth, *Trench Warfare*, 163-8.

<sup>287</sup> *49th WD*, "Rpt on Operations of 49th. 15th to 18th September 1916" dated 20 September 1916."

same time 7th CIB “stood-up” its light TM batteries, the company LMG did not have enough time and offensive usage in the Canadian Corps in order for its proud new owners to develop any significant specialized offensive tactics by the Somme. Why COs like Griesbach expected the TMs to be more operationally effective than they actually were is therefore somewhat puzzling. At best it displayed an ignorance of the serious limitations the TMs worked under, some of which - manning for example - were caused by COs in the first place. Ironically, Griesbach would make a more common sensical suggestion when he advocated the training of Canadian TM sections to include the operation of captured German TMs, “as very often these little guns are found in perfect condition with plenty of ammunition and should be used with great effect against the enemy.”<sup>288</sup>

As with TMs, the British started the war without any regular establishment for grenades, the need for them becoming apparent in the close-quarter fighting of autumn 1914 onwards. Although grenades, or bombs as they were more commonly called in the BEF, had been used regularly in warfare since the 17th century and earlier, they had been recently revived for modern warfare and were used in the Russo-Japanese War. The foresighted German staff, as with trench mortars, re-introduced them as standard issue in the German infantry. The short distances between trenches, and the bomb’s obvious utility as a close range indirect fire weapon that could be fired either by a rifle or thrown by hand into an opponent’s trench led to the adoption of the grenade as an essential weapon of trench warfare. During 1915-16 “it virtually superseded the rifle and ranked in importance after artillery ammunition in the order of the priority of supply” according to Hartcup.<sup>289</sup>

The 49th Bn Regimental history notes that early in the life of the newly formed 7th CIB ‘the Ross Rifle controversy, had become comparatively unimportant since the rapid increase of machine guns and the growing use of bombs had minimized the

---

<sup>288</sup> Griesbach, File 11.

<sup>289</sup> Hartcup, *op.cit.*, 63.

embarrassment of jammed bolts: the Canadian soldier either bought or stole a Lee-Enfield as a status symbol rather than because he needed it.”<sup>290</sup> Various types of bombs were improvised by the British and called “jam jars” or “hair brushes” according to their shape, with fuses protruding from their sides and lit with ordinary matches. Until the time-fused Mills bomb made its appearance, most bombs during the first half of the war had a lethal tendency for unreliability. “The natural result of all its many forms of unreliability was that bombing gained a reputation as a very specialised art, requiring a relatively long training and indoctrination for its practitioners,” states Griffith. “Hairy nosed enthusiasts...were therefore sent to bombing courses which qualified them to train up their own elite platoon of bombers, who might well eventually be promoted to a pampered life within their particular battalion or brigade, being exposed to the rigours of combat only for the duration of a few carefully planned trench raids, which they would be expected to spearhead.”<sup>291</sup>

As of 1 March 1915 in the 1st CID, and subsequently, the Canadian Corps, Brigade Grenade Companies were created in each Infantry Brigade with a Captain/Lieutenant to be known as the Brigade Grenade Officer commanding, assisted by a senior NCO. Their job was essentially training a cadre of grenade specialists which could be held as a brigade reserve for attacks as well as training battalion bombers for use in the front lines. Initially a platoon of one officer and 32 ORs were required from each battalion for training then allowed to return after ten days training to their units.<sup>292</sup> By the time of 7th CIB’s creation the infantry battalion’s Bombing Platoon had grown to one officer and 45 ORs, though the PPCLI showed an establishment of one officer and 48 ORs. Battalion Bombers, as well as the Scout and Sniper Platoons, however were not on the authorized establishment of the 7th CIB infantry battalions and therefore they recruited their specialists, usually the brightest

---

<sup>290</sup> *49th Hist.*, 34 - 35.

<sup>291</sup> Griffith, *op.cit.*, 113.

<sup>292</sup> *OH*, Vol. II, Appx 276.

and most athletic men, directly from the rifle companies. Thus they were truly the elite fighting men of a battalion, causing Maj Adamson of the PPCLI to bitterly comment on St Valentine's Day, 1916: "There are too many special squads and not enough men [in the rifle companies] to actually attack as pure and simple infantrymen." He added the afterthought, "but when they do get into a trench, the special men are useful."<sup>293</sup>

The status of the battalion bombers as an elite in the 7th CIB battalions was unquestioned for the entire year of 1916. They provided yeoman service at Mt Sorrel and the Somme battles, but the introduction of the Mills bomb during the winter of 1916/17 served notice that the bombing mystique was about to end. In fact, the ten day course had been reduced to six and instruction consisted only in "shooting rifle grenades and throwing Mills bombs." A 42nd Bn private (later Cpl), Will Bird, who attended a six day course at the Brigade Bombing School in January 1917 received top marks:

When I reported back to my [rifle] platoon, I was astounded to find that I had been transferred to the battalion bombers. I, a new man, was to be among the grand selected ones, the specialty men. The others chaffed me and said I had pulled strings to get my shift, and I really disliked leaving them....The bombers were kind to me....We had good dugouts and plenty of rations, and our hours were much easier than in the company, where a man did six hours on and six hours off with monotonous regularity all the time we were in the line....The bombers had it much better than the company men. We patrolled the crater line, visiting all the trench posts and, in the stretches between, paused now and then and sent grenades into the German front. Then we would hurry along and so escape any possible retaliation. Such a procedure naturally aroused the ire of the men doing sentry, who could not leave their stations, and we were soon unpopular.<sup>294</sup>

Pte Bird enjoyed the life of a "battalion bomber" for only a few weeks as change was in the air. Bird and his mates were told the day after they were relieved by the 22nd Bn on St Valentine's Day, 1917, (a year to the day on which Adamson had criticised "special squads" as detrimental to the fighting effectiveness of the rifle companies) that "the 'battalion bombers' were no more." Bird wrote: "A

---

<sup>293</sup> Adamson, Letter dated 14 February 1916.

<sup>294</sup> Bird, *Ghosts*, 18-19.

reorganization was to take place, each platoon to have its own bombers and machine gunners, and I was not sorry. I wanted to be with the old crowd again.”<sup>295</sup> Grenades would thus join the Lewis Gun in beefing up the firepower in each of the new platoon organisations that would be tried, bloodied and proven on the slopes and summit of Vimy Ridge.

## TACTICAL & DOCTRINAL IMPACTS ON COMMAND

**“The order of battle for the future will be eight men and a boy in column of lumps.”<sup>296</sup>**

**BGen A.C. Macdonell, GOC 7th CIB, July 1916.**

Though Byng, the Canadian Corps commander, and his staff had learned some valuable lessons about the assault by retaking their own trenches from the enemy at Mount Sorrel - thorough preparation, attention to detail and overwhelming artillery support - they were unable to utilise them to any large degree at the Somme because they were confined by very narrow boundaries and given no tactical latitude for innovation by General Sir Hubert Gough’s Reserve Army HQ. Though tanks were used for the first time at Courcellette, infantry-tank cooperation and training was non-existent, as was any tank doctrine.

“From corps commander down to private soldier,” writes Byng’s biographer, Jeffery Williams, “ they carried away a sense of frustration at the way in which they had been employed.....For Byng and his Canadians, it was the first experience of sustained offensive operations under the intimate control of a higher headquarters.

---

<sup>295</sup> Bird, *And We Go On*. (Toronto: Hunter Rose, 1930) 44-45.

<sup>296</sup> Macdonell cited in *49th Hist.*, 48.

Their first instinctive conclusion was that there must be a better way to win battles.”<sup>297</sup>

In reflection, this statement is charitable hindsight being applied to corps and divisional HQ staffs which must bear some of the blame for Canadian failures at the Somme. As several studies have recently shown, some of the better British divisions at the Somme such as the 5th British Division under MGen R.B. Stephens were experimenting and developing improved approaches to the problems of attack long before the Canadians arrived.<sup>298</sup> As the British breached the well-prepared front line defences of the Germans in some depth and began to encounter more rudimentary defences, ensuing battles had become more of a form of semi-open fighting than trench to trench assaults. The dissemination of innovations or tactical lessons learned, however, was not a strongpoint of British high command as noted in previous chapters.

In addition, the British army the Canadians joined on the Somme under the command of Gough (Currie would later categorically refuse to fight under his command at Passchendaele) was not known as one of the most innovative commanders. The moral and professional bankruptcy of the entire British attack doctrine was exemplified by a Reserve Army document entitled “Trench to Trench Attack” produced by Gough’s staff in late August. It stressed that the two fundamentals of making an attack were its dependence “upon artillery solely, with very slight support from selected snipers and Company sharpshooters,” and, that the bayonet would be the decisive factor in any assault. Speed was essential, so there was to be no lying down. The attack, it stated, was the province of the company commander, whose task it was to get his company to the enemy’s trench as quickly as possible.<sup>299</sup>

Other documents that the Canadian Corps received while training for the Somme regarded a new application of an old technology - artillery. They stressed the

---

<sup>297</sup> Williams, *Byng of Vimy: General and Governor General*, (Toronto: University of Toronto Press, 1983) 141.

<sup>298</sup> English, “*Riddle of the Trenches*”, 44; Stewart, *Attack Doctrine*, 61-64; Bidwell & Graham, *Firepower*, 71-72, 99-100.

<sup>299</sup> NAC, MG 30 E 300, *Victor Odium Papers*, File 23.



need of following the new creeping barrage closely, a barrier of protective firepower, normally shrapnel, that rolled forward less than a 100 yards in front of advancing infantry. Unfortunately, this new dependence on barrage fire detracted from the infantry's ability to manoeuvre or innovate, as the major assumption was that infantry could now move forward at a walking pace instead of being compelled to advance by "fire and movement".<sup>300</sup>

To the end of the Somme battles, battalion commanders, brigade commanders and higher were to be governed by the training instructions issued by GHQ in May which stated that "in many instances, experience has shown that to capture a hostile trench, a single line of men has usually failed, two lines have generally failed but sometimes succeeded, three lines have generally succeed but sometimes failed, and four or more lines have usually succeeded."<sup>301</sup> This corpus of wisdom was augmented in August for Canadians in "Notes on Recent Fighting" which described attacks as being relatively short advances of 200 to 300 yards, with battalions moving forward in two or more waves on a front of 400 to 600 yards. The first wave was to advance to the furthest objective, while the following waves acted as consolidation and carrying parties.<sup>302</sup>

The adoption of these linear tactics was a compromise between two extremes of control: a highly centralized approach disregarding tactical reality and a decentralized approach recognizing the same. An extreme example of the former would have been to advance in columns for maximum control of ones troops, a suicidal notion given the presence of machine guns. The ideal method at the other end of the spectrum was to advance by small sub-units, each manoeuvring using terrain to the best advantage to support one another and build up a fire supremacy over the enemy. Such a latter approach required a degree of decentralization, as well as well-trained officers and

---

<sup>300</sup> Stewart, *op.cit.*, 59; English, *On Infantry*, 13-14.

<sup>301</sup> Cited in *CEF*, 168.

<sup>302</sup> Stewart. 60.

men.

Battalion training conducted by 7th CIB prior to the Somme from 21 to 29 July consisted of an unchanging schedule which included bayonet and physical training, close order drill, one period of gas helmet drill and two hour periods of the “Organization of a Company for the Attack” and the “Organization of a Battalion in the Assault”. The only mention of section and platoon training was one hour of company drill focussing on “Movements of small columns and platoons and sections in fours and into lines at extended order.” In the first week of September, the 7th CIB battalions practised the “Battalion in the Attack (Trench Warfare)” for three successive days with a one day break for a medals parade. The Brigade’s last day of training before going back into the line was optimistically sub-titled “Battalion in the Attack (Open Warfare)”, no doubt introduced to relieve the troops’ boredom and build morale that the ever-elusive breakthrough was lurking just around the corner.<sup>303</sup>

It was also early on in the Somme battles that the policy was introduced of leaving selected officers and men out-of-battle (LOB). This measure was taken to ensure some command continuity was maintained in a battalion in case its leadership should sustain heavy casualties in battle. It also ensured that the battalion would retain the ability to train itself by keeping some its experts and specialists out of harm’s way. “Out of a company you left a damn good sergeant, a damned good sergeant major who might be your RSM if anything happened to your real one,” recalled Capt G.W. Little, PPCLI. “You’d always leave a company officer or two out and you’d usually select someone that had been in a lot of stuff already.”<sup>304</sup>

The official order dated 10 September 1916 ruled; “In all operations not more than 20 officers per battalion, including headquarters, are to accompany the battalion on the attack. Remainder to include due proportion of all ranks. 15% of NCOs also to remain behind.” The RCR, which referred to this directive as “The Somme Quota”,

---

<sup>303</sup> *RCR WD*, Trg Appxs for months July, Aug and Sept 1916.

<sup>304</sup> *CBC*, PPCLI, G.W. Little..

translated this into their own battalion SOP which designated the LOB personnel as follows: "Bn 2 i/c, Adjt, two Coy commanders, two Coy 2 i/cs, two specialist officers, two WO instructors, six NCO instructors, and 15% of all specialists."<sup>305</sup>

Other than these new precautions, the information the 7th CIB and the rest of the Canadian Corps received to prepare itself for the Somme battles was no more useful than that afforded the British battalions that first went over the top on 1 July 1916. "In essence, the Canadian Corps was preparing to fight a type of July 1 battle without realizing that the circumstances were considerably different from those for which they prepared," notes Stewart. "The Corps had neither the experience nor expertise to properly interpret the actual lessons of Mt Sorrel and the Somme."<sup>306</sup>

After the abortive attempts to take REGINA trench in October 1916, 3rd CID's infantry strength was reduced to 3500 men out of an establishment of 12,000. The number of essential specialists, officers and NCOs was sadly depleted, and the division was suffering from exhaustion as it had not had a chance to rest and recover between its first and second tours in the line. Overall, the Canadian Corps suffered 24,000 casualties at the Somme causing one Canadian historian to comment, "this appalling experience of costly failure, or at best, pyrrhic victory, was to be the decisive impetus for the professionalization of the Corps."<sup>307</sup>

---

<sup>305</sup> *RCR Hist.*, 248n; *RCR WD*, 9 August 1916.

<sup>306</sup> Stewart, *op. cit.*, 61-62.

<sup>307</sup> *Ibid.*, 75.

## CHAPTER FOUR

### 1917 - THE YEAR OF PROFESSIONALIZATION

**Victory in war does not entirely depend on numbers or mere courage; only skill and discipline will ensure it.<sup>308</sup>**

*Vegetius, De Re Militari, 378 AD.*

**By 1917 the Corps had recognized the necessity of adopting a professional approach to the war. No longer was enthusiastic ardour a suitable replacement for rational informed calculation. Close cooperation between the arms and services of the Corps; the dexterous employment of its most potent weapon - artillery; painstaking attention to intelligence work; and an acknowledgement of the necessity for professionalism were all characteristics of the Corps after its experiences at the Somme.<sup>309</sup>**

*W.F. Stewart, "Attack Doctrine in the Canadian Corps."*

The second year of 7th CIB's existence was one marked by a higher level of competence and professionalism, higher standards of training, reorganization of its fighting components at the brigade, battalion, company and platoon levels and the development of a distinctly Canadian attack doctrine. New applications of technology and tactics included the massive HMG barrages and interdiction introduced on a grand scale at Vimy, counter bombardment and sound-ranging techniques, counter-electronic warfare, the introduction of new gases, aerial photography, increased use of wireless, the wide spread use of the grid communications system, and fire and movement at the platoon and company level.

The Somme acted as the catalyst for this renaissance, causing amateurism to be a thing of the past and to be replaced with a hardened resolve to find the smartest and best way to accomplish the mission with the least casualties. Part of the solution lay in

---

<sup>308</sup> Cited in Fitton, *Leadership*, 309.

<sup>309</sup> Stewart, *Attack Doctrine*, 132.

the reorganization of the artillery and a change in the mindset which dictated that “the artillery conquered, and the infantry occupied.” One of the lessons of the Somme was that it was not more firepower that was required, but firepower that was more cleverly and efficiently applied. This new approach was born of the realization that enemy defences, in many cases, could not be destroyed, but they could be suppressed. Once this reality was accepted, a new fire doctrine of “neutralization” vice “destruction” could evolve. Every effort would be made to destroy enemy guns and fieldworks but stress would now be placed on incapacitating and disrupting the enemy, if only for a brief time, so that infantry could manoeuvre across the kill zones of No Man’s Land and capture enemy trench systems. The artillery and infantry, through close cooperation, would conquer and occupy together, instead of the latter being subservient to the former. Better applications of artillery conforming to the needs of the infantry would, of course, require more effective command and control, thus centralization of all ordnance including MGs and TMs in the Corps increased dramatically.

The entire training establishment in the UK and in the field was re-organised, making it easier to establish a common Canadian doctrine throughout the CEF. A new mechanism was put in place for training sorely-needed junior staff officers for divisional and corps HQs by utilising the British temporary Staff College at Cambridge vice the Sam Hughes’ inspired Canadian staff course. All in all, every facet that had any direct bearing on the Canadian Corps’ operational effectiveness was submitted to close scrutiny and, if found wanting, was scrapped or modified to suit the requirement. If a procedure or technique did not exist, suggestions were made or improvised from existing methods or technology. The apprenticeship of 7th CIB, like the other brigades of the Corps in “The Year of Learning-How,” was over. The master technicians of the Corps had a job to do.

## HISTORICAL OVERVIEW

**The victory at Vimy Ridge showed what the Canadians were capable of, and the battles of 1917 reinforced and enhanced the Canadians' reputation. 1917 was a year of unbroken success with victories at Arleux, Fresnoy, Hill 70 and Passchendaele. ...These victories were the result of the great efforts made to improve the tactics, techniques and doctrine of the Corps over the winter.<sup>310</sup>**

W.F. Stewart, "*Attack Doctrine of the Canadian Corps.*"

The battles of 1917 were the result of intense preparation and training, the daunting challenge of capturing the unconquered Vimy Ridge at the outset of the year providing the impetus and subsequent mold which would shape all future operations of the Canadian Corps. In the course of the year, 7th CIB would participate in two major operations, Vimy and Passchendaele, and a brigade-sized raid conducted at Avion in June 1917.

After the Somme, the winter of 1916-17 found LGen Byng and his staff working feverishly to completely rework Corps tactics, training and staff procedures, organization and doctrine, in order to tackle what was generally considered to be the most dominant and tactically important feature on the whole of the Western Front - Vimy Ridge. For the Germans, the Ridge was their "the lynch pin joining their northern defensive line, which ran through Belgium to the sea, to the new Hindenburg system in the south," writes Byng's biographer. "To them it was not only of tactical importance. As long as they held it, they could operate the Lens coalfields which were [strategically] important to their war effort."<sup>311</sup>

The story of the Canadian Corps' 9-12 April assaults on Vimy Ridge is perhaps the most well-documented in Canadian military history and will not be gone into any great detail in this paper other than to outline those salient points required to provide some historical context for the operations of 7th CIB before, during and after this

---

<sup>310</sup> Stewart, *op.cit.*, 134.

<sup>311</sup> Williams, *Byng*, 143.

seminal battle. LGen Byng's plan called a frontal attack by all four divisions of the Corps in numerical order from the right to left. The 3rd CID, facing La Folie Wood, was ordered to attack on a two brigade front. 8th CIB would be on the right and the 7th CIB on the left, the latter brigade advancing in the shadow of Hill 145.<sup>312</sup> In 7th CIB, three battalions would take part in the assault, each advancing with two companies up and two in support ready to pass through on the first objective line: The RCR right forward; PPCLI centre; and 42nd Bn left forward. The 49th Bn would provide mopping-up and carrying parties for the assault battalions.<sup>313</sup>

As a whole, the attack of the Corps was to be carried out in four stages, each stage dictated by the German zones of defence. On 3rd CID's frontage, the operation would only entail participation in the first two stages: an advance at 5:30 am, scheduled to reach the first objective 35 minutes later. After a 40 minute pause to reorganize, a subsequent advance would be made at 6:45 am to a line drawn through La Folie Wood, along the reverse slope of the Ridge and bending back on the left to conform with the objectives of 4th CID. 7th CIB was allocated 20 minutes for this second phase. The 1st and 2nd CIDs had objectives at a maximum distance of 4000 yards from their jumping off positions while the 4th CID had the shortest distance of all but was faced with the prospect of seizing Hill 145, the strongest natural defensive position on the whole front.<sup>314</sup>

It should be noted here that, German defensive lines and tactics (which will be discussed in some detail later on) had changed significantly everywhere except on the Ridge allocated to the Canadians. After the Somme, the German army had gone to a more "elastic" defence-in-depth by zones. On the 15 March 1917, three weeks prior to the battle, on a front of nearly 100 miles, the German army withdrew to its new Hindenburg Line. By doing so, they shortened their front line by 20 miles and freed

---

<sup>312</sup> *CEF*, 247-49.

<sup>313</sup> *PPCLI Hist.*, 213-14.

<sup>314</sup> *CEF*, 247-49; *PPCLI Hist.*, 213-14.

up 13 divisions to be on hand as counterattack forces for the pending British and French offensive. Vimy remained at the centre of the line, the hinge upon which the new system swung back. By contrast with the new Hindenburg Line, the German defences on the Ridge were a hold-over from the past, “designed for Falkenhayn’s stonewall tactics, which proved so disastrous on the Somme,” notes Williams. “A more elastic system was planned but work on it had not begun. In the face of increasing destruction caused by the British and Canadian guns and frequent alarms caused by infantry raids, the garrison could do little more than maintain their existing defences.”<sup>315</sup>

At 5:30 on the morning of 9 April 1917, the rolling barrages opened, and the attacking waves of the Canadian divisions went forward. Waves, in the case of 7th CIB, however, is not quite an accurate description. All of its assault battalions had to cross a series of large craters to their front before seizing their first objective line. It took the 42nd on the left five minutes to “scramble across the muddy craters as best they could, then re-form with great steadiness just as though they were rehearsing over the tapes at Bruay.” By 6:02 am they had captured their portion of the first objective, the trench lines known as BEGGAR and BLUE running mid-way across the rising Vimy plateau. The PPCLI in the centre wended their way through the numerous craters of the Duffield, Grange and Patricia-Tidza group then went quickly forward to their first objective, FAMINE trench, encountering light opposition. The RCR on the right pushed through the Birkin and Vernon Craters “and captured the Black Line at the hour named in their attacking orders.”<sup>316</sup>

7th CIB now paused for 40 minutes then went forward, fresh support companies now taking up the lead for the last stretch between the Black Line and the final objective in La Folie Wood. “Though the distance to be covered in this phase was less

---

<sup>315</sup> Williams, *Byng*, 149; for excellent discussions on the new German defensive systems and tactics see English, *On Infantry*, 14-17; Griffith, *Forward Into Battle*, (Ramsbury, Wilts: Crowood, 1990) 77-81; and *CEF*, 239-242; as well as the tactical section of this chapter)

<sup>316</sup> *RCR Hist.*, 278-80; *PPCLI Hist.*, 216-21; *42nd Hist.*, 123-4..



than that from the old Canadian line to the Black Line,” recorded *The RCR History*, “it soon became clear that the Final Objective would not be attained with the ease that had marked the opening phase of the operation.” In La Folie Wood, a series of orchards, The RCR was roughly handled by the MGs of the 2nd Bn, 262nd German Reserve Infantry Regiment which inflicted the majority of that battalion’s casualties in the operation. In the centre, the PPCLI “advancing at a steady walk, started off with almost a parade ground alignment.” The right forward company keeping pace with The RCR on its right, however, ran into fire from the edge of La Folie Wood after advancing only 75 yards and “changed its method of progress to section rushes, one section pinning enemy fire down while the others dashed forward.” At BRITT trench, the PPCLI encountered an MG nest “which embarrassed the advance for a few minutes” but encountered nothing as fierce as The RCR were encountering on their right. On 7th CIB’s extreme left flank, the 42nd Bn surprisingly reached the final objective with little opposition or casualties by 7:30 am, as did the other two battalions - surprisingly, because the Royal Highlanders’s left flank was dominated by Hill 145, the highest and most important feature of the Ridge.<sup>317</sup>

The defences of this hill were particularly strong, ringed with well-wired trenches and a series of deep dug-outs on its rear slopes. The 42nd got to its final objective line initially unhindered because these German defences were being heavily shelled. Once the Canadian artillery lifted, Hill 145’s defenders were too preoccupied in bloodily repulsing 11th CIB’s attempts to seize it. When 11th CIB went to ground short of its crucial objective however, its defenders then had more time to take stock of their situation and see that they could enfilade 7th CIB’s position with relative ease in La Folie Wood on their left. The majority of the 42nd Bn’s casualties sustained at Vimy were thus incurred by sniper, MG and observed artillery fire being brought to bear from Hill 145 on their positions in and around their consolidated position on the

---

<sup>317</sup> *RCR Hist.*, 278-80; *PPCLI Hist.*, 216-21; *42nd Hist.*, 123-4.

final objective.<sup>318</sup>

The major problem of command and control during the battle for BGen Macdonell would therefore be one of liaison over divisional boundaries with a flanking brigade. His immediate concern was to consolidate his own defence and to provide what assistance he could the following day for the capture of the troublesome hill on his left flank. Two days after the capture of Hill 145, 10th CIB would successfully storm The Pimple, by which time, the enemy accepting the loss of Vimy Ridge as permanent, had pulled back two miles to their Third line in the new Hindenburg system running southeast from Lens across the open plain.

“The great lesson to be learned from these operations,” read one divisional after-action report, “is this: If the lessons of the war have been thoroughly mastered; if the artillery preparations and the support are good; if our Intelligence is properly appreciated; there is no position that cannot be wrested from the enemy by well-disciplined, well-trained and well-led troops attacking on a sound plan.”<sup>319</sup> But as 7th CIB would learn at Avion in early July, the tactics required to take German defences at Vimy, based to a large extent on the old pre-Somme model, were not necessarily applicable to the elastic defence system of pillboxes they would encounter at Passchendaele or the next year in their assaults to break the Hindenburg Line.

Byng, the professional soldier, would hand over to LGen Arthur Currie in June 1917, an “operationally effective military organization”, the latter defined by Millett and Murray as any formation deriving “...maximum benefit from its components and assets by linking them together for mutual support.” This operational effectiveness required complete utilization of combat branches within and between military services, as well as the exploitation of weather, terrain, time, surprise, morale, training, and the physical capabilities of the troops. The greater the integration of these disparate elements, they claim, “the better will a military organization generate

---

<sup>318</sup> *2nd WD*, “Summary of Operations” dated 13 April 1916.

<sup>319</sup> NAC, RG 9 III, Vol. 2526, *1st CID WD*, Folder 52, File 7, “Rpt of 1st CID”.

combat power from its available resources.”<sup>320</sup> The coordination and integration of these “disparate elements”, of course, was a function of command and control, and will be discussed in greater detail in the next section.

It was Currie, the new corps commander who was the principal cause of the next operation of note performed by 7th CIB. Initially, the Avion Raid was to have been part of an limited offensive to “inch up” on the city of Lens. Currie, short of supporting guns in early June and thus unable to prevent the enemy from concentrating overwhelming fire on any trenches he might seize, convinced Haig that trying to hold captured ground at great cost would be unproductive at that time. By contrast, his plan for the seizing of Hill 70 the next month, was a cunning flip-flop of the same idea. He would intentionally seize vital ground of the enemy and force the Germans to take it back. With ambush-like precision, Currie would ensure overwhelming artillery and MG resources were in place, specially sited to provide maximum firepower on the areas through which the counter-attacking German forces would inevitably come. Thus the Germans would be the victims on ground of Currie’s own choosing.<sup>321</sup>

In the preceding month, however, the new corps commander argued that operations around Lens should take the form of large-scale raids in which the assaulting troops would attack in sufficient strength to ensure breaking into the German trenches, but having disposed of the enemy garrison and inflicted maximum damage on his position, would withdraw under the cover of a rearguard. The Avion Raid in which 7th CIB participated on 8 June, originally planned as a divisional offensive operation, turned into a raid with limited objectives. The 49th History notes that the aim of the raid was “to be in such strength as to impel the enemy to keep substantial counter-attack forces on call.” This is a rather inane statement as, has been already noted, the German defensive doctrine had changed substantially after the Somme to provide

---

<sup>320</sup> A.R. Millet & Williamson Murray, eds., *Military Effectiveness*, Vol. I, The First World War, (Boston: Unwin Hyman, 1988) 14.

<sup>321</sup> *CEF*. 284-92.

exactly that - lightly defended forward areas with substantial reserves echeloned back in great depth on call for counter-attacks. The RCR History underlines the 7th CIB's emphasis that "it was termed a 'raid' in the sense that no permanent seizure of the German trenches were contemplated."

Orders called for six battalions to attack on the night of 8/9 June at midnight: three from the 11th CIB attacking to the north in the La Coulotte sector (out of contact with 7th CIB), and three from 7th CIB in the Avion sector with 49th Bn left, 42nd Bn centre and The RCR right. Each battalion of 7th CIB would go in on a four-company front, each with three platoons in successive waves, the fourth platoons of each company staying to constitute the garrison of the jumping-off trench. The 7th CIB battalions were to attack on approximately 1200 yards of the German front in the Avion area, penetrate into enemy lines to a maximum depth of 800 yards, hold the ground captured for an hour and a half, then begin a covered withdrawal, completing the evacuation in a 30 minute timespan.<sup>322</sup>

Preparations for the raid, which would take place at night, were conducted with Vimy-like thoroughness behind the lines. Rehearsals were conducted by day and night over taped ground and troops instructed to memorize the exact locations of all known enemy MG posts, TM posts, and dugouts. The composition and duties of trench raiding parties received particular attention.<sup>323</sup>

In the aftermath of the raid, BGen Macdonell, of course, regarded it as a huge success. Newly-promoted to command 1st CID, Macdonell wrote to a subordinate officer two days later: "The Brigade put on a good show the other night and we are beginning to consider that we are 'Sturm Truppen' for fair. It was a good 'Show', well carried out and successful in every respect."<sup>324</sup> By contrast, the view from the ranks was considerably different, especially in the 49th Bn which sustained the highest

---

<sup>322</sup> *49th Hist.*, 89-90.

<sup>323</sup> *RCR Hist.*, 287-92.

<sup>324</sup> *WC*, Vol. I, Letter to Capt George Macdonald, PPCLI, dated 11 June 1916.

casualties going in on the left flank of the raid. From Sgt A. Fowlie's perspective, whose platoon was virtually wiped out, "it was a very fierce affair and it lacked the luck. We held the trench and the Germans infiltrated my company....I lost three very good friends of mine in that raid. I don't think it was a very good planned affair after all."<sup>325</sup> On withdrawing after two hours in the enemies trenches, the three battalions forsook the cover of the German trenches to move back across No Man's Land and were caught in a heavy German counter-bombardment. In the words of Lt G.D. Kinnaird, 49th Bn, who was severely wounded, "the moppers-up were mopped up."<sup>326</sup>

The 42nd Bn History deemed the raid to be "the most thoroughly organized and brilliantly carried out minor operation in which the Brigade ever participated as a unit." As a battalion, it went in with its flanks secured by the other two battalions, though it had the second highest rate of casualties. It went on to claim, somewhat correctly, that the raid was out of the ordinary in that "it was carried out on a very much larger scale than had ever been attempted" with the added difficulty of having been conducted at night. However, ex-Cpl Will Bird of the 42nd Bn scathingly defused much of the credibility of this particular regimental history when he wrote in 1933, "the latter is a very finely-bound book and only lacks a slight insertion at the beginning "For Officers Only".<sup>327</sup>

7th CIB reported that it had sustained 335 casualties in the raid, 38 of them fatal, but a quick tally of the battalion counts show the actual killed total to have been 44 all ranks.<sup>328</sup> Quick to justify the raid in terms of its value, 7th CIB claimed an inordinately high body count of 560 enemy killed, an entire battalion's worth. This figure is not realistic as the Germans only manned a regimental sector with one battalion in the first two lines of trenches and many of the frontline and second line

---

<sup>325</sup> *CBC*, 49th Bn. A.E. Fowlie.

<sup>326</sup> *49th Hist.*, 90.

<sup>327</sup> *42nd Hist.*, 137; Bird, *The Communication Trench*, (Amherst: [privately printed], 1933) 131.

<sup>328</sup> *RCR WD*, 10 June 1917; *42nd WD*, "Summary of Casualties, June 1916"; *49th WD*, 11 June 1917.

defenders retreated to their third line during the attack. Many of the dugouts destroyed by the 7th CIB raiding force would thus have been empty. The 49th Regimental historian asks a valid question and leaves the answer unstated, but obvious: "Did this operation yield a credit balance?...In the 49th records one account declares that the attack went in perfect alignment; another, that it was all confusion....The menace of the counter-barrage perhaps had been over-discounted. In the darkness the man who sits tight with his weapon is certain to enjoy an advantage over his adversary who stumbles across open ground to seek and destroy him."<sup>329</sup>

On 9 October 1917, Sir Douglas Haig issued orders for the Canadian Corps to move to the Ypres sector and their commander, LGen Currie "to submit plans for the capture of Passchendaele as soon as possible." Five days later, the Corps had moved from the Lens-Vimy sector and had replaced the 2nd ANZAC Corps in trenches running along the Stroombeek Valley, between the low lying Gravenstafel Ridge and the heights about Passchendaele. Currie was not enamoured with the proposed operation and made his opinions known to Haig. Overruled that the attack was needed to relieve pressure on the French armies, Currie won concessions and time allowing him to initiate an extensive infrastructure rebuilding programme to repair existing roads, construct new ones and extend light railways forward. These in turn would allow the movement forward of reinforcements, munitions and supplies, and above all the many heavy and medium artillery pieces he would need, to support his infantry in the attack.<sup>330</sup>

It was Haig's intention that the Canadian Corps should gain possession of the area about Passchendaele village by three attacks with limited objectives, delivered at intervals of three or more days. The first of these went in at 5:40 am on 26 October, a two-pronged attack around the Ravebeek swamp, 3rd CID on the left and 4th CID on the right, both advancing behind a heavy artillery barrage. 4th CID captured all its

---

<sup>329</sup> *49th Hist.*, 91; see also Nicholson's comments in *CEF*, 281 who terms the body count "excessive".

<sup>330</sup> *CEF*, 312-15.

assigned objectives. Advancing on the north side of the Ravebeek swamp in a much wider and wetter sector, the assaulting battalions of the 3rd CID encountered major problems. With a distance of 1200 yards to cover, they managed to capture enemy's positions on the Bellevue Spur, but were prevented by heavy German counter-bombardment from reaching their main objectives.

On the nightfall of 27 October, the next day, casualties were 2500, but 3rd CID was now on higher and drier ground and in a good tactical position for the second of the planned attacks. At dawn of 30 October, 3rd CID with 4th CID on its right, resumed the advance in the face of heavy German artillery and MG fire. Currie's object was to secure a firm base from which to launch a third and final assault on Passchendaele. Again 4th CID gained all its objectives, including the strongly-held Crest Farm, a scant half mile southwest of Passchendaele village. On the left, 3rd CID advanced with the 8th CIB left forward brigade and the 7th right forward.<sup>331</sup>

The PPCLI and the 49th were the 7th CIB's designated assault battalions and the plan of battle envisaged an advance of about 1,100 yards for the 49th and 850 yards for the Patricias. The latter battalion, however, was confronted by a formidable array of pillboxes along the Ravebeek and Meetchele Spur. LCol Agar Adamson, now commanding the PPCLI, gave indefinite orders as he firmly believed that "it was useless to lay down any mode of attack to troops going over unknown and swamped lands, pitted with shell-holes filled with water." General Lipsett had written in his divisional orders: "NCOs are to be impressed that in this operation success or failure will more than ever depend upon their initiative and resource." The PPCLI History acknowledged laconically that as far as "Pash" was concerned "there was little that a commanding officer could do beyond arranging the disposition of his companies."<sup>332</sup>

During the night previous to the attack, the PPCLI had straightened out their 'jumping off' line by capturing SNIPE HALL, a particularly troublesome pillbox at the

---

<sup>331</sup> *Ibid.*, 321-23.

<sup>332</sup> *PPCLI Hist.*, 254.

edge of the swamp, which had held up another brigade in the 26 October attack. From here the PPCLI struggled forward through knee-deep mud to take DUCK LODGE, the battalion's intermediate objective. However the storm of fire that lashed the Patricias from German positions farther up the valley took its toll killing all its company commanders and almost every junior officer. The Germans shelled the advancing troops with gas shells. On the left of the main road running over the Meetchele Ridge to Mosselmarkt just north of Passchendaele village, the 49th Bn, even harder hit, managed to keep level with their sister battalion by capturing FURST FARM, 600 yards west of the Meetchele crossroads. By noon the left of 7th CIB lay in front of FURST FARM, the centre had progressed to just west of Meetchele hamlet and the right had reached GRAF FARM. These positions lay some hundreds of yards short of the objective the Brigade had hoped to obtain, but the fact that three VCs were won in the attack by the two assaulting battalions is indicative of the high standard of initiative and determined resolve on the part of the rank and file. With most officers and NCOs killed or wounded, companies led by sergeants and platoons by privates soldiered on. "Morale was superb," wrote LCol Palmer, CO of the 49th Bn.<sup>333</sup>

When 7th CIB stopped and dug in to retain their gains, supports came up from the RCR and the 42nd Bns and reliefs were made. The 49th Bn suffered a soul-destroying 76% casualties, the highest losses sustained by the unit during the First or Second World Wars. Twenty one officers and 567 ORs had gone in and only 5 officers and 140 ORs came out. The PPCLI were hardly better with 20 out of 25 officers casualties and 343 ORs killed or wounded out of a total of 600 that had gone in.<sup>334</sup> The 42nd and The RCR would hold the new line for two additional days before the brigade was taken out of the line to refit. It would be nine months before the four battalions of 7th CIB would be again committed to battle.

---

<sup>333</sup> *Ibid.*, 259-68; *49th Hist.*, 100-102.

<sup>334</sup> *49th Hist.*, 104; *PPCLI Hist.*, 273.



## COMMAND PERSONALITIES, PHILOSOPHIES AND PROCEDURES

Courcelette, and later Passchendaele, Parvillers, Jigsaw Wood and Tilloy, all lacked what was most characteristic of the Vimy action - the dotting of the last *i* and the crossing of the last *t* in preparation.<sup>335</sup>

PPCLI Regimental History, Vol.I.

One command personality which impressed itself upon 7th CIB, right down to the section level, was undoubtedly LGen Byng. He was tireless in his efforts to train and prepare the Corps. His key philosophy was that everyone in the Corps should be fully knowledgeable about the plans for the attack on Vimy Ridge. Byng's biographer noted:

A wide-scale issue of maps of the battlefield had a psychological impact on the soldiers quite separate from their satisfaction at receiving an useful tool. Formerly, maps were for officers; marked maps were protected and rarely seen by the men. Now they were being given to corporals. It meant that they were trusted and had been given a share in the responsibility for the enterprise....By taking these men into his confidence Byng inspired them in a way which could never have been achieved by rhetoric or any other shallow device.<sup>336</sup>

Byng went to extreme lengths to train company and battalion commanders as he believed they would play key role in the upcoming battle. In November 1916, he instituted the one-week CO's Course, held at HQ Canadian Corps for all battalion COs and their 2 i/cs, its aim to lay down a standard doctrine upon which to base their training and operations, "a significant deviation from the British model of maintaining the sanctity of command responsibility," according to Stewart. "In the British Army, a [commanding officer] was wholly responsible for the training of his unit and, aside from the vague bromides of the Field Service Regulations, there was no common doctrine. The Canadians had an opportunity to [develop] a Corps doctrine, whereas in the British Army the highest level at which this could occur was the division."<sup>337</sup> The

---

<sup>335</sup> *PPCLI Hist.*, 232.

<sup>336</sup> Williams, *Byng*, 153.

<sup>337</sup> NAC, MG 30 E 50, *E.W.Jones Papers*, Folder 1, CO Course Syllabus; Stewart, *Attack Doctrine*, 110-11)

course also gave the Corps Commander and his formation commanders the unstated ability to observe and evaluate commanding officers as to their competence and professional outlook.

The 7th CIB COs went the last week of November, the result being one of the four being replaced soon afterwards (LCol Cantlie, CO 42nd), though probably of his own volition. Another CO would be deemed suitable for command of a brigade (LCol Griesbach, CO 49th) and his potential successor vetted and approved (Maj R. Palmer). Battalion COs and company commanders were invited for an additional week to Byng's HQ over the winter months where they spent their time mainly with Corps Staff on the study of tactical and administrative problems that might affect their units in the upcoming battle. Byng, himself, was often present and attempted to talk, at least once, with each officer informally in his mess.<sup>338</sup>

Byng, as a new corps commander and a stranger to Canadians, had been also extremely concerned with the calibre of junior officers arriving from the UK in the summer of 1916. He had sought out a professional cavalry officer like himself after the Somme for a personal heart to heart discussion. It was none other than "Batty Mac." The acting BM of 7th CIB at the time recorded in his memoirs that Byng "came to visit General Mac, whose office was next to mine [and] as there was only a curtain of sacking between us, I could hear what General Byng said." The two generals' conversation went something like this:

"I am not satisfied with the training Canadian troops are getting in England, Macdonell. The officers seem to come out with no practical training at all. Officers and men very often get killed quite unnecessarily, just through lack of proper knowledge. You, General, have had considerable experience of the Canadian Forces. You have been with them a long time. You know a great number of officers. I've really come to talk the problem over with you."

"First of all, I must develop a training centre out here, both for those who come out as reinforcements, or people I want to send back from the front line to get further instruction. I am therefore going to establish a corps school."

General Mac said: "I think we better have Critchley in. He knows most of the officers in the Canadian Corps and his advice might be useful."<sup>339</sup>

---

<sup>338</sup> Williams, *op.cit.*, 147.

<sup>339</sup> Critchley, *Critch!*, 68-9.

In the conversation that followed, Critchley was interrogated by Byng on suitable candidates to run the new Canadian Corps Training School (CCTS) he was proposing. After some discussion with the GOC 7th CIB and his BM, General Byng “looked up from under his shaggy eyebrows” at Critchley.<sup>340</sup>

“What about yourself? Could you do it?”

“I said, “I beg your pardon, Sir, I am acting brigade major here.”

He knew as well as I did that the brigade major’s post was a considerable plum for a regular officer, but he said sharply: “You will do as you are told. Come and see me in three days’ time and I’ll find out more about you. Is that all right, Macdonell?”

BGen Macdonell did not have much say in the matter and had lost his BM by the end of the week. Byng, satisfied with his inquiries regarding Maj Critchley, made him his new GSO2 (Training) on his HQ staff. Critchley would go on to establish and command the Canadian Officers Training School at Bexhill in the UK and, by the end of the war, would be seconded to the RFC/RAF to revamp their entire training establishment. By September 1918 Critchley was a 28-year old Brigadier-General.<sup>341</sup>

Another area in which Byng was to have a significant impact on the Canadian command process was his tireless efforts to develop an extensive intelligence gathering network within the Corps. Intelligence officers, assisted by air photo interpreters, interrogators, scouts, snipers, observers, and collators, and working closely with the counter-battery organization, assembled a detailed picture of the German defences on the Ridge and of the strength and habits of the garrisons who manned them. Byng had first put the intelligence process in train at the Somme where, according to LGen Currie, “the greatest advance in the employment of comprehensive methods of frontline Intelligence” occurred. The Corps formed an “inside service” comprised of a small force of draughtsmen and assistants working on air photos and maps while an “outside service” consisting of Divisional and Brigade Observers was created to form “a direct

---

<sup>340</sup> *Ibid.*, 69.

<sup>341</sup> *Ibid.*, in *passim*.

channel of information” for the commander. After the Somme, leading up to Vimy, great stress was placed on “patrols and scouting, brigade observers and observation posts and all other inter-communications, frontline listening apparatus and its protection, the interpretation and wide distribution of aeroplane photographs, the extension of artillery intelligence, the rapid preparation and distribution of tactical sketches, mosaic aeroplane photographs, trench maps, etc.”<sup>342</sup>

7th CIB, as did other brigades, conducted extensive patrolling and numerous trench raids before Vimy, bringing in much useful intelligence, ensuring that they dominated No Man’s Land, and denied German patrols any accurate intelligence indicating a build-up of forces in front of the Ridge. The officer primarily concerned with this work in 7th CIB was Capt Hugh Wallis, who had become Staff Capt “I” in October 1916, replacing Capt George Macdonald, PPCLI. In his letters and scrapbooks he has left us a fairly accurate picture of the duties and responsibilities of the Staff Capt “I” and how he assisted the commander in making informational and operational decisions.<sup>343</sup> “While the [BM] represented the General Staff Operations Branch, and the Staff Captain [“I”] was responsible for General Staff Intelligence duties, theoretically directly under the [BM], in practise the Staff Captain [“I”] took his orders directly from the G.O.C. Brigade, keeping the [BM] informed of all information obtained,” states Major Hahn, the author of *The Intelligence Service within the Canadian Corps 1914-1918*.<sup>344</sup>

This was the case in 7th CIB where BGen Macdonell gave his nephew, Capt Wallis free rein to act as his “eyes and ears.” Wallis notes that one of his first duties on entering a new sector was to reconnoitre in detail the Brigade’s new defences assisted by his 12 “outside” men or Brigade Observers. Once fully cognizant of the

---

<sup>342</sup> Hahn. *The Intelligence Service*, xvii - xix.

<sup>343</sup> *WC*, Vol. I.

<sup>344</sup> Hahn, *op.cit.*, 87; for detailed roles and responsibilities of a Staff Capt “I” and his staff see Chapter VIII - “Brigade Headquarters Organization,” 86 - 99.

general topography of the Brigade's frontage and the disposition of all units, it was his task to also reconnoitre all the rear line defences and routes of approach forward with his Observers in case they should be required to act as guides forward for reinforcements under battle conditions. He usually accompanied the GOC on all his operational visits and would record any instructions or routes to be used and produce the maps and traces to support the plans.

Wallis also visited the battalions frequently, his job of liaison including the supervision of the brigade frontage and ensuring that all battalion observation posts (OPs), including his one or two Brigade OPs, had interlocking arcs of surveillance. Two of 12 observers were normally chosen for their ability to speak German and received special training for interrogation of prisoners, though they were only permitted to establish early identification of prisoners' units rather than subject POWs to full interrogation sessions which were normally conducted at Division.<sup>345</sup>

One of the Staff Capt "I"'s most important jobs was liaison between the infantry and the respective supporting arms affiliated with the Brigade, consisting generally of the artillery, trench mortars and machine guns. "The guiding principle of liaison," notes Hahn, "was the infantry...stating what work they required done, while the method by which the task was to be completed was left to the supporting arms concerned."<sup>346</sup>

During the attack at Vimy, the Staff Captain "I"'s job was to act as his GOC's "eyes and ears" forward by advancing in the second wave with his Observers and attached Brigade Signallers to establish an OP "from which the assault of the Brigade could be kept under observation and progress reported." Hahn added that it was "a great advantage if it [could] be located somewhere in the vicinity of the Brigade Advanced Report Centre, ensuring as far as possible reliable transmissions of reports

---

<sup>345</sup> WC, Vol. I, Letters dated 11 January, 27 January, 15 April, 30 April, 1917.

<sup>346</sup> Hahn, *op. cit.*, 94.

and affording a solution to the difficulty of maintaining individual communications.”<sup>347</sup>

After Vimy, Wallis wrote to his predecessor, Capt George Macdonald, PPCLI, giving him a detailed account of his Vimy adventures and the performance of the 7th CIB Observers:

I don't believe I had such an exciting time, even at the 2nd Battle of Ypres. The observation was wonderful. It's a great sensation to go ahead. Poor old Bolus was killed when trying to silence a Boche gun with a captured Maxim. He did wonderful work; the supply of bombs and ammunition ran like clockwork. Hodge and others did wonderful work. Maquard [an interpreter] is also adjunct to our observers but could not keep up with the procession of prisoners much to his disappointment. He got some very good information. Mart and I established our H.Q. over the Ridge and found some very good souvenirs, amongst other things, some photographs of the Hauptmann and his lady friends. As usual lack of sleep and a super abundance of mud were the chief discomforts.<sup>348</sup>

What he does not mention is his sterling work on the left flank of the 42nd Bn when it came under heavy fire from Hill 145. “Looking over my left shoulder, ” he later recalled for Maj Kenneth Macksey, author of *The Shadow of Vimy*, “I could see groups of helmeted Germans with MGs, head and shoulders over the trenches at the high point of the hill, and request[ed] Maj Pease [OC D Coy, 42nd Bn] to clean them up.”<sup>349</sup> Wallis had moved over to the 7th CIB boundary after establishing his Brigade OP centrally, part of his duties to recce the newly established defensive positions. He found a serious situation and the 42nd WD reported that by 8:00 am Capt Wallis was directing the battalion to fire over the Brigade boundaries to assist 11th CIB held up by the Germans. He also organized more men, guns and ammunition from the 49th to come up and strengthen the brigade's left flank which was hanging in the air. Thus Capt Wallis was more than just an observer for his commander. Knowing his GOC's mission, and immediately on hand as his representative, he became directly involved in consolidating the brigade's final objective. He would receive the Military Cross for his work on the day. This example of Canadian “mission-oriented” orders, however,

---

<sup>347</sup> WC, Vol. I, Letter to Maj Kenneth Macksey dated 18 February 1966; Hahn, 98.

<sup>348</sup> WC, Vol. I, Letter to Capt George Macdonald, PPCLI, dated 15 April 1917.

<sup>349</sup> *Ibid.*, Letter to Macksey dated 18 February 1966

emanated from the top.<sup>350</sup>

At Vimy, BGen Macdonell and his counterparts in all the brigades of the Corps would receive instructions prior to the Vimy battle that no other formation commander in the war had yet received. Byng actually laid down measures in the Corps operations order giving his divisions and brigades authority to fight themselves forward.

Strangely paralleling the decentralized German *stormtruppen* tactics, which were designed to exploit the weakest points and reinforce success, Byng's operational instructions gave his formation commanders the power of using their own initiative without checking back with him. His revolutionary operational paragraph reads:

In the event of any Division or Brigade being held up, the units on the flanks will on no account check their advance, but will form defensive flanks in that direction and press forward themselves so as to envelop the strong point or centre of resistance which is preventing the advance. With this object in view reserves will be pushed in behind those portions of the line that are successful rather than those that are held up.<sup>351</sup>

These were prophetic words for 7th CIB, for BGen Macdonell would find his left flank vulnerable and exposed on the day of the assault, when 4th CID's units failed to keep up and take their objectives on the first day. His brigade took its objectives however, before resistance stiffened on its flank. He was however forced to present a strong "defensive flank" to Hill 145.

Like Byng, another command personality would have a profound effect on command and control right down to the brigade and battalion level. MGen Arthur Currie's taking over the position of corps commander produced an immediate effect. Capt Hugh Wallis, Staff Capt "I" of 7th CIB, wrote home in August 1917: "The new Corps Commander is a wonderful man, thoroughly Canadian, and thoroughly a soldier: the efficient man goes ahead; seniority or bull count for very little with him. He has already made a great difference in the spirit of the Corps which no one but a Canadian

---

<sup>350</sup> 42nd WD, 9 April 1917.

<sup>351</sup> Williams, *Byng*, 152.

could do.”<sup>352</sup> Currie created a positive and receptive atmosphere which allowed for the free flow of ideas from below. Inculcating this same spirit in his subordinate commanders, the latter became thoroughly convinced they had to see the war through to the end and might as well do it in the most professional way possible. It would no longer be acceptable in the Corps to defend ineffective procedures because they had been conducted that way up until the present or because other armies did them a certain way. A Canadian way of waging war based on a professional approach to administration, training and fighting was in the maturation process and facilitated by commanders at all levels.

Knowledge, expertise and merit became the criteria for advancement with Currie’s appointment, notes Harris, and “there was simply no room at any level for those whose sole claim for consideration was their network of political ties or family friends. In short, talent and ability directly related to the task at hand had replaced political, social and economic status or any other such ascriptive qualities in determining the worthiness of individuals nominated for the officer corps.”<sup>353</sup>

This attitude also had an impact on the selection of officers to fill the junior staff positions at the battalion and brigade level. While a policy of “Canadianization” had been favoured by the Canadian government from the outset and promoted by Hughes, when George Perley became Minister for Overseas Forces in November 1916, he scrapped the Canadian staff course Hughes had put in place in 1915. This course, which ostensibly had the mandate of providing trained staff officers for the Corps in France, was never recognized by Imperial authorities as a legitimate staff training program as it was, for the most part, directed by Canadians who were, themselves, only partially staff-trained.

Perley, who was sympathetic to Canadianization was, like Turner and Currie, not prepared to sacrifice competence merely to see Canadians filling vital staff posts.

---

<sup>352</sup> WC, Vol. I, Letter dated 12 August 1917.

<sup>353</sup> Harris, *Canadian Brass*, 128.



He therefore declared the Hughes' staff course graduates' qualifications null and void, then made arrangements for all future staff training to be conducted at Cambridge. The British, seriously short of trained staff officers themselves in 1915, especially in the New Army divisions, had established a special war staff college at Cambridge. The Canadians had never considered it necessary for junior officers covering off junior staff positions at the battalion or brigade level to require any advanced staff education. The static conditions of trench warfare at the front had not required detailed planning and expertise for sudden and complex movements forward, while the lines of communication stretching to the rear remained more or less constant.<sup>354</sup> Junior staff officers like the Wallises, Critchley, and Rush of 7th CIB, with a little tutoring and on-the-job training, could thus adequately cope with the routine jobs of ensuring sufficient supplies of ammunition and equipment came up on time or supervising that intelligence was collected, collated and passed up the chain of command. This amateur approach to staffing brigade, divisional and corps positions would cease under Perley, in tandem with the renewed emphasis on professionalism that swept through the Corps after the Somme. An efficient staff training mechanism was vital to ensuring a well-trained staff, in turn, an essential ingredient for effective command and control in the Corp's formation HQs.

"Promising regimental officers would be selected by their superiors to understudy the duties of staff captains and brigade majors," states Harris. "Upon acceptable performance, they would move on to divisional headquarters for further training before being sent back to fill established positions at the junior level on brigade staffs." From April 1917 onwards, the brightest and most experienced Canadian staff officers and "staff-learners" were sent to the staff war course at Cambridge, "where they would be prepared for divisional and corps staff appointments."<sup>355</sup>

One of the first officers from 7th CIB to go was Capt Hugh Wallis' brother,

---

<sup>354</sup> *Ibid.*, 128.

<sup>355</sup> *Ibid.*, 129.

Harold, OO to "Uncle Archie" and sometimes Staff Capt "I" understudy. Wallis wrote home in August 1917: "I may go on a course at Staff College; it is a very good training and one learns a lot besides meeting a great many men, the pick of the junior officers in the army as a rule. Harold was there last month and learned a lot!"<sup>356</sup>

Perley saw to it that strict rules were enforced to reduce the likelihood of political interference. Entry to the staff course was restricted to those with staff experience at the front, while nominations for "staff-learner" appointments had to originate with an individual's commanding officer and be approved right up the chain of command to and including the Corps Commander.<sup>357</sup>

But the most significant impact of command personality on 7th CIB in 1917 was the loss of its beloved GOC to 1st CID on promotion. The brigade formed in hollow square on a sunny July day to say goodbye to him and his "unconventional but always vivid behaviour, his foolhardiness and his gift of terse exposition."<sup>358</sup> The 42nd regimental padre leaves the best account:

Not many of us will forget that day at Chateau de la Haie when our Brigadier - afterwards Major-General Sir Archibald Cameron Macdonell, K.C.B., C.M.G., D.S.O. - bade us farewell as he went to assume command of the First Division. In silence we waited for his coming, in silence we listened for the words that somehow would not come, and then as he put his horse to the gallop and left us, the Brigade burst into cheers, and there was more love, more honour in those cheers than words could have ever told. Thus the 7th Canadian Inf. Brigade said goodbye to him who had lived with us and for us, alternately raged upon us and praised us, and in all things led us through fair and foul for over eighteen months. It is not sentiment, but simple fact, to say that he was loved and honoured - the grey old chieftain of the clans, a bonny fighter and a born leader.<sup>359</sup>

Macdonell's official replacement on 9 June 1917 was the newly-promoted BGen Hugh Marshal Dyer, DSO, the ex-commanding officer of the 5th Bn in Currie's old brigade, the 2nd CIB. Dyer, too, was a cavalryman turned infantryman like

---

<sup>356</sup> *WC*, Vol. I, Letter dated 12 August 1917.

<sup>357</sup> Harris, *op.cit.*, 129.

<sup>358</sup> *49th Hist.*, 91.

<sup>359</sup> Kilpatrick, *Odds & Ends*, 24.

Macdonell, but there the barest of similarities ended. Dyer was Irish-born and educated in England before emigrating to Canada in the 1880s. He was a quiet rancher “with lined face and eyes that looked both shrewdly and kindly upon men and things”. A militia cavalry officer with the XII Manitoba Dragoons in Minnedosa, Manitoba before the war, Dyer had also seen service in the South African War. At the outbreak of the war, Dyer had been the Chairman of the Manitoba Agricultural Board but was quickly appointed second-in-command to the rugged Welshman, LCol George Tuxford, commanding the 5th Bn (Western Cavalry). Their men, stylizing themselves “Tuxford’s Dandies,” were “an assortment of dismounted cavalry regiments from the four western provinces” that had been converted into infantry at Valcartier Camp by Sam Hughes. Dyer was a popular officer, known as “Daddy” to his men because of his concern for their welfare. He had won his DSO (almost posthumously) for work at the Second Battle of Ypres where a bullet had missed his heart by less than an inch. In January 1916, fully recovered, Dyer had taken over command of the 5th when Tuxford was promoted and given a brigade.<sup>360</sup>

Filling Macdonell’s shoes was apparently no problem for Dyer, according to Major G.G.D. Kilpatrick, who wrote:

From the very first moment of his arrival among us, General Dyer won the admiration and loyalty of the men and officers alike. It was said of Edmund Burke that one could not stand for a moment with him under an archway to let a shower of rain go by, without emerging a better man. It is such a tribute we would all like to pay to General Dyer. It was not simply that he knew his business as a commander, not even that his was a superb and absolutely unselfish courage, but that somehow he called out the best that was in men, and in sending them to duty, strengthened them for the doing of it.<sup>361</sup>

Hugh Wallis recorded his first impressions of Dyer with a concise but telling

---

<sup>360</sup> Bruce Tascona, *The XII Manitoba Dragoons: A Tribute*, (Calgary: [privately printed] 1987) 15, 41; Dan Dancocks, *Welcome to Flanders Fields*, (Toronto: McClelland & Stewart, 1988) 38, 56-7, 243; By Various Authors, *Canada in the Great War*, Vol. VI, (Toronto: United Publishers of Canada, 1921) 318, 321.

<sup>361</sup> Kilpatrick, *op.cit.*, 24-5.

statement in a letter home to his mother: "Our new brigadier is a peach!"<sup>362</sup> Three of the four battalions also found themselves with new commanders in 1917. Cantlie was the first to leave in early December 1916 to be replaced in February by LCol Bartlett MacLennan. The 50-year old MacLennan was a well-connected Montrealer, manufacturing magnate and longtime militia officer. While he was neither a brilliant tactician nor outspoken critic, he was, however, a graduate of RMC (1889), having graduated three years after Macdonell. MacLennan, however, had opted to go into the lucrative family business rather than join the PF.<sup>363</sup> He did however, have a natural charm and charisma which Cpl Bird, a soldier not normally well-disposed towards officers, remembers:

There were colonels and colonels in the Corps. Some that the men swore at and some they swore by. I visited nearly every battalion in our division from time to time, and several in the second and fourth divisions and I never was in the company of any other "crowd" where love for their commander was as spontaneous and unanimous as in ours. We had bad eggs among us at times, all kinds of soldiers, but I never heard one of them say anything against "the old man." I never had a conversation with him, but when at headquarters or on parade grounds it was easy to see that he was that which all officers were not - a perfect gentleman. He had no "command", his voice was not fitted for it, and yet could get snappier moves from the battalion than any other. His death [in summer 1918] was a calamity to us; we feared that we would not get another of his kind.<sup>364</sup>

The opinionated Maj Agar Adamson found himself in command of the PPCLI by Christmas 1916, replacing the last of that regiment's British COs who had left on promotion to BGen in the British Army. The eccentric 51-year old South Africa veteran, who was well-liked by his men but not by the officers, was its first Canadian CO. He wrote to his wife on promotion: "The isolation of a commanding officer is necessary but most trying to one of my disposition. He is always Sir; on the smallest points and details he has to decide and be definite and not give his reason for doing so. One can never more than half-take even senior officers into your confidence. If things

---

<sup>362</sup> WC, Vol. I, Letter dated 12 August 1917.

<sup>363</sup> Dr C.W. Parker, ed, *Who's Who and Why in Canada*, Vols VI & VII (Toronto: International Press Ltd, 1915-16), 692.

<sup>364</sup> Bird, *And We Go On*, 209.

go wrong, it is your fault; if they go right, no matter how well thought out before, it is only considered the natural event of things.”<sup>365</sup>

Griesbach’s replacement in February 1917 was a 42-year old Welshman, Robert Henry Palmer, another cavalryman turned infantryman. Palmer had served in Lord Strathcona’s Horse during the South African War and had joined the militia on his return to Canada. An Indian Agent in civilian life, the Regimental History records that “he became affectionately known to all ranks as ‘The Old Man’ and grew to be, after Colonel Griesbach, the dominating image of the battalion.” A friend would describe him as “one of the old school, straight-forward, a fighter and a soldier, with a spirit of independence which frequently got him into trouble.”<sup>366</sup>

## ORGANIZATIONAL & TECHNOLOGICAL IMPACTS ON COMMAND

We had been reorganized. Platoons were now a unit in themselves, each section having its specialty, and questions in this respect were feared in the pending inspection. The sergeant spent a morning impressing Flynn with the fact that he was a “rifleman,” and made terrible threats as to what would happen should he answer differently. The inspection was on a Sunday, just after church parade, and a solemn retinue passed up and down, then paused in front of Flynn.

“You,” barked the mighty one, what is your *religion*?”

Flynn rocked on his heels, his brain writhing.

“I...I..I’m a *Rifleman*, yer *Riverence*,” came his horrible response.<sup>367</sup>

Cpl Will Bird, 42nd Bn, March 1917.

The greatest organizational impact on tactical command and control in 7th CIB and other brigades in 1917 was the restructuring of the infantry platoon. One of the lessons from the Somme was that, with the lack of technical communications and the dispersion of men necessitated by German machine guns, rifles and artillery fire, tactical command and control truly rested at the subaltern’s level. “Field and general

---

<sup>365</sup> Sandra Gwyn, *Tapestry of War*, (Toronto: Harper Collins, 1992) 310 - 12.

<sup>366</sup> *49th Hist.*, 15.

<sup>367</sup> Bird, *The Communication Trench*, 50.

officers could not accept it as inevitable that in the age of rifle weapons, the conduct of battle devolved on the subalterns and NCOs," wrote Michael Howard, commenting on a previous conflict, the Franco-Prussian War.<sup>368</sup> This telling commentary was *apropos* to the attitudes extant in the BEF and the CEF in early 1917 with regards this stark reality of tactical command. A GHQ directive would promulgate the new platoon organization in February 1917, nominally recognizing the above tactical phenomenon. The Canadian Corps would anticipate it and order its own divisions to adopt the new platoon organization six weeks in advance. By end-February 1917 all Canadian battalions were re-organized and putting new tactics and SOPs into place which were then tested and refined during the attack on Vimy.<sup>369</sup> By contrast, the BEF would only pay lip service to the directive for the entire year, its commanders not actually instituting the new platoon organization until well after the Passchendaele and Cambrai battles, and some not at all. Maxse, perhaps the most astute and opinionated of British corps commanders in the war with regards to training would write with some frustration to an unresponsive GHQ in December 1917:

Why not consider the future organisation of platoons in 1918, when we shall be worse off for manpower, *now*. Rather than cut the numbers in platoons why not double Lewis guns. Train companies to operate on wider fronts and have intervals between fire units. Scrap the idea of shoulder to shoulder. Substitute waves for worms which deploy quickly to fire or to avoid the enemy's fire. Teach each fire unit to keep together and support its neighbour with fire.<sup>370</sup>

That a British corps commander was writing these recommendations at the *end* of 1917 is a sad commentary on the pace of innovation and reform in the BEF. In fact, he could have been describing the very methods that Canadian platoons had heartily adopted a year earlier in front of Vimy Ridge. The manoeuvrability and firepower, which had been sadly lacking in the Canadian infantry at the Somme, would find a new

---

<sup>368</sup> Michael Howard, *The Franco-Prussian War*, (London: Collins, 1960) 7.

<sup>369</sup> NAC, RG 9, Vol 4020, Folder 47, File 7, "New Platoon Organization", RCR WD, 24 January 1917; 49th WD, February 1917; 42nd WD, 19 February 1917; and PPCLI WD, February 1917.

<sup>370</sup> Bidwell & Graham, *Firepower*. 127.

tactical unit in which it could combine both qualities in January 1917 - the platoon. Assisted by the increased scale of issue of sixteen Lewis guns per battalion, allowing one per platoon, and the introduction of the No.5 Mill's grenade which could be used by any soldier with a minimum of training, the platoon commander now had at his disposal the tools which could assist him in getting his troops over the shell-cratered No Man's Land using integral fire and manoeuvre. These weapons, combined with an increased emphasis on close coordination with the artillery to neutralize the enemy's trenches until the leading platoons closed with the first line, then lifting to neutralize targets in depth, allowed the leading platoons to penetrate to the second line of German defences with relative ease.

The new platoon organization combined the basic infantry weapon systems of the battalion which had been hived off in 1914 and 1915 to form specialist platoons. Battalion bombers and Battalion Lewis gun platoons were disbanded and their personnel sent to the companies for distribution to the platoons. Specialization would thus give way to generalization placing more command responsibility on the platoon commander. A platoon would consist of four sections: a rifle section, a rifle grenadier section, a bombing section and a Lewis gun section.

The training policy of Canadian reinforcements by Reserve Battalions in October 1917 supported the new structure, its training directive decreeing that for the last four weeks of the 14-week basic recruit training, 50% of all recruits would be trained as Lewis gunners, while the other 50% would be trained as rifle grenadiers. Issued by "the General Staff, Canadian Headquarters", the training directive also announced that "the training of bombers is of the utmost importance and all ranks must be trained in the use of grenades." It dismissed a "disposition in the past to regard bombers as specialists. This is quite wrong, as, under existing circumstances, bombing is as equally as important a part of infantry training as musketry." Every man was to fully understand "the workings, application, and limitations of the grenade" and to

have thrown live grenades before being passed out of basic training.<sup>371</sup> Thus, firepower, initially controlled at the battalion level, cascaded back down into the platoon, bypassing the company level, a tacit recognition by field officers that the subaltern and NCO were the true tactical commanders on the ground.

It is generally understood that infantry platoons reorganized, yet again, in 1918 with the advent of a second Lewis Gun per platoon, each seeing their four sections becoming two Lewis Gun sections and two rifle sections which could then be used as two separate “fire-teams”, each headed by a sergeant.<sup>372</sup> However, there are some indications that platoons were reorganized internally by their battalions earlier. For example, the 2nd CMR in 8th CIB had operated from November 1917 with five sections per platoon, consisting of a Lewis Gun section and four rifle sections. In 7th CIB, the CO of the 49th Bn, LCol Palmer wrote in his after-action report on Passchendaele that his rifle platoons’ organization was “not in accordance with the New Platoon Organization [of February 1917]” as he laid “great stress upon the importance of every section being self-contained in all arms and under one leadership at all times. The benefit of this was clearly demonstrated during these operations.”<sup>373</sup> What is not clear is whether the 49th were using four sections per platoon, each with a Lewis Gun, or had merely already moved to the two Lewis gun “fire team” concept that would be adopted in 1918, having salvaged, scrounged or stolen an extra LMG per platoon. The latter organization is the more plausible, and could have easily been achieved. It has already been shown that battalions maintained unofficial, non-establishment HMGs in 1915-16, and therefore it should come as no surprise that infantry battalions had extra LMGs, and no doubt, the extra ammunition as well that was required for them to be effective.

While the LMG was highly desirable in infantry sections, the HMG, by

---

<sup>371</sup> *Training in Canadian Reserve Battalions*, (London: OMF [revised edition] October, 1917) 34, 64.

<sup>372</sup> Morton, *When Your Number's Up*. 161; Rawling, *Surviving Trench Warfare*, 174-76.

<sup>373</sup> *49th WD*, “Rpt on Ops at Passchendaele, 28/29 October 1917” dated 4 November 1917; Rawling, 175.



contrast, representing firepower which had been taken from the infantry battalions in 1916 and centralized under brigade control, grew further and further away from the infantry brigade in 1917. In January 1917, when an additional MG Coy was added to each division to ostensibly offer a solution “to the serious problem of reliefs [for the BMG Coys]” and also to provide “a Divisional Reserve of machine-guns which was a much-desired tactical advance” it was, in fact, another step along the road to creating the Canadian Machine Gun Corps (CMGC). The new Corps, authorized one week after the victory at Vimy Ridge, would be proposing by the end of the year that the brigade companies be absorbed into divisional battalions, consisting of two large companies which in turn would be divided into four 8-gun platoons.<sup>374</sup>

At Vimy, the 7th CIBMG Coy was kept busy and its WD notes: “Bombing raids are becoming *the order of the day* on this front and especially this week on the THELUS sector front. These raids are being carried out successfully and with few casualties to themselves by all the battalions in the Brigade. The MG Coy aids them where possible with direct fire and the support guns are nightly doing indirect fire on dumps and targets in the rear of the enemy’s front-line trenches.”<sup>375</sup> HMGs were used to thicken up the box barrages of the artillery in support of raiding, as well as given a nightly allotment of indirect harassing fire targets on cross roads and areas frequented by overland enemy carrying parties. Whilst sited in defensive positions in support of front line infantry, they were coordinated and registered day and night on SOS barrage lines where they covered off gaps left in artillery coverage. During the actual battle for Vimy, 150 HMGs were employed for barrage and supporting fire, causing the Official History to comment that this “was on a scale unprecedented in military history.”<sup>376</sup>

It was no surprise then that “there began to creep into the machine gun language a lot of new ‘gunnery’ terms,” notes the CMGC historian, and “thus did Machine

---

<sup>374</sup> Grafton, *The Canadian* “EMMA GEES”, 100-105.

<sup>375</sup> *BMG WD*, 27 January 1917.

<sup>376</sup> *CEF*. 253.

Gunners more definitely assume the role of light artillery.”<sup>377</sup> This artillery mentality did not go unnoticed by the infantry. “The brigading of [MG] sections into brigade companies and then into divisional battalions, while improving co-operation between machine-gun sections, did so at the cost of reducing co-operation with the infantry,” states Samuels. “From being a valued and integral part of the battalion, the machine-gunners became just another drain of men from the battalion. The natural response was that the infantry commanders tended to use the corps as a dumping ground for their worst men”. The CMGC historian concurs, stating that by 1918, his Corps was still receiving “the lame and the halt.”<sup>378</sup>

Samuels also believes that the widening gulf between the infantry and the HMGs was exacerbated by the development of indirect fire and suggests it may have partially resulted from the new Corps seeking to justify its independent existence by creating a separate function for itself, a behaviour “not uncommon among military organizations.” The increased use of indirect fire by HMGs guns meant that the guns tended to be deployed to the rear, leading to a feeling of abandonment on the part of the infantry. Some frontline troops were inclined to believe that the HMGs enjoyed a pampered existence and fired off belts of ammunition simply to boil water for tea.<sup>379</sup>

In the relatively static conditions of 1916 and 1917, the HMGs in the light artillery role would play an effective role in enhancing the Corps’ defensive capabilities. However, during the fluid conditions and the return to mobility in 1918, the CMGC would have much less influence on the Corps’ offensive ability, having removed itself too far from the infantry to redesign itself for the tactics of open and semi-open warfare.

The further the HMGs took themselves away from the infantry brigade, the more communication and coordination problems became commonplace. Signals did not

---

<sup>377</sup> Grafton, *op.cit.*, 61.

<sup>378</sup> Samuels, *Command or Control?*, 115-16; Grafton, 111.

<sup>379</sup> Samuels, *op.cit.*, 116.

make any significant technological improvements over the state of the art that existed in 1916. Though the first record of wireless use in 7th CIB was in July 1916 with the 7th CIBMG Coy located at Zillibeke, who reported that it worked “satisfactorily”, wireless did not become a permanent fixture with the HQ 7th CIB until 1918.<sup>380</sup> Thus HMGs passed to the division level of control at the end of 1917 having never been under any real close supervision or control of the brigade in any of its major battles.

Wireless was a technology of enormous potential which was very little used before 1917, though wireless schools had been started at all British army HQs as early as November 1915. From a nucleus of personnel trained in France, the Canadian Corps did not establish a Corps Wireless Section (CWS) until after the Somme as part of the preparations for Vimy. By early July 1917, the CWS was organized into Corps and Divisional Detachments, each division receiving a detachment of one NCO and nine operators as well as two wireless sets, three power buzzers, two amplifiers and batteries. These detachments were absorbed into the signal companies at the corps and divisional level. From this time on, John Moir, the Royal Canadian Corps of Signals (RCCS) historian, notes, “the divisions began to take an active interest in wireless, to incorporate the radio as part of their emergency communication system, and to make real progress in the field.” Heavy artillery first used it for registration purposes at Hill 70 in July 1917, but it was at Passchendaele that continuous wave wireless sets received their first practical testing in operational conditions. It received favourable reports from the technically-minded BGen A.G. L. McNaughton, the Counter Battery Officer (CBO) for the “Heavies,” and commanders who were dubious about relying on this method of communication “henceforth were willing to consider wireless as an integral part of the general scheme of communication.”<sup>381</sup>

Apparently, the Canadian Corps was the first BEF formation to receive a new

---

<sup>380</sup> *BMG WD*, 11 July 1916.

<sup>381</sup> *Sigs Hist.*, 29; *CEF*, 325; and, Maj W.A. Steel, “Wireless Telegraphy in the Canadian Corps in France”, Part Two, *Canadian Defence Quarterly*, (July 1930), 462.

experimental pattern CW (continuous wave) wireless set in late 1917 because it had endeavoured to make itself proficient in the use of wireless. But it would not be until February 1918, that wireless equipment would become sufficiently available to allow divisions to allocate sets to the brigade.

Communications throughout 7th CIB below the brigade level in 1917 thus remained at their fairly primitive state, though improvements occurred in communications between divisions and brigades as well as brigades, batteries and battalions. The policy of deep bury, pioneered by the Canadians in the Kemmel sector, had been adopted throughout the BEF by mid-1916, but was initially unsystematic and uncoordinated. During the winter of 1916-17, however, "the ideal buried system - the grid system - came into use," claims Moir. This was a standardised grid or checkerboard layout (see Figure 6), whereby each division would have a deep-buried

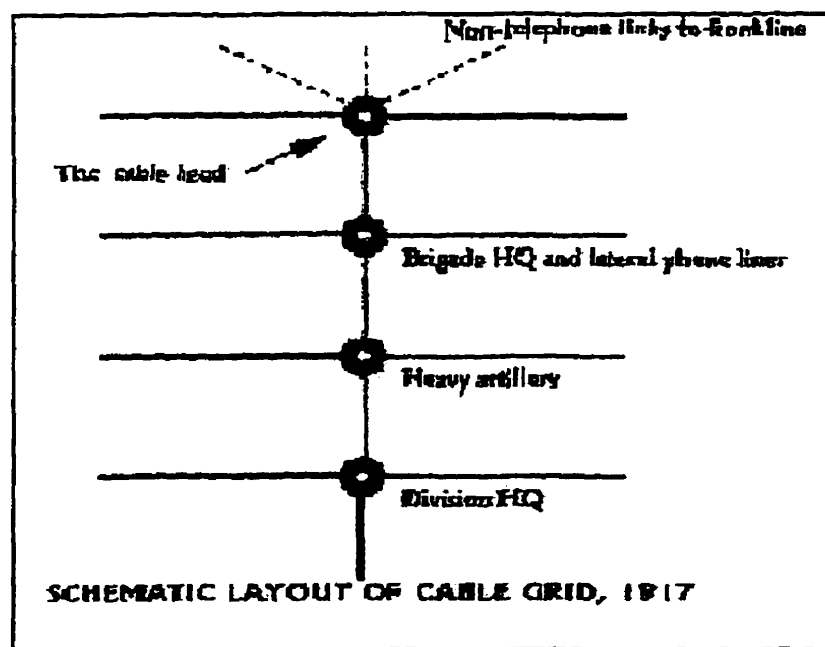


FIGURE 6<sup>382</sup>

<sup>382</sup> Diagram extracted from Griffith, *Battle Tactics*, 171.

central cable running from front to rear, with side-branches at the level of Advanced Brigade Report or Forward Centres (about 1200 yards from the enemy's front line and where battalions hooked up), batteries (in the battery zone behind Forward Centres), brigade HQs (behind the gun batteries ) and division HQs (about 7000 yards from batteries the front line), with armoured testboxes at regular intervals. As each division sector was connected laterally, any break occurring between two stations on one line forward could be overcome by re-routing the message laterally around the break on the grid. Thus a great number of alternative deep-buried cable routes provided greater flexibility and more reliable communications between brigades and their supporting artillery. If the front line advanced, new side branches would be added further forward while existing branches would be taken over by rear echelons. If a division moved sideways it would take over the cables originally laid out by its neighbouring formation. And while this system was robust and practical, it had the disadvantage of pinning down HQs and exchanges to particular spots which, not only added to the immobile nature of static warfare, but increased the chances of discovery and attack on command and control centres by long range artillery and aerial bombing. Moir notes:

Buries pointed directly at the headquarters they were designed to serve, showing up on enemy air photographs;...Systematic attempts were made by the Germans in the phase immediately preceding our attacks to destroy all headquarters and communications known to them. Even deep buries were not immune from the continual impact of shells falling in areas already weakened by previous bombardment....If buries could not be entirely hidden, much could be done to make them Less obvious. Ditches were made use of or, for temporary immunity, crops and the shadows of hedges and trees. The use of artificial camouflage became general in 1917 - nets and strips of material coloured to match the surroundings soil and herbiage....No longer did buries run directly to headquarters. Connections ran off at acute angles, the connecting trenches hidden by every feasible device, while "dummy" trenches were dug in other directions as decoys to enemy artillery.<sup>383</sup>

While Vimy was an almost perfect example of preparation and planning to

---

<sup>383</sup> *Sig. Hist.*, 27-28.

ensure good communications, and therein good command and control, throughout the operation. Passchendaele's terrain prevented any of the luxury of deep buries or the time to prepare any extensive system of communications. Overland line was immediately cut by heavy German artillery and the deep mud prevented any maintenance of the line by man. Mud also prevented any speedy passage of information by runners or messenger dogs, and thus visual signalling, pigeons, the power buzzer and wireless sets all played an important part in bridging the gap between the different HQs at Passchendaele.

Visual signalling was used extensively at Passchendaele, the Lucas Lamp being the most efficient method. Deep embrasures of doors and slits in captured German pillboxes "decreased the dispersion of the Lucas rays" and allowed "two-way working right under enemy observation." The 42nd Bn's experience at Passchendaele on 3 November 1917 is illustrative of the procedure. Several times visual signalling was used by forward companies to notify their Battalion HQ that a German counter attack was in progress and to successfully call down supporting artillery fire. In all cases, HQs were located in captured German pillboxes as they were on higher, dryer ground and designed to give mutual fire support to one another. In one particular operation, a 42nd signaller who survived the war and saved all his field message pads, clearly recalls in his memoirs Canadian artillery shelling some of their own men in a captured fortified farmhouse. He was ordered by his company commander to send the following message by lamp to BHQ: "One officer and party isolated in GRAF HOUSE. Have artillery stop firing on them."<sup>384</sup>

That communications at Passchendaele were given high priority is evidenced by almost two complete foolscap pages on communications arrangements in the 7th CIB operations order. The BSO with six signallers and four brigade runners was to advance with the Staff Captain "I" to locate an Advanced Brigade Report Centre

---

<sup>384</sup> *42nd WD*, "Rpt on Recent Operations at Passchendaele 28-30 October 1916", William Breckinridge. *From Vimy to Mons: A Historical Narrative*, Montreal: [unpublished manuscript, privately printed] 1919) 95.

(ABRC). The ABRC was established as far forward as possible and contained every possible means of communications needed to send messages to division HQ or supporting artillery: telephones, power buzzers, Lucas Lamps, pigeons, flags and runners. Two signallers from each battalion were also attached to this group, who, once the ABRC had been chosen, were "to lay a laddered telephone line to their respective Advanced Battalion Report Centres." No BHQs were allowed to move without the express permission of the brigade and if their BHQs moved up later in the battle to occupy their advanced centres, then "an officer was to remain behind at the old location." Aeroplane contact patrols were considered a high priority and battalion commanders were told that "the most advanced infantry will signal their position to the aeroplane calling by Klaxon horn or showing white lights by lighting white flares and signalling with Watson fans." It went on to state that "the extreme importance of communicating their position must be impressed on all units as one of the chief difficulties in the recent type of fighting is the accurate location of our own front line and unless the Infantry make their position known, they cannot expect effective support from our artillery in case of emergency."<sup>385</sup>

Trench mortars continued to be used in brigade batteries throughout 1917, though predominantly in a defensive role. Offensively, for the Vimy set-piece assault, the Canadian Corps used between 68 and 96 small two-inch mortars at different phases of the attack and twenty massive 9.45-inch TMs were used throughout the day to fire smoke barrages to blind German defenders from the attacking infantry. Each assault battalion of 7th CIB had two Stokes guns, crews and ten man ammo-carrying parties (supplied by the 49th Bn) for the attack. The guns' mission was to take out enemy strongpoints and MG nests along the way, though in the 3rd CID sector, heavy artillery had virtually destroyed all of the enemy's point defences, which had been well-identified and targeted before the attack.<sup>386</sup> Thus in the assault, the TMs of 7th CIB

---

<sup>385</sup> *Topp*, MS 004, Ops Orders Folder, "7th CIB Operations Order, 28 October 1917".

<sup>386</sup> *Rawling*, *op.cit.*, 115-16

were not used to any effect except those in static positions used to bombard the immediate frontline German trenches. According to the PPCLI historian, TMs “had blown the garrisons and every shred of wire sky-high!” That the mobile guns with the assault battalions did little is evidenced by the salvage report of 7th CIB’s Staff Captain A&Q written after the battle which reveals that over half of the mortar ammo carried forward was jettisoned unceremoniously halfway up the Ridge.<sup>387</sup>

The idea that TMs could be utilised in the final consolidation phase to break up any German counter-attacks, however, ensured that at least some ammunition arrived on the final objectives. By contrast, at Passchendaele, the TMs could not get forward in the glutinous mud and were, thus, ineffective offensively. Rawling has noted that “the TM could only be used by the infantry with much expended effort, and it would take another year to develop techniques that took advantage of its potential.”<sup>388</sup>

While the greatest organizational impact on tactical command and control in 7th CIB and other brigades in 1917 was the restructuring of the infantry platoon, the greatest technological impact was restructuring of the artillery’s *modus operandi*. New applications and artillery tactics placed the greatest limitations on the infantry’s new found fire and manoeuvre capabilities. The complexity of the artillery’s fire plan at Vimy, for example, entailed several levels of control. Movement forward was strictly controlled by phase lines, boundaries and exact timings which had to be strictly observed. Thus manoeuvre was virtually restricted to platoons and sections *behind* their creeping barrage during an artillery plan that was literally orchestrated minute by minute for eight and half hours!<sup>389</sup> Strangely, the attack at Vimy in some ways was the sort of completely centralized and controlled battle the British had sought at the

---

<sup>387</sup> *PPCLI Hist.*, 218; BWA, *Topp Collection* [hereafter *Topp*], MS 004, Ops Orders Folder, “7th CIB Salvage Rpt - Vimy” no date.

<sup>388</sup> Rawling, *op.cit.*, 116.

<sup>389</sup> To understand the artillery plan’s complexity see the Canadian Corps Fire Plan attached to the 7th CIB Op Order No. 65, dated 7 Jan 1917, in *Topp*, MS 004, Ops Orders Folder or NAC, RG 9, v.4163, folder 10, file 1.



Somme but failed to achieve. As has already been noted, the German defensive dispositions on the Ridge, located predominantly on the forward slopes, offered them good observation and fields of fire, but, conversely, did little to prevent Canadian and British artillery pinpointing their exact positions and registering them with unerring accuracy.

Soundranging was another technological innovation which improved the artillery's performance but the most important technological advance in 1917 and for remainder of the war was the artillery's acquisition of ordnance that could finally cut the enemy's belts of wire. The 106 fuse enabled a shell to explode on impact with strands of wire, their securing posts or the ground around them, thus destroying the obstacle with an above ground burst. The Canadians experimented with various types of guns, but eventually found the 4.5-inch howitzer to be the most satisfactory wirecutter.<sup>390</sup>

Vimy saw the Canadians' first use of gas on 16 January 1917 against the Germans, 5th CIB using a chlorine gas cloud successfully in a raid conducted by the 26th Bn. Its success inspired the overly-ambitious and ill-fated raid by four battalions of the 4th CID on Hill 145 the first week of March. The uncontrollable and fickle nature of the weapon was revealed when the wind changed, gassing the attacking troops while the lucky defenders were able to bring the full weight of their fire to bear. The four attacking battalions suffered 687 casualties and after action reports condemned the use of gas.<sup>391</sup> An indication of the outright slaughter was the compassion of the German defenders in allowing the Canadians to collect their wounded and dead unmolested by fire, several of the enemy assisting in carrying back wounded to the Canadian lines. At a pre-arranged time, hostilities resumed on the morning of 3 March 1917. MGen Watson, GOC 4th CID wrote that the effectiveness of "gas was overestimated, and therefore too much reliance was therefore placed on it." Victor

---

<sup>390</sup> Rawling, *Surviving Trench Warfare*, 109.

<sup>391</sup> *CEF*, 234.

Odlum, GOC 11th CIB, tersely stated, his rage scarcely concealed, that “the infantry should never have been ordered to advance, for it was obvious by the heavy fire coming from the German lines that the defenders had not been incapacitated by the gas.” The ultimate result of this failed raid was that Canadians would decide “adamantly against combining gas and infantry attacks for the rest of the war” according to Cook. “This did not preclude the use of gas in barrages or counter-battery work, but the infantry, hating and fearing the gas which had turned on them in the raid, chose to return to proven methods of combining artillery mortars and machine guns to protect the men going over the top.”<sup>392</sup> A more accurate statement would be that commanders and their staffs returned to more conventional attack doctrine and techniques which had a higher degree of certainty and control and a proven track record in the chaotic conditions of the First World War.

Pre-Vimy, the role of the Canadian Gas Services was based entirely upon the need of instilling gas discipline in the men, ensuring that quick efficient masking drills became second nature to soldiers thus allowing the Corps to work and fight in a gas environment. With the introduction of British lethal gas shells in early 1917, its role would expand. The role of Chemical Advisor to the Canadian Corps, Capt W.E. Harris, a new position created after the disastrous Hill 145 Raid, would also include instructing the artillery, and most importantly, the senior CBO, on how to employ gas shells effectively.<sup>393</sup>

Significantly, the use of gas in 1917 quadrupled from the preceding year and was employed during all major operations by the CEF, the success of Canadian set-piece battles at Hill 70 and Passchendaele being greatly assisted by the use of gas in counter-battery (CB) work. Gas was also used regularly as a harassing agents by both sides. As part of the ongoing education process for all ranks , the Corps Gas School replaced the Divisional schools in July 1917 and gas training was made mandatory for

---

<sup>392</sup> Watson and Odlum cited in Cook, *Gas Warfare*, 162-63.

<sup>393</sup> *Ibid.*, 163. 336.

all Canadian officers.<sup>394</sup>

The year 1917 also saw the surprise introduction of mustard gas by the Germans in July which, again, changed the complexion of gas warfare. Mustard, known by some as “The King of the Battlefield Gases”, was significantly different to all those that had come before. Up to July 1917, gases could be classified under two broad headings: non-persistent (chlorine, phosgene, diphosgene) and harassing agents (lachrymators or tear gas). But mustard was a persistent gas and did not go away. It polluted the ground, water, dugouts and any surface it landed on for days and weeks. It was also a slow-acting agent which attacked and destroyed nerve cells, its effects only noticeable after a few hours. Eyes would become inflamed and swollen, skin would blister and heavy vomiting would occur. Many officers, signallers and runners after Passchendaele would unknowingly become mustard gas victims, a result of sheltering in contaminated German dugouts.<sup>395</sup> The new gas would become the most feared of all and brought about new defensive techniques which had to be understood and implemented right down to the lowest levels of command. Infected men had to remove contaminated clothing and battalion MOs were issued with chemical solutions to ease blisters and burns and prevent a flow of gas casualties to the rear.<sup>396</sup>

Fear of gas was almost as deadly as the real thing, placing an additional psychological stress on all those that came in contact with it. Maj Talbot Papineau of the PPCLI wrote of gas before his death at Passchendaele in 1917: “Its like a bad boy walking behind you with a hard snowball, always ready to throw, but not throwing.”<sup>397</sup> Responsibilities for commanders at all levels within the Brigade with regard to gas warfare were thus essentially defensive measures, while offensive tactical use of gas rested at the divisional and corps levels of command. Education and a strong emphasis

---

<sup>394</sup> *Ibid.*, 189-95.

<sup>395</sup> Burns, *General Mud*, 58-59.

<sup>396</sup> Cook, 337-38.

<sup>397</sup> Gwyn, *Tapestry of War*, 208.

on good masking drills were the key to successfully combatting this particular menace within 7th CIB.

## TACTICAL & DOCTRINAL IMPACTS UPON COMMAND

“Training in peace-time is the most important part of soldiering,” Byng said. “In war-time it is only second to operations, and operations can only be as good as the training is efficient.”<sup>398</sup>

BGen A.C. Critchley, *Critch!*

The Canadian model of training and preparation in 1917 was raised to the operational level of war with the development of an attack doctrine that incorporated technological changes, tactical changes and organizational changes. The professional analysis, selection, and development of institutional doctrines and concepts, according to Allan Millett and Williamson Murray in their comprehensive study entitled *Military Effectiveness*, are the keys to ensuring success at the tactical level. These command activities constitute what they term “operational military activity.”<sup>399</sup> Immediately after the Somme, Byng ordered his staff and each division to make detailed studies of every aspect of the offensive battle and to analyse the recent actions fought by the Corps. A new attack doctrine specific to the Canadian Corps was in the making. It should be noted that these developments on the part of the Canadians were part of a much wider renaissance occurring within the entire British army, but as already noted in earlier chapters, the extent of reform was dependent on how much latitude and desire the participants possessed in order to successfully implement new policies.

By comparison, the British infantry divisions were the only formations in the BEF capable of competing with the Canadian Corps in the areas of experimentation and introducing new tactical innovations or training schemes. British corps were not

---

<sup>398</sup> Critchley, *Critch!*, 70.

<sup>399</sup> Millett & Murray, *Military Effectiveness*, 14.

permanent formations, and thus training responsibility lay with the divisions. LGen Ivor Maxse noted that it was not unusual for a British corps to command 20 different divisions over the course of one year and that his own corps had seen 30 divisions, half the BEF, pass through during 1917. This constant rotation brought two problems. First coherent training was all but impossible in the absence of an overall policy emanating from GHQ. Second, training often received a low priority. "With a division forming part of his corps for a matter of weeks only," observes Martin Samuels, "the corps commander had neither the time in which to determine the division's standard of training, nor the incentive to remedy any defects, since the division would soon be someone else's responsibility."<sup>400</sup>

Of the 30 divisions that passed through Maxse's XVIII Corps in 1917, he considered that only two had reached a high standard of training, while a further 12 were trying. In his candid opinion, fully 16 of the divisions were simply not bothering with training. Thus British divisions, even if they came up with novel tactical approaches and solutions or the need to restructure their organizations to make the command process more streamlined to effect their proposed new doctrine and tactics, were hamstrung by higher command.<sup>401</sup>

"The special status [of semi-permanence] allowed the Canadian Corps greater latitude than a British Corps in implementing new tactical, organizational and procedural policies," observes Stewart. "Effective operational control of the battle rested at the level of the Corps and this gave it a better understanding and perspective of the tactical realities at the front."<sup>402</sup> Many of the Canadian policies adopted were ones that had been first proposed and advocated by British divisional and corps commanders but could not be implemented because of their own GHQ's intransigence.

For example, the new platoon organization adopted by the Canadians during

---

<sup>400</sup> Samuels, *Command or Control?*, 122.

<sup>401</sup> *Ibid.*, 122.

<sup>402</sup> Stewart, *Attack Doctrine*, 234.

the winter of 1916-17, with slight variations, was first proposed by MGen R.B. Stephens commanding 5th British Division three months before at the Somme. In an address to 4th Army officers in early September 1916, Stephens emphasised the need to retrain infantry to fight the type of semi-open warfare that was being encountered in the campaign. He announced his division would experiment with a new platoon organisation. It would have two sections of riflemen, each with two rifle grenadiers. It would also have a bomber section and a Lewis gun section.<sup>403</sup> This development, it should be noted, somewhat paralleled developments in the French infantry which as of 27 September 1916 reorganized their infantry companies to consist of a HQ with pioneer and signaller sections, plus four platoons of two 12-man sections each, the latter each containing bombers, rifle grenadiers and riflemen organized around an light machine gunner and crew. Three such infantry companies with a fourth company consisting of 8 HMGs and a 37mm quickfiring gun in its battalion HQ made up a French infantry battalion.<sup>404</sup>

After the Somme, LGen Byng gave MGen Currie, GOC 1st CID, the job of coordinating the Canadian lessons learned and asked him to recommend new applications for the Corps' infantry tactics and training to be conducted prior to Vimy. On completion of a detailed report, Currie went to Verdun in January 1917 for further study of the lessons learned by the French army in that sector. On his return, Currie recommended to Byng that the policy of attacking in waves be discontinued and that the smaller, less vulnerable, platoon be established as the basic manoeuvre unit and used to spearhead attacks. He further advocated that platoons and sections be assigned easily recognizable objectives in the attack and that fire and movement drills be used to attain them.

Byng agreed and battalions organized four platoons per company on a permanent basis as previously noted. The new organization "freed the infantry from its

---

<sup>403</sup> Bidwell & Graham, *Firepower*, 120-21.

<sup>404</sup> House, *Toward Combined Arms Warfare*, 33.

bondage to linear tactics and restored fire and movement,” notes Stewart. Instead of advancing in successive linear waves towards the enemy, the infantry battalion could advance in a variety of formations best suited to the situation and terrain. At Vimy, battalions of 7th CIB advanced with two companies up, each of which with two platoons leading. The 42nd Bn’s Op order has a special paragraph on formations to be used, revealing that the assaulting companies crossed the craters using files then advanced with all platoons directly behind one another, each in two extended lines, 20 paces between lines and 30 paces between platoons (see Figure 7). Behind the lead

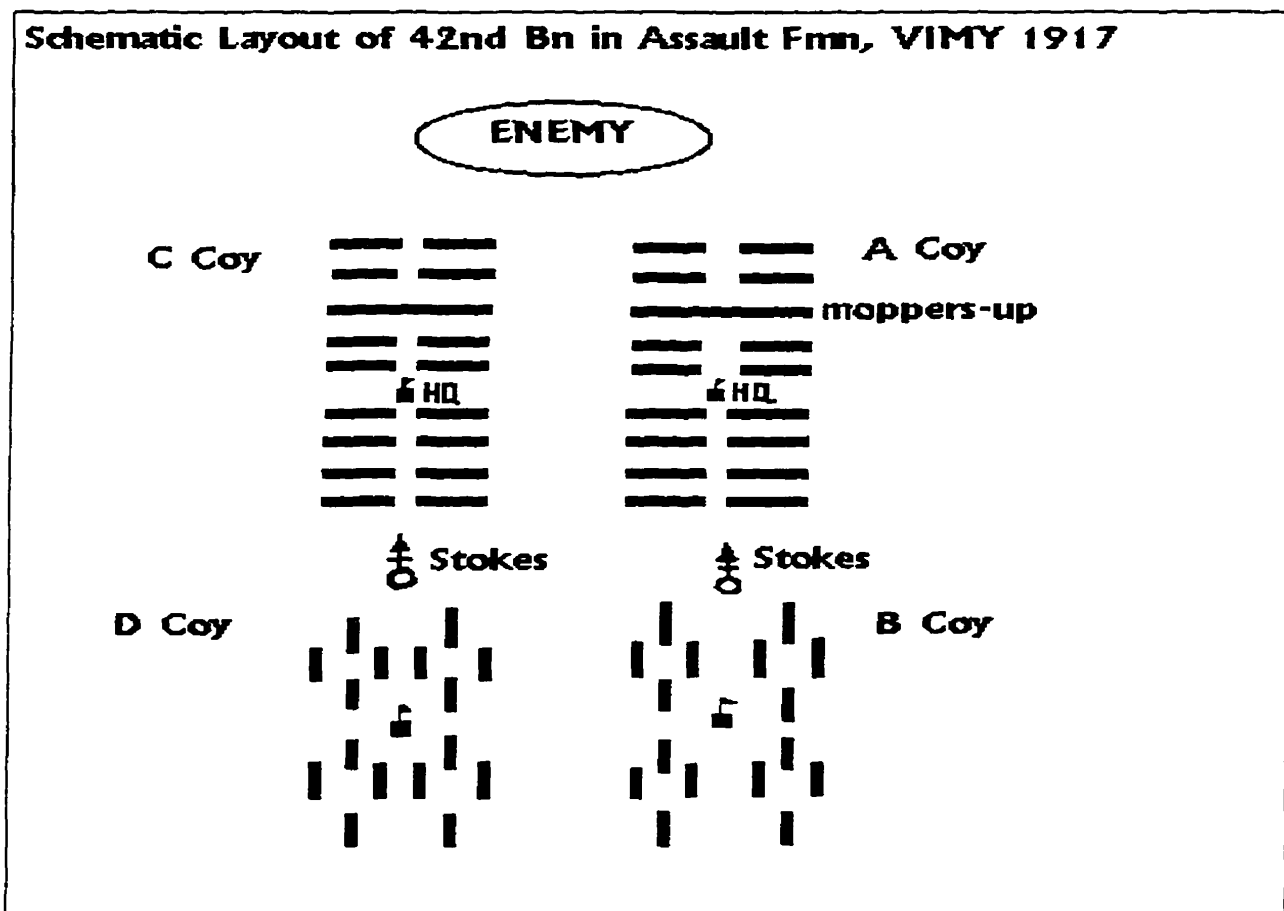


FIGURE 7<sup>405</sup>

<sup>405</sup> Schematic drawn from info in 42nd Bn Ops Order No.115 in Appx VII of *42nd Hist.*, 379.

platoons came a line of moppers-up supplied by the 49th Bn. Then came the company HQ in "artillery formation", consisting of the OC, CSM, his signallers. The HMG detachments of the BMG Coy moved independently while the Stokes Guns of the 7th CIB TM Battery moved with the support companies advancing 40 paces to the rear of the lead companies. All platoons in the support company moved forward in artillery formation. On the lead companies reaching the battalion intermediate objective line they were to stop and consolidate. The two support companies of the battalion would leapfrog through the lead companies and take up the advance to the next objective line.

At the Somme, the first wave of assaulting infantry had usually attempted to go to the furthest objective, and if successful, usually arrived without most of their leadership, ranks severely depleted by enemy fire and the survivors dog-tired from the loads they carried. This new method of passing troops through one another ensured that the final objective would be held by troops who were fresh and had done a minimum of fighting. Advancing by bounds, however, required a level of training and leadership superior to that possessed by the Canadian infantry at the Somme. 7th CIB and the other brigades at Vimy had the time to achieve this degree of battlefield competence and control. "Leaders and men would know each other and, through briefings and rehearsals, all would know what to do," claims Morton. "It had taken a long time, but Canadian infantry would be organized and trained to fight their own battles and not to be patriotic automata."<sup>406</sup>

The main key to operational effectiveness, Byng knew, was training and he allocated each of his four divisions three weeks to master the new tactics in early 1917. Everything possible was done to promote realism in training. Mounted officers moved forward with flags to simulate the pace and movement forward of the artillery's rolling barrage. Everyone carried exactly the loads that they would have to carry into battle. An area near the French town of Servins was taped to scale to represent the prospective

---

<sup>406</sup> Morton, *When Your Number's Up*, 164.



battlefield, detailing every jumping off trench, enemy strongpoints and the successive lines of enemy trenches they were to capture. Almost daily, Byng was there to watch, patiently accompanying battalions over the ground and pointing out the salient features. He exhorted officers to “make sure that every man knows his task. Explain to him again and again; encourage him to ask you questions. Remember also, that no matter what sort of fix you get into, you mustn’t just sit down and hope that things will work themselves out. You must do something. In a crisis the man who does something may occasionally be wrong; but the man who does nothing is always wrong.”<sup>407</sup>

As he watched 7th CIB go through its paces, Byng was, allegedly, mightily impressed. Macdonell proudly remembered him saying: “This is very good, and very convincing. If this brigade cannot get through, I don’t know any that could.”<sup>408</sup> The 7th CIB’s syllabus of training illustrates Macdonell’s repeated emphasis on expecting the worst case scenario and of being constantly ready. Some of the various situations and training problems he set for his battalion and company commanders were: “Assault Wire not effectively cut - one or two entrances only”; “Two Platoons in Assault - A Platoon Held Up”; “Two Companies in Assault - A Company Held Up”; “Advance Through a Crater”. In addition, training was no longer conducted primarily at the company level with a day or two allotted for a battalion rehearsal as had been the case prior to the Somme. For example, The RCR’s training syllabus for 1-17th March shows a steady progression in collective training. Two days were allocated for platoon training followed by four at the company level. Then two days dry training at the battalion level were followed by two days of practising over taped ground with live grenades. On 14 March, the entire Brigade went over the tapes.<sup>409</sup>

---

<sup>407</sup> Byng quoted by W.W. Murray in John Swettenham, *To Seize the Victory: The Canadian Corps in World War One*, (Toronto: Ryerson Press, 1965) 155.

<sup>408</sup> Byng quoted in NAC, MG 30 E 20, A.E. Kennedy-Carefoot’s “*Biography of Sir A.C. Macdonell*”, 153. It was probably this encounter that tipped the scales in Macdonell’s favour as a candidate to replace Currie, the latter already slated by Byng as the most likely Canadian candidate to eventually replace him.

<sup>409</sup> *RCR WD*, February/March 1917.

The propensity of officers and senior NCO's becoming early casualties in battle and therein, command and control, was recognised from the Somme experience. W.J. Home, an RCR platoon commander remembered their company work-up training before Vimy. "We'd practise the attack and the Colonel would say so many officers have been knocked out and you would find perhaps a sergeant taking command of a company," he stated. "Every man knew exactly what he had to do. Companies knew exactly what their frontage was, what its objective was, and platoons in each company knew exactly what their job was."<sup>410</sup> Command and control became every one's responsibility.

Another aspect of enhancing command and control was elevating the position of brigade, battalion and company runners to that of "specialist". Only the fittest and smartest were deemed to be capable of performing this essential chore. A sampling of a training syllabus shows they were given their own specialist training consisting of mapreading, using a prismatic compass, marching on bearings, reading conventional map signs, rough sketching, practising verbal messages, sense of direction and how to find north without a compass. By December 1917, all battalion and company runners were training with their Scout platoons.<sup>411</sup>

Byng had a large plasticine model of the Ridge made, showing in minute detail every known enemy, trench, pillbox and dugout. Officers and NCOs from 7th CIB's assaulting battalions, as well as colleagues from other brigades, were given ample time to study it and work out plans in detail to deal with the problems they would soon have to face. Often Byng himself took part in their discussions, not only to guide them, but to discover any weaknesses in his plans which he could remedy.

Byng reshaped his artillery as much as the infantry stressing the need for close cooperation. One of the main problems at the Somme cited in all the 7th CIB after-action reports had been the failure of the artillery to cut the wire, destroy trenches,

---

<sup>410</sup> *CBC*, RCR, W.J. Home,

<sup>411</sup> *RCR WD*, 19/28th Feb 1917, 6 Dec 1917

provide counter-bombardment fire on German guns and support the consolidation phase when attacker's were most vulnerable to counter-attack. A.G.L. McNaughton, who would command the Corps Heavy Artillery by the end of the war, wrote:

General Byng was one of the first to grasp the significance of the lessons of the Somme and, with Major-General Edward Morrison, set about perfecting our artillery organization. As the number of guns available began to increase, the existing artillery units had to be expanded and new ones raised. Technical skill had to be developed and previous lessons and teachings modified to suit the changing conditions. The field and horse gunners, accustomed to fighting under circumstances which enabled them to observe every round, had to cease at scoffing at corrections for temperature, barometric pressure, velocity and direction of wind, wear of guns and type of shell and fuse. And the heavy artillery, used to the utmost deliberation, had to learn speed. Accuracy of fire on unseen targets, and the ability to shoot close over the heads of our own infantry, had to be acquired, and an organization built up which could effectively handle large masses of artillery.<sup>412</sup>

After Vimy, BGen Macdonell, in his familiar role as keeper of "The Fighting Seventh"'s *esprit de corps*, noted in his congratulatory address to the troops that the key factor in their success had been time. "Never before, " he rightly stated, "had we the chance to work up to an attack in detail....Our training was done with thoroughness and proved of incalculable value."<sup>413</sup>

Comprehensive, progressional and realistic unit and formation collective training was backed up with an extensive training system featuring individual, specialist and reinforcement training behind the lines. The move to the Vimy Front was accompanied by the establishment of the Canadian Corps Training School (CCTS) under the command of Maj. A.C. Critchley, former BM of 7th CIB. The CCTS was divided into an Officers' Wing and an NCO Wing to provide instructors for the Divisional Schools. The Divisional Schools in turn operated training cadre battalions, the latter formed on the basis of one per brigade, consisting of the normal allotment of 100 men per battalion and all supernumerary personnel. As well as the CCTS, several other schools, such as ones for Signals and Trench Mortars, were reorganized. The Corps would be responsible for all leadership and command courses such as the

---

<sup>412</sup> A.G.L. McNaughton cited in Williams, *Byng*, 144.

<sup>413</sup> "Congratulatory Order on the Capture of Vimy Ridge" in Kilpatrick, *Odds & Ends*, 26.

training of platoon commanders and senior NCOs, while the Divisional Schools would train all the specialists.<sup>414</sup> With its own training establishment in place, the Corps was well on the way to ensuring its own particular doctrine was well-disseminated and understood by all ranks.

In his groundbreaking September 1916 lecture on the need to adopt a new tactical and organizational approach to fighting the semi-open warfare battle, MGen Stephens, GOC 5th British Division, had declared that British platoon commanders in his new experimental platoons would be trained to find the flanks of enemy positions instead of repeating the frontal attacks so common during the Somme battles. He astutely noted that German defence systems were evolving and becoming more difficult to penetrate and hold.<sup>415</sup>

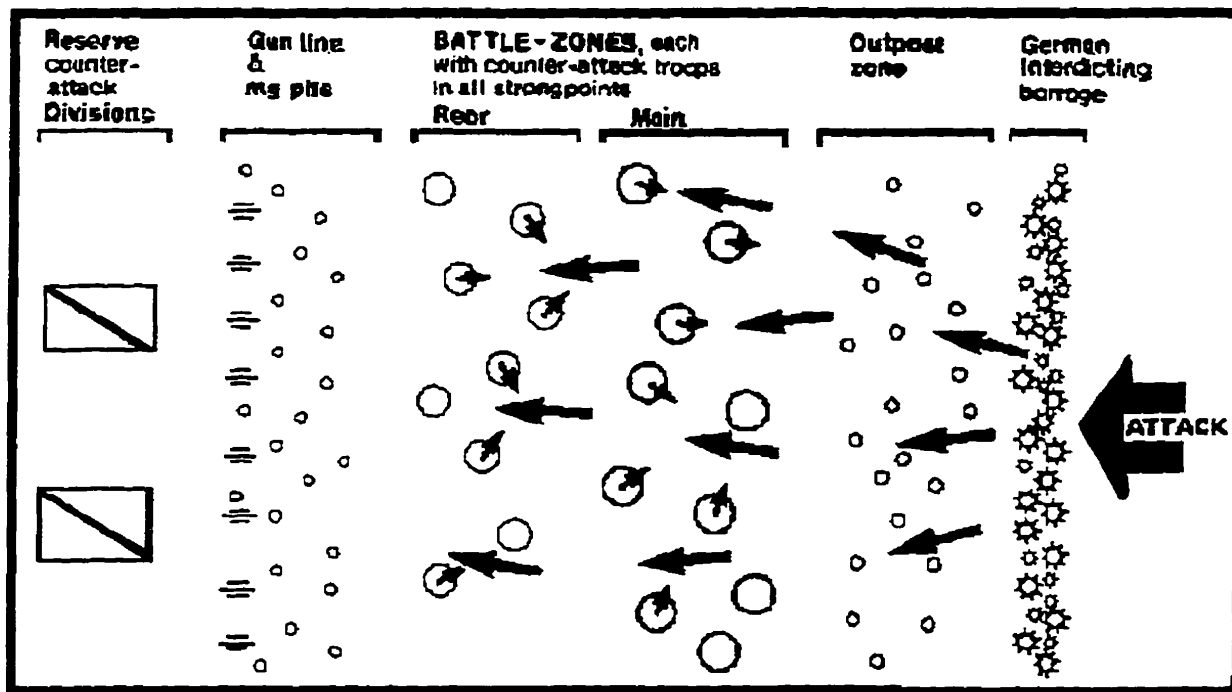
The Germans, convinced before the Somme that massing their forces in the forward trenches was suicidal, had decided that they must find a way of absorbing the shock of frontal assaults rather than trying to break them on one or two rigid trench lines. Artillery bombardment before a French or British attack of 1916 eliminated many German defenders in frontline trenches, increasing the possibility of enemy penetration. It was better, they felt, to allow some enemy penetration of the front lines by holding the bulk of their infantry far enough back to avoid hostile bombardment and their artillery echeloned in greater depth. This more flexible or “elastic” defence” as it became known (see Figure 8) would allow greater opportunities for successful counter-attacks and German infantry would retain the initiative as they would be fighting their opponents on ground of their own choosing and, at the furthest or maximum range of their enemy’s viable artillery support.

By 1917, the Germans had developed a system that included up to five successive defensive lines, one behind the other, in critical sectors or zones. The first

---

<sup>414</sup> For discussions of extensive training reforms undertaken see Critchley’s, *Critch!*, 71-75 and, more especially, a detailed account in Stewart’s *Attack Doctrine*, 108-133.

<sup>415</sup> Bidwell & Graham, *Firepower*, 121.



*German 'web' defence, First World War, after the Battle of the Somme. Attacks are split up and canalized as they advance into the web, and are then counter-attacked.*

FIGURE 8<sup>416</sup>

two or three lines were sited on reverse slopes wherever the terrain permitted. This not only complicated the task of adjusting fire on those trenches, but meant that attacking infantry were out of sight and therefore out of communication with their own forces when they reached the German defences. It as has already been noted, however, in the *Historical Overview* earlier, that Vimy Ridge was an anachronism, a throwback to the old mode of German defence systems. The Canadian attack doctrine designed to overcome it worked well, but would have to be refined and modified for the later battles in 1917 and 1918 which saw the Germans using the "elastic" system in depth. There is some validity in one American historian's claim that "the combination of flexibility, decentralized control, and counterattack at every echelon made the German defensive system almost invincible until attrition and demoralization gave the Allies

<sup>416</sup> Diagram extracted from Griffith, *Forward into Battle*, 78.

an almost overwhelming numerical superiority.”<sup>417</sup>

For example, 7th CIB’s next major assault after Vimy, the brigade-sized night raid at Avion on 6 June 1917, was not the unqualified success that Macdonell made it out to be. It was launched against the new German trench system in which the enemy front line trenches were lightly held. Claiming success in that they bombed many dugouts and must have therefore inflicted heavy casualties on the Germans was probably wishful thinking on the part of HQ 7th CIB. The fact that the assaulting companies were heavily hit by the German counter-attack forces which inflicted serious casualties on the attackers who did not know the terrain or system in the dark negated any significant tactical success or gain on the part of the Canadians.

Between Vimy and Passchendaele in 1917, the training establishment in the UK also underwent significant changes which also had an impact on command and control at the brigade and battalion levels. With the dismissal of Sam Hughes as Minister of Militia in November 1916, an unencumbered British High Commissioner, Sir George Perley, would head a new London-based department as Minister of the Overseas Military Forces (OMF) and exercise control over the expeditionary force.<sup>418</sup> MGen Turner was recalled from France end-1916 by Perley to oversee a complete overhaul of the training establishment which in Morton’s words was “a burgeoning, wasteful array of camps, offices, depots, hospitals and commands spread across England. Thousands of Canadians, untrained or unfit for service, waited aimlessly while battalions in France pleaded for reinforcements.”<sup>419</sup>

The new regime implemented many progressive policies. Numerous scattered training areas were consolidated into six main centres for cavalry, infantry, signals, artillery and engineers. The twelve Training Brigades and 70 battalions were reorganized into six Reserve Brigades of 26 Reserve Battalions. The system of

---

<sup>417</sup> House, *Toward Combined Arms Warfare*, 27.

<sup>418</sup> Harris, *Canadian Brass*, 119.

<sup>419</sup> Morton, *op. cit.*, 147.

providing drafts, their training and eventual assignment was established on a territorial basis. The infantry were put on the standard 14-week WO syllabus, with the progress of every recruit properly documented. Every replacement proceeding to France to join his respective Divisional Wing was issued with a document giving his complete training history.<sup>420</sup>

Another significant policy change was commissioning junior officers from the ranks (CFRs) of the enlisted men in the Corps. “The CEF of 1917-18 grew increasingly distinct from the 1914-16 expeditionary force, and even less like the pre-war militia and regular force,” notes Harris in *Canadian Brass*. “The junior officer cadre was being drawn almost exclusively from among the better battle-hardened NCOs and men, while vacancies in the senior ranks were filled by experienced junior officers.”<sup>421</sup> And while the latter case certainly did not apply to the COs of 7th CIB in 1917, two of whom were 52 and 50 years of age respectively, the former development had its precedence in the arrival of the potentially officer-rich PPCLI in the Corps as noted in an earlier chapter.

A PPCLI sergeant commissioned before Passchendaele recalled that “by 1917, there were a considerable portion of the junior officers that had served in the ranks. They not only had more battle experience than the young officers coming out [from the UK], but they also, in many cases, felt perhaps a little closer to their men.” Inexperienced junior officers arriving in a CEF battalion in 1917 were at a disadvantage from the start unless they exhibited a high degree of leadership and a willingness to learn. “We had every now and then an officer in the PPCLI who simply wasn’t up to it and the reason he wasn’t, was because the quality of the men in their own training and morale was so high, he wasn’t a sufficient leader to do it,” G.R. Stevens recalled. “I knew of one or two instances in my battalion, where, when action came, we had officers who were ineffective, where the sergeant said, ‘With all

---

<sup>420</sup> Stewart, *op.cit.*, 129, 132.

<sup>421</sup> Harris, *op.cit.*, 128.

deference, sir, I am going to take command.’”<sup>422</sup>

In The RCR, a different problem created friction between the newly-commissioned rankers known as “temporary officers” and the PF officers. The latter received preference and promotion over more talented and experienced “temporary officers” who had paid their dues, a practise which, unsurprisingly, created inter-officer rivalries and disharmony. By way of explanation, Robert England, a temporary officer, wrote: “No doubt the higher PF pay, the vicissitudes of staff postings, the pension complication for PF, sudden vacancies occasioned by casualties demanding the return of eligible PF, and, perhaps, even a PF set of mind, may have discouraged rapid promotion of temporaries.”<sup>423</sup>

In the 42nd and 49th Bns, CFRs were commonplace by 1917. Will Bird remembered one, Lt R. McIntyre, MM, MC, his platoon commander killed at Passchendaele: “He was a rough and ready Scot, perfectly frank with everybody, and we all liked him....He had come up from the ranks and knew the score.”<sup>424</sup>

The Canadian Corps and its brigades like 7th CIB won their victories in 1917 because they had transformed themselves into well-disciplined, well-trained organizations. And while 7th CIB was not professional in the strictest sense of the word, it certainly was in its approach and attitude. Whereas raw fighting ability of Canadian officers and men had seen them through 1915 and 1916, the victories of 1917 were gained by the rather mundane aspects of innovative planning, meticulous preparation, firm discipline, progressive training and the skilled coordination of all arms combined with the inherent fighting abilities of the Canadian soldier.

---

<sup>422</sup> CBC, PPCLI, G.R. Stevens.

<sup>423</sup> England, *Recollections*, 12.

<sup>424</sup> Bird, *Ghosts*. 56, 59.



## CHAPTER FIVE

### 1918 - THE YEAR OF MOBILITY

**The full story of the Hundred Days has been told elsewhere, but seldom as the fulfilment of a steady evolution in tactics and technology. This is understandable. The terrible casualty toll meant that most soldiers saw little of the final battles beyond their own brief, intense experience. Those who survived had no inclination to credit the staff for improvements in what remained, from start to finish, a hellish experience.<sup>425</sup>**

*Desmond Morton, When Your Numbers Up!*

The Canadian Corps style of attack in 1918 stemmed from their commander's willingness to make changes within the corps structure and from the semi-permanent and homogeneous nature of his organization. These conditions were not obtained, however, without their price. They had first to be fiercely protected in 1918 in two significant dialectical battles fought behind the lines on the political plane. Currie's first political victory was his successful resistance to the idea to create a Canadian army. This proposal was possible if the Canadians followed the British lead in dropping the fourth battalion from each infantry brigade of the BEF creating smaller brigades but more infantry battalions for creating new brigades and thus divisions. If this change had been instituted, it would have had serious ramifications for command and control at the battalion, brigade and divisional levels. This will be discussed further in the section dealing with organizational impacts on command.

Currie's second political victory was in ensuring that the majority of the Canadian Corps was kept together during the German's successful Spring offensive. With the exception of one division, Currie essentially prevented his corps's operational effectiveness from being frittered away by GHQ penny-packeting his divisions in an attempt to stem the Germans' last-gasp onslaught. And while the politically out-

---

<sup>425</sup> Morton, *When Your Number's Up*, 178.

manoeuvred and very annoyed Haig could write that "Currie is suffering from a swollen head", and made unfair statements that "the British Army alone and unaided by Canadian troops withstood the first terrific blow by 80 German divisions on March 21st until May 27" or "during all this severe fighting, the Canadian Corps had not once been engaged," he conveniently overlooked the facts that the Canadian Corps was stretched thinly over one-fifth of the British front with a strength amounting to less than one-tenth of the BEF.<sup>426</sup> This deployment freed up considerable numbers of British troops to participate in the operations to halt the German advance. In fact, the Canadian sector around Vimy was the only major part of the BEF's area of responsibility that was not attacked during the spring of 1918. Significantly, when Currie's three overstretched divisions were finally relieved in the first week of May, his sector of the line was taken over by two British corps comprising a total of five divisions, though each of the latter were weaker than a standard Canadian division not only as a result of their recent downsizing but by the bitter fighting they had just come from.

The winter of 1918 for the officers and men of the Canadian Corps was mild and an opportunity to reflect, reorganize and retrain. Brigade and battalion commanders trained as well as their men for the return to open warfare. Taught not to be unduly sensitive about their own flanks, they were exhorted to find those of the enemy and on reaching objectives, to patrol forward, make more ground and keep contact with the enemy - a page essentially out of the German *sturmtruppen* book. British corps, who in previous years had controlled set-piece battles because the massive fire support for the infantry was controlled by them, were slow to throw off the highly centralized, systematic and bureaucratic methods of 1915-17. The Canadian Corps, by contrast, had already devolved responsibility and fire support to division commanders so that their brigades could keep pressure on the enemy. Currie's

---

<sup>426</sup> Haig cited in *CEF*, 380-81; and Dan Dancocks, *Spearhead to Victory: Canada and the Great War*. (Edmonton: Hurtig Publishers, 1987) 17-18.

willingness to accept ideas and tactical plans from below, as well as letting commanders on the ground make tactical decisions, his strong belief in the value of firepower (or as A.G.L. McNaughton termed it, “paying the price of victory ...in shells, not the lives of men) and his staff’s meticulous planning, were key elements of Canadian success in 1918.

New attitudes and ideas on the utility and the application of tanks in open warfare were developed and used, raising new questions on command and control and the infantry’s place as the principal arm on the battlefield. HMGs flexed their muscles in their new-found corps and attempted to delineate the special tactics which made them unique. Artillery and the use of aeroplanes also underwent change and became more attuned to operating as part of the all-arms team. Engineers became an important part of the equation, as Currie was quick to realize that mobility would be the key to advancing in open warfare. The long hiatus from offensive operations saw the Canadians depending heavily on gas warfare’s defensive assets in their Vimy sector and the Germans responding desperately in kind during the Hundred Day when the Canadian Corps was spearheading the advance. Both sides were forced to take effective command and control measures in the form of serious gas discipline and training to combat this menace.

The year 1918 saw the culmination of the Canadian Corp’s evolving attack doctrine and the refinement of the set-piece attack, both extensions of its command system which facilitated the former through progressive training and organizational restructuring. That the Canadian Corps was capable of meeting the challenges of open warfare was never doubted by its officers and men who had undergone professionalization the year before. No wonder then that the British raised Currie’s ire when they shook “their heads at what we might do in open warfare owing to the absence of regular officers.” His diary entry noted: “They forget that our leaders have seen more war in the last three years than the British Army did in its previous 100

years.”<sup>427</sup> Whereas, 1917 had been the Canadians’ year of professionalization, 1918 would be the colonials’ year of acquittance, the year in which tactical mobility would return to the battlefield and Canadian soldiers would prove themselves the equals or betters of British “regulars.”

## HISTORICAL OVERVIEW

The first seven months of the year was a time of preparation for the sternest test the Corps was to undergo. Commencing with the Amiens offensive on August 8, the Corps was engaged in four major offensives and in almost 100 days of fierce, sustained bloody fighting. The Corps met and defeated one fifth of the German divisions on the Western Front and breached two crucial defensive positions. Vimy Ridge may hold pride of place in the public’s mind as the pre-eminent Canadian battle, but the campaign of the “100 Days” was more decisive in a materiel and psychological sense and more indicative of the superb quality of the Canadian soldier. It was the apogee of the Corps’ performance in the war.<sup>428</sup>

William Stewart, *Attack Doctrine in the Canadian Corps*.

The officers and men of 7th CIB spent their last eight months of trench warfare in 1918 in and around the Ridge they had taken away from the Germans on the glorious 9th of April, 1917. Their duty during this time divides itself into two parts - three periods of training and three periods in the line, each of the six periods running from four to eight weeks. The first three months were spent preparing for defensive operations to counter the expected German offensive, which commenced 21 March 1918. The Corps found its frontage extended more and more as British divisions were needed elsewhere to stop the German advance.

Relieved in the line on 7 May 1918, the Canadian Corps (less 2nd CID), were finally placed in reserve. Throughout the months of May and June until 15 July, 7th CIB rested and trained intensively, as did other Canadian brigades. It would fight

---

<sup>427</sup> NAC, MG 30 E 100, *Currie Diary*, [hereafter *Currie Diary*], 3/5/18.

<sup>428</sup> Stewart, *Attack Doctrine*, 176-77.

almost continuously in all three major upcoming campaigns at Amiens, Arras and Cambrai. Without going into the operational objectives or strategic imperatives of the various battles, a brief overview of the brigade's involvement as a formation of 3rd CID is in order to understand the various problems of command and control that arose as well as some of their solutions in the last 100 Days.

At Amiens, the Canadian Corps would mount their surprise attack in conjunction with the Australian Corps on their left and the French First Army on its right. With three of the four Canadian divisions up, 3rd CID was the most southerly of the three adjoining the French. Its task was considered extremely difficult owing to the rolling nature of the ground which was intersected with several deep ravines and dotted with considerable woods. The area also included three strongly defended villages with high masonry walls which posed very considerable obstacles to advancing troops. The approach also involved a crossing of the River Luce valley, a three hundred wide yard marsh bisected by an unfordable stream commanded by steep cliffs on either side.<sup>429</sup>

The divisional intermediate objective (GREEN LINE) was the line running from Courcelles to Vignette Wood and the divisional final objective (RED LINE) was the line running from Cayeux-en-Santerre to the Amiens-Roye Road, about 4000 yards in advance of the first objective. MGen Lipsett decided to use two brigades for the first objective, the 8th and 9th CIBs, then to leapfrog 7th CIB through and carry on the advance to the RED LINE. BGen Dyer disposed his brigade with three battalions up and one in reserve for the division's phase two attack: The RCR were to be right forward; the 42nd Bn in the centre; the 49th left forward; and, the PPCLI in reserve. The 7th CIB battalions were required to move forward a distance of some three miles from their assembly areas near Gentelles Wood before they would reach the GREEN LINE from whence they were to launch the second phase of the division's attack.<sup>430</sup>

---

<sup>429</sup> *PPCLI Hist.*, 297-300.

<sup>430</sup> *Ibid.*, 300.

The brigade's approach march into battle is worth examining as it illustrates the extremely fine planning and coordination that went into the attack. The fortunes of 7th CIB depended very much on 9th CIB taking Dodo Wood, a copse which commanded the entire Luce river valley which it, the follow-on brigade, would have to cross.

"At the stroke of 0420 hours, nine hundred guns spoke as one," notes the 49th Bn history. "As the barrage rolled eastward, infantry and tanks took station and moved behind it. On the critical right flank, 9th Brigade and its tanks were crowded onto a single crossing, yet everything went swimmingly; two lines of skirmishers helped to guide the armour and columns of sections followed closely behind with carrying parties in the rear."<sup>431</sup> Twenty minutes after 9th Brigade had moved forward, the whole of 7th CIB began to leave its assembly trenches and move forward to the Luce crossings. When they arrived, Canadian engineers had already put in duckboard footbridges over the swampy ground, and the battalions moved quickly across under a sporadic German counter-bombardment. Each battalion was "ordered to cross certain duckboard bridges, some 250 yards long, across the river and swamp at specified times," the PPCLI History records. "The whole of this movement was smoothly directed by an officer of the [3rd] divisional staff with a troop of cavalry."<sup>432</sup> BGen Dyer also made reference to the good control measures in place at the Luce and "excellent arrangements made by battalion commanders for crossing, and the splendid discipline displayed by all ranks during a most trying period" in his after-action report.<sup>433</sup>

The harassing artillery barrage would be the most serious opposition encountered by the entire brigade for the operation, their portion of the second phase termed in at least two of the four regimental histories as a "walkover."<sup>434</sup> 7th CIB,

---

<sup>431</sup> *49th Hist.*, 119-120.

<sup>432</sup> *PPCLI Hist.*, 300.

<sup>433</sup> *Topp*, MS 004, Ops Orders File, "7th CIB Narrative on Ops...August 1918".

<sup>434</sup> *PPCLI Hist.* and *49th Hist.*

once it passed through 9th CIB, was essentially deep into the German artillery line. The RCR, with tanks cooperating in the woods by the roadside was first to take its battalion objective at 9:45 am. The 42nd Bn in the centre captured two enemy gun batteries and secured its objective, Hill 102, by 10:00 am. The 49th Bn which had met rather stiffer resistance than the other two in some woods near the Luce occupied and consolidated its position shortly after 10:15 am. At 12:10 pm, the whole of 4th Division had passed through the brigade's position and while 7th CIB bivouacked for the night in the early evening it saw the Cavalry Corps with whippet tanks pass forward on their left.<sup>435</sup>

But it was in subsequent days of fighting that 7th CIB would face its hardest test when German resistance would stiffen. When a British division placed under Canadian command failed to take the strongly-held and well-sited villages of Parvillers and Damery on the old Somme battlefields where broken ground, overgrown trench systems and belts of wire favoured the defender, the 3rd CID was ordered forward. The division in effect was being committed to a new type of battle in which all the advantages of surprise had been lost.

BGen Dyer considered it possible to squeeze the Germans out of Parvillers by pressure from the flanks. At dawn, on 12 August, the 42nd and the PPCLI launched converging attacks - the Patricias from the south and the Royal Highlanders from the north. Both units immediately got into trouble as the fighting was a resumption of trench warfare. Companies and platoons were broken up in the rabbit warren of trenches which surrounded Parvillers, and command devolved upon corporals and privates who took up trench-clearing with a will. Private Tom Dinesen, a Dane serving with the 42nd, would win the VC for his personal leadership and gallantry during 12 hours of hard hand-to-hand fighting. The Germans launched fierce counterattacks aimed at dislodging 7th CIB which forced BGen Dyer to order the entire 49th Bn forward to support the 42nd and a company of the RCR to support the PPCLI. During

---

<sup>435</sup> *RCR Hist.*, 330-331; *PPCLI Hist.*, 301.

the night Dyer issued orders for the Patricias and the 49th to straighten the forward line just to the west of the village of Parvillers at first light: the PPCLI to be right forward assault battalion and the 49th left forward. After a heavy bombardment which ended at 6:30 am, both battalions jumped off simultaneously. The RCR moved up behind the departing PPCLI and occupied their trenches. Though stiff opposition had been expected, the two assault battalions went forward rapidly, taking prisoners and killing many Germans. Within 20 minutes, they had achieved all their objectives. Although no definite orders had been given to capture the village itself, both battalions used their initiative and exploited forward. After some stiff hand-to-hand fighting in the streets and the methodical subjugation of enemy strong points using rifle grenades and fire and movement, the village of Parvillers was captured and consolidated by 10:30 am. Then disaster struck.<sup>436</sup>

“A striking success had been won with unexpected ease,” recounts the PPCLI History. “Unhappily its very completeness and rapidity led directly to serious misfortune. Some defect of liaison, some slowness to recognize that the situation had changed - for neither of which the Patricias seem to bear any responsibility - led to a mishap from which they suffered disastrously.” The 49th company on the left of the PPCLI withdrew for some inexplicable reason back to the west side of Parvillers and German troops from two different German regiments massing in Blucher, Schwetz and Hermann woods to the east observed the withdrawal. They immediately counterattacked through the gap and cut off the Patricias’ two leading companies. Desperate fighting ensued, in which a young PPCLI sergeant gave his life to cover the escape of his company and so won the second VC awarded in 7th CIB for the Parvillers action.<sup>437</sup>

This encirclement, from which the PPCLI escaped with astonishingly few losses (a testament to their junior leadership and good training which saw deliberate

---

<sup>436</sup> *PPCLI Hist.*, 310-14; *49th Hist.*, 122-24.

<sup>437</sup> *PPCLI Hist.*, 315-16.



withdrawals with sections steadily providing covering fire for one another) was not the last word on the fight for Parvillers, which was now re-occupied by the enemy. Canadian artillery pounded the village with all available guns, once it was learned that it had been re-occupied by Germans. BGen Dyer gave orders to The RCR at 5:30 pm that evening to retake the village in a night attack, commencing at 11:00 pm. Two companies, reinforced with two platoons each for a total of six, would move forward silently by moonlight and retake the village. The Germans anticipating such a manoeuvre laid down a heavy bombardment of mustard gas shells requiring all RCR platoons to don their Small Box Respirators (SBRs). One company went forward on time but the other was delayed because "the concentration of gas on its front was so dense, it was 27 minutes before they could go forward," states The RCR's Regimental History. Though gas continued to hamper the frontline companies of The RCR, and its third company coming up in support, "it soon became clear that the Germans, roughly handled the preceding day by the Patricias and the 49th Battalion and disheartened by the pounding of the Canadian guns, were too exhausted to offer the stubborn resistance that had been expected. Groups [of Germans] fought bravely but their efforts were unorganized and could not permanently halt the Regiment's attack."<sup>438</sup> One might add that the Germans were probably also discouraged that the gas did little to slow down the well-trained and relentless Canadians.

By four o'clock in the morning of 15 August, The RCR had retaken the village and established its flanks with the 42nd Bn on the left and 9th CIB on the right. LCol Stewart of the Patricia's wrote after the battle to the RCR CO: "We congratulate you on your Regiment's brilliant manoeuvre on the night of 14-15th August, 1918, which we all agree was the outstanding feature of the Brigade."<sup>439</sup>

The normal period of rest and refitting that formations could look forward to after a battle the magnitude of Amiens was not forthcoming for 7th CIB nor the rest of

---

<sup>438</sup> *RCR Hist.*, 335-37.

<sup>439</sup> *Ibid.*, 338.

the brigades of the corps. Haig for once, was correct in his appreciation that the German forces were tottering and that the knockout blow could be delivered in 1918 vice 1919. Therefore the Canadian Corps found itself sent back to the positions just east of Arras facing Monchy-le-Preux, the old British lines lost to the Germans in the March 1918 offensive.

The Corps had an important and difficult assignment. It was to force the Droucourt-Queant Line (D-Q Line) south of the Scarpe River and advance to the line of the Canal du Nord. As the Official History notes, these enemy defensive positions, supplemented with various switches and strongpoints constituted some of the strongest examples "of German military engineering" on the Western Front. "Furthermore," it stated, "topography was on the side of the Germans. The battle area spread over the north eastern slopes of the Artois Hills, whose summits about Monchy were over 300 feet above the valley bottoms of the Scarpe and Sensee. The latter river flowing gently eastward, together with its tributaries had dissected the hills into numerous deep valleys."<sup>40</sup>

Currie's plan of attack called for three divisions attacking in the first phase: the 51st Highland Division under command, on the left, north of the Scarpe River providing flank protection; the 3rd CID in the centre between the Scarpe and the Cambrai road; and, the 2nd CID on the right covering as far as the inter-army boundary which ran eastward from Neuville Vitasse. The 3rd CID's objective was a north-south line just to the west of Monchy-le-Preux (hereafter Monchy) with orders to exploit as far east as possible. Its initial assault would be dominated by Orange Hill rising 60 feet above the surrounding countryside, and therefore MGen Lipsett did not favour a frontal attack. Instead he opted for one brigade to conduct a left flanking on Orange Hill using the low ground on the banks of the Scarpe River to the north.<sup>41</sup>

The 8th CIB neatly executed the first part of the divisional plan, jumping off

---

<sup>40</sup> *CEF.*, 426.

<sup>41</sup> *Ibid.*, 428-29.

from their trenches in pitch darkness at 3:00 am, capturing Orange Hill from the north, then pushing on its reserve battalions to seize Monchy supported from the former feature. By 7:40 am the village was in Canadian hands and the 7th CIB was ordered up to resume the advance. BGen Dyer gave verbal orders to the battalion COs on the western slopes of Orange Hill at 9:35 am. Essentially they were to exploit past the village and advance until contact with The RCR on the right and the PPCLI on the left. The 49th Bn was to furnish two companies to protect the brigade's left flank and two companies to act as reserve to the Patricias. The 42nd Bn, as brigade reserve, was to advance 800 yards behind The RCR. It started to rain heavily and the two 7th CIB battalions immediately ran into stiff resistance from enemy held woods to the east of the village. It was a repeat of Parvillers all over again as the battalions found themselves conducting hand-to-hand combat through an interminable series of trenches and barbed wire entanglements and making little progress. And again, as at Parvillers, the Germans launched a series of violent counter-attacks against the veteran brigade. So severe were these attacks that Dyer was forced to commit both reserve battalions forward to support the other two. The remainder of the 49th went to the left flank of the Patricias to cover the brigade's exposed left flank, and the 42nd went to the right of the RCR and covered the Cambrai road.<sup>442</sup>

In effect, the 8th CIB had encountered only a German outpost line and the weakly held first and second lines of defence in and around Orange Hill and Monchy. The 7th CIB was now coming up against the real main defensive line and experiencing the German defensive doctrine of massed counter attack and re-infiltration. The PPCLI History makes a telling statement when it reveals in a footnote that German prisoners afterwards stated "that the attack had been to some extent foreseen and that the German main force had been withdrawn 2000 yards the day before." German trenches forward were found to be bare of munitions or stores which support these statements.

The PPCLI were especially hard hit with Germans counter attacking all along

---

<sup>442</sup> *PPCLI Hist.*, 328-335; *RCR Hist.*, 342-45.

the line. "Between 6:35 and 7:30 pm, waves of infantry debouched first from Bois-du-Vert on the right, and afterwards from Jigsaw Wood," recounts their regimental History. "They came in full strength of two battalions, and had they got to grips it would have gone hard with the thin exhausted line - flanks in the air and entirely unprotected." Fortunately, artillery FOOs who had excellent observation from Monchy and good communications to the rear intervened. They immediately called for SOS fire missions. "The shells smashed down on the German concentration, especially in front of the Patricias in Jigsaw Wood, and crumpled up the attack before it really got underway."<sup>43</sup>

In front of the RCR, on the PPCLI's right, the situation was the same, but artillery could not help. German *sturmmtruppen* "with foliage fastened round their steel helmets to camouflage their approach, rose suddenly from the deep grass and rushed the [forward] companies' positions. Though taken by surprise, the men of the R.C.R. flung back this attack and inflicted heavy losses, as was proved by the German dead and wounded found in the area the next day."<sup>44</sup>

Thus by last light, 7th CIB was desperately on the defensive, holding a semi-circular line of trenches approximately 1500 to 2000 yards beyond the eastern edge of Monchy. The divisional commander decided to leave the majority of 7th CIB in place as left flank protection during the night and to push his fresh brigade, 9th CIB, reinforced with the 42nd Bn, down the Monchy-Boiry Road on the right flank of 7th CIB at first light. This attack, mounted twice, failed both times in the face of heavy MG fire coming from depth positions with interlocking arcs of fire. By the night of 27th August, MGen Lipsett must have been scratching his head in frustration. All three brigades had been heavily engaged for almost 48 hours non-stop. He pointed out to Currie that 3rd CID was still faced with a very strong line of defence in the Fresnes-Rouvroy Switch. The enemy were still holding Jigsaw Wood in strength and also

---

<sup>43</sup> *PPCLI Hist.*, 337.

<sup>44</sup> *RCR Hist.*, 344.

Pelves village. To further complicate matters, the divisional frontage which had been a mere 3500 yards at zero hour on 26 August was now a frontage of nearly 7000 yards. All his brigades were now in the front line and in close contact with the enemy. He had no fresh formations. Notwithstanding, Lipsett's 3rd CID was asked to make "a supreme effort" on 28 August to capture the strong positions which still lay in front of it.<sup>445</sup>

MGen Lipsett used the night to re-align his forces for a divisional attack the next morning. He would attack with all three brigades up: 8th CIB was assigned the task of capturing Remy and Remy Wood; 9th CIB was to capture Boiry-Notre-Dame and Artillery Hill; and the 7th CIB was given the task of capturing Pelves, crossing Jigsaw Valley, seizing Jigsaw Wood, and forming a defensive flank for the divisional operation. Massed artillery would first support 9th CIB forward in the centre at 11:00 am with the 42nd and PPCLI conforming to their attack, then switch to support 8th CIB's attack on the high ground around Remy. For 7th CIB's task, BGen Dyer had the PPCLI retain the centre while the 49th concentrated on their left and the 42nd Bn would advance on their right. The RCR was placed in reserve.

At 5:30 am, the 49th attacked Pelves village in an independent action before the other two battalions went over the top later in the day. The village could enfilade them if not dealt with before zero hour. The 49th's assault companies approached by way of a lightly-held communication trench which led to the rear of the village and were soon embroiled in five continuous hours of hand-to-hand fighting in KIT and KAT trenches. By 10:30 am, the way was clear for the 49th's sister battalions to advance. The 49th's task to secure the brigade's flank it should be noted was not the open warfare they had trained for in May and June but, as their Regimental History states, "a return to old-fashioned trench warfare", which they performed admirably.<sup>446</sup>

By contrast, the assault of the PPCLI and 42nd Bns made at 12:30 pm the same

---

<sup>445</sup> *CEF*, 431; *PPCLI Hist.*, 343-348; *42nd Hist.*, 246-252.

<sup>446</sup> *49th Hist.*, 431.

day, conforming with 9th CIB on their right who had jumped off an hour and a half earlier, was over open ground using fire and movement, supported by an overwhelming mass of artillery. The Official History notes that MGen Lipsett wanted “to smother the German machine gun nests with an immense concentration of artillery fire - a procedure which proved highly successful.”

In the 7th CIB sector, the PPCLI and 42nd Bns drove stoutly resisting Wurtembergers of the 141st Regiment out of Jigsaw Wood, while the 49th occupied the village of Pelves. On the night of 28/29 August, 7th CIB was relieved in the line by a composite force made up of CMGC troops, cyclists and other specialist troops as there was no infantry in the division left. All three infantry brigades were in serious need of rest and refitting. As the RCR History summed up: “The Division had advanced for 5½ miles on an ever-widening front, had driven through five German lines of defence, had captured Monchy, Pelves, Bois du Vert, Bois du Sart, Jigsaw Wood and Boiry-Notre-Dame, and had flung the enemy out of the Fresnes-Rouvroy Switch, a position vital to the continuation of the Canadian Corps’ offensive.”<sup>447</sup>

A very relieved and thankful divisional commander would write:

Great credit is due to the regimental officers and non-commissioned officers in this continuous fighting through broken country. I know of no finer example of what can be done by courageous and determined men than the attack on the 28th. All Battalions had been engaged and had done a great deal of marching. Some had been engaged with very little sleep since 3 am on the 26th and still all responded to the call for a final effort, captured and cleaned up a strong German trench system on a front of 4000 yards and cleared the flank to the north on a front of 2,500 yards.<sup>448</sup>

To the south, however, 2nd CID had failed to pierce the Fresnes-Rouvroy Line and thus 1st CID would have to take it first before it, together with the 4th CID, could move on to effect a breakthrough of the D-Q Line. The 3rd CID would miss this operation and take the time to re-fit and replace casualties from the previous two operations, but only got three days before going back into the line providing flank

---

<sup>447</sup> *RCR Hist.*, 346.

<sup>448</sup> Lipsett cited in *42nd Hist.*, 252-53.

protection for the corp's northern flank. Most of the replacements arriving in 7th CIB were now conscripts and appear to have been well received by the men. Currie would consider his 26 August to 3 September offensive, crowned with the victory of breaking of the D-Q Line, his Corps greatest achievement for several reasons.

[At Amiens] we went up against an enemy who was prepared for the offensive; here he was prepared for the defensive. There his trenches were not particularly good ones; he had no concrete emplacements; he had little wire; his guns were all well forward in order to help him in the advance he proposed to make....Here we went up against his old system, that which he has never had anything stronger anywhere. His guns were echeloned in great depth, and so we were continually under artillery fire....

It is practically his last, and certainly his strongest system west of Cambrai.<sup>449</sup>

"Few would disagree with Sir Arthur," states the Official History. "The Corps' success in destroying the hinge of the German defence system had not only made it possible for the Third Army to advance; the repercussions were to be felt along the whole front."<sup>450</sup> The same day, the Canadians were receiving congratulations for breaking the D-Q Line, Field Marshal Foch ordered an offensive on a front of 125 miles, with heavy attacks to be delivered by British, French, US and Belgian forces. By 10 September 1918, six armies, three French and three British, had closed up on the last line of German defences as the Germans withdrew. After the breaking of the D-Q line, Currie was told by the CGS that "the Commander-in-Chief was well pleased with the conduct of the Canadians, and that he hoped it would not be necessary to employ us in any further big operations during the year."<sup>451</sup> But, unfortunately, this was a false hope as Haig wanted to win the war in 1918 and, thus, needed the Canadian Corps to help keep pressure on a crumbling German front.

On 15 September, General Currie was informed that the Corps would be the spearhead of First Army in forcing a crossing of the Canal du Nord and striking at Cambrai, a vital centre of communications. Currie's daring plan to accomplish the

---

<sup>449</sup> NAC, MG 30 E 100, *Currie Papers*, Letter to D. Oliver dated 11 August 1918.

<sup>450</sup> *CEF*, 440.

<sup>451</sup> CGS cited in Dancocks, *Spearhead*, 123.

mission will not be gone into detail here, suffice it to say, it worked. The 1st CID and 4th CID led off for the Canadian Corps. On the left, 1st CID overran its immediate objectives and pushed on. In the south, 4th CID had less luck, meeting strong resistance at Bourslon village and Bourslon Wood. The latter was only taken after it was heavily saturated with poison gas by Canadian artillery. As a result, 3rd CID was called forward before its time: on the morning of September 27th it was ordered forward to relieve elements of 4th CID and to sustain the momentum of the assault by helping to take Fontaine-Notre-Dame.<sup>452</sup>

Crossing the Canal du Nord in the wake of the other two divisions, 7th CIB found itself in Bourslon village and the eastern woodline of Bourslon Wood by 6:00pm. BGen John Clark who had succeeded BGen Dyer on 12 September was commanding the brigade in his first action. The new commander had been given a very detailed and ambitious task by an equally new divisional commander, MGen F.O.W. Loomis, who had replaced Lipsett. Passing through the 11th CIB, Clark's 7th CIB was to force the Marcoing Line from the village of Saily in the north to the angle of the Arras-Cambrai and Bapaume-Cambrai roads in the south. Once this was accomplished, he was to move his brigade to the north east and pass the northern outskirts of Cambrai, cross the Douai road and railway embankment, take Tilloy and Tilloy Hill and finally descend into the valley at Ramillies, capture the canal crossings, "and if possible secure the village of Ramillies and establish bridge-heads over the Scheldt Canal." The PPCLI historian notes drily that "it is easy to see after the fact that such a programme underrated both the opposition that the Germans would put up to save the bridge-heads, and the immense strength of their prepared positions on railway and hill."<sup>453</sup> In other words, 7th CIB was being launched into unreconnoitred territory for which there was no detailed intelligence.

Clark decided to use only one battalion to break through the Marcoing Line in

---

<sup>452</sup> *CEF*, 443-48.

<sup>453</sup> *PPCLI Hist.*, 361.



his sector with the PPCLI detailed to provide support if necessary. The verbal orders he gave to the CO of The RCR later that evening for the first phase of the plan, however, did not leave much time for battle procedure. The RCR History relates the night's events:

Soon after midnight, Lieut.-Col C.R.E. Willets, D.S.O. returned to the unit from Brigade Headquarters and, summoning his company commanders to a conference in a shell hole behind a broken wall, explained the outline of the next day's operations. There was no time or opportunity to enter into detail. By the light of an electric torch, Lieut.-Col. Willets marked on a number of maps the frontage and general direction of each company's attack, the boundaries that had been decided upon, and the objectives which it was hoped the attack would attain. The first objective was the Marcoing Line, beyond which the attack would swing north-east towards Tilloy if possible. Probably in the whole experience of The Royal Canadian Regiment no orders for a major operation had ever been more concise, as the Commanding Officer, knowing how little time there was to spare, wasted as few words as possible.<sup>454</sup>

Time was all important and company commanders tried to conduct recess forward but were hampered by the pitch darkness and the Germans shelling the area with mustard gas. At 5:30 am on 28 September, the three designated RCR assault companies attacked with one in reserve. The RCR were supported by four tanks and "a very effective barrage" and went straight from the edge of Bourlon Wood to the Marcoing Line which lay behind a railway embankment and was sited on a reverse slope to their view. As they crested the rise "the men realized the grim nature of the task before them," recounts the Regimental History. Defended by great belts of wire and by many strong points, each with a garrison of trained machine-gunners and two or more guns, the German position constituted a barrier which obviously could be stormed only by an effort of supreme valour and determination."<sup>455</sup>

Mid-morning found the Regiment pinned down under heavy fire from the front and the village of Saily on the left flank. The CO was seriously wounded by a shell

---

<sup>454</sup> *RCR Hist.*, 353.

<sup>455</sup> *Ibid.*, 354.

and his Adjutant killed. The battalion appeared to be floundering. The RCR were inspired by the leadership and gallantry of one junior officer, Lt Milton "Groggy" Gregg, who, when the advance had been held up by uncut wire, went forward alone, found a gap, then brought his men forward into the German positions. Then he led bombing attacks along the German trench system and when bombs ran out, personally went back for more. His bold attack allowed the other companies to move up and get through. Gregg would be awarded The RCR's only VC of the war for his gallantry.<sup>456</sup>

The PPCLI, sent forward by BGen Clark to assist the stalled RCR, lost their devil-may-care CO, LCol Stewart, to a stray shell as it moved up past Raillencourt. Companies, already briefed, however, carried on with the tasks at hand and by early afternoon both battalions were through the Line and mopping up support positions between the Arras and Bapaume roads.<sup>457</sup> But further progress was impossible for the time being as the 9th CIB's attack on their right flank had stalled. The 49th Bn came through the Marcoing line and took up positions on the right of the PPCLI to continue the advance towards Tilloy at 7:00 pm. The supporting barrage favoured the 9th CIB on the right who were given the village of St Olle as their objective. The 49th and PPCLI went forward without tanks they had been promised and encountered no serious resistance until they were in view of the Cambrai-Douai railway embankment. Then the PPCLI ran into an unmarked overgrown belt of wire and the advance was halted. The 49th Bn lead companies were pinned down by heavy MG fire, not only from the front, but from German MGs on their right flank in St Olle which 9th CIB had failed to clear. Clark that evening ordered the 42nd Bn and the 49th to resume the attack in the morning at 8:00 am.<sup>458</sup>

"When the supporting barrage opened at 0800 hours it was thin and ineffective," reports the 49th Bn History of the ill-fated 29 September attack. "A and B companies

---

<sup>456</sup> *RCR Hist.*, 355-56.

<sup>457</sup> *CEF*, 448-49; *RCR Hist.*, 354-58.

<sup>458</sup> *PPCLI Hist.*, 366-69.

advanced against machine guns firing at point blank range. Both company commanders were killed, but their men drove steadily on.” After heavy losses the 49th Bn closed up to the Cambrai-Douai road just the other side of the belts of wire. The 42nd Bn attacking on their left flank fared no better, decimated by machine guns firing from the embankment while they were entangled in the wire. Topp, the 42nd Bn’s ground commander for the attack recalled that the leading companies began the advance “on the stroke of eight” and that the barrage was “comparatively weak in volume.”<sup>459</sup> Nonetheless they advanced

in long thin lines of sections in extended order...the supporting companies following in the same order some distance behind. The advance continued in this order almost as a parade ground movement for more than 1000 yards. Not a shot was fired and it was thought for a time that the enemy had evacuated the position during the night; then the Highlanders reached the wire in front of the dump, two long broad belts loosely strung and almost concealed in the grass. The first ranks crossed the wire stepping labouriously over it strand by strand. The men in the second line were making their way through and the remainder of the Battalion was fast closing up. Then, as though by signal, dozens of machine guns opened fire at point blank range from along the Douai road from the railway embankment and from the high ground on the flank. So sudden was the burst of fire it was impossible for the men even to throw themselves on the ground in time to escape it. The leading ranks went down like ninepins, many, their clothing caught in the wire, hung there helpless under the stream of bullets. From that moment organized control of the attack was impossible, and it is to the lasting credit of the non-commissioned officers and the men themselves that even in the face of this devastating machine gun fire there was no attempt to turn back.<sup>460</sup>

The 42nd suffered 50% casualties in the short space of about 15 minutes, but like the 49th Bn, they struggled on through singly, in pairs and by sections, firing as they went. The survivors took up fire positions and captured dugouts along the Cambrai-Douai road facing the Cambrai-Douai railway embankment some 300 to 400 yards away. That “dozens” of MGs had caused the Highlanders attack to fail was proven the following morning when the 42nd advanced after the PPCLI and the RCR had passed through to capture Tilloy village. One of the two composite companies of survivors found 36 MGs abandoned amongst the German dead in a 100 yard stretch of

---

<sup>459</sup> *49th Hist.*, 133; *42nd Hist.*, 268-71.

<sup>460</sup> *42nd Hist.*, 269.

railway cutting to their immediate front.<sup>461</sup> These were then put to good use and turned on the enemy.

After the failure of the 29 September attacks, BGen Clark's 7th CIB was ordered to take Tilloy the following morning. Historian Dan Dancocks has observed: "The choice of this brigade was questionable: it was tired and depleted, seeing action for a third consecutive day."<sup>462</sup> Cpl Will Bird recorded the reaction of the bitter men on the ground at the time: "Sellars and his men said it was impossible that we had been ordered to attack again, that it was suicide."<sup>463</sup> The PPCLI attacked with just a little over single-company strength. The 42nd were reduced to six weak rifle platoons cobbled together into two weak companies. The RCR was not much better.

The PPCLI History records that the final battle for Tilloy was "beyond every other action of the later years of the war, a fight to the finish." The 49th History concurred when it stated the battle became an "intimate encounter - man against man and seldom more than section against section or platoon against platoon. The machine gun, either in attack or defence, was the key weapon." The LOB men of all the battalions were brought up the night of 29 September and the PPCLI and RCR were in their attack assembly areas by 3:30 am, early on 30 September. They jumped off at 6:00 am supported by a tremendous barrage, as well as MG and TM batteries in support and stormed the railway embankment with relative ease.<sup>464</sup>

Crossing the embankment, and again exposed to German MG posts and nests echeloned in depth, the two battalions soon shuddered to a halt. The PPCLI according to their acting-CO caught the Germans in Tilloy "with their pants down" and had consolidated the village by 7:30 am, capturing a battery of 77-millimetre guns and fifty German MGs. Reinforced with the remnants of the 49th Bn, the Patricia hung grimly

---

<sup>461</sup> *Ibid.*, 273.

<sup>462</sup> Dancocks, *Spearhead*, 159.

<sup>463</sup> Bird, *And We Go On*, 195.

<sup>464</sup> *PPCLI Hist.*, 380; *49th Hist.*, 135.

on to their meagre gains under heavy shellfire until relieved that night by 9th CIB which fared no better than the 7th CIB in getting forward the following day. The RCR on the PPCLI left, whilst debouching from the railway line were hit by a storm of MG fire, much of it coming from the direction of Blecourt, where the 4th CID was bogged down. In effect, by mid-morning, 7th CIB had been fought to a stand still by the Germans and had ceased to be an effective fighting formation. BGen Clark knew it, his officers knew it and his men knew it.<sup>465</sup>

Clark looking back 45 years later would say: "Never have I felt so depressed as I felt after that battle. It seemed impossible to break the morale and fighting spirit of the German troops. We felt that this Boche could not be beaten, certainly not in 1918. He fought magnificently and in a most determined fashion. He discouraged a great many soldiers in the Corps."<sup>466</sup> This discouragement was also felt by General Currie who visited the 42nd Bn officers in a rest area after the battle in late October. He asked them to tell him what had gone wrong: "I want you to forget that I am the Corps Commander and to tell me quite frankly just what you think went wrong with the last show. I want to know exactly what you are thinking, whether you believe mistakes have been made by higher commanders or not. I want you to feel quite free to speak to me man to man and nothing you will say will be held against you."<sup>467</sup> Currie was lucky that the Highlanders' CO, Royal Ewing, was on leave during his visit, for the embittered Ewing, no doubt, would have given the corps commander an earful. Stewart of the PPCLI had been killed, Willets of the RCR had been severely wounded and Palmer of the 49th Bn had been on leave, making Ewing the only surviving battalion commander of the brigade involved in the battle under discussion. What the Highlanders said in their CO's absence is not recorded.

The Corps would fight on and, on 9 October, Cambrai would fall to the

---

<sup>465</sup> *CBC*, PPCLI, G.W. Little; *PPCLI Hist.*, 373-77.

<sup>466</sup> *CBC*, Generals, J.A. Clark.

<sup>467</sup> Currie cited in *42nd Hist.*, 282.

Canadians. The Brigade would take part in the pursuit of the retreating German army, at one point leading the Corps through the Forest of Raismes. It would have the ultimate honour of being the first Canadian brigade to enter Mons on 10 November, the day before the Armistice was declared. It would also be the first and only brigade to mutiny in the Canadian Corps. It would, however, continue to exist in name until the day its battalions got on the ships to return home to Canada. Before doing so, it would not be forgotten by its first two commanders. BGen Hugh Dyer, for whom a Brigade parade was held at Bramshott, would come for a last goodbye. The charismatic "Batty Mac" would not forget the "Fighting Seventh" either and would pen one last heartfelt message: "It is a proud boast for me to be able to say that at one time I commanded such a Brigade. I have no fear but that they will succeed in civil life and will ever exhibit the same qualities of courage, initiative, thoroughness and tenacity of purpose that they showed to such a large degree on the battlefield."<sup>468</sup>

## COMMAND PERSONALITIES, PROCEDURES AND POLICIES

**"They punished us like the devil!"<sup>469</sup>**

**Capt G.W. Little, Acting/CO, PPCLI, Tilloy, 30 September 1918**

**It was the fate of 7th Brigade, in its last great action of the war, to encounter enemy formations well rested, strong and full of fight.<sup>470</sup>**

**G.R. Stevens, *A City Goes to War***

It was also the fate of 7th CIB to have a new brigade commander for this last great action of the war and to lose two experienced battalion commanders in the early

---

<sup>468</sup> *42nd Hist.*, 307-308.

<sup>469</sup> *CBC*, PPCLI, G.W. Little.

<sup>470</sup> *49th Hist.*, 132.

hours of the campaign. It meant that command and control was seriously affected and needless casualties were incurred.

7th CIB after Passchendaele rebuilt its strength with new drafts of officers and men, honing its aggressive skills while in the line by fierce raiding and patrolling and training for open warfare when out of the line. Three infantry battalions had new COs for 1918, The RCR receiving theirs immediately prior to Passchendaele, the PPCLI a few months later, and the 42nd mid-summer, when LCol Bartlett McLennan was killed by a stray shell.

In the RCR, LCol Claude Hill, DSO, “the martinet” who arrived just prior to Sanctuary Wood, was replaced by his 2 i/c, Maj CRE “Dick” Willets, DSO, a competent and experienced “Original” company commander of the overseas battalion and a PF officer of some ten years. Assigned a supporting role of providing ammo carrying and stretcher bearing parties at “Pash”, his battalion performed well. His first test of command, however, would not come until after the battle of Amiens which he missed by being on leave (16 July-18 August), no doubt a victim of the carefully-controlled deception plan and secrecy which shrouded the operation. The RCR would be led by a captain in this important battle. Willets was back for the tough fighting in and around Arras, though his battalion appears to have been caught napping prior to the battles for Orange Hill and Monchy-le-Preux. “Owing to the fact that orders for the move up to the line had arrived unexpectedly,” notes the Regimental History, “all officers entered the attack wearing the uniforms usually worn only when out of the line. In the close fighting that followed, this was not without its effect, for the officers, with belts and buttons shining and light-coloured breeches, afforded a conspicuous and easily identifiable target to enemy snipers.” It seems that Willets was carrying on his predecessor’s legacy for maintaining PF standards at the front. When he was wounded by a direct hit on his battalion HQ at the battle for the Marcoing Line in September, his place would be temporarily taken by Major CB Topp, DSO, 2 i/c of the 42nd who just happened to be on a liaison visit at the time, and subsequently an RCR captain. Once out of action, Major GW MacLeod, DSO, a 49th Bn officer serving with 3rd CMG Bn

would be promoted and take command of the regiment, probably much to the consternation of several PF officers.<sup>471</sup>

In the PPCLI, LCol Agar Adamson, the eccentric 52 year old CO known affectionately to his men as “Ack-Ack”, was burnt out. “The previous summer, he’d spent a week in hospital with trench fever, “ notes his biographer. “Later, he’d been hospitalized by a dose of mustard gas. So poor was his vision, even in his good eye, that he was helpless without the monocle that was now enshrined in regimental folklore, and, even with it screwed in, continually fell into holes and bumped into obstacles when inspecting the trenches at night.” He was also suffering from nervous exhaustion and the brigade commander stepped in. “The brigadier was very nice about it,” he wrote his wife. “Whoever is in command should be full of health and youth. My blind eye and age were against me.” Adamson resigned his command on the pretext of his wife’s ill health in the UK, but in fact, it was his own.<sup>472</sup>

Dyer’s view on his CO’s being fit and dynamic ensured that the Regiment’s founder, LCol Hamilton Gault, sporting a wooden leg from wounds received at Sanctuary Wood, was kept out of the running to replace Adamson. As Gault’s biographer notes “the question of Adamson’s successor had received little attention in the midst of the German offensives,”<sup>473</sup> but when it did, it illustrates the process and careful deliberation that went into selecting a battalion commander in 1918.

BGen Dyer believed Gault to be unfit and recommended the acting CO, Maj CJT “Charlie” Stewart for command. MGen Lipsett, GOC 3rd CID agreed, but Currie, the Corps Commander, thought Stewart lacked the necessary balance of character and told Lipsett to consult Gault. Biographer Jeffery Williams takes up the story:

---

<sup>471</sup> *RCR Hist.*, 342, 359-60, 420, *in passim*.

<sup>472</sup> Adamson cited in Gwyn, *Tapestry of War*, 424, 428-29; *The PPCLI Hist.*, 283, adds that Adamson “was pronounced by a medical board for further front-line service.”

<sup>473</sup> Williams, *First in the Field*, 134-35.



There was no doubt in Gault's mind that Stewart would fight the battalion boldly and well in any kind of action. But out of the line, when the flow of adrenalin eased he had shown little interest in its day-to-day management. He was a soldier of Falstaffian tastes who too frequently shed mundane administration for a roaring party in the Mess. More than once the Regiment had had to extract him from trouble when he was on leave in London. More than once, after drinking too much, he had been hidden from a visiting general. He was impulsive and prone to speak on serious subjects without much thought. He was unlikely to represent the Regiment well within the Corps and would probably be regarded as a lightweight, if not a buffoon. He seemed incapable of maintaining a judicious distance from his subordinates - to draw the line between friendliness and familiarity, between authority and indiscipline - an essential quality of a commander. But in Gault's view, one of the worse results of the careless running of the regiment would be that the men would suffer.<sup>474</sup>

Stewart's tactical competence and ability to do what was right in action was beyond reproach, but it was administration, an equally important aspect of command, that was considered his major failing. Without a firm grip on administration, Stewart was not considered completely "professional", nor was he a true "gentleman" with his "unbalanced" and flawed character. Gault recommended that he, as senior major, should take command and the corps commander agreed. The 18 June 1918 Canadian Corps orders announced: "Major (Acting Lieut-Col) A.H. Gault to be temporary lieutenant-col and to command PPCLI with effect from 28 March 1918." When Gault arrived at the Regiment however, he found Stewart on leave and was met by the acting 2 I/c, Maj George Macdonald (former Staff Captain "I" of 7th CIB who had recovered from wounds) who asked to speak to him privately. By a twist of fate, the final "informal" political aspect of the battalion commander selection process kicked in. Bluntly, Macdonald told Gault that the Regiment as a whole no longer knew him and the officers thought him physically unfit to command. "They wanted Stewart, a first-rate fighting soldier, who had commanded them for the past three months, was known to them and enjoyed their confidence," notes the biographer. The final revelation was that Dyer, the brigade commander, who had not spoken to Gault yet, thought that Gault was unfit to command and had asked for Stewart.<sup>475</sup>

---

<sup>474</sup> *Ibid.*, 134-35.

<sup>475</sup> *Ibid.*, 135.

Gault was stunned and went to an interview with the GOC 7th CIB where he learned the full truth. “Much as ‘Daddy’ Dyer admired Gault and regarded him as a friend, he was indeed of the opinion, that with only one leg, he was unfit to command, “ records Williams. “ As gently as he could, [Dyer] told him so and confirmed that he had asked for Stewart....When [Gault] left brigade headquarters, he was near to despair. Since his marriage had been destroyed, he had focused all his love and aspirations on the Regiment which now had rejected him....If his officers and brigadier regarded him as being unfit to lead, to him there was no alternative but to refuse the command which had become his life’s ambition.”<sup>476</sup> Gault would command the regiment after the armistice, but not before the ill-disciplined rot of Stewart’s tenure of command had set in with unfortunate results.

In all fairness, Stewart was well-liked by both his brigade commanders and the other battalion commanders. The PPCLI History states that he possessed “a very unusual personality” and that he “was one of the best known battalion officers in the Canadian Corps” due to his “endless tales of his life as a rolling stone, as a Royal North-West Mounted Policeman, as a campaigner in Belgium and France, [and] of whimsical dare-devilry in the four corners of the earth.” One of his platoon commanders remembered: “The tales of Charlie Stewart were legend. He had been a soldier of fortune, a Nova Scotian by birth, and had fought, it seemed, in half the armies in the world. He was quite an original character as was Adamson [who] had all the qualities of leadership which he chose to hide under a whimsical and offhand manner.”<sup>477</sup> Adamson, the former CO, and as selfless in his devotion to the regiment as Gault, was incensed with his former battalion officers and, convinced that too many officers were becoming greedy for promotion wrote his wife that “the best of them is inclined to forget what he came out here for.” He added:

I consider that Charlie Stewart is selfish in the matter and...I am ashamed of C.S. and the other

---

<sup>476</sup> *Ibid.*, 135-36.

<sup>477</sup> *PPCLI Hist.*, 364; *CBC*, PPCLI, G.R. Stevens.

officers whom he should never have allowed to be on equal terms with him in matters of policy. He will never be anything but an irresponsible boy without any of the reserve and dignity that should go with the Command of a Regiment and will never be able to do more than command a fighting company, and that he would always do well and gallantly.<sup>478</sup>

The 42nd Bn would lose their beloved CO, LCol McLennan to a freak shell while on his reconnaissance four days before the battle of Amiens. His young 2 I/c, Maj Royal Ewing, was a militia officer and insurance broker before the war, an “Original” officer who had served continuously in France as platoon commander, adjutant and company commander. The 42nd padre summed up everyone’s feelings regarding McLennan’s death in his diary:

Our loss cannot be reckoned in words. All that he has been to us and done for us we shall never know fully, and only with the passing of days shall we begin to realize how his spirit was the dynamic of all our life and the foundation-stone of all that is true and worthy in our battalion....His life here bore its own witness. In honour without stain, in chivalry beyond reproach, in duty without fear, in leadership supreme, in friendship surpassingly loyal, he lived among us the perfect type of soldier and gentleman.<sup>479</sup>

BGen “Daddy” Dyer was replaced by newly-promoted BGen John Arthur Clark, former CO of the 72nd Bn (Seaforth Highlanders) from 4th CID on 12 September in the short lull between the battles of Arras and the battles for Cambrai. Dyer’s leaving is certainly noted by the various regimental histories and war diaries, which all extolled his virtues and professed love and admiration for the man, but no reasons for his sudden departure are given. The Official History only states that MGen Lipsett’s departure and General Loomis’ promotion “led to a number of changes in the command of infantry brigades within the corps.” Dyer had served for 12 months under Loomis as a battalion commander and had been promoted during that period to command a brigade, no doubt on Loomis’ recommendation, so it was definitely not a case of the new GOC not wanting Dyer. Dyer’s handling of 7th CIB at Passchendaele, Amiens and Monchy-le-Preux had been effective but not brilliant, so incompetence is

---

<sup>478</sup> *Adamson*, Letter dated 21 June 1918.

<sup>479</sup> *Kilpatrick, Odds & Ends*, 18.

ruled out. Health was more likely the cause, Dyer having sustained a serious wound at 2nd Ypres. Burns notes in *General Mud* that the average tenure of command for a First World War brigade commander was 17 months. Dyer with an unbroken 15 months of brigade command, preceded by demanding battalion work from the outset of the war, could have been, like Adamson, due for a long-needed rest. He had done his time honourably and was now accordingly sent back to England to the less stressful command of the Canadian Training HQ at Seaford.<sup>480</sup>

Whether it was the best decision for 7th CIB “to change horses in midstream” is another matter however. As will be seen, the battles of the last 100 days became more chaotic and unpredictable, making demands upon those in command and control to have well-tested and smooth operating procedures in place and the knowledge to execute them effectively. Dyer’s replacement, the younger, 32-year old Clark, was a lawyer and militia officer from Vancouver who had commanded the Seaforths from the outset of the war. As a battalion commander he had won the DSO three times but would appear from the outset to have been uncomfortable as a brigade commander.<sup>481</sup> An RCR officer in his memoirs revealed that Clark spoke to him after the war and “mentioned how uncomfortable it was for a new brigadier to ask so much from well-known regiments, to be under such pressure himself and scarcely more than a name to the brigade.”<sup>482</sup> Clark himself would reveal in an interview in the 1960’s that to take over command of a brigade just prior to a complex operation such as the breaking of the D-Q line and the crossing of the Canal du Nord was a daunting prospect. “I was quite a young Brigade commander,” he recalled for the CBC. “I was 32 at the time and most of these COs were older than I was and I felt more or less a stranger in the brigade.”<sup>483</sup>

---

<sup>480</sup> CEF, 441; Burns, *General Mud*, 64; *Canada in the Great War*, Vol. VI, 317.

<sup>481</sup> B.M. Greene, ed., *Who’s Who in Canada*, (Toronto: International Press Ltd., 1920) 946.

<sup>482</sup> England, *Recollections*, 11.

<sup>483</sup> CBC, *Generals*, J.A. Clark.

Clark thus came to lean heavily on the CO of the PPCLI, LCol Stewart, the most experienced and flamboyant of the four battalion commanders. When Stewart was killed at the Canal du Nord action on 28 September 1918, Clark admitted that he “felt his loss particularly.” Stewart had given him “a most generous welcome and the most loyal possible support. I’d grown to rely on him and I always felt his cheery nature buoyed me up and gave me a lot of encouragement.”<sup>484</sup> That LCol Stewart could have had this effect on his senior commander in the space of a little over two weeks is a testament to his charisma and natural leadership abilities.

In the vicious fighting that followed Stewart’s death, in and around Tilloy, Clark would flounder and incur the disrespect of at least two of his four battalions - the PPCLI and the 42nd Bn. Later after the Armistice, his brigade would mutiny at Nivelles in Belgium in December 1918, ostensibly for orders requiring the men to march with full kit, but there were deeper and blacker reasons - resentment and hatred for Clark’s ineptness in handling the brigade at Tilloy. Clark himself claims to have been demoralized by his first and only stint as a brigade commander in prolonged offensive operations. “When the 7th Brigade was relieved, I felt tired and depressed,” he recalled. “Our losses were heavy. I felt somehow, that I had failed in the leadership that the troops were entitled to.”<sup>485</sup>

At least one CO, LCol Royal Ewing, had exactly the same thoughts and took the first opportunity after the battles for Cambrai to make his thoughts known in a back-handed way - the end-month submission of his battalion war diary. The entry on BGen Hugh Dyer’s departure which takes up almost the entire page is placed over a small entry acknowledging the arrival of Clark on 12 September. The wording and style is unmistakably Ewing’s and is a blatant message to Clark that he does not fit the bill. It is worthwhile quoting both entries in full:

The departure of Gen Dyer from the 7th Cdn Inf. Brigade occasioned the most widespread and

---

<sup>484</sup> *Ibid.*

<sup>485</sup> *Ibid.*

sincere regret. Not only had his leadership won the admiration of the men and officers under his command, but his personality had endeared him to all who knew him. His sound and balanced judgement - his sure appreciation of a military situation - together with his keen sense of the supreme value of human life made him a leader in whom we were able to impose implicit trust, while his genial and kindly spirit - his deep interest in the life of his men and his personal gallantry in action won for him, the affectionate admiration of all.<sup>486</sup>

Almost as a footnote under this eulogy is the original entry which Ewing knew the new commander would be sure to read. It simply states: "Lt Col J.A. Clark, DSO, OC 72nd Battalion Seaforth Highlanders took over the Brigade. Col Clark comes with a fine record of service and we feel confident that the brigade will achieve further successes under his leadership."<sup>487</sup> Ewing was not alone in his dislike of Clark. Another CO, Capt GW Little of the PPCLI, who temporarily replaced Stewart, was so embittered by his experiences with Clark, that in a 1960s interview with CBC he exclaimed, "My brigadier, the son of a bitch, is still alive - I'll kill him if I see him."<sup>488</sup>

The problems in 7th CIB started with the death of LCol Stewart on 28 September whom most officers in the brigade had thought was indestructible. Morale in Stewart's battalion visibly sagged and Clark became concerned when the PPCLI were held up by a wide belt of barbed wire blocking the way to the Douai-Cambrai road. The barrier in question was a formidable obstacle, so overgrown with vegetation that it could not be detected on aerial photographs. Despite the descending darkness, the Patricias had made a determined effort to overcome this concealed barrier and had discovered a small gap. It was, however, an intentional gap with several German machine guns accurately trained on it. They tried to rush it in the failing light, but were mown down. More than 40 Patricia dead were found later at this gap, heaped in a twenty yard radius. Under the cover of darkness, the PPCLI withdrew 200 yards to

---

<sup>486</sup> *42nd WD*, 12 September 1918.

<sup>487</sup> *Ibid.*

<sup>488</sup> *CBC*. PPCLI, G.W. Little.

lick their wounds. Capt Little, the senior company commander and acting CO as of 1600hrs that afternoon, now takes up the tale:

In our first attacks at Tilloy we were held up in a sunken road by wire and...we couldn't move, so we came back about 200 yards. In the first interview I had with the Brigadier, he said, "Little, do you know the first principles of war?"  
 I said, "I'm not sure. What are they?"  
 "Well," he says, "One of them is to keep whatever you've got."  
 I said, "We never had it, so don't worry."  
 Then he said, "The 42nd is going to do it."  
 So he told Royal Ewing [CO 42nd] that they were going to do it and Royal Ewing said, "We don't want to do it, the PPCLI couldn't do it, we can't do it."  
 "Why?" asked Clark.  
 "Because there's too much wire there."  
 "How do you know there's too much wire there?"  
 "The PPCLI told us."  
 [Clark] said, "I have aerial photographs. There's no wire there."  
 Royal said, "If the PPCLI tell us there's wire, we believe them sir. If we told them there was wire, they'd believe us too!"<sup>489</sup>

That this shared intelligence on the wire obstacle had been brought to Clark's attention, but not acted upon, is borne out by Little's comments in his after-action report when he states: "It is not sufficient to rely alone on aerial photographs for the locating of wire. Personal recce seems to be absolutely necessary." Another reference to the above conversation was the telling statement: "The closest possible liaison between battalions is of greatest value. Battalion HQs were close together, and necessary information from participating units was readily at hand."<sup>490</sup> In other words there was no excuse to ignore the reality of a significant obstacle which required artillery bombardment. On the other hand, the Brigade had a mission and Clark in effect was telling his subordinates to get on with it.

At the end of Little and Ewing's heated exchange with Clark, Ewing reportedly agreed to make the attack, but under protest. Ewing was so worried that he travelled to the RCR BHQ to retrieve his 2 i/c, Major Charles ("Toppo") Topp, who was the acting CO of the RCR after a shell had seriously wounded LCol CRE "Dick" Willets

---

<sup>489</sup> *Ibid.*

<sup>490</sup> *PPCLI WD*. "Ops from Sept 27th until October 1st, 1918 Inclusive".

the preceding day. Topp recalled later in a letter to Duguid, the Official War Historian and a close personal friend, that Ewing came to see him at 2:00 am, 29 September, the night “black as the ace of spades,” and

told me that the 42nd had been ordered to attack at 8am to the left of the RCR position: that he was extremely worried, having not seen the ground and having had no opportunity whatsoever of locating routes to the assembly position. No one, he said, seemed able to guide the battalion and he concluded with the request - “For God’s sakes, Toppo. Come along with us. We’re in a hell of a jam!”...I knew the ground already because I’d been there with the RCR, so I left my command without permission, simply notified the brigade that I was returning to the 42nd...<sup>491</sup>

One might ask where were the Brigade Observers who were supposed to act a Brigade guides for such operations, but these important Brigade assets may have been casualties in earlier battles with no trained personnel remaining to fill their important role. On the other hand, normal command and control measures by the brigade may have simply been discarded for the sake of maintaining momentum. The 42nd jumped off from the forward positions of the PPCLI with minimal artillery support as did the 49th on their right and advanced to where the PPCLI had been stopped. “The 42nd had 340 casualties in ten minutes,” states Little ( the actual official records show 288 all ranks). “Toppo”, the designated commander on the ground for the attack, the four company commanders and the four company 2 i/cs were all casualties. The 49th were also badly battered as they forced a way through the wire obstacle and forced German machine-gunners to fall back to the railway embankment and village of Tilloy.<sup>492</sup>

Ewing’s rage is scarcely concealed in his after-action report as to where the exact problem areas in the attack occurred. Most can be laid directly at Clark’s door, and significantly, not a single one appears as a brigade comment in its after-action report to division . Ewing noted amongst other things “the desirability [sic] of an opportunity to make a reconnaissance before an attack if at all possible”; “faulty info as in the attack of the 29th Sept when a belt of wire was run into which was not known to exist”; “the necessity for more accurate information as to the existing line, and as to

---

<sup>491</sup> *Topp*, MS 004, Undated Letter attached to 42nd WD excerpt, September 1918.

<sup>492</sup> *42nd Hist.*, 270, 275.



position from which the jump off is to be made, before making an attack, and the consequent impossibility of laying down a proper line for the artillery”: and, “the necessity of more time being given to battalion commanders prior to an intended attack to go into the matter thoroughly with their company commanders, and the latter in turn with their companies, and that ample time be given to the latter to get into position”.<sup>493</sup>

In this latter point, Ewing was not alone, Maj Chattell, the acting-CO of the 49th Bn who had attacked on the 42nd’s right the same morning, caustically noted his chief concern was: “The importance of receiving definite and final orders for the successive attacks in sufficient time to admit of those most interested and involved being fully acquainted with the situation. The difficulties of communicating with frontline Company Commanders does not appear to be fully appreciated.”<sup>494</sup>

Launching into the unknown without prior recce, thorough preparation, and good artillery support was a revisitation of the Somme experience all over again. It was not surprising that some experienced veterans, who knew what resources were available and how artillery-infantry cooperation was supposed to work, would become bitterly convinced that their lives were being thrown away on the whims of higher command.

Clark most certainly, had not fully grasped the battle procedure required for a brigade in mobile operations and was falling back on the command experience he understood best. He was treating his battalion commanders as if they were company commanders. Little noted Clark “was a great battalion commander but he didn’t realize that when he became brigadier he had four battalion commanders working for him... We weren’t given the opportunity [of commanding]. The higher command had a strategic plan that they were going to win the war before they knew it, before anybody else knew it, and we were told to do impossible things.”<sup>495</sup>

The inexperienced Clark hinted in an earlier quote that he was under pressure

---

<sup>493</sup> *Topp*, MS 004, Ops Orders File, “Lessons Learned from Recent Operations” dated 2 October 1918..

<sup>494</sup> *Ibid.*

<sup>495</sup> *CBC*, PPCLI, G.W. Little.

from above to push on as fast as he could, but his battalion commanders did not feel this should be accomplished by eliminating battle procedure or without some “sure appreciation of the military situation” as his predecessor had been wont to do. Ewing openly criticized Clark in his after-action report when he stated: “had it been possible to delay the attack on the morning of the 29th in order to get full information as to conditions, I am of the opinion that with a bombardment by the heavies on the dumps and the railway line, followed by a barrage, it would have been possible to have got forward without anything like as heavy casualties.”<sup>496</sup> Clark, in his mind, was responsible for the butcher’s bill for not having the courage to tell Loomis that he needed more time and resources.

In some fairness to Clark, however, the 8pm attack of the 42nd was not an isolated affair. All 3rd CID’s brigades were attacking, the reasoning being that maintaining pressure and attacking on a broad front was the best defence against German counter-attack. However the brigade attacks were not coordinated. As Dancocks has commented in *Spearhead to Victory*, his study of the Corps operations in 1918 down to the brigade level, “it might have been expected ...that the Third Division would have problems. The three senior officers directing its operations on [28-30] September were all rookies. The divisional commander, Major-General Frederick Loomis, had been promoted barely two weeks earlier..and both brigades [7th CIB & 9th CIB] were led by men unfamiliar with their commands.”<sup>497</sup> The lack of time for units to prepare or to allow their supporting artillery to close up with the frontline and prepare the way resulted in the 29th September being a day of extremely bitter fighting with very little ground gained for any CEF units.<sup>498</sup>

Little recalls that “after the 42nd got the hell knocked out of them” he had his second interview with BGen Clark on the evening of the 29th September:

---

<sup>496</sup> Topp, “Lessons Learned...”, 2 October 1918.

<sup>497</sup> Dancocks, *Spearhead*, 148.

<sup>498</sup> *CEF*, 450.

He said "Okay, Little, you're going to do it again. You didn't do it the first time, so you're going to do it now."

I said, "I don't think we have enough men to do it."

"If you haven't, Little, then you have a lot of stragglers."

Well, I hope you can see that saying that to a fellow who was in the PPCLI as I was exactly like calling a fellow the worst name you can in front of his mother. That infuriated me beyond any sensibility.

Little was now verging on open insolence, but his remarks show that Clark was not in the least way capable of mounting a coordinated brigade attack or prepared to try. Little thought to himself: "To hell with him. We'll show the bugger that we can still do it even though he killed half of the 42nd..." He then asked Clark: "If we're still going to do it, is there a brigade plan or do I do it."

"You do it," said Clark.

"Well, we're not going to do it the way its been done so far."<sup>499</sup>

A close examination of the one page Brigade op order for the PPCLI-RCR attack on Tilloy and Tilloy Hill (issued only six hours before the attack) is revealing. It has absolutely no coordinating instructions in it. Significantly, the artillery, TMs and MGs are all ordered to cooperate with the assaulting battalions and, if one wishes to be charitable to Clark, one could say he was following Currie's lead in allowing his battalion commanders, the men on the ground, to formulate the plan.<sup>500</sup> Thus, Little took what was left of his battered battalion and swung them left over the railway embankment on the 30th September and caught German defenders in the right flank. With HMGS providing supporting fire from Chapel Hill, Stokes mortars firing in close support, and the RCR covering his left flank after he swung right, Little reported that "we caught them more or less with their pants down and they suffered pretty severely." But the depleted battalion, which according to their regimental history had "a rifle strength of very little more than a full-sized company" was under observation from

---

<sup>499</sup> CBC, PPCLI, G.W. Little.

<sup>500</sup> Topp. MS 004, Ops Order Folder, 7th CIB Instructions No. BM 100/3.

German MGs sited on the high ground in depth behind Tilloy which now joined in.<sup>501</sup>

“We had a hell of a time getting up that hill, but we say we got there. I don’t think we ever [physically] got there. They went out more than we went in, but they punished us like the devil.” The PPCLI and RCR never did take Tilloy Hill and when 9th CIB passed through the next day at 5am the PPCLI history records, “the tremendous ordeal was over.”<sup>502</sup> 7th CIB had been bled dry by three continual days of non-stop fighting. Despite LOB procedures in the battalions, for the battles in and around Cambrai, the strongest and most effective junior leaders were killed off quickly in the battalions. By 30 September, the 49th Bn had no junior officers left and had to recall its liaison officers to maintain some semblance of command.<sup>503</sup> LCol Ewing wrote on 2 October 1918: “The troops are being used too continuously without an opportunity to properly re-organize, which is particularly a necessity with regard to NCOs amongst whom the casualties had been heavy.”<sup>504</sup> Junior officers, as noted, had also been hard hit and this lack of junior leadership in 7th CIB would have serious ramifications, especially amongst the PPCLI, after the Armistice.

One PPCLI historian notes that after Mons had fallen and the guns had fallen silent,

all was not well. Since the disaster at Tilloy, the Battalion had not regained its full strength. New officers with no previous association with the Patricia had been drafted in from a pool of reinforcements and there had not been time to mould its new men into the ways of the Regiment. With the Armistice of 11 November, the fundamental incentive essential to discipline in a citizen army was removed. Men accepted that they must soldier on, but began to wonder ‘for how long?’ Increasingly they found military routines and duties irksome. The key to morale, as ever, was leadership.<sup>505</sup>

The PPCLI experience was shared by the other 7th CIB battalions. When the

---

<sup>501</sup> *CBC*, op.cit.; *PPCLI Hist.*, 371-78.

<sup>502</sup> *CBC*, PPCLI, G.W. Little; *PPCLI Hist.*, 378.

<sup>503</sup> *49th Hist.*, 134; *49th WD*, 30 September 1918.

<sup>504</sup> *Topp*, MS 004, Ops Orders Folder, “Lessons Learned...”, 2 October 1918.

<sup>505</sup> *Williams*, *First in the Field*, 141-42.

Brigade marched from Mons to Nivelles, arriving at their destination on 13 December 1918, several hundred men of various brigade units met in the park the following day to discuss their grievances. "The immediate cause of the dissatisfaction lay in marching with full packs, a procedure that had been discarded during the operational periods of the war," recalled a PPCLI platoon commander. "Moreover, the other ranks had not been told of their destination; many believed that they were on the way to Germany and hence destined for protracted service abroad. Finally, a few radical ring leaders had been infected by the Russian example and wished to institute Soldier's Councils empowered to negotiate with commanding officers."<sup>506</sup>

During the evening, the crowd in the park increased and about 200 gathered at the brigade HQ. A small group, including an American PPCLI private, Eric McKnight (later the author of the classic *Lassie*) were allowed in and spoke with the Brigadier. "I went and talked to the Brigadier," recalled McKnight in a letter to Gault many years after the war. "He seemed heart-broken, and I was tremendously sorry for him." But Clark would not accept any of the protesting soldiers' demands. Early the next morning, a crowd from other units visited the PPCLI billets inciting the men to attend a mass meeting at 8:30am in the town square. When the battalion paraded at 9:00 am, an entire company was missing and presumed to be at the meeting. With a few exceptions, the men of the other three companies remained in their billets, ready to turn out on parade.<sup>507</sup>

At the town square, after being addressed by several agitators, the crowd made a second visitation to all the units' lines, attempting to enlist widespread support for their cause, as well as breaking into guardrooms and setting prisoners free. The fact that the PPCLI and RCR regimental histories do not mention the mutiny at all, while the 49th and 42nd cover it in some detail, lends credence to historian Jeffery William's claim that in "the official reports of the brigade and the battalions

---

<sup>506</sup> G.R. Stevens, *49th Hist.*, 146.

<sup>507</sup> Knight quoted in Williams, *op.cit.*, 144.

concerned... one can detect a cover-up - commanding officers defending both their men and their own actions in the sorry affair.”<sup>508</sup> The 42nd Regimental History claims not to have had any men who participated in the mutiny, in fact, going as far to point out that when “rioters” smashed in the doors of the Battalion guardroom, “their object being to release prisoners” the prisoners helped out the Quarter Guard commander by claiming they were actual members of the guard and, afterwards, “of their own accord, returned to the guardroom.” However, there is some evidence that some 42nd soldiers attended the meetings and rallies. Pte Frank Flory, 96, remembers he

was approached by some members of the 49th and asked to make propaganda in the 42nd. I don't know where the lead was coming from, only one evening the call went out for everyone to participate by meeting at the headquarters for a general request for the elimination of packs to carry on route marches. The ground was full to capacity and I don't know how the complaint was presented in the turmoil....I don't know if there was any punishment for the ringleaders or not, but I do know as one from the Black Watch, I had to appear in front of our commanding Colonel. After all the questions and answers, I only got 7 days Guard Duty....After that, whenever the [Brigade] went from place to place, we were always accompanied by MPs & mounted police. All went well from there on...and a good thing this was over or it may have come to terrible consequences.<sup>509</sup>

The proof that the majority of the 42nd remained steady is evidenced by BGen Clark's orders to LCol Ewing to police the Brigade after it mutinied “which we were not in the least anxious to do,” admitted Ewing to Currie's biographer, Hugh Urquhart, after the war. In effect, Clark faced not only mutinous ORs but a mutinous battalion commander as well. Undoubtedly, Clark was the personage that Topp, the 42nd regimental historian, was referring to when he stated “some authorities had advocated the use of force to quell the disturbance, but cooler heads prevailed.”

Ewing, an obvious “cooler head,” wrote to Urquhart:

We were absolutely fair to Clark in this matter but, Clark, to my mind, made an unfair report to the Corps Commander, who brought me to the mat. Currie was absolutely fair and while undoubtedly he must have liked Clark, I am sure that he saw through his weakness on the occasion...If Clark had only handled the decision in December in [a] deliberate way he would have had no trouble, but he bounced in and tried to make a big man of himself and couldn't bring it off. General Currie, in the interview I had with him, led me to believe - not by what he said, but more or less by how he acted - that he understood this part of the situation quite

---

<sup>508</sup> *42nd Hist.*, 304-306.

<sup>509</sup> Frank Flory. Letter to author dated 26 March 1996.

well.<sup>510</sup>

Loomis, GOC 3rd CID, storming back from leave on the night of the 16th December was under no illusions. He first vented his spleen on the assembled battalion commanders of 7th CIB, then visited every unit and spoke to the men. His formal report to his immediate superior, the GOC 4th British Corps was to the point:

The alleged complaints which were voiced by the men were trivial. There were no real grounds for complaint. The whole matter was one of discipline, training and efficient Officers and Non-Commissioned Officers. It was not a condition of recent growth. The measures which I am taking are not exactly those which I would recommend if the Division were not preparing to move back home and if the fighting were not finished. The benefit of the doubt is now, in large measure, being given to certain officers who, if the Division was not shortly to be demobilized, I would strongly recommend that they be removed from their commands for inefficiency.<sup>511</sup>

It can only be speculated upon whether Loomis would have removed Clark, as well as most of the battalion commanders (including one from his own regiment) from command, but we know that at least one PPCLI company commander was sacked and sent home immediately after the mutiny by his returning CO - Gault who had hastened back from leave with Loomis. The irascible Capt Little was struck off strength on 17 December as it had been his company which refused to parade on the 15 December. What Little's personal involvement in the Nivelles mutiny was will never be known, but it is certain that LCol Gault held him personally responsible for his company's actions and acted swiftly to set an example.<sup>512</sup>

Thus the history of command and control in "The Fighting Seventh" ended on a sour note. Its experienced veterans, including the few remaining "Originals", and, the newer recruits, including many Military Service Act (MSA) men, ended their record of service by being ignominiously accompanied from place to place on their

---

<sup>510</sup> MUA, *UP*, Ewing Interview.

<sup>511</sup> Loomis quoted in Williams, *op.cit.*, 145.

<sup>512</sup> MUA, MG 3054, *1918 Diary of Lt AJ Kelly*, Intelligence Officer, PPCLI, December 1918; Williams, 144; *PPCLI Hist*, Vol. II, 82.)

demobilization journey home by armed police escorts. Immediately following the Armistice, when discipline was at its most vulnerable, 7th CIB officers were called upon to lead by example. The battalion officers, who had always seen to the welfare of their men whilst in the trenches, out of the line or on operations, however, chose to turn their backs on their men by taking prolonged leaves and insisting on meaningless military ritual. Ultimately, they suffered the consequences of that betrayal. The Nivelles mutiny is a perfect example of how authoritarian control can never be an adequate substitute for the human dynamic of command known as leadership.

## ORGANIZATIONAL AND TECHNOLOGICAL IMPACTS UPON COMMAND

The Canadian refusal to break up one battalion per brigade in 1918 was the first significant departure from the British organization. As a result of this refusal, the Corps did not have to go through the disruptive process of having to adapt to a new organization and doctrine.<sup>513</sup>

William Stewart, *Attack Doctrine in the Canadian Corps, 1916-1918*.

The decisions of February [1918], by maintaining the Canadian Corps intact, preserved the excellent esprit de corps that made it a great fighting team, enabling it to operate with continued high efficiency in the decisive battles of the final year of the war.<sup>514</sup>

G.W.L. Nicholson, *CEF*.

At the outset of 1918, the Allies were faced by a German army which could turn the bulk of its resources in men and materiel against them due to the collapse of the Russians on the Eastern Front. "In order to prepare for the coming test, and with the lessons of previous fighting fresh in my mind, it was resolved that every effort should be made to bring the Corps to the highest possible fighting efficiency." wrote

---

<sup>513</sup> Stewart, *Attack Doctrine*, 237.

<sup>514</sup> *CEF*, 232.



LGen Currie. "This I undertook to do in consultation with the Divisional Commanders, and the heads of the various arms, services and branches, by eliminating as far as was in my power, everything which was not conducive to efficiency in administration, training or fighting."<sup>515</sup>

The first organizational change which Currie had to fight off as it would have had a severe negative impact on command and control down to the brigade and perhaps battalion level was the British reorganization of their infantry brigades. Faced by a shrinking manpower pool, the British decided to solve their reinforcement problem by reducing the size of their infantry brigades in every division from four battalions to three and urged Canada to do the same, thereby making enough Canadian troops available to field a Canadian Army of two smaller corps. Currie, to his credit, refused to comply, though it would have meant an army command and promotion for him. He argued that there were too few trained commanders and senior staff officers to command an army, two corps, five or six divisions, and up to eighteen brigades. To do so would mean cannibalizing the existing formation HQs to accomplish what, in effect, was a doubling in size of the existing command and control structure for very little return in fighting efficiency (an actual increase of only eight battalions).<sup>516</sup>

"A staff officer is the hardest of all to train," Currie wrote to a friend, "and it would have been impossible to double our staff without reducing [the Corps'] efficiency." He concluded: "On the ground of common sense and economy such an increase could not be justified in any way whatever." Not only would fighting performance be diminished, but Currie was also "quite certain that, owing to the severity of losses suffered in modern battles, the manpower of Canada was not sufficient to meet the increased exposure to casualties consequent on the increased number of Canadian Divisions in the field.". His counter-proposal was to retain the

---

<sup>515</sup> LGen Sir A.W. Currie, *Canadian Corps Operations During the Year 1918, Interim Report*, [hereafter *CC Ops*], (Ottawa: Dept of Militia and Defence, 1920) 3.

<sup>516</sup> *CEF*, 231-32, Dancocks, *Spearhead*, 10-13; Stewart, *op.cit.*, 184-86.

Canadian Corps with its proven track record of performance and enhance its fighting capabilities by increasing the establishments of all his infantry battalions by 100 all ranks and reorganising his engineer and MG establishments.<sup>517</sup>

With the reorganization of the BMG Coys into divisional battalions in 1918, though first proposed by Brutinel Christmas 1917, brigades were being told what they had already known for a year - HMGs would be controlled at the divisional level. It was also obvious to all that the further expansion of the CMGC was driven primarily by the urgent defensive demands necessitated by the Germans' 1918 spring offensive and the influence of newly-promoted BGen Brutinel. LGen Currie, a former artillery officer turned infantryman, later wrote that "the success of the German offensives emphasized the need for greater depth for defensive dispositions, which depend very largely on the stopping power of the machine gun." As each of his divisions was stretched during the crisis, allocated on average 10,000 yards of frontage, Currie felt compelled to "add a third company of four batteries to each battalion of the C.M.G. Corps, thus bringing to ninety-six the number of machine guns in each Canadian Division. This entailed an increase in personnel of approximately fifty per cent of the strength of each machine gun battalion."<sup>518</sup>

Currie did not wait for official sanction but felt it necessary in a letter addressed to his divisional commanders to explain in some detail why he was taking away 50 men per battalion having just recently increased their establishments by a hundred riflemen. He wrote:

A short time ago, the strength of each battalion was increased by one hundred men and, in view of the increased firepower which the new machine gun company in each division will give, it is considered battalions will be agreeable to allowing these men to go. There are no trained machine gun replacements in England available at the present time so that the organization suggested must be improvised from resources here. I would like you take this matter up with your battalion commanders at once. While no doubt they will dislike losing their men from the infantry, I believe they will realize it is for the general good, and I would ask that you urge upon

---

<sup>517</sup> NAC, MG 30 E 100, *Currie Papers*, Vol. 27, File 7, Currie to O.E. McGillicuddy, nd.; *CC Ops*, 3-4; *CEF*, 231-32.

<sup>518</sup> Currie quoted in Grafton, *The Canadian "EMMA GEES"*, 110.

them to earmark fifty of their best and brainiest men for the purpose outlined above.<sup>519</sup>

Interestingly, Currie instructs his divisional commanders who will benefit directly from the restructure to take up the matter directly with battalion commanders, bypassing brigade commanders, who undoubtedly had a vested stake in the matter. The transfers were duly made but the CMGC historian noted that “it would be a pleasure to record at this point that all battalion commanders did earmark their ‘best and brainiest’ but that would be wide of the truth.”<sup>520</sup> Brigade commanders, whose formation’s fighting efficiency depended upon strong and well-motivated infantry battalions were, no doubt, unhappy to lose 200 of their “best and brainiest” soldiers to a resource which had been already taken from their control almost a year earlier.

The CMGC announced simultaneously with their new reorganization that, the MG service “must be regarded as a distinctive arm with tactics entirely of its own,” and, that “in all respects, it is intermediate between the Infantry and the Artillery, its tactics being radically different from the former, and approximating to but not being identical with those of the latter.”<sup>521</sup> The organizational restructuring of the HMGs required Brutinel to spell out the command and control relationships between his new arm and the infantry from which it had sprung, sometimes with some confusion as to whether the HMGs were “attached”, “in support” or “under command,” each of which are all modern command and control terms today, each with their own specific and clearly understood meanings. In the First World War however, the terms appear to have been interchangeable and thus suitably ambiguous.

First of all, Brutinel reiterated that the principle governing the employment of MG units was “to *support* (emphasis mine) the infantry in all phases of the fight and to *cooperate* constantly with them. But they are not part of the Infantry and must not be considered as such.” He went on at length to explain that “A Machine Gun

---

<sup>519</sup> *Ibid.*, 110.

<sup>520</sup> *Ibid.*, 111.

<sup>521</sup> *Ibid.*, 120.

Commander should be given definite orders by the Infantry Commander, to whom he is *tactically attached*, as to what is required of him, but he should be allowed as much freedom of action as possible in carrying out these orders and should be kept informed of all changes and developments of the situation which may affect his action...

But it was under the heading of "Liaison" which must have had some infantry brigade and battalion commanders biting their tongues when Brutinel stated, "in a retirement, the definite stopping power of the machine guns should be utilized by Infantry Commanders to the utmost. Infantry instinctively reform under cover of fire from machine gun batteries which are natural rallying points for them." It was in his opinion, "the duty of the Commander of the Infantry force to arrange, automatically, for the protection, particularly of the flanks, of any Machine Gun Units which are *cooperating* with him, and in consultation with the Machine Gun Commander, to make any definite arrangements for any advance, counter-attack or other tactical maneuver"<sup>522</sup> - a clear case of the tail wagging the dog.

While the CMGC historian might state that all of these developments proved that "the Machine Gun Service had not only grown in stature but as well in status effecting its tactical independence and in the initiative and latitude defined in the employment of the weapon"<sup>523</sup>, Canadian MG doctrine was definitely defensively-oriented. One sees in Brutinel's thinking parallels with that of the German defensive doctrinal emphasis on the importance of HMGs and HMG strongpoints sited in depth.

The last Hundred Days, however, would require a completely re-vamped approach to HMG tactics and the indications are that Brutinel's corps was not up to the challenge. After the battle for the D-Q Line, a former 49th Bn CO turned brigade commander with a keen interest in MGs would write: "The offensive use of our Machine Guns still leaves much to be desired. They followed along and took up successive defensive positions...I am now of the opinion that having regard for the

---

<sup>522</sup> *Ibid.*, 120-21.

<sup>523</sup> *Ibid.*, 122.

difficulties of transport and the apparent lack of a definite offensive doctrine, Machine Guns must be attached to Infantry and specific orders given by the Infantry Commander.”<sup>524</sup> After the battle of Cambrai, towards *the very end* of the campaign, BGen Clark, GOC 7th CIB, was blunt about the CMGC’s performance. “The machine gunners worked extremely hard and were most willing to undertake all tasks allotted to them. Their defensive tactics were good, “ he acknowledged,” but *combined training with the Infantry is necessary before the best results in offensive tactics can be obtained.*”<sup>525</sup> [author’s italics].

Clark identified that coordination and control of HMGs which Brutinel wished centralised at the divisional level, now had to devolve down to at least the battalion level so they could be effectively employed by the commander on the ground. In an October 1918 “Lessons Learned in Recent Operations” Clark went straight to the heart of the matter, indicating that the coordination of the “new” arm was a major problem in offensive operations. While Brutinel’s corps was technically competent, they were tactically incompetent. He wrote:

It was again clearly demonstrated that there is not sufficient coordination. Machine gunners appear to be efficient in technical training, but look to the Infantry Commander to take the initiative in all offensive operations. The only cure for this is combined training when the Infantry is out of the line. At the present time it is unfair to expect the Battalion Commander to make the best use of a battery of Machine Guns. They are usually assigned to him at the last minute, and many good opportunities for their use in the offensive are lost because of the lack of training together.<sup>526</sup>

A month later, the war would be over, and the CMGC would never successfully come to grips with its shortcomings during the last Hundred Days. While on one hand, it is praised by most historians as being innovative and far in advance of its BEF counterparts, it proved in the end to be flawed in its tactical design for offensive

---

<sup>524</sup> *Griesbach*, Vol.5, “Rpt to 1st CID” dated 6 Sept 1918

<sup>525</sup> *Topp*, MS 004, Ops Orders Folder, “7th CIB Operations Before Cambrai-Lessons Learned” dated 14 October 1918.

<sup>526</sup> *Ibid.*

operations. It remains a good example of a “new” arm which evolved out of the trench stalemate and became an important supporting arm for the set-piece attack, but its command and control arrangements for offensive operations, as well as its specific role, were slow in adapting to open warfare. This can be attributed partly to Brutinel and his MG officers reluctance to relinquish control of their hard-won assets once the corps required them to adapt like everyone else. Invariably, it was Canadian brigades and battalions which suffered, the key stopping block to rapid advances by Canadian infantry in the last 100 Days being fanatical German machine gunners which could have been effectively countered by aggressive HMG tactics on the part of the “innovative” CMGC. By comparison, it is significant to note that by August 1918, every British battalion had had an HMG section re-instated, thus giving British battalion commanders increased integral firepower and direct control over these sometimes errant weapons.<sup>527</sup>

The most important change in the infantry organization in 1918 was the increasing of the LMG establishment in the platoons from one to two guns in May 1918. Four guns were also added to the battalion HQs to provide a reserve, as well as an anti-aircraft capability, as open warfare would mean increased vulnerability to air attack. The total number of Lewis guns per battalion was now 36, as opposed to the previous total of sixteen. This new establishment of course did not take into account the many unofficial Lewis guns that were already in use in the battalions. Each platoon was made up of 30 men: one officer, two sergeants, two corporals, two lance-corporals, and twenty-three privates, organized into two half platoons, each under the command of a sergeant and each formed of two sections, one of Lewis gunners and another combining riflemen and rifle-grenadiers. (See Figure 9) “Corps staff believed that a half-platoon was a strong fighting unit in its own right, complete with Lewis-gun support and under the command of an experienced non-commissioned officer,” states Rawling. “That a half platoon of fifteen or twenty soldiers was considered a fighting

---

<sup>527</sup> Griffith, *Battle Tactics*, 131; J.C. Dunn, *The War The Infantry Knew*, (London: Jane’s, 1987) 183.

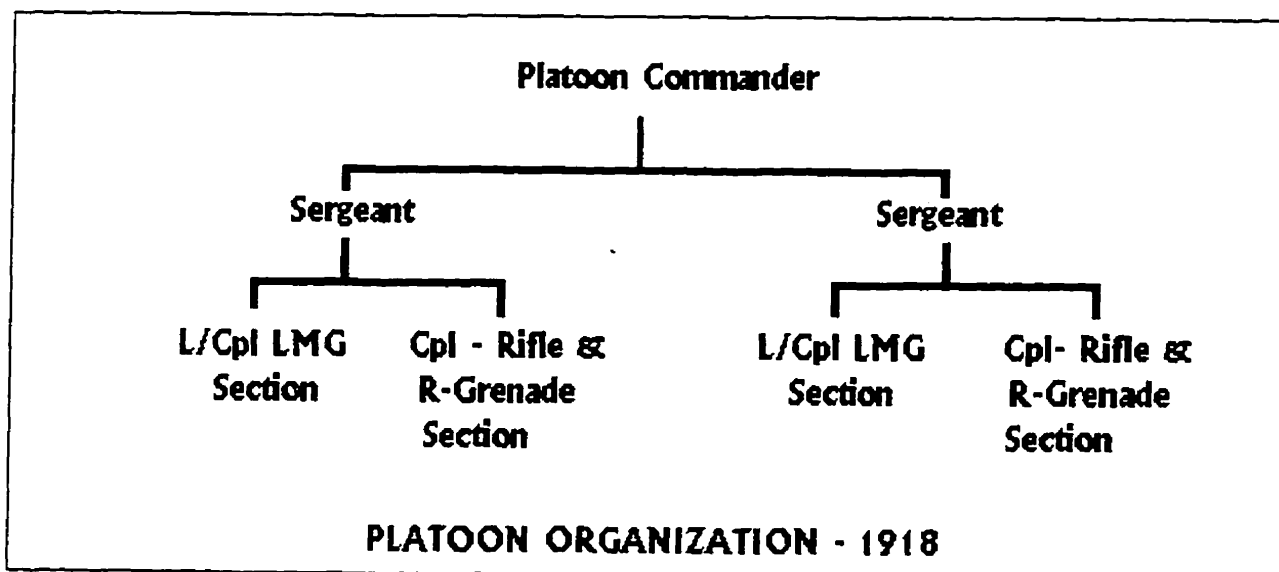


FIGURE 9<sup>528</sup>

unit in 1918 demonstrated the increase in fire-power available to the Canadian Corps in contrast to the situation of two years earlier, when it was considered impossible for a platoon of less than twenty-eight troops to function on the battlefield.”<sup>529</sup>

Though Currie was one of the main advocates of generalization vice specialization in the infantry, insisting that every soldier be proficient in the use of the machine-gun, rifle grenade and rifle, there was one specialized function that he reorganized in order to relieve the burden it had historically placed on the infantry. “I am of the opinion that much of the success of the Canadian Corps in the final 100 days was due to the fact that they had sufficient engineers to do the engineering work and that in those closing battles we did not employ the infantry in that kind of work,” recalled Currie. “We trained the infantry for fighting and used them only for fighting.” Thus he expanded the three field companies then with each division into one Engineer brigade, consisting of an HQ, three Engineer battalions of 1000 men each, and a Pontoon and Transport Unit in May 1918. The system of infantry work parties under sapper supervision became a thing of the past thus reducing demands made on the

<sup>528</sup> Schematic extracted and enhanced from Rawling, *Surviving Trench Warfare*, 176.

<sup>529</sup> *Ibid.*, 175.

infantry at a time when there was to be inordinate stress and strain placed upon them.<sup>530</sup>

Just as Currie's proposed reorganisations of his HMG and engineer establishments were designed to pre-empt any further manpower drains on the infantry battalions, so too was his proposal to combine all signal resources into four divisional signal battalions and a Corps signal battalion. Currie wished to enhance the key organization which facilitated his command and control capabilities, especially if the Corps was moving to a more fluid, mobile type of warfare. "The new organization was to prevent the unequal distribution of signal resources at the battalion level and to ensure there was no breakdown during active operations," notes Stewart. Currie wanted his divisional battalions to have a strength of 527 men and his Corps battalion, 882 men. In contrast, the strength of a British divisional signal battalion was 292 men. And while GHQ recognized the validity of the organization Currie was proposing, it was turned down on the grounds that their own signals service would demand a similar organization which was totally unacceptable given their critical manpower situation. The end result was that the very evils the proposed Canadian reorganization was designed to stave off, came to pass. The infantry battalions had to augment the signals during the 100 days campaign and there were wide disparities in various signal detachments found at division and brigade.<sup>531</sup>

Just as there were no new organization changes in communications, neither was there any significant technological changes in 1918. Rather, the most significant change was the change of battlefields imposed by a return to mobility. As Moir notes: "The main difficulty confronting Signals was that of keeping up with advancing troops - in brief, an organization which had grown up under position warfare had to be adapted to the needs of a mobile force." For example, at Amiens, the success of the attack carried the Corps off its deep-buried cable systems. "From that time onward, with one exception," adds Moir, "buries were no longer dug. Pauses were never

---

<sup>530</sup> NAC, MG 30 E 100, *Currie Papers*, Vol. 27, File 7, Currie/O.E. McGillicuddy, n.d.

<sup>531</sup> Stewart. *op.cit.*, 181.



afterwards of long enough duration to justify expenditure of labour on a buried system, save when the armies paused briefly in front of the Hindenburg Line.”<sup>532</sup>

“If there was any difference between Amiens and Passchendaele or Amiens and Vimy, it was that technology offered more ways to do the same thing,” observes Rawling.<sup>533</sup> At Amiens, telephones, lamps, pigeons, flares, power buzzers and amplifier sets, message-carrying rockets, runners, wireless telegraphy and contact aircraft all played their role to various degrees. It was at the different levels of command however at which the equipments and techniques varied.

Brigade HQs used primarily wireless and telephone to division but still maintained runners, mounted orderlies, telephones, pigeons and all means of visual signalling to maintain forward contact with their battalions. The brigades would also maintain an ABRC as far forward as possible with all means of communication “except for the wireless because there were too few sets to allocate below brigade level.” Battalion HQs in turn had the same means of communication as the brigade’s ABRC and established their own advanced report centres as far forward behind their advancing troops. After the battle started, the *modus operandi* of battalion signallers was to follow “closely behind the infantry and tanks, turning houses along the line of advance into nodes in the system, which was used to keep in touch with a given unit’s flanks as well as its parent formation.”<sup>534</sup>

In the final analysis, however, communications technology which was an essential key to effective command and control in the First World War was poorly developed during the entire war. As Rawling has noted “the revolutionary developments of previous decades, especially the telephone and the wireless telegraph,

---

<sup>532</sup> *Sigs Hist.*, 35.

<sup>533</sup> Rawling, *op.cit.*, 193; 7th CIB would trial message-carrying rockets in June 1918 concluding that they would be very useful in the hands of trained men, but that there was little time to instruct soldiers in their use. These rockets were not sufficiently accurate and took so much time to locate because they buried themselves deep into the ground. It was concluded that passing messages by the old reliable runner was in fact quicker. Rawling, “*Communication in the Canadian Corps*”, 16-17.

<sup>534</sup> *Ibid.*, 193.

were only partially applied to solving the information problems of the modern battlefield....Both were attempts to impose order on an essentially disorderly enterprise, and even in tandem they were only partially successful".<sup>535</sup> Of all technological impacts and limitations discussed in this paper, this one was the most critical in affecting effective command and control of forward troops. In essence, the recognition of technological limitations in this regard led to a realization by Canadian commanders that the control of forward troops had to be decentralized downwards and that clear missions with a certain degree of flexibility and latitude had to be given to commanders on the ground. Of the combat arms and services, the artillery would pay the most attention to the potential of wireless than anyone else in the entire BEF. Thus communications technology had a significant role in the entire shaping of the Canadian Corp's attack doctrine.

One other organizational change of note was Currie's creation of a Corps Survey Section, an artillery organization divided into special flash-spotting, intelligence and observation sub-sections. A smaller and more mobile version of an Army-level Survey section which was static, it gave the Canadian Corps its own self-contained capability to gather better artillery intelligence during mobile operations. And while this new development in intelligence did not impact directly on command at the brigade level, the addition of an Intelligence Officer to the establishment of every infantry battalion did, freeing up the long-suffering Scout Officer from office work and allowing him and his Scout platoon to devote all their skills in helping their respective battalions to advance in mobile operations. Major Hahn wrote: "It was finally realized that it was beyond the endurance of one man to ensure efficient observation of his front during the daytime, and then supervise patrolling activity at night."<sup>536</sup>

Robert England, the RCR Scout Officer, remembers returning from wounds sustained at Lens to find his old job had changed significantly from the summer of

---

<sup>535</sup> Rawling, "*Communications in the Canadian Corps*," 19.

<sup>536</sup> Hahn, *The Intelligence Service*, 69.

1917. It was one to be performed “in a new open warfare scenario, where alert intelligence and swift movement made my task more onerous and significant.” During the Canal du Nord operation his “Scout section was in continuous movement while the Regiment crossed the dry bed of the Canal du Nord and deployed northeast towards Bourlon Wood. I transmitted new map locations to company commanders and assisted platoon commanders to correct direction.” He and his Scouts were also intimately involved in “the arrangements for getting the companies to their jumping-off trenches,” thus illustrating that the Battalion Scouts were no longer just the “eyes and ears” of the battalion commander, but his “mouthpieces” and executors of his will as well.<sup>537</sup>

No new technological developments in gas warfare occurred in 1918 but during the last 100 days the Germans used it with increasing frequency against the Canadian Corps in desperate attempts to slow down its relentless advance. Good gas discipline and training allowed units like the RCR at Parvillers to take a heavy gas bombardment in their stride and carry on with their tactical mission. Many Canadian units found retreating Germans had exploded mustard gas shells in dugouts hoping to set traps for unsuspecting soldiers but battalion gas officers and NCOs were well to the fore to prevent needless casualties. Germans also poisoned most water wells at Amiens with mustard gas in order to place further strain on the attacking Canadian troops.<sup>538</sup>

The prevention of gas casualties in 1918 was strictly a function of good control, good training and gas discipline. A comparison between the Canadian Corps and another elite organisation, The Australian Corps, is revealing as to how overall discipline was also key. The Canadians not only had a lower gas casualty rate (7.85%) than the Australians (11.82%), but their rate of courtmartials, imprisoned men and desertion rate was much lower than that of their colonial cousins.<sup>539</sup>

By 1918, TMs had finally found their niche and were completely integrated into

---

<sup>537</sup> England, *Recollections*, 10.

<sup>538</sup> Cook, *Gas Warfare*, 286.

<sup>539</sup> Stewart, *op.cit.*, 249-50; English, *The Canadian Army*, 17.

the fire control network (see Figure 10) via their Brigade HQ for static defence. For the offensive, “means for making Stokes Guns and 6 in. Newton T.M.s more mobile” were high on Currie’s list of priorities and he had “special mountings designed, manufactured and tested.”<sup>540</sup>

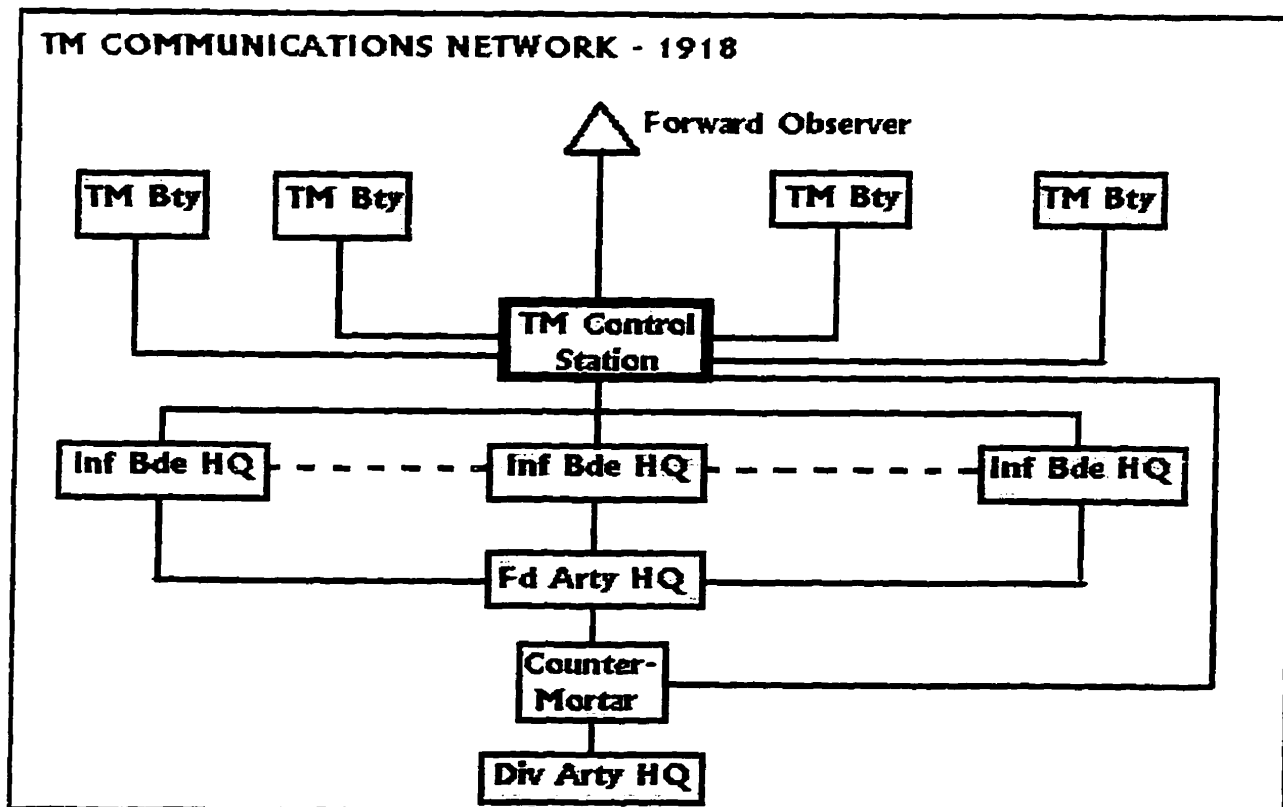


FIGURE 10<sup>541</sup>

Tms supported all the 7th CIB attacks in 1918, their most effective battle being the one for Tilloy 28-29 September 1918. Griesbach’s derogatory comments about their performance in 1916 could not be said of the TMs in 1918. Their personnel were highly motivated and trained. The only perennial problem that remained was getting sufficient amounts of mortar ammunition forward to keep the quick-firing weapon well-supplied. One of Griesbach’s suggestions made in 1916 that all Canadian TM personnel be trained in the use of

<sup>540</sup> *CC Ops*, 24.

<sup>541</sup> Schematic extracted and enhanced from Rawling, *Surviving Trench Warfare*, 181.

German TM equipment in order to take advantage of large stockpiles of enemy ammunition usually found in captured trenches had been actioned in the Corps TM School in 1918 with positive results. At Arras, Lt A.E.W. Roberts (a former CSM with the 49th Bn) came upon his old company commander at the battle for Pelves village on 28 August.

I met Captain McQueen and he was puzzling over a trench mortar, one of those Minen Rifles, and I said, "By Jove, thats what I've been looking for"

So he looks up and he says, "Do you know how to work this Mr Roberts?"

I said, "I sure do!" because I had been studying German Minen rifles at the mortar school, and there were a 100 shells there. So I started in on the Germans then and they beat it over the hill.<sup>542</sup>

The modest Mr Roberts's "starting-in" involved knocking out two other active German TMs and, almost single-handedly, stopping a massive German counter-attack on the 49th Bn. For his prowess, Roberts was awarded the MC. Ironically, Griesbach's comments on the TM being an ideal weapon for providing immediate fire support to the infantry in 1916 was validated by his old battalion in 1918.

Tanks in 1918 played a more prominent role with the Canadian Corps than at any other time. Tanks were not new to Canadians, thirty-six of them going into action with the Corps for the first time at Flers-Courcelette in September 1916. Although tanks had helped in consolidating newly-won ground in that battle, five were ditched in shell holes and the remainder broke down or were quickly knocked out after various periods of action. Their tactical employment was absolutely contrary to what tank officers had envisaged for their new weapons and, in the following months, their Mark I and Mark III tanks had been used in "drips and drabs" on the Western Front. It was not until their massed use by Gen Byng's 3rd British Army on 20 November 1917 at Cambrai that the concept of the tank as a feasible means of breaking the trench stalemate became a reality. Three hundred and seventy eight improved Mark IVs, supported by 98 other tracked vehicles, had made a significant penetration of the Hindenburg Line, only to see ground lost through poor direction of the battle at Corps

---

<sup>542</sup> CBC, 49th Bn, A.E.W. Roberts.

level.<sup>543</sup>

By the summer of 1918, as the Canadians trained for open warfare, the idea of mechanised warfare had taken root in the BEF. Instead of being satisfied with local objectives a mile or so in depth behind the enemy's forward lines, Sir Henry Wilson, the new CIGS wrote on the 20 July 1918 that main attacks should be directed at the "brains and stomach" of the enemy by striking at HQs and communications well beyond field and medium artillery range. This could be achieved by a force of rapid medium tanks capable of travelling long distances and either crossing trench systems under their own power or relying on bridges being laid by heavy tanks. This idea was implemented at Amiens where many members of 7th CIB remember seeing the marvellous sight of the Whippet tanks and cavalry going forward together on the morning of 8 August but never knew they were stopped by German batteries and machinegunners well short of their objectives.<sup>544</sup>

Tank casualties on the first day at Amiens were higher than those at Cambrai the preceding year because the Germans had trained to combat this particular technology by organizing and training special anti-tank artillery. And while Germans had trained to defend against the technology, there is no evidence to show that Canadians were sufficiently knowledgeable about tanks in order to have trained with them effectively to maximise their offensive power or protect that potential. Indeed the lack of any elementary measures at Amiens to provide for the protection of tanks against enemy artillery and anti-tank guns through the use of smoke, low-flying aircraft or mobile field artillery has led Travers to state that "the battle of Amiens showed...that the combination or the coordination of arms was not yet working in the BEF....The advance on 8 August of some 8 miles on the Canadian Corps front, although a dazzling success due to the *elan* of the Canadian infantry obscured the fact that neither the Canadian Corps nor the BEF generally had yet mastered the art of

---

<sup>543</sup> Hartcup, *The War of Invention*, 86-90.

<sup>544</sup> Wilson quoted in *Ibid.*, 89-90.

combined arms mobile warfare.”<sup>545</sup>

Four hundred and fourteen (414) tanks had started the battle, but only 145 were operating on the second day, 85 on the third, 38 on the fourth and six remained on the fifth.<sup>546</sup> The facts of the matter were: tanks were very large targets and easily hit; they broke down frequently as the technology for their engines and track systems was not yet sufficiently developed (it was also very hot weather and tank engines and crews suffered from heat exhaustion equally); and they ditched easily in trenches and obstacles.

A former CO of the 49th wrote after the battle that “as to the tactical handling of Tanks, I am persuaded that we cannot sit down and allow the Tank people to dictate the tactical use of the Tank, insofar as its mechanical possibilities are concerned.” The ever perceptive Griesbach pointed out “that some 15 Tanks were ‘done in’ outside of PARVILLERS, probably by the same anti-tank gun or battery. This meant that Tank after Tank went up against an impossible situation and was lost to the use of the attacking infantry. This was magnificent, but it is not war.” Griesbach suggested that any future large assault which included tanks should be a three phase operation: phase 1 would be a normal set-piece attack with an artillery barrage followed closely by tanks rolling over wire and dealing with any MG outposts followed by infantry; phase 2 would see the infantry take the lead, with the tanks 200 to 300 yards to the rear and only moving up after the infantry had dealt with anti-tank defenses; and, in phase 3, tanks would become a tactical reserve under the command of the battalion commander who could employ them at the most crucial points of his choosing.<sup>547</sup>

Griesbach, the infantry brigade commander, was thus envisioning the tank as a direct fire support weapon for the infantry battalion in the various phases of the assault, a solution to the ever-perennial problem of the infantry not having enough integral

---

<sup>545</sup> Travers, *How the War Was Won*, 121-22, 128.

<sup>546</sup> Bidwell & Graham, *Firepower*, 137-8.

<sup>547</sup> Griesbach, “Lessons From the Recent Fighting” dated 24 August 1918.

firepower far enough forward once it had advanced beyond the help of friendly artillery. To him, the only role the tank could really perform on the battlefield, given its technological limitations, was as a self-propelled assault gun or infantry heavy weapon.

The 42nd Bn of 7th CIB offered an uncanny example of the combined arms cooperation Griesbach had in mind at Amiens. The Royal Highlanders had four tanks in intimate support of their advance to capture Hill 102 which were ultimately helpful in knocking out MG posts after the battalion commander had specifically requested their assistance. The 42nd, however, had ensured this welcome support on their final objective by capturing two artillery batteries firing over open sights before preceding up the hill. But for the infantry's actions, both batteries which included anti-tanks guns, could have easily destroyed the tanks from moving to the infantry's assistance.<sup>548</sup>

Thus tanks can be stated to have had a minimal impact on command at the brigade and lower levels. The danger, as far as one brigade commander was concerned, was planning major offensives around a technology which, though promising in potential, was not technologically sound enough to be anything more than an armoured infantry support weapon. At the battalion and brigade level "accompanying tanks were a great morale booster" as well as effective in destroying "wire obstacles and enemy machine gun nests," recalled E.L.M. Burns.<sup>549</sup> And thus the prevailing infantry view of the day, of which Griesbach is an apt example, was that tanks were useful but should be placed under the infantry's direct command and control.

---

<sup>548</sup> *42nd Hist.*, 211-14.

<sup>549</sup> Burns, *General Mud*, 72.



## TACTICAL & DOCTRINAL IMPACTS ON COMMAND

The Canadians spent the months between Passchendaele and the summer of 1918 preparing for the new style of warfare, one in which the entire corps, not just its infantry, had to move, and daily advances would be measured in miles rather than hundreds of yard.<sup>550</sup>

Bill Rawling, *Surviving Trench Warfare...*

“Doing lots of open warfare stuff - Brigade and Divisional Schemes - interesting but dashed fatiguing. The amount of ground we cover and the time it takes would astound you....Quite a bit of fever and sores, the result of a long tour in the lines, but the men have picked up wonderfully on the whole and look splendid - all tanned like Indians.”<sup>551</sup>

Letter, Maj Royal Ewing letter to brother, 42nd Bn, 23 May 1918.

The PPCLI historian wrote that “the key-note of the training in 1918” was “open warfare and rapid movement” and that “the men took hold of the new ideas enthusiastically.” The training was conducted in an intelligent, professional and progressive manner. “Gradually, the work developed from company to battalion operations, and latterly to brigade and divisional manouevres with tanks in movement with infantry.”<sup>552</sup>

That future victories would be measured in miles and not yards was reflected in the optimistic issue of maps with a scale of 1/100,000 vice the old 1/20,000 trench maps.<sup>553</sup> The Canadian doctrine that had been developed for Vimy then modified for Passchendaele had to be adapted to open warfare. As Currie noted, “the laying down of a definite Corps tactical doctrine was necessary by reason of the different

---

<sup>550</sup> Rawling, *op.cit.*, 166.

<sup>551</sup> BWA, *Ewing*, 74.

<sup>552</sup> *PPCLI Hist.*, 282.

<sup>553</sup> Stewart, *op.cit.*, 188.

organizations, the greater strength, and the particular methods which characterised the Canadian Corps.”<sup>554</sup> The new doctrine borrowed some techniques from the old, the core essential still being the requirement to neutralise the enemy’s defensive positions with massive artillery. It was the methods to achieve this result that would undergo subtle transformations.

The new Canadian doctrine was the product of three main influences: the Canadian experiences in 1917; the British victory at Cambrai (as well as the successful German counter-attack); and, the unprecedented successes of the German Spring offensive. From its operations in 1917, the Corps learned the need for improved MG, engineer and signals organizations, a greater emphasis on musketry training and increased attention to open warfare tactics. The immense success of Byng’s surprise bombardment of German defences at Cambrai convinced Currie and the Corp’s senior gunners of the value of unobserved indirect fire. But perhaps the biggest influence were recently translated German documents relating to the Spring offensives, as well as the “Notes on Recent Fighting”. These received close attention by Currie and his commanders and Currie’s interim report on operations in 1918 stated “these documents were carefully studied and, to a large extent, inspired our training.”<sup>555</sup>

The new “soft-spot” doctrine developed for the Canadian Corps (so named as the advance was to be conducted by infiltrating through the soft-spots in the enemy’s defences) would consist of three basic elements: accurate, intense and unregistered artillery fire: surprise and infiltration of German lines of defence without worrying about flanks: and fire and movement supported by tanks.

In order to make the above doctrine work, every element of the Corps had to be exercised in open warfare, including commanders at all levels and their staffs. The tactical schemes carried out during May, June and July which were each designed to teach some “definite lesson, more particularly how to overpower resistance in an area

---

<sup>554</sup> *CC Ops*, 24.

<sup>555</sup> *Ibid.*, 23.

defended by machine guns in depth using covering fire and smoke grenades; how Batteries of Machine Guns should co-operate in assisting Infantry to get forward; and how Field Artillery could best carry out an advance in close support of attacking Infantry,” for the combat arms, also gave the staffs at all levels of command a rigorous work-out.<sup>556</sup> In many schemes, the lower chains of command were deliberately exercised, battalions being commanded by majors and brigades by battalion commanders to give these officers some experience in the event of casualties. One particular offensive operation code-named Delta, an actual corps attack designed to wrest Merville and part of the Lys Salient from the Germans, provided Currie with an opportunity to re-vamp procedures and policies and get everyone thinking about the new doctrine.

“The preparations for the projected “Delta” attack exercised a most vivifying influence on the training of the Canadian Corps,” he wrote. “It familiarised all Arms and Services with the difficulties, both administrative and tactical, inherent to a surprise attack intended to penetrate suddenly to a great depth.” In effect, “Delta” would, unconsciously, be Currie’s final preparation for the highly secret Amiens attack.<sup>557</sup> Not only were tactics practised, but also the basic movements required in battle procedure to administratively and tactically launch troops into battle. The 7th CIB on 11 July 1918 carried out its own “skeleton practise of a move to the Brigade Assembly Area” with “all officers and non-commissioned officers down to section commanders” participating. Battalion signallers were also to participate and “visual signalling would be used to confirm completion of the move.”<sup>558</sup>

Another example of training essential to the smooth functioning of command and control was “a Scheme for the exercise of HQs of units and signal personnel (without troops)” held the previous month near Norrente Fontes “under divisional

---

<sup>556</sup> *Ibid.*, 24.

<sup>557</sup> *Ibid.*, 24.

<sup>558</sup> *RCR WD*, 11 July 1918.

arrangements.” All Brigades were instructed to send as many staff officers as possible, less commanders, for a day long command post exercise on 14 June 1918. Every battalion was required to send its 2 i/c or Adjutant with a clerk to provide lower control players to generate message traffic as well as the maximum amount of battalion signallers possible. The scheme was “to be carried out without telephones. Vibrator, Visual, Wireless and D.R.s [despatch riders] etc., only being used.” As an “aeroplane would probably take part” all brigades and battalions were to bring their Popham panels and Lucas lamps.<sup>559</sup>

The training Canadians received with tanks before Amiens was with the slow Mark IVs whose main purpose, besides breaking lanes in the German wire, was to give close support to the infantry by knocking out German strongpoints and MG nests. The training, by all accounts, was cursory. In *How the War Was Won*, Tim Travers analyses the role command and technology played in the final 100 Days. His verdict on Amiens is that “there were not enough tanks available for the size of the offensive, and their prior training and preparation with the Canadian Corps were obviously weak. This was due not only to the speed in which the offensive was prepared (some three weeks), but possibly also because the deception orders of the Canadian Corps prevented full-scale training.” Indeed the 42nd Bn WD only shows the unit training with tanks for a grand total of one day in June, at the end of which the battalion diarist pronounced “many useful lessons were learned.”<sup>560</sup>

Travers argues convincingly that the Canadian Corps achieved their success at Amiens “without tanks or the mobile firepower of TMs, MGs, and field artillery.” Instead, “the tactical surprise, the opening barrage, the heavy mist or smoke, the rapid infantry advance with rifles and Lewis guns, were all sufficient to overwhelm the German defences on the first day, especially because of poor enemy morale, lack of strong-linked defence works, and initially no German artillery support.” But Travers is

---

<sup>559</sup> *Ibid.*, 12 June 1918.

<sup>560</sup> *42nd WD*, 13 June 1918.

only right in that he uses the word “mobile” to carefully qualify the type of firepower he is talking about. Certainly “static” Canadian field artillery was responsible for neutralizing the German’s ability to provide artillery support to stop the Canadian infantry’s advance. As well, “static” TMs and “mobile” tanks were initially used to cut the German wire allowing Canadian infantry the mobility to go forward, plus negating the need for pre-artillery registration and bombardment which would have eliminated tactical surprise. The use of tanks and TMs to cut wire also freed up more gun barrels which could in turn be devoted solely to CB, thus preventing any “initial German artillery support.”<sup>561</sup> Thus, Travers fails to note that the success of commanders at Amiens lay in recognizing which arms were best suited to the tasks at hand given the circumstances, rather than operating in any sophisticated combined arms methodology. Rawling underlines this latter point with the observation: “...Though the relationship between the four elements of the 1918 three-dimensional battlefield [infantry, artillery, tanks and aircraft] was far from perfect, and in the case of the tanks, the Canadian Corps seems to have neglected some of their potential, on the whole, Amiens would demonstrate the importance of using weapons in combination and pooling technicians so their different skills could complement one another.”<sup>562</sup>

That usage of all weapon systems in combination to complement each others capabilities would, however, not be a responsibility of commanders at the brigade and battalion level. The first proto-type combined arms operations really existed only at the divisional level. Thus the basic responsibility for planning, directing and coordinating artillery, tanks and airplanes at the brigade and battalion level would have to wait until the Second World War. Tactical coordination at the lowest levels of command would only involve HMGs, TMs and artillery for battalion commanders and LMGs and rifle grenades for platoon commanders.

The Canadian infantry’s advance over four days at Amiens was made for the

---

<sup>561</sup> Travers, *op.cit.*, 121.

<sup>562</sup> Rawling, *op.cit.*, 189.

most part without artillery, tanks, cavalry or aircraft. Perhaps it was a testament to the extensive open warfare training they had conducted two months previously, but probably more due to the fact that there were no heavily prepared defensive lines in this sector such as the systems the Canadians would encounter further north at Arras. By contrast, the Arras-Cambrai battles were a return to the semi-traditional set piece battles with a very heavy reliance on artillery and a lesser reliance on TMs and MGs. Whereas at Amiens, Canadian infantry were up against demoralized Germans in hasty defensive positions thrown up after their failed spring offensive, the attacks on the Hindenburg Line were against properly-sited field works with “elastic” and flexible defence systems in place as discussed in the previous chapter.

During the May and June training of Canadian infantry in the tactics of open warfare, it was, paradoxically, the highest and lowest echelons who best understood what was required. “The company, battalion and brigade commanders who had risen to command during the static battles of 1916 and 1917, had the least success in adjusting to [open warfare],” states Stewart. “These middle echelon commanders had learned their job on the spot and lacking a formal military training it was difficult for them to adapt to the situation.”<sup>563</sup> An example of how tactically unsound the company commanders inured to trench warfare had become, even when conducting that type of warfare, was Cpl Will Bird’s company commander at Parvillers ordering a platoon commander to make a frontal attack down a trench to take an MG post. Bird takes up the tale:

Someone told me the officer was going to lead an attack up the trench. It was the same narrow straight way we had retreated from the previous afternoon, where a Maxim gun was stationed in a position to sweep the trench. It would be sheer suicide to venture up there, and I took my courage in my hand and went to [Captain Grafftey], explaining the situation in detail.

“Let us take a [bombing] party and work around the place from the right,” I said.

The previous day had been a really tough one for the [captain]. The company had got lost. All had been confusion...so [Grafftey], for the only time in all the months I served under him, gave me a sharp reminder that my advice was not asked for, that my job was to obey orders. Furthermore, I was to be one of the party to go down the trench.

It was like a death sentence to me, but I knew any argument would only make it worse. One look at the officer’s face told me that he had pleaded for another type of attack. He turned

---

<sup>563</sup> Stewart, *op.cit.*, 197.

and shook the [Captain's] hand, and said "Goodbye, sir." The [Captain] started slightly but made no remark. A corporal stepped in behind the officer. So I stepped up next, and one of the MacLean Highlanders of Fifteen Platoon stepped back of me. The other men hung back. Everyone there *except the [Captain]* (emphasis mine) knew the folly of what we were going to attempt. There was a sharp order and a sergeant started to detail men to make up the [rest of the] party. But the officer didn't wait for them. He pulled at his helmet and stepped round the bend, with us three close behind him. The German gun let go full blast at the "sitting-duck" target. We were swept down by the burst.<sup>564</sup>

The platoon commander was instantly killed by several bullets, the corporal severely wounded and Bird escaped with his fighting order shot away. "Grafftey was white as paper and trembling as we scrambled back on hands and knees," recalled Bird. "The [captain] turned and went back along the trench without speaking again or giving another order" Soon Bird and ten others were conducting the right flanking as he had originally proposed and they successfully took out the MG post with rifle grenades. There are many testimonials as to Captain Grafftey's excellence as an officer in the 42nd. Bird himself described him as "one of the best soldiers in the 3rd Division", though the Corporal probably was referring to his company commander's administrative capabilities, sense of fair play and common decency rather than his tactical acumen.<sup>565</sup> Thomas Dinesen, a Danish blueblood serving with the 42nd who was highly critical of the officers in his battalion also thought highly of Grafftey: "Captain Grafftey is a brilliant exception to the general rule - a thoroughly able, clever and smart officer, for whose sake we would all go through fire and water."<sup>566</sup> If Grafftey was an example of one of the more "thoroughly able, clever and smart" company commanders in the CEF, one wonders how much other commanders of companies, and by extension, battalion commanders, were in touch with the realities of lower level tactical fighting in 1918. Anyone above the rank of Sergeant (or lieutenant if he was a former "ranker") in the infantry, it would seem, had become a liability

---

<sup>564</sup> Bird, *Ghosts*, 162-3.

<sup>565</sup> *Ibid.*, 59.

<sup>566</sup> For a "no holds barred" description of the 42nd Bn officers see Tom Dinesen, *Merry Hell! A Dane with the Canadians*, (London: Jarrolds, 1930) 206-7.

rather than an asset. Effective tactical command in the absence of any truly developed combined arms cooperation had truly devolved down to the section level of command.

Much has been made of how the Canadian Corps trained all of its arms in open warfare techniques for two months prior to the last 100 days and how this was “invaluable” and the principal reason for the Canadian successes at Amiens, Arras and Cambrai.<sup>567</sup> But there are strong indications that the idea that superior training was the principal explanation for the infantry’s overall performance in the last 100 Days should be re-examined closely.

While the lowest echelons of command no doubt benefitted from their intensive training, once battle was joined and the brigades were engaged in almost continual fighting, this highly trained cadre of men was quickly diminished by a casualty rate which easily rivalled the Somme or Passchendaele. For example, 3rd CID in the month of August 1918 alone, sustained 4716 infantrymen casualties, nearly the entire “bayonet strength” of two infantry brigades. (This figure is calculated on the basis that most infantry battalions went into battle with a “bayonet strength” of just under 600 men multiplied eight times for a total of 4800 all ranks.) This total for one month’s fighting was higher than the average of 4407 infantryman casualties per Canadian infantry division at the Somme in 1916. The worst average for casualties incurred in a single month during the war for 3rd CID (as well as 1st and 4th CIDs) was September 1918 in which 4914 riflemen, Lewis gunners and rifle grenadiers became casualties.<sup>568</sup> Where were all the “trained” replacements coming from to replace the “invaluable” trained cadres of May, June and July 1918?

In August, all replacements in England who had completed the 18th week of their training syllabus were sent to France. “By September the demand for replacements compelled the dropping of the standard to those having finished the tenth week and by October it was the ninth week,” states Stewart. “It is not surprising that

---

<sup>567</sup> Typical examples are Rawling, *Surviving Trench Warfare*, 189; and Stewart, *Attack Doctrine*, 193.

<sup>568</sup> Rawling, *op.cit.*, 215, 221.



there were complaints in after action reports in October that the troops were not trained for semi-open warfare”<sup>569</sup> let alone how to use their rifle properly. Cpl Will Bird remembered two new men joining his section just before the crossing of the Canal du Nord and who saw their first and last action on the outskirts of Tilloy village. Bird’s section moved into immediate action when the German MGs opened up on his company while in extended assault formation. His Lewis gun team of his half platoon went into action immediately, covering himself and his riflemen going forward. “The two men of our last draft fired at the Germans in a half-hearted manner, as if they had no hope of hitting anyone, and both went down and were dead when we reached them.”<sup>570</sup> Capt GW Little, the acting CO of the PPCLI wrote after Tilloy: “Too much reliance is placed on the fire of the Lewis gun sections. Men are not sufficiently trained to understand the value of covering fire...the fact that great rifle power is in their own hands is overlooked. Sections look to the Lewis Gun to supply the whole of it.”<sup>571</sup>

Thus, with little time between battles to assimilate or train the arriving replacements who, in 3rd CID’s case, were mostly conscripts, something more durable and permanent had to be the main underlying reason for the Corps’ ability to achieve consistent results against heavy German defences.<sup>572</sup> In fact, the Corps’ organisation and command structure, as well as its overall attack doctrine, were more “the stuff of victory” than any higher degree of training or innate superiority on the part of the Canadian Corps. Even E.L.M. Burns admits that, though the Canadians had “a guid conceit oursels” and considered themselves “the spearhead of the British Army”, there were British divisions “as good or better than any of the Canadian divisions, and the British soldiers were just as brave as the Canadians.”<sup>573</sup>

---

<sup>569</sup> Stewart, *op.cit.*, 198.

<sup>570</sup> Bird, *Ghosts*, 193.

<sup>571</sup> *PPCLI WD*, “Rpt on Ops from Sept 27th until Oct 1st Inclusive-Lessons Learned”, October 1918.

<sup>572</sup> *CEF*, 532.

<sup>573</sup> Burns, *General Mud*, 35.

What set the Canadian Corps apart from any of its British counterparts was its superior “arrangement of personnel, equipment, communications, facilities and procedures,” the key elements of an effective command system which ensure “the planning, directing, coordinating and controlling forces and operations in the accomplishment of the mission.”<sup>574</sup> The Corps’ battle procedure or means of launching men into set-piece battles had been honed and refined until it was almost guaranteed that its formations could break the first and second line of any German defence. There was probably no finer corps organization on the Western Front. Even LGen Monash, the commander of the Australian Corps in 1918, was forced to admit this and claimed that it was the practically semi-permanent organization that was its most invaluable asset. It “meant mutual knowledge of each other amongst all commanders, all staff, all arms and services and the mutual trust and confidence born of that knowledge.”<sup>575</sup>

Without belittling the fighting calibre of the men in 7th CIB in 1918, it is a fact that it (and other brigades) after Amiens were not given sufficient time to refit, reorganize, or to train. Ironically, it has also already been noted in the historical overview that some of 7th CIB’s hardest fighting at Amiens and Arras was in the old German trench systems in front of Parvillers, at Monchy and at Pelves village. It was only when 7th CIB attacked Jigsaw Wood and went up against the Marcoing Line and Tilloy village outside Cambrai that they well and truly fought in the open. In the latter action, they were essentially fought to a standstill by German machine gunners. Whether the brigade would have done better if they had had more time to rest, reorganize and retrain is debatable but, it is a fact that most of the best and experienced junior officers and NCOs, the critical personnel in keeping troops going forward in open warfare, had unfortunately been killed and not replaced after Amiens and Arras.

As Morton has noted: “Soldiers seldom lasted more than a year in action, and a quarter to half the men in any battalion always faced their first battle. How could

---

<sup>574</sup> Snyder, *Command and Control*, 11.

<sup>575</sup> LGen Sir John Monash, *The Australian Victories in France in 1918*. (New York: E.P. Dutton, n.d.) 5.

they, in a few days, weeks, or months absorb the intuitive expectations that real teamwork in sports or in battle requires?" The example of an entire 7th CIB battalion, supposedly officered by regulars, being held up on the Marcoing Line until a recently commissioned-from-the-ranks private seized the initiative and took action is another stark case in point. By Cambrai, "most soldiers laden down with weapons, ammunition and kit were supporting players for the minority of desperate fighters," states Morton, "...who determined success or failure."<sup>576</sup>

Another key to reducing casualties in hard-slogging infantry battles in the open such as the 28 September attacks of 7th CIB in 1918 would have been a stricter adherence at the brigade and divisional levels of command to the established and well-tested infantry-artillery doctrine that had been developed within the Corps prior to the "100 Day" campaign. Tanks and aircraft would also have been invaluable in helping forward the infantry pinned down by German HMGs echeloned in great depth. A more offensively-oriented CMGC and HMGs re-integrated into the infantry battalions may have given brigade and battalion commanders more command and control over firepower to punch their way through the German defensive system.

In the final analysis, the claim by the American historian Jonathan House in an earlier chapter that "the combination of flexibility, decentralized control and counterattack at every echelon made the German system almost invincible until attrition and demoralization gave the Allies an almost overwhelming superiority" must be confirmed as a valid and well-grounded one.<sup>577</sup> Though both 4th and 3rd CIDs crossed the Canal du Nord on 28 September, both divisional attacks ground to a halt in the face of stiff German opposition. If the German Army had not bled its self white in the Spring offensives, losing over one million of their finest troops in the process (including a superb cadre of junior leadership), then Cambrai, the breaching of the D-Q Line and Amiens may have been much bloodier affairs than they actually were or, may

---

<sup>576</sup> Morton, *When Your Number's Up!*, 180.

<sup>577</sup> House, *Toward Combined Arms Warfare*, 27.

not even have come to pass. Canadian attack doctrine and organization was good, but German defensive doctrine, when not mitigated by the circumstances cited above, was better.

## CHAPTER SIX - CONCLUSION

### “KEEPING ONE’S FREEDOM OF ACTION”

**The art of war is, in the last result, the art of keeping one’s freedom of action.<sup>578</sup>**  
**Xenophon.**

**Since any technology is by definition subject to limitations, historical advances in command have often resulted less from any technological superiority that one side had over the other than from the ability to recognize those limitations and to discover ways - improvements in training, doctrine and organization - of going around them. Instead of confining one’s actions to what available technology can do, the point of the exercise is precisely to understand what it cannot do and then proceed to do it nevertheless.<sup>579</sup>**

**Martin van Creveld, *Command in War*.**

In the First World War, neither side had any innate moral or technological superiority. It was more the practical adoption of realistic doctrines, which among other things, recognized the limitations on command and control imposed by the existing communications technology as well as the limitations of such weaponry as tanks or poison gas. Though the Great War has been characterised as the first great modern industrial war in which machines dominated the battlefield, it was human ingenuity and innovation which developed the various techniques, methods, applications and procedures which were termed “arrangements” at the beginning of this study. Whilst defining command, it was noted that “command and control functions are performed through *an arrangement* of personnel, equipment, communications, facilities and procedures which are employed by a commander in planning, directing, coordinating and controlling forces and operations in the accomplishment of the mission.”<sup>580</sup> All sides had their elite fighting units, accomplished commanders and

---

<sup>578</sup> Xenophon cited in Fitton, *Leadership*, 115.

<sup>579</sup> Van Creveld, *Command in War*, 275.

<sup>580</sup> Snyder, *Command and Control*, 11.

innovative weapons of war but none could be labelled “superior” or the ultimate “war-winning” element. If any single aspect of the Canadian Corps could claim the moniker “superior” in relation to other corps of the BEF, Allies or even the Germans, then it was the “arrangements” and synergy of the Canadian Corps’ command system which extended right down to its lowest levels of command. Effective tactical command in the First World War for the Canadians can be characterised as a constant search for improved organizations, technical means and procedures to create an overall process in which information could be used correctly and then the resources of the organization applied consistently to achieve the tactical mission.

Tactical command in 7th CIB was examined from the perspective of the three tactical elements that have interacted continuously throughout military history: mobility, protection and firepower. The main themes that impacted on how tactical command evolved to deal with these three ever changing factors in warfare were doctrinal, organizational, technological, tactical (including training) and sociological changes. The underlying thread weaving all the themes together was the human dynamic of leadership and the fertile thinking environment created in the Canadian Corps by leaders such as Byng, Currie, Lipsett, Macdonell and Griesbach. Essential attitudes and important states of mind such as professionalization, confidence and *esprit de corps* born of success “in accomplishment of the mission” grew in a climate where openness to ideas and the ability to speak frankly were welcomed.

The study revealed that command and control is invariably bound up with numerous other factors that shape war, though it is virtually impossible to single out any “master principle” that clearly illuminates how it should always operate or the ideal command structure or process. It is also apparent in the preceding chapters that no single weapon system, no single mode of communications, no single procedure, tactical technique or single system of organization were sufficient in themselves to guarantee effective command and control. What is readily observable, however, is that all of these elements which had significant impacts on tactical command and control in an infantry brigade were constantly changing and evolving to meet the circumstances.

It is also apparent that the Canadians enjoyed advantages of semi-permanence in their organization and thus were the fortunate recipients of an enviable cohesion not seen in other British corps. As one Canadian brigadier recalled:

It is true that the Canadian Corps was a marvellously cohesive organization and that the Corps Commander must have the credit for it. But the man in the ranks derived his esprit de corps from confidence in the machine which the Corps Commander created rather than in the individual himself, which after all, in my opinion, is the essence of military leadership. A Military organization built around the personality of one man is a weak organization from a military standpoint. A military organization which is impersonal save from a common esprit is a perfect one.<sup>581</sup>

MGen Frith of the British Army, who had served on Currie's staff, commented after the war that the Canadian corps commander's success lay in the fact that he insisted on maintaining one's freedom of action and resisting orthodoxy if there was a better way. Of Currie's personal strengths, Frith believed that the most important one was the ability to recognize one's limitations:

His strong will was checked from carrying him too far or too fast by his clear judgement, while, per contra, the will gave the necessary driving power on the course which judgement selected. Self-reliance he had in large measure but his common sense told him plainly where the limits of his knowledge and experience lay and he did not rely on himself in regions beyond these limits. Currie was not a clever man, but, on the other hand, he was certainly a very able one. He could and did make full use of the brains, the knowledge and experience of others. He was ever ready to take advice and able to discern what was good advice and what bad.<sup>582</sup>

This was the essence of Canadian leadership from 1916 onwards. Currie's example was followed at all levels of command, the "efficient man" going ahead, with "seniority and bull" being discarded in favour of tactical skill and knowledge. Currie's insistence that all were to provide him with feedback on lessons learned, no matter how trivial, illustrates the state of mind which permeated its way down the Canadian chain of command and imbued the command process with one of its most important assets: accessibility.

One is reminded of BGen Macdonell and his comments to Griesbach on his

---

<sup>581</sup> *UP*, BGen Alex Ross Interview, 2.

<sup>582</sup> *UP*, MGen AG Frith Interview, 13.

openness concerning the Ross Rifle, highlighting the CO's role in effecting necessary change. In reading after-action reports of the battalions and 7th CIB one can see a steady evolution of ideas and attitudes being constantly fed up the chain of command. In the Canadian divisions, unlike their British counterparts which were constantly shunted about to the detriment of training and the inhibition of innovators desiring to implement change, the recommendations of lower level tactical commanders were, more often than not, promptly actioned if they made good sense. The example of the new platoon organizations that were recommended first by the British after the Somme experience being firmly established in the Canadian Corps, before most British divisions had given it any serious thought in 1917, is a case in point.

The entire cyclical command process, which comprised incoming intelligence from the lowest levels, followed by analysis and evaluation, followed by commanders' decisions, staff planning, transmittal of orders to subordinate forces, execution by those forces, and finally, revision of intelligence using feedback from those afore-mentioned after-action reports, taken as a whole, represented an irresistible synergy in the Canadian Corps which was far greater than just one man. Identifying this synergy for some historians has been difficult and, at times, incomprehensible. Many command and staff techniques, which only become evident by reading the operational orders of the day and examining how intelligence was processed, remained in the military "shop culture" of the Canadian Corps and died with it after the war ended. The Official Histories certainly do not discuss the "procedures shaped by momentum, custom, word-of-mouth, adaptive informal practise and the inclination or whims of commanders and staffs"<sup>583</sup> which were integral characteristics of the unique Canadian command process, a process which often functioned by ignoring the rules, conventions and orthodoxy laid down by their British counterparts. These are only to be found in letters, memoirs, interview transcripts, autobiographies and little-read regimental histories.

---

<sup>583</sup> Beaumont, *The Nerves of War*. 12.



The complete reorganization of the Canadian Corps by Currie in the winter/spring of 1918, its subsequent restructuring and re-training to facilitate a new attack doctrine, is a perfect example of how a military organization which can outwardly resemble another in its uniforms, equipment, rank structure and staff work, can be radically different because of the people in command and the doctrine and philosophy they hold. While 7th CIB was not directly involved implementing any of the above changes other than participating in the reorganization of the basic tactical fighting unit in mobile warfare - the platoon - it was the primary beneficiary of the mobility and firepower provided by the new engineer battalions and improved artillery techniques. It was also an active and enthusiastic participant in relating the tactical lessons learned in all major battles and relaying them back up through the chain of command with criticisms, new ideas and suggestions.

Within 7th CIB's battalions it has been noted that certain organizations and methodologies were adopted and used before general acceptance and practice throughout the Corps, justifying Bidwell and Graham's claim that "the great change in tactics...probably started from below, in the form of a popular movement, the produce of the psychology of men in dangerous and difficult situations, who gather round any leader who seems sure of what he has to do."<sup>584</sup> Witness the PPCLI's highly developed and serious approach to gas warfare with its company anti-gas sections and equipment to combat this menace in late 1915; the PPCLI's creation of a section of bombers in each platoon a full year before the infantry platoon reorganization of 1917; and, the 49th Bn's self-contained infantry sections incorporating all platoon weapons which fought at Passchendaele, October 1917, months before the rest of the Corps followed their lead in May 1918.

It was noted in an earlier chapter, that command and control of an infantry brigade in the static defence of trench warfare was relatively easy, once deep-buried cables had come into vogue after Mt Sorrel and good telephonic communications

---

<sup>584</sup> Bidwell and Graham, *Coalitions, Politicians & Generals*, 54.

between brigade and battalion were virtually assured. But the Canadian Corps, with the exception of the long stint in the Lens-Vimy sector during the German Spring offensives of 1918, spent the remainder of the war training for, and mounting, set piece attacks of varying intensity and with varying results. This meant the assault battalions left the cable grid system and its comfortable guarantees of communication and launched into space equipped with various alternate means of communication which were not 100% reliable. Several different modes of communication such as visual lamps and panels, runners, telephones, and messenger dogs built in a certain level of communications redundancy, but each had their particular strengths and weaknesses based on time and space, or both. However, without a small, rugged, field-capable wireless, the brigade commander in effect, had no more command and control capability over his troops than that of the Duke of Wellington at the Battle of Waterloo. At least in the latter officer's day, he had the additional envious advantage of being able to *see* most of the battlefield from an advantageous position, whereas the 1914-1918 infantry brigadier's perspective was confined usually to the four walls of his dugout due to the increased availability and lethality of firepower on the modern industrial battlefield.

Tactical command truly devolved upon the commanders forward upon the ground in 1916, in most cases, the battalion commander or lower. When it was shown at the Somme that even the latter level of command was not tactically effective, given the lack of technical communications and the dispersion of men necessitated by German machine guns, rifles and artillery fire, tactical command and control came to rest upon the shoulders of the lowly platoon commander. Though Macdonell would rightly insist that his COs should always be well forward in order to know what was happening and, also, hopefully, be able to deduce what the enemy's intentions were, their situation matched his own of being ultimately relegated to sitting beside a fixed telephone line in order to respond to higher HQs. The days of brigade and battalion commanders being well forward so that they could physically *see* the battlefield and *know* what was going on in order to make informed, rational decisions, were placed on hold during the First

World War. The passing of the mantle of tactical command down to the platoon commander was an honest recognition of the technological limitations of the day.

In Martin van Creveld's *Command in War*, he notes that "the success of a given command system at any one time and place constitutes no guarantee of its success in others, even where technological and other circumstances are not fundamentally different."<sup>585</sup> This commentary is pertinent to this study in the overall sense that the CEF and BEF operating procedures were essentially the same until 1918, and had to be in order for the Canadian Corps to be able to "plug" into and be understood within the larger context of the BEF. But it was downwards, throughout the Corps command hierarchy, which controlled its own firepower, mobility and protection resources, that a unique Canadian way of waging war became possible. Within its assigned sector, the Canadian Corps was essentially, the master of its own destiny. The Canadians adapted and refined the British command and control functions to suit their own evolving doctrine and organization. Because the Canadian Corps ran its own schools and trained its own commanders at the CCTS and back in the UK, it could effectively ensure that its doctrine was disseminated and thoroughly understood by the commanders at all levels who were going to use it.

Another development which strengthened the command system was the adoption of the principle that all commanders should be able to operate on a command level at least two levels above their current appointment and responsibility. Training at Vimy first emphasised that knowledge of the mission and objectives should be the purview and responsibility of all ranks making the attack so as to ensure the attack did not founder when leaders were killed. At Passchendaele in October 1917, both the 49th Bn and PPCLI had private soldiers leading platoons and sergeants leading companies effectively by the end of the day, a point that did not go unnoticed by Lipsett, the divisional commander.

By 1918, the Canadian Corps had made significant changes in decentralizing its

---

<sup>585</sup> Van Creveld, *Command in War*, 261.

command and control functions in anticipation of open warfare and the increased levels of uncertainty that would arise from moving forward from static communication systems. They established detailed operating procedures but with flexible “mission-oriented’ orders for ground commanders so that initiative and flexibility were maintained. Commanders at all levels were trained to operate at higher levels thereby creating command redundancy in sections, platoons, companies and battalions in anticipation of casualties.

LOB procedures developed at the Somme would be maintained throughout the war as another measure to ensure some training and command expertise was always maintained in the brigades. There was increased emphasis on individual combat skills as well as cooperation between all arms. Integral firepower at the lowest levels of tactical command - the section and platoon - was doubled and artillery and mortar techniques improved in order to provide better indirect support. All of these developments, in large or small part, were shamelessly borrowed from the successful tactics used by German *sturmtruppen* in their 1918 Spring offensives. And rather than just issuing orders and pamphlets that these new procedures would be adopted and utilized in the Corps, the method followed in the BEF with their disastrous 1918 attempt to copy the German style of elastic defence, new tactical and technical procedures were constantly practised and refined in Canadian training schemes in which all levels of command, including the staffs and commanders, fully participated.

Martin van Creveld has claimed that “the history of command in war consists essentially of an endless quest for certainty - certainty about the state and intentions of the enemy’ forces; certainty about the manifold factors that together constitute the environment in which the war is fought, from the weather and the terrain to...the presence of chemical warfare agents; and, last but not least, certainty about the state, intentions and activities on one’s own forces.” That certainty he claims, manifests itself as the product of two factors: the amount of information available for decision-making and the nature of the task to be performed. The bigger and more complex the task, he claims will demand more information to carry it out. Conversely, when information is

insufficient, he argues, (or it is not timely, too much to process or just dead wrong) a fall in performance will automatically ensue. “The history of command can be thus understood in terms of a race between the demand for information and the ability of command systems to meet it,” concludes van Creveld. “That race is eternal: it takes place within every military (and indeed, non-military) organization, at all levels and at all times.”<sup>586</sup>

In an earlier chapter it was noted that effective *operational* decisions are only possible when good *informational* and *organizational* decisions precede them. The *organizational* decisions are the ones which have determined the chain of command for the execution of operational decisions and the latter’s subsequent allocation of the correct resources. *Organizational* decisions also put in place the optimal command structure for the flow of information and its timely processing. *Informational* decisions, while not actually articulated in the command process, other than in written appreciations or intelligence summaries, are critical to the formulation of the commander’s *operational* decision. To effectively accomplish their missions, all commanders had to establish what the situation was and how that situation related to the mission they were trying to accomplish.

To that end, the importance of the fledgling and highly innovative Canadian Intelligence Services, augmented by the air force’s aerial reconnaissance and photography and the artillery’s sound ranging, flash spotting and survey capabilities, cannot be overstated. As noted throughout the case study, intelligence was actively and aggressively pursued in 7th CIB as well as throughout the Corps. The first indication of its importance at the brigade level was the addition of a Staff Capt “I” to every CIB in 1915, giving them a clear advantage in this function over their British cousins. As the overall coordinator of the intelligence-gathering efforts of the four infantry battalion Scout Platoons, the principal staff officer supervising the brigade’s trench raiding plans and patrolling plans, the officer responsible for liaison with all supporting arms of the

---

<sup>586</sup> Van Creveld, 264-65.

brigade, and the officer who went forward during a brigade level or higher attack as the commander's "eyes and ears", the Canadian brigades' Staff Capt "I" was an important component in brigades' abilities to maintain effective tactical command and control and contribute to the Corps' overall intelligence gathering process.

The Canadian command system had time to process information, train and make detailed logistical and operational plans for major operations, a process which ultimately worked like a well-oiled machine. It was only with decreasing amounts of information that *informational* decisions, which begat *operational* decisions, were hindered, thus making the latter more difficult to make. In the final analysis, the organizational decisions of the Canadian Corps taken prior to the last 100 Days gave the overall organization the *balance* to be able to fight through and persevere in the face of uncertainty. The important caveat that had applied in all restructuring of the Corps was that anything that was not conducive to the organization's efficiency with regard to administration and combat capability was eliminated. The brigades and divisions by 1918 to a certain extent were structured to be more self-contained and mentally prepared to function effectively on less information.

In the case study of 7th CIB, one can see the effects of compressed battle procedures and preparation leading up to the final battles at the Marcoing Line and the village of Tilloy. Effective operational decisions were hamstrung by the lack of time as well as a lack of information available on the enemy facing Canadian troops. Well and truly did Wellington say: "In military operations, time is everything."<sup>587</sup> In essence, the brigade encountered its heaviest fighting in the second and third phases of battles such as Amiens (Parvillers), Arras (Pelves and Jigsaw Wood) and Cambrai (Marcoing Line and Tilloy) primarily because it was an echelon brigade passing through to the unknown and "uncertainty" of the depth battle. The other brigades which had fought the "break-in" battles had participated in the more "certain" and well-planned first phases of battle which had had the benefit of corps artillery and other

---

<sup>587</sup> Arthur Wellesley cited in Fitton, *Leadership*, 77.

resources such as tanks and aircraft. The battles that 7th CIB participated in during the 100 Days as an echelon brigade were, thus, harder and more demanding battles in terms of tactical command and control than the latter type of battle. Only a well-trained and well-led brigade with well-developed operating procedures could manoeuvre, perform and achieve success in such an environment of “uncertainty.”

It can be stated conclusively that by the end of the Great War, the Canadian command paradigm of 1918 did not resemble the 1914 paradigm, just as 1918 tactics, techniques organization, and weapons did not resemble their 1914 antecedents. The shift occurred in Darwinian fashion. The lethal environment of the modern industrial battlefield, constantly sustained by emerging technologies as well as improved techniques for older existing technologies, demanded rapid evolutionary adaptation in order for Canadian troops to survive and, at the same time, achieve their military mission.

Some historians such as Rawling have claimed that men using innovative tactics broke the stalemate, more “technicians” than “glorious soldiery” who knew how to use “the tools of war” to their advantage. This statement, however, is only partially correct. The true catalyst that brought about tactical efficiency was the innovative reorganizations that took place in the Corps command system between 1916-18 and the development of command techniques and applications that recognized the limitations of technology and worked around them. Canadians were not content to confine their actions to what available technology could do, but determined to keep their freedom of action constantly open. The new tactical systems that evolved were, more often than not, derived from within the command system, rather than imposed externally. The lumbering beast that was an army corps of the First World War needed a clever and meticulous staff to animate its nervous system and make it perform, and in this regard, the Corps was lucky to receive, almost from the beginning, some exceptional and gifted British staff officers. Through late 1916 and 1917, a process of Canadianization accompanied by the wide-spread acceptance of the need for professional staff training saw the Corps well stocked with staff officers who were intimate with the needs of the

Corps and how it should work. Improvements in training, doctrine and organization were all functions of command and were implemented successfully, not by the fighting men of the corps, but by its commanders, who in turn were served admirably by their staff.

The transformation of the Canadian command process from the corps level down to the section was made possible only by an accompanying change in the mental approach of how modern industrial war should be waged - the doctrine - hence the paradigm shift. The "Fighting Seventh" was a keynote player in all of the major set-piece battles of the Great War and an active participant in changing the process from the "bottom-up." This study has highlighted the historical evolution and devolution of tactical command functions and arrangements that were put in place during 7th CIB's three year operational history. Its story clearly illustrates the resulting tactical effectiveness of the Canadian Corps as a whole, an organization which, by 1918, possessed a common esprit, or as BGen "Ox" Webber termed it, "had a life" with "family feeling present." It was truly an elite and highly professional fighting formation of which all Canadians can be justifiably proud.



**APPENDIX A****7TH CANADIAN INFANTRY BRIGADE****GENERAL OFFICERS COMMANDING**

BGen A.C. Macdonell, CMG, DSO.....23 Dec 1915 - 20 Feb 1916  
 BGen F.O.W. Loomis, DSO.....14 Mar 1916 - 06 May 1916  
 BGen A.C. Macdonell, CB, CMG, DSO.....06 May 1916 - 09 Jun 1917  
 BGen H.M. Dyer, CB, CMG, DSO.....09 Jun 1916 - 12 Sep 1917  
 BGen J.A. Clark, CMG, DSO.....12 Sep 1917 - Demobilization

**INF BATTALION COMMANDING OFFICERS (23 Dec 1915 - Demob)****RCR (CEF)**

LCol A.H. Macdonell, DSO.....26 Nov 1915 - 20 April 1916  
 LCol C.H. Hill, DSO.....20 Apr 1916 - 20 Oct 1916  
 LCol C.R.E. Willets, DSO.....20 Oct 1916 - 07 Apr 1918  
 LCol C.H. Hill, DSO.....07 Apr 1918 - 04 Jul 1918  
 LCol C.R.E. Willets, DSO.....04 Jul 1918 - 14 Oct 1918  
 LCol G.W. McLeod, DSO.....14 Oct 1918 - Demobilization

**PPCLI (CEF)**

LCol H.C. Buller, DSO.....07 Dec 1915 - 17 Jun 1916  
 Maj A.A. M. Adamson, DSO.....17 Jun 1916 - 03 Aug 1916  
 LCol R.T. Pelly, DSO.....03 Aug 1916 - 31 Oct 1916  
 LCol A.A.M. Adamson, DSO.....31 Oct 1916 - 27 Mar 1918  
 LCol C.J.T. Stewart, DSO.....27 Mar 1918 - 28 Sep 1918  
 A/Maj G.W. Little.....28 Sep 1918 - 01 Oct 1918  
 A/Maj A.J. Pearson, DCM.....01 Oct 1918 - 22 Nov 1918  
 LCol A. H. Gault, DSO.....22 Nov 1918 - Demobilization

**42nd Bn, CEF, Royal Highlanders of Canada**

LCol G.S. Cantlie.....10 Jun 1915 - 24 Dec 1916  
 Maj R.L.H. Ewing.....24 Dec 1916 - 02 Jan 1917  
 Maj S.C. Norsworthy.....02 Jan 1917 - 6 Apr 1917  
 LCol B. McLennan, DSO.....06 Apr 1917 - 03 Aug 1918  
 LCol R.L.H. Ewing, DSO,MC.....03 Aug 1918 - Demobilization

**49th Bn, CEF, Edmonton Regiment**

LCol W.A. Griesbach, DSO.....04 Jun 1915 - 11 Feb 1917  
 LCol R.H. Palmer, DSO.....14 Feb 1917 - 01 Jul 1918  
 LCol C.Y. Weaver, DSO.....01 Jul 1918 - 01 Oct 1918  
 LCol R.H. Palmer, DSO.....02 Oct 1918 - Demobilization

***OTHER COMMANDING OFFICERS*****7th Canadian Machine Gun Company**

Maj H.T. Cock (RCR).....28 Dec 1915 - 28 Aug 1916  
 Maj J.W. Van Den Berg (PPCLI).....28 Aug 1918 - 23 Mar 1917  
 Lt D.S. Forbes, MC (PPCLI).....23 Mar 1917 - 09 April 1917  
 Lt F.A. Hale (RCR).....09 Apr 1917 - 19 Aug 1917  
 Maj J.G. Weir, MC.....19 Aug 1917 - 28 Dec 1917  
 Capt F.W. Burnham.....28 Dec 1917 - 23 Mar 1918  
 (absorbed into 3rd Machine Gun Battalion)

## APPENDIX B

### SHORT HISTORIES

#### OF THE UNITS OF 7th CANADIAN INFANTRY BRIGADE

(extracted from Barbara Wilson's NAC CEF Records Guides and respective Regt Histories)

#### RCR

Formed on 21 December 1883 as the Infantry School Corps.  
 Designated the Canadian Regiment of Infantry 24 May 1892.  
 Designated The Royal Canadian regiment of Infantry 1 April 1899.  
 2nd and 3rd (Special Service) Bns raised for service during the Boer War.  
 Canada's only Permanent Force infantry regiment on establishment at outbreak of war.  
 On garrison duty in Bermuda Sept 1914 - August 1915.  
 Left Bermuda 13 Aug 1915 aboard *SS Caledonian*.  
 Left Halifax 26 August 1915.  
 Arrived in UK on 7 September 1915 and Lcol A.H. Macdonell takes command.  
 Arrived in France 1 November 1915.  
 Corps troops until 24 December 1915 when it joined 7th CIB.  
 Perpetuated today by three regular force battalions of The RCR in the Second Canadian Infantry Brigade.  
 Bugle band. Regimental March: "Ste Catherines" and "Pro Patria".

#### PPCLI

Organized at Ottawa on 10 August 1914 for service with the BEF.  
 Commanded by LCol F.D. Farquhar.  
 Recruited mainly ex-British soldiers.  
 Left Quebec City 22 September 1914 aboard *HMT Royal George*.  
 Arrived in UK 14 October 1914.  
 Arrived in France 21 December 1914.  
 Reinforced in 1915-16 by the 12th, 23rd, 28th, 30th, 32nd Bns CEF, 13 CMR and the McGill University Reinforcement Companies. In 1917-18 it was reinforced by the 124th, 129th, 140th, 156th, 196th, 207th, and 240th Bns, CEF.  
 Joined the Canadian Corps 25 November 1915 as part of Corps Troops.  
 Joined 7th CIB, 3rd CID on 22 December 1915.  
 Disbanded at Ottawa on 19 March 1919.  
 Pipe Band. Regiment March: WW1 Medley "Has Anyone Seen the Colonel?"  
 "Mademoiselle from Armentieres," and "It's a Long Way to Tipperary".  
 Perpetuated today by three regular force battalions of the PPCLI in the First Canadian Brigade.

### **42nd Bn, Royal Highlanders of Canada**

Organized in February 1915 under the command of LCol G.S. Cantlie.  
 Authorization published in GO 86 of 1 July 1915.  
 Mobilized and recruited in Montreal.  
 Left Montreal 10 June 1915 aboard *SS Hesperian*.  
 Arrived in UK 19 June 1915.  
 Strength: 40 officers, 978 Ors.  
 Arrived in France 9 October 1915 and served as Corps Troops.  
 Joined 7th CIB, 3rd CID on 22 December 1915.  
 Reinforced by the 20th Canadian Reserve Battalion.  
 Returned to UK 8 February 1919.  
 Arrived in Canada 9 March 1919.  
 Demobilised 11 March 1919.  
 Disbanded by GO 149 of 15 September 1920.  
 Pipe Band. Regimental March: "Wha Saw the Forty-Second."  
 Perpetuated by the militia regiment, The Black Watch (Royal Highland Regiment) of Canada located in Montreal, Quebec.

### **49th Bn, Edmonton Regiment**

Organized in January 1915 under the command of LCol W.A. Griesbach.  
 Authorization published in GO 86 of 1 July 1915.  
 Mobilized at Edmonton.  
 Recruited in Edmonton and surrounding towns of northern Alberta.  
 Left Montreal 4 June 1915 aboard *HMT Metagama*.  
 Arrived in UK 13 June 1915.  
 Strength: 36 officers, 996 ORs.  
 Arrived in France 9 October 1915.  
 Reinforced by the 9th Canadian Reserve Battalion.  
 Returned UK 9 Feb 1919.  
 Arrived Halifax 17 March 1919.  
 Demobilized at Edmonton 22 March 1919.  
 Brass and Pipe Bands. Regimental March: "Bonnie Dundee"  
 Perpetuated by The Loyal Edmonton Regiment, a militia unit.

### **7th Canadian Light Trench Mortar Battery**

Two batteries formed in 7th CIB while in Belgium in March and April 1916 respectively.  
 Designated 7/C/1 and 7/C/2.  
 Personnel drawn from all four infantry battalions of 7th CIB.  
 Formally designated 7th CLTMB on 9 June 1916.  
 First commanded by Lt M.E. Tower, RCR.

**7th Canadian Machine Gun Company**

Organized in Belgium in March 1916 as the 7th CIB MG Coy.

First commanded by Capt H.T. Cock, MC, RCR.

Composed of MG sections drawn from the four infantry battalions of the brigade as well as drafts from the UK.

Redesignated 7th CMG Coy in July 1917.

Detached from 7th CIB in August 1917 and amalgamated with 8th, 9th and 15th MG companies of 3rd CID to form the new divisional MG Bn.

Reorganised on 19 March 1918 to form the 3rd Bn of the new CMGC.

## NOTES ON SOURCES

Primary sources for a case study such as this one at the brigade and battalion level of command were found principally in the extensive collections of the National Archives of Canada (NAC). The main bulk of information was found in RG 9, which contains the war diaries (WD) for the 7th CIB MG Coy, the 7th CIB TM battery, the four infantry battalions under study, 7th CIB HQ, and 3rd CID, the superior formation HQ. The WDs at each level of command offered the opportunity of examining daily events, including administrative and operational detail pertaining to the units and formations as it evolved over a three year period.

The RCR WD, for example, included every training syllabus and brigade training scheme in its appendices, thus giving a very comprehensive overview of what battalion training in the First World War actually entailed. WDs, however, did not give the operational minutiae of battle or tactics used. For this aspect, the after-action reports, found in most monthly appendices following major battles, were most useful and instructive. In this regard, the 49th Bn's WD was a very valuable resource. It recounted most of 7th CIB's battles in detailed narrative form, accompanied by company narratives, notes, field messages from other units and marked sketch maps attached as supporting evidence. This battalion practice was started under Griesbach at the Mt Sorrel battle (who had good cause to marshal his facts and evidence which, later, were used to cashier a reluctant battalion commander), a practice which, fortunately, carried on throughout the war.

Another valuable NAC source was MG 30 of the Manuscript Division which contains personal collections of people who served in the military including documents such as diaries, letters, clippings and postcards to actual unpublished biographical and autobiographical manuscripts. Of particular help in determining the scope and parameters of brigade command were the papers of former brigade commanders A.C. "Batty Mac" Macdonell (7th CIB), W.A. Griesbach (1st CIB; also a battalion commander in 7th CIB), and Victor Odium (11th CIB). Agar Adamson's papers, including letters he wrote practically every day to his wife, are a wealth of minute

detail on battalion life at the front and the trials and tribulations of battalion command. His letters are so detailed as to include rifle company and battalion HQ establishments!

Finally, another invaluable source of individual accounts was found in RG 41, the records of the CBC which contain the extensive radio transcripts of an early 1960's radio series entitled *Flanders Fields*. Many officers, senior NCOs and ORs of 7th CIB have left their verbal impressions, thoughts and feelings on combat, command and leadership on tape and transcript, including one interview by J.A. Clark, the last commander of 7th CIB before it was disbanded.

Other archives were also extensively used. Firstly, the Black Watch (RHR) of Canada Archives (BWA) in Montreal, have very complete records from the start to finish of the war including op orders, training directives, casualty records, unit war diaries, personal journals and diaries, field message pads, intelligence reports, maps, etc. for the 13th, 42nd and 73rd Bns, CEF respectively. All of the above type of material pertaining to the 42nd Bn was collected in the late 1920's by LCol Charles Beresford Topp, the regimental historian and author of *The 42nd Battalion CEF Royal Highlanders of Canada* (1931) and was found contained in six boxes known as the Topp Collection. There is also the complete collection of letters written by LCol Royal Ewing home to his brother in Montreal for the four year period the 42nd were overseas. As Ewing was platoon commander, adjutant, company commander, battalion 2 i/c and finally CO, his letters are an invaluable insight into the inner workings of this Montreal battalion and the extensive social connections it had extending into almost every other unit and corps of the CEF. The BWA also has an excellent collection of First World War (and pre-war) training pamphlets and FSRs which give good insights as to the embryonic doctrine and prevailing ideas on the role of the infantry, artillery and MGs in the attack and defence.

Another little-used Montreal archives which has valuable material is the McGill University Rare Books and Manuscripts Dept. The R.C. Fetherstonhaugh Collection is a nine volume set of letters, clippings, photographs and papers received from Montreal officers and ORs (including his two sons) serving at the front which give interesting and personal commentaries on all aspects of command. Fetherstonhaugh was the author of four Great War regimental histories: The RCR, the 13th Bn (RHC) CEF, the

14th Bn, (Royal Montreal Regiment), and the Royal Canadian Dragoons. The McGill University Archives (MUA), a separate department, but in the same building, holds, besides Currie's Papers and Hugh Urquhart's notes for Currie's biography, three large scrapbooks containing the complete First World correspondence, assorted maps, photographs and memorabilia of Col Hugh Wallis who served as an ADC and Staff Captain "I" in 7th CIB and, later, as a GSO 3 Intelligence in 3rd CID and BM of 11th CIB. The 7th CIB's first brigade commander, "Batty Mac", was Capt Wallis' uncle, and thus it was here I found detailed and personnel information on the inner workings of the brigade HQ and its functions as well as its command relationships to higher and lower levels of command.

To enhance the unpublished primary source material, I also utilized published memoirs or autobiographies written by ORs and officers who served in 7 CIB ( a total of 11 can be found in the bibliography). These provide alternative commentary on command functions and their practical applications as portrayed in primary source accounts, regimental histories and secondary source historical commentary. Two of the more eloquent and revealing books on lower level command at the company, platoon and section levels were written by ORs of the 42nd Bn: Cpl Will Bird's *And We Go On* (1930) which was later revised and re-published as *Ghosts Have Warm Hands* (1968); and the excellent *Merry Hell! A Dane with the Canadians* (1930) by Thomas Dinesen, the only VC winner of the 42nd. At the upper end of the scale is *CRITCH! The Memoirs of Brigadier A.C. Critchely, CMG, CBE, DSO*, Batty Mac's adjutant in the Strathcona's who came over with him to be 7th CIB's first Staff Capt "I" and later, its BM.

I have also interviewed three WW1 veterans of the 42nd Battalion (either in person or by questionnaire) on command-related issues at the section, platoon and company levels. They were: ex-Pte Roy Henley (Rifle Grenadier), 97, of Surrey, BC; ex-Pte Frank Flory (Lewis Gunner), 97, of Woodland, California; and ex L/Cpl Alf de Gruchy, (Company Signaller & Battalion Clerk), 101, of Montreal, PQ. Finally, all four Regiments of 7th CIB produced historical accounts of their First World War experiences, two of the four battalions remaining after the war as regular infantry regiments in the army order of battle. The histories in order of their publication were:



*Princess Patricia's Canadian Light Infantry 1914-1919*, 2 Vols. (1923) by Ralph Hodder-Williams; *The 42nd Bn, CEF, Royal Highlanders of Canada in the Great War* (1933) by LCol C. Beresford Topp, DSO, MC; *The Royal Canadian Regiment 1883-1933* (1936) by R.C. Fetherstonhaugh; and, the most recent (1964) the 49th Bn's Regimental History entitled *A City Goes to War* by G.R. Stevens, OBE.

Secondary sources consulted were extensive and a comprehensive listing is given by category in the bibliographical section following these notes. Some which are worthy of mention here however are: the standard works on the Canadian Corps, Col. G.W.L. Nicholson's *Official History of the Canadian Army in the First World War: Canadian Expeditionary Force, 1914 - 1919* (1962) which is an excellent overview and chronological history of the Canadian Corps, highlighting the battles it fought and the periods of organization and reorganization that punctuated its life. I found the maps extremely useful. Like the British Official History though, it does not strive to differentiate between the various levels of war; and, John Swettenham's *To Seize the Victory: The Canadian Corps in World War I*, (1965), a disappointing book with no comprehensive discussion of the causes of the Canadian Corps' operational effectiveness or how doctrine was developed.

For information on technology, tactics and doctrine as they pertained to the various corps and support arms of the CEF, I consulted the various official and unofficial histories. They were: John Moir's *History of the Royal Canadian Corps of Signals* (1962) which did not list sources and was, in fact, a not very well-disguised re-gurgitation and Canadianized version of MGen R.F.H. Nalders' comprehensive *The Royal Corps of Signals: A History of its Antecedents and Development* (1958); G.W.L. Nicholson's *The Gunners of Canada* (1967); A.J. Kerry and W.A. McDill's *The History of the Corps of Royal Canadian Engineers* (1962); and *The Canadian "EMMA GEES": A History of the Canadian Machine Gun Corps* (1938) by LCol C.S. Grafton. For gas warfare, the best source consulted was the excellent unpublished RMC thesis entitled *"No Place to Run: Gas Warfare and the Canadian Corps"* (1996) by Tim Cook which highlights the highly lethal environment the battlefield had become by 1918, a condition to which Pte Henley can attest, having

succumbed to phosgene just before the Armistice. While on the subject of these, another excellent study consulted was W.F. Stewart's "*Attack Doctrine in the Canadian Corps, 1916-1918,*" which traces the evolution of doctrine and the organizational changes that transformed the Canadian Corps into a professional fighting organization.

Two useful autobiographies by non-7th CIB officers were Lt-Col D.E. Macintyre's book *Canada at Vimy* (1967) and Lt-Gen. E.L.M. Burn's memoirs, *General Mud* (1970). The former officer was a brigade and divisional staff officer whose book contains interesting commentary on the professionalization of the staff while the latter was a brigade signals officer and has left an interesting and useful account on how brigade HQs and their signals staff operated in the field. Some useful sources for a perspective on the development of a professional staff and the interrelationships of command and staff in the CEF and BEF were: John Keegan's *Mask of Command* (1987) which explains various styles of leadership based on culture and environment vice utilizing the social scientist's traditional approach of analysing leadership through the "traits" method or "behaviour" method; Steven Harris' *Canadian Brass: The Making of a Professional Army, 1860 - 1939* (1988); and Martin Samuel's recent 1995 book entitled *COMMAND OR CONTROL? Command, Training and Tactics in the British and German Armies 1888-1918*, which despite its promising title, was a somewhat disappointing overview stressing the fairly simplistic thesis that the German command system was largely one of "directive command" or decentralised decision-making while the British system was based on "restrictive control" and "umpiring", ie. the exact opposite. No discussion of the Canadian or Australian Corps appear in Samuel's book as they would have had to have been acknowledged as exceptions to the rule in his thesis. However, there were some useful discussions on how an army's philosophy of combat, and thus the command system it employs, has a great effect upon the system of training and of tactics it uses.

Recent Canadian historiography on the Great War has focussed mainly on the Canadian Corps' ingenuity and innovativeness at developing new tactics at the expense of exploring the operational level of war which made the tactics possible in the first place. An example is William Rawling's *Surviving Trench Warfare: Technology and*

*the Canadian Corps, 1914 - 1918* (1992) which gives the most current look at the evolution of Canadian and British tactics and battlefield methods in the Great War, but with a very superficial overview and little discussion on the command system itself which made change and innovation possible. A 1994 CHR article entitled "*Not Glamorous, But Effective: The Canadian Corps and the Set-piece Attack, 1917-1918*" by Ian Brown provides a useful discussion on operations and the exercise of operational art in that timeframe, but does nothing to explain its origins or the command mechanism responsible for the professionalism and effectiveness extant in the Corps by this time. Shane Schreiber in an unpublished RMC MA thesis entitled "*Orchestra of Victory*" (1995) has claimed that the battles of "The Hundred Days" have "been overshadowed by the Corps' earlier success at Vimy Ridge" and admirably examines six 1918 battles for their planning, conduct and lessons. He rightly notes that a lack of any "*operational* history of the Corps after the war encapsulating its experiences and lessons learned, fettered the intellectual growth of the Canadian military and prevented any real understanding of what they had achieved in the crucible of war." But, ironically, Schreiber, in accusing the Canadian military of failure "to undergo the ultimate exercise of examining the whole of its operational development," fails himself to do just that in his thesis by not examining how the Canadian Corps became operationally effective. An excellent overview of the evolution of tactics and technology in the CEF, as well as the social aspects of Canadians in the First World War is Desmond Morton's fairly recent *When Your Number's Up* (1993). The best two books on tactics were Jack English's *On Infantry* (1984) and Paddy Griffith's most recent book, *Battle Tactics of the Western Front: The British Army's Art of the Attack 1916-18* (1994).

The seminal work in defining command terminologies and concepts remains Martin van Creveld's excellent *Command in War* (1985) Another useful general source book that helps to define tactical command and the various levels of war was Allan R. Millett's and Williamson Murray's *Military Effectiveness, Vol. I, The First World War* (1988), which argues that historians, in order to understand why some military forces succeed, while other military forces fail, must understand that military activity takes place at four different levels: political, strategic, operational and tactical. Each

category, while overlapping the others in some areas, is characterized by different actions, procedures and goals. Therefore, the authors argue, the process by which armed forces convert resources into fighting power - military effectiveness - must be assessed at each level.

Three important books which did not address the CEF specifically, but devoted considerable attention to the set-piece attack as well as command and technology as they pertained to the operational level of war, were: Shelford Bidwell's and Dominick Graham's excellent *Firepower: British Army Weapons and Theories of War 1904-1945* (1982) which argues convincingly that the British Army learned and profited from their failures in 1914-17 and came to place more emphasis on technology; the same two authors more recent 1993 book entitled *Coalitions, Politicians & Generals: Some Aspects of Command in Two World Wars*; and, Tim Travers' *How the War Was Won: Command and Technology in the British Army on the Western Front, 1917-1918*.

## **SELECT BIBLIOGRAPHY**

### **PRIMARY SOURCES, UNPUBLISHED**

1) National Archives of Canada.

RECORD GROUP 9 - Records of the Department of Militia and Defence

RECORD GROUP 24 - Records of the Department of National Defence

RECORD GROUP 41 - CBC Interview Transcripts - *Flanders Fields*

MANUSCRIPT GROUP 30 -

Agar Adamson  
Raymond Brutinel  
Sir A. W. Currie  
W.A. Griesbach  
E.W. Jones  
G.D. Kilpatrick  
James MacBrien  
Sir A.C. Macdonell

Duncan E. Macintyre  
 A.G.L. McNaughton  
 Victor Odlum  
 E. De B. Panet  
 Talbot Papineau  
 Sir Richard Turner  
 Hugh M. Urquhart  
 Sir David Watson

## 2.) BLACK WATCH (RHR) OF CANADA ARCHIVES

### MANUSCRIPTS

LCol C.B Topp Collection  
 LCol Royal Ewing Letter Collection

### PAMPHLETS

#### *WO Series*

Engineer Training. London: HMSO, [reprint with Amdts, 1914] 1909.  
Field Instructions for the Training of Platoons for Offensive Action. London: HMSO, 1917. Field Service Pocket Book. London: HMSO, 1914  
Field Service Regulations (FSR) - Part One: Combined Operations, London: HMSO, 1905.  
FSRs - Part One: Operations, London:HMSO, [reprint with Amdts, 1914] 1909.  
FSRs - Part Two: Org.& Admin., London: HMSO, [reprint with Amdts, 1914] 1909.  
Infantry Training (4-Company Organization). London: HMSO, [reprint 1916] 1914.  
Instructions for the Training of Divisions for Offensive Action. London: HMSO, 1916.  
Manual of Map Reading & Field Sketching. London: HMSO, [reprint with Addns 1914]1912.  
Musketry Regulations Part One. London: HMSO, [reprint with Amdts, 1914] 1909.  
Notes for Infantry Officers on Trench Warfare. London: HMSO, March 1916.  
Platoon Organization. London: HMSO, 1917.  
Platoon Training. London: HMSO, 1918.  
Supply Manual (War). London: HMSO, 1909  
The King's Regulations and Orders (KROs). London: HMSO, [reprint 1 August 1914] 1909.  
The KROs for the Canadian Militia. Ottawa: Adjutant-General, 1917.

#### *Imperial Army Series*

Camps, Billets, Cooking, Ceremonial... London: John Murray, 1916.  
Machine Gun Training. London: John Murray, 1916.  
Musketry. London: John Murray, 1916.

Signalling. London: John Murray, 1915.

Signalling. London: John Murray, 1915.

## BOOKLETS

----- . Notes on Tactical Schemes. Compiled by Fourth Army. SS 159. London: WO, May 1917.

----- . Training in Canadian Reserve Battalions. London: COFM, October, 1917.

CURRIE, LGen Sir A.W. Canadian Corps Operations During the Year 1918. Interim Report. Ottawa: Dept of Militia and Defence, n.d.

KIRKPATRICK, Major E. The Training of An Infantry Company. London: Gale & Polden Ltd., 1914.

PAPINEAU, LCol D.B. Notes on Training. Quebec City: 1915 (5th Edition revised)

"GRENADIER". Notes on Elementary Field Training. Part One. London: Hugh Rees Ltd., 1915.

### 3.) McGILL UNIVERSITY RARE BOOKS AND MANUSCRIPTS DEPT & ARCHIVES

Gen A.W. Currie Papers, MG 1030, McGill University Archives.

Col. Hugh Urquhart Papers, Acc.393, McGill University Archives.

Col. H. M. Wallis Papers, MG 2039, McGill University Archives.

R.C. Fetherstonhaugh Letters, 9 Vols., McGill Univ Rare Books & Manuscripts Dept.

## PRIMARY SOURCES, PUBLISHED

### (1) Official Histories & Government Publications.

CANADA. Department of National Defence. Command & Control of Land Forces. Ottawa: Queen's Printer, 1985.

----- . The Infantry Platoon in Battle. Ottawa: Queen's Printer, 1988.

CAMERON, F.P. Command & Control Effectiveness and Critical Path Analysis. Ottawa:

Queen's Printer, 1990.

DUGUID, A.F. Official History of the Canadian Forces in the Great War, 1914-1919. General Series, Vol. I: Chronicle, August 1914 - September, 1915. Ottawa: King's Printer, 1938.

GRAFTON, LCol C.S. The Canadian "EMMA GEES": A History of the Canadian Machine Gun Corps. London, Ont: Hunter Printing Co., 1938.

HAHN, Major J.E. The Intelligence Service Within The Canadian Corps, 1914-1918. Toronto: Macmillan, 1930.

KERRY, A.J., and W.A. McDill. The History of the Corps of Royal Canadian Engineers, Vol.I. Ottawa: Military Engrs Assoc., 1962.

NICHOLSON, G.W.L. Official History of the Canadian Army in the First World War: Canadian Expeditionary Force, 1914 - 1919. Ottawa: Queen's Printer, 1962.

----- . The Gunners of Canada: The History of the Royal Regiment of Canadian Artillery, Vol.I. Toronto: McClelland & Stewart, 1967.

MACPHAIL, Sir Andrew. The Medical Services. [Official History of the Canadian Forces in the Great War]. Ottawa: King's Printer, 1925.

MOIR, John. ed. History of the Royal Canadian Corps of Signals, 1903-1961. Ottawa: Queen's Printer, 1962).

MITCHELL, Micheal. DUCIMUS: The Regiments of the Canadian Infantry. Ottawa: Queen's Printer, 1982.

NALDER, R.F.H. The Royal Corps of Signals: A History of its Antecedents and Development. London: Unwin, 1958.

PARRITT, B.A.H. The Intelligencers: The History of the Intelligence Corps Pre-1914. Ashford, Kent: Int Corps Assoc., 1982.

PRIESTLEY, R.E. The Signal Service in the European War of 1914 to 1918 (France). Chatham: Mackay, 1921.

UNITED STATES. Department of the Air Force. US Air Force Academy. Command and Commanders in Modern Warfare: the Proceedings of the Second Military History Symposium USAF Air Force Academy, 2-3 May 1968. Colorado: US Air Force Academy, 1968.

----- . Department of the Army. Command & General Staff College. Command and Control of Combat Operations. Fort Leavenworth, KS: USACGSC, 1980.

----- . The Command Estimate. Fort Leavenworth, KS: USACGSC, 1986.

**(2) Memoirs and Journals**

BURNS, E.L.M. General Mud: Memoirs of Two World Wars. Toronto: Clarke Irwin, 1970.

CRITCHELY, A.C. CRITCH! The Memoirs of Brigadier-General A.C. Critchely, CMG, CBE, DSO. London: Hutchison & Co., 1961.

NICHOLSON, Col. W.L. Behind the Lines: An Account of Administrative Staffwork in the British Army 1914-18. Stevenage, UK: Strong Oak Press, 1989.

ROY, Reginald. Journal of Private Fraser, 1914-1919, The Canadian Expeditionary Force. Victoria: Sono Nis Press, 1985.

SMITH, R. Guy C., ed. As You Were! Ex-Cadets Remember. Kingston: The RMC Club of Canada, 1984.

**(3) Regimental Histories & Specific Biographies/Memoirs**

***The Royal Canadian Regiment***

ENGLAND, Robert. Recollections of a Nonagenarian in the service of the Royal Canadian Regiment, Victoria: Robert England, 1983.

FETHERSTONHAUGH, R.C. The Royal Canadian Regiment, 1883-1933, Vol.I, Fredericton: Centennial Print , 1981 [reprint].

***The Princess Patricia's Canadian Light Infantry***

HODDER-WILLIAMS, Ralph. Princess Patricia's Canadian Light Infantry 1914-1919, 2 Vols. Toronto: Hodder and Stoughton Ltd., 1923.

LYNCH, John William, Princess Patricia's Canadian Light Infantry, 1917-1919. Hicksville, New York: Exposition Press, 1976.

PEARSON, George. The Escape of a Princess Pat: Being the Full Account of the Capture and Fifteen Months' Imprisonment of Corporal Edwards of the Princess Patricia's Canadian Light Infantry and his Final Escape from Germany into Holland. New York: George Doran, 1918

RICHARDS, R. The Story of the Princess Patricia's Canadian Light Infantry, 1914-1917, London: Charles, 1918.

WILLIAMS, Jeffery. The Princess Patricia's Canadian Light Infantry. London: Leo Cooper, 1972.

----- First in the Field: Gault of the Patricias. St. Catherines: Vanwell Publishing, 1995.



*The 42nd Battalion (Royal Highlanders of Canada)*

BROWN, J.M. The Worlds of Robert E. Sherwood: Mirror to his Times 1896-1939. New York: Harper and Row, [1962].

BIRD, W.R. Ghosts Have Warm Hands. Toronto: Clarke, Irwin & Co, 1968.

----- . And We Go On. Toronto: Hunter Rose, 1930.

----- . The Communication Trench. Amherst: [privately printed], 1933.

BRECKINRIDGE, William. From Vimy to Mons: A Historical Narrative, RMC Kingston. [unpublished manuscript:1919].

DINESEN, Thomas. Merry Hell! A Dane with the Canadians. London: Jarrolds, 1930.

HUTCHISON, Col. P.P. Canada's Black Watch: the first one hundred years 1862-1962. Montreal: RHC Armoury Association, [reprint] 1987.

----- . Recollections of a Canadian Lawyer, Montreal: [privately printed], 1968.

----- , Five Strenuous Years: the McGill Chapter of Alpha Delta Phi during the Great War. Toronto: [privately printed], nd.

TOPP, LCol. C.B. The 42nd Battalion (CEF) Royal Highlanders of Canada in the Great War Montreal: Gazette Printing Co., [1931].

*The 49th Battalion (Edmonton Regiment)*

GRIESBACH, W.A. I Remember, Toronto: Ryerson, [1946].

MAXWELL, George A. Swan Song of a Rustic Moralist. New York: Exposition Press. 1975.

STEVENS, G.R. A City Goes to War. Brampton: Edmonton Regiment Associates, [1964].

THE FORTYNINER. All vols. 1915-1918. Magazine of the 49th Battalion CEF published while in the field and written by all ranks.

**SECONDARY SOURCES**

**(1) BOOKS**

**Command & Control Theory and Principles**

----- . Principles of Command & Control. Washington,DC: AFCEA International

Press, 1987.

----- . Science of Command & Control: Coping with Uncertainty. Washington, DC: AFCEA International Press, c.1988.

----- . Selected Analytical Concepts in Command and Control. London: Gordon & Breach, c.1982.

ANDRESKI, Stanislav. Military Organization & Society. London: Routledge & Paul, 1954.

BEAUMONT, Roger. The Nerves of War: Emerging Issues in and References to Command and Control. Washington, DC: AFCEA International Press, 1986.

CARRINGTON, James H. Command Control Compromise. Annapolis, Maryland: Naval Institute Press, 1973.

COAKLEY, Thomas. Command & Control for War and Peace. Washington, DC: National Defence University Press, 1992.

ECCLES, H.E. Military Concepts & Philosophy. New Brunswick, NJ: Rutgers' University Press, 1965.

HAYS, Samuel J. Taking Command: the Art and Science of Military Leadership. London: Stackpole Books, 1967.

JANOWITZ, Morris. The Professional Soldier. New York: Free Press, 1971.

MILLETT, A.R. & MURRAY, Williamson, eds. Military Effectiveness, Vol. I: The First World War. Boston: Unwin Hyman, 1988.

NEY, Virgil. The Evolution of Military Unit Control, 500BC to 1965. Washington, DC: Combat Operations Research Group [Technical Operations], 1965.

ORR, George E. Combat Operations: Fundamentals and Interactions. Maxwell Air Force Base, Alabama: Air University Press, 1983.

### Command of Troops & Command History

----- . Command Decisions. Carlisle, PA: Center of Military History, 1990.

BAYNES, John. Morale: A Study of Men and Courage. London: Cassell, 1967.

BLUMENSON, Martin. Masters of the Art of Command. New York: Da Capo Press, 1990.

DIXON, Norman. On the Psychology of Military Incompetence. London: Jonathan Cape, 1976.

DUPUY, Trevor N. Options of Command. London: Hippocrene Books, 1984.

- FULLER, J.F.C. Generalship: Its Diseases and Their Cure: A Study of the Personal Factor in Command. London: Faber & Faber, 1933.
- GABRIEL, Richard A. & SAVAGE, Paul. Crisis in Command: Mismanagement in the Army. New York: Hill & Wang, 1978.
- GRAHAM, Dominick. Coalitions, Politicians & Generals: Some Aspects of Command in Two World Wars. London: Brassey's Publishing Ltd., 1993.
- HAMILTON, Sir Ian. The Commander. London: Hollis & Carter, 1957.
- KEEGAN, John. The Mask of Command. London: Viking, 1987.
- KITSON, Frank. Directing Operations. London: Faber, 1989.
- LEED, Eric T. No Man's Land: Combat and Identity in World War I. Cambridge: Cambridge University Press, 1979.
- LEMPKE, Duane. Command Climate: The Rise and Decline of a Military Concept. Carlisle, PA: US Army War College, 1988.
- MARSHALL, S.L.A. Men Against Fire: the Problem of Battle Command in Future War. New York: William Morrow, 1947.
- MEYER, John G. Company Command: the Bottom Line. Washington, DC: National Defence University Press, 1990.
- MORAN, Lord. The Anatomy of Courage. London: Constable, 1966 [reprint].
- NYE, R.H. The Challenge of Command: Reading for Military Excellence. New York: Avery Publishing, 1986.
- PRIOR, Robin & WILSON, Trevor. Command on the Western Front. Oxford: Blackwell, 1992.
- RICHARDSON, Maj-Gen. F.M. Fighting Spirit: Psychological Factors in War. London: Leo Cooper, 1978.
- SAMUELS, Martin. Command or Control: Command, Training and Tactics in the British and German Armies, 1888-1918. London: Frank Cass, 1995.
- TRAVERS, T.H.E. How the War Was Won: Command and Technology in the British Army on the Western Front, 1917-1918. London/New York: Allen & Unwin, 1992.
- VAN CREVELD, Martin L. Command in War. Cambridge: Harvard University Press, 1985.
- WINTER, Denis. Haig's Command: A Reassessment. London: Viking, 1991.

*Tactical, Technical & Staff Aspects*

ASHWORTH, Tony. Trench Warfare, 1914-1918: The "Live and Let Live" System. London: Macmillan, 1980.

BOND, Brian. The Victorian Army & the Staff College, 1854 - 1914. London: Eyre Methuen, 1972

BIDWELL, Shelford. Modern Warfare: A Study of Men, Weapons & Theories. London: Allen Lane, 1973.

----- & GRAHAM, Dominick. Firepower: British Army Weapons and Theories of War, 1904-45. London: Allen & Unwin, 1982.

DUNN, J.C. The War the Infantry Knew. London: P.S. King & Son Ltd., 1938.

ENGLISH, J.A. On Infantry. New York: Praeger, 1984.

FARRAR-HOCKLEY, Anthony. Infantry Tactics. London: Almark, 1976.

GRIFFITH, Paddy. Forward into Battle. Ramsbury, Wilts.: Crowood, 1990.

----- . Battle Tactics of the Western Front: The British Army's Art of the Attack. New Haven: Yale University Press, 1994.

GUNDMUNDSSON, Bruce I. Stormtroop Tactics: Innovation in the German Army 1914-18. New York: Praeger, 1991.

HARRIS, S.J. Canadian Brass: The Making of a Professional Army, 1860 - 1939. Toronto: University of Toronto Press, 1988.

HARRIS, Robert & J. PAXTON. A Higher Form of Killing. London: Chatto & Windus, 1982.

HARTCUP, Guy. The War of Invention: Scientific Developments 1914-1918. London: Cassell, 1988.

HITTLE, Lt-Col. J.D. The Military Staff: Its History and Development. Harrisburg: The Military Service Publishing Company, 1949.

HOUSE, Jonathan M. Toward Combined Arms Warfare: A Survey of 20th Century Tactics, Doctrine and Organization. [Research Survey No. 2]. Fort Leavenworth, Kansas: Combat Studies Institute, 1984.

HUTCHISON, G.S. Machine Guns: Their History and Tactical Employment. London: Macmillan, 1938.

KEEGAN, John. The Face of Battle. London: Pimlico Books, 1976.

LANG, W.R. The Organization, Administration and Equipment of His Majesties Land Forces in Peace and War. Toronto: Copp Clark, 1916.

MARSHALL, George W. *et al*, Infantry in Battle. Washington, DC: The Infantry Journal, 1934 [reprint 1993].

RAWLING, Bill. Surviving Trench Warfare: Technology and the Canadian Corps 1914-1918. Toronto: University of Toronto Press, 1992.

SAMUELS, M. Doctrine and Dogma: German & British Infantry Tactics in the First World War. Westport, Conn: Greenwood, 1992.

TERRAINE, John. White Heat: the New Warfare 1914-18. London: Sidgwick and Jackson, 1982.

TRAVERS, T.H.E. The Killing Ground: The British Army, the Western Front & the Emergence of Modern Warfare 1900-18. London: Allen & Unwin, 1987.

WELLER, Jac. Weapons and Tactics. London: Nicholas Vane, 1966.

WINTRINGHAM, Tom. Weapons and Tactics. London: Pelican, 1973.

----- . New Ways of War. Wickenburg: Normount, 1973.

### General

ADAMS, R.J.Q., ed. The Great War, 1914-1918. London: Macmillan, 1990.

BERTON, Pierre. Vimy. Toronto: McClelland & Stewart, 1987.

CHARTERS, David *et al*. Military History & the Military Profession. Westport: Praeger, 1992.

DANCOCKS, Daniel G. Welcome to Flanders Fields. Toronto: McClelland & Stewart, 1989.

----- . Legacy of Valour: Canadians at Passchendaele. Edmonton: Hurtig, 1986.

----- . Spearhead to Victory: Canada and the Great War. Edmonton: Hurtig, 1987.

----- . Gallant Canadians: The Story of the Tenth Canadian Infantry Battalion 1914- 1919. Calgary: The Calgary Highlanders Regimental Funds Foundation, 1990.

ELLIS, John. Eye-Deep in Hell: The Western Front, 1914-1918. London; Croom Helm, 1975.

- FITTON, Robert A. Leadership: Quotations from the Military Tradition. San Francisco: Westview Press, 1990.
- FORESTER, C.S. The General. Harmondsworth, Middlesex: Penguin Books [reprint 1965] 1936.
- FUSSELL, Paul. The Great War and Modern Memory. New York: Oxford University Press, 1975.
- GOODSPEED, D.J. The Road Past Vimy: The Canadian Corps, 1914-1918. Toronto: Macmillan, 1969.
- GRANATSTEIN, J.L. & MORTON, Desmond. Marching to Armageddon: Canadians and the Great War 1914-1919. Toronto: Lester, Orpen & Dennys, 1989.
- GWYN, Sandra. Tapestry of War. Toronto: Harper Collins, 1992.
- HAYCOCK, R.G. Sam Hughes: The Public Career of a Controversial Canadian, 1885 - 1916. Ottawa: National Museums of Canada, 1986.
- HOWARD, Micheal, The Franco-Prussian War. London: Collins, 1960.
- LLOYD, Alan. The War in the Trenches. New York: David McKay, 1976.
- MACINTYRE, D.E. Canada at Vimy. Toronto: Peter Martin Associates Ltd, 1967.
- MARTEINSON, John *et al.* We Stand on Guard: An Illustrated History of the Canadian Army. Montreal: Ovale Publications, 1992.
- McKEE, Alexander. The Battle of Vimy Ridge. New York: Stein & Day, 1966.
- MORTON, Desmond. When Your Number's Up: The Canadian Soldier in the First World War. Toronto: Random House, 1993.
- . A Peculiar Kind of Politics: Canada's Overseas Ministry in the First World War. Toronto: University of Toronto Press, 1982.
- . A Military History of Canada. Toronto: McClelland & Stewart, 1991.
- SWETTENHAM, John. To Seize the Victory: The Canadian Corps in World War I. Toronto: Ryerson Press, 1965.
- WILLIAMS, Jeffery. Byng of Vimy: General & Governor General. Toronto: University of Toronto Press, 1992.
- WOOD, Hubert Fairlie. Vimy! Toronto: Macmillan, 1967.

## (2) ARTICLES

- BROWN, Ian M. "Not Glamorous, But Effective: The Canadian Corps and the Set-Piece Attack, 1917 - 1918." The Journal of Military History. Vol. 58, (July 1994).
- EDDY, Col. K.T. "Canadian Forces and the Operational Level of War" Canadian Defence Quarterly. Vol.21, No.5, (April 1992).
- ENGLISH, J.A. "The Great War 1914-18: The 'Riddle of the Trenches'", Canadian Defence Quarterly. Vol.15, No.2, ( Autumn 1985).
- GOODSPEED, D.J. "Prelude to the Somme: Mount Sorrel, June 1916," in Michael CROSS & Robert BOTHWELL, eds., in Policy by Other Means. Toronto: Clarke, Irwin & Co, 1972.
- GRAHAM, Dominick. "Stress Lines & Gray Areas: The Utility of the Historical Method to the Military Profession," in David CHARTERS *et al*, Military History & the Military Profession. Westport: Praeger, 1992.
- , "Sans Doctrine: British Army Tactics in the First World War." in T.H.E. TRAVERS & Christon ARCHER, eds. Men at War: Politics, Technology and Innovation in the Twentieth Century. Chicago: Precedent, 1982.
- HARRIS, Stephen. "The Canadian General Staff and the Higher Organization of Defence, 1919 - 1939," in B.D. HUNT & R.G. HAYCOCK, eds. Canada's Defence: Perspectives on Policy in the Twentieth Century. Toronto: Copp Clark Pitman Ltd, 1993.
- HOWARD, Micheal. "Men Against Fire: The Doctrine of the Offensive in 1914." in Peter PARET *et al*, eds. Makers of Modern Strategy: From Machiavelli to the Nuclear Age. Princeton: Princeton University Press, 1986.
- HYATT, A.M.J. "Canadian Generals in the First World War and the Popular View of Military Leadership" Social History 12/24, November 1979.
- McCULLOCH, Ian. "Bungo & The Byng Boys: General Sir Julian Byng on the Road to Vimy Ridge." The Beaver: Exploring Canada's History. Vol.76:6, December 1996/January 1997.
- MORTON, Desmond. "The Canadian Military Experience in the First World War, 1914-1918," in The Great War, 1914-1918, R.J.Q. Adams, ed. London: Macmillan, 1990.
- PIERS, Major Sir Charles. "A Corps in the Making: The Canadian Expeditionary Force, 1914 -1919," The Army Quarterly. Vol.III, (Oct 1921/Jan 1922).
- RAWLING, Bill. "Communications in the Canadian Corps, 1915-1918: Wartime Technological Progress Revisited." Canadian Military History. Vol.3, No.2. Autumn [1994].
- STACEY, Col. C.P. "The Staff Officer: A Footnote to Canadian Military History". Canadian Defence Quarterly. Vol.3, No.3, (Winter 1973/74).

TRAVERS, T.H.E. "The Offensive and the Problem of Innovation in British Military Thought, 1870-1915", Journal of Contemporary History, Vol.13, No.3, (1978).

----- . "Learning and Decision-Making on the Western Front 1915-1916: The British Example," Canadian Journal of History (April 1983).

VANCE, Johnathan F. "Custodians of Memory: Great War Veterans and the Image of the Canadian Soldier, 1918-39." [unpublished paper] Wilfred Laurier University, n.d.

(3) **THESES**

COOK, Timothy R.B. No Place to Run: The Canadian Corps and Gas Warfare In the First World War. Kingston, Ont: RMC [unpublished MA thesis], 1996.

MACDONALD, John A. In Search of Veritable: Training the Canadian Army Staff Officer, 1899 to 1945. Kingston, Ont: RMC [unpublished MA thesis], 1992.

SAMPATH, Steven C. Automated Command of Ground Forces on NATO's Central Front. Kingston, Ont: RMC [unpublished MA thesis], 1988.

SCHREIBER, Shane. The Orchestra of Victory: Canadian Corps Operations in the Battles of the Hundred Days 8 August - 11 November 1918. Kingston, Ont: RMC [unpublished MA thesis], 1995.

STEWART, W.F. Attack Doctrine in the Canadian Corps, 1916-1918. Fredericton, NB: UNB [unpublished MA thesis], 1982.