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# The Myth of the Learning Curve Tactics and Training in the 12th Canadian Infantry Brigade, 1916-18

**Mark Osborne Humphries**

Canadian military historians generally accept that during the First World War the Canadian military improved over time. This idea of a “learning curve” suggests that Canadians began the war as inexperienced colonial volunteers and, as the Corps gained experience on the battlefield, commanders and ordinary soldiers alike learned from their mistakes and successes and improved combat tactics from battle to battle and from year to year.<sup>1</sup> Several different approaches to this argument are evident in the literature. Tim Cook and Bill Rawling both published works in the mid-1990s that argue technology was the impetus behind this process of learning. On the other hand, Shane Schreiber, James McWilliams and R. James Steel have focused on what they see as the ultimate success of the learning curve: the August 1918 Battle of Amiens.<sup>2</sup> However, while technology played an important role in the conduct of the war, and the Battle of Amiens was indeed a significant Allied victory, one question remains: where is the hard evidence that this learning curve exists?

One of the best ways to find evidence of “learning,” a largely abstract process, is through an examination of training. Because training is meant to impart specific knowledge, during the Great War written training instructions and orders were spelled out in minute and explicit detail and the lessons that were to be learned from various exercises were highlighted.

While many excellent works have been produced on the Canadian Expeditionary Force, there is still room for further scholarship. Until recently, training has been a sorely neglected

subject in the historiography. In recent years historians such as Andrew Iarocci and David Campbell have begun to re-examine training as a means of measuring and evaluating the learning curve.<sup>3</sup> This paper builds on the work of previous scholars and extends some of their arguments while challenging others. It examines the training of the 12th Canadian Infantry Brigade for the battles of the Somme and Amiens, as well as the official training manuals, to look at tactical change over time. It argues that while combat became more complex and “all arms” oriented, the basic tactical concepts of 1916 essentially remained the same in 1918. Except for terminology and the addition of new weapons, little changed in how the 12th Canadian Infantry Brigade was taught to fight between the Somme and Amiens. Indeed, while new weapons were utilized and emphasized in training, they were merely integrated into existing tactical doctrine and had little appreciable impact on what was envisioned as the key to battlefield success.

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The Somme and Amiens are two entirely different battles – the Somme is generally considered to be the worst British failure in the First World War while Amiens is generally considered to be the Commonwealth’s greatest victory. Because these two battles are separated not only by time but also by outcome, they should, according to the “learning curve” paradigm, exist at either extreme of the process. However, there are some similarities. Both battles began in the summer and both were

offensive campaigns initiated by the British. While the Canadians arrived on the Somme two months after the campaign began, at Amiens they took part in the initial assault. In training for the Somme the Canadians had the benefit of learning from British experiences earlier in the campaign. Likewise, in preparing for Amiens the Canadians had the benefit of learning from British experiences in open warfare during the German Spring offensive of 1918.

The first day of the Somme was a stereotypical battle of the Great War. On 1 July 1916 60,000 British soldiers became casualties as they walked across no-man's-land into a hail of machine gun bullets. While it was the quintessential battle of attrition which was waged, in fits and starts, until 19 November 1916,<sup>4</sup> as the battle dragged on, soldiers generally were prepared for what they faced. Indeed, the 12th Brigade prepared thoroughly before arriving on the Somme.

Above all, training emphasized initiative on the part of all soldiers (but especially NCOs and officers), a flexible approach to tactical problems and the preparation of all ranks for the unexpected.<sup>5</sup> The training of the 12th Brigade was typical of Canadian preparations for the Somme and points to what Canadian and British commanders thought were the keys to victory.

Training in 1916 was not devoted simply to bayonet and musketry practice. Although these activities (as well as route marches), were still seen as important, they were used more to keep the basic skills of the soldier sharp rather than to "give him the keys to victory." Instead, the training of a Canadian battalion for combat on the Somme was experiential in nature, utilizing practice attacks and tactical exercises to drive home the specific aspects of doctrine that it was thought would bring about success. The state of British doctrine in the summer of 1916 is best explained by an army publication of 8 May 1916, Stationary Service publication 109 [SS 109]: *Training of Divisions for Offensive Action*.<sup>6</sup>

SS 109, written by Lieutenant-General L.E. Kiggell of British General Headquarters, posited several "new" ideas based on experience gained at the front in 1915 and suggested how these

lessons learned in combat could be incorporated into the training of battalions. His suggestions played an important role in the training of the 12th Canadian Infantry Brigade for the Somme.

Kiggell emphasized the need to adequately prepare an attack, meaning the precise coordination of artillery bombardments with the advance of the infantry and the employment of predetermined tactical schemes designed to capture specific enemy strongpoints.<sup>7</sup> More importantly, he suggested:

The conditions of every attack vary, and a special solution must be found for each individual problem....It is impossible to lay down any definite rules as to the strength of assaulting columns, the number of lines of which they consist, or the distance apart of these lines. The depth of the assaulting column depends on the distance of the objective, and on the opposition that has to be overcome in reaching it. Its strength must be calculated so as to give sufficient driving power to enable the column to reach its objective to be held when gained.<sup>8</sup>

Kiggell went on to speak to the importance of initiative at all levels of rank. He wrote,

special exercises should be held during the period of training by divisional and brigade commanders with all their staffs and subordinate

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Canadian soldiers training on the Salisbury Plain in England march past Stonehenge

commanders...to consider the action to be taken by subordinate commanders when local unexpected situations arise such as occur when a portion of a line is held up, impassable obstacles are encountered, or it becomes necessary to deliver or repel a local counter-attack....Officers and men in action will usually do what they have been practiced to do or have been told to do in certain situations, and it is therefore all the more necessary to ensure that a clear understanding should exist amongst all ranks as to what action is to be taken in the different situations that may arise in battle...as ...situations will constantly arise when there is no officer or non-commissioned officer present with groups of men, and the men must realize that, in such a case, one man must assume leadership on the spot and the remainder act under his control.<sup>9</sup>

However, Kigell's advice was not as original and ground-breaking as it may appear in the context of 1916. Indeed, these ideas (or at least their beginnings) can be found in the prewar training manuals which continued to be in force throughout the war.

Contrary to the popular belief that the British used the same uniform attack formations universally across the Western Front, there was, at least officially, no universally accepted method of attack. The official training manual *Infantry Training, 1914* stated:

In no two military operations is the situation exactly similar. The character of the ground, the climatic conditions, the extent of the co-operation of the other arms, the strength and fighting spirit of the opposing forces, their physical condition and the objects they wish to achieve must always differ.

It is impossible, therefore, as well as highly undesirable to lay down a fixed and unvarying system of battle formations. General principles and broad rules alone are applicable to the tactical handling of troops in war.<sup>10</sup>

Likewise, another important official manual, *Field Service Regulations Part I: Operations*, read:

The conditions which affect the question of the frontage to be allotted to the various parts of an attacking force must vary with the circumstances of each battle. Ground, time conditions, the information available, the relative value of the opposing troops, the possibility of gaining a surprise, are some of the inconstant factors to be weighed. It is, therefore, neither possible nor desirable to give more than general indications as to how the problem is to be solved. The general principle is that the enemy must be engaged in sufficient strength to pin him to his ground and to wear down his power of resistance, while the force allotted to the decisive attack must be as strong as possible.<sup>11</sup>



From these excerpts we can see that Kigell's SS 109 echoed the prewar doctrine when it tasked the battalion commander to organize the soldiers under his command into the formation that would be most effective against the unique type of ground occupied by the enemy. Kigell also looked to the official *Infantry Training, 1914* when he emphasised the importance of initiative at all levels of rank. *Infantry Training, 1914* suggested that training should be designed "to give [the soldier] confidence in his superiors and comrades; to increase his powers of initiative, of self-confidence and of self-restraint; to train him to obey orders, or to act in the absence of orders for the advantage of his regiment under all conditions."<sup>12</sup>

Essentially, this comparison between SS 109 and the official prewar manuals suggests that there was at least as much continuity as change in official tactical doctrine between 1914 and 1916: in 1916 Kiggell simply reinforced existing and accepted tactical principals. However, both the training manuals and SS 109 indicate official doctrine, not how that doctrine was interpreted in specific training exercises or at "the sharp end of the stick" because, as historian Paddy Griffith suggests, theory and practice in war are two entirely different things.<sup>13</sup> Let us now examine how these doctrinal principals were interpreted in training by the 12th Canadian Infantry Brigade.

On 28 August 1916, before the 12th Brigade went into action on the Somme, the commanding officer of the brigade, accompanied by battalion commanders and several senior officers, attended a "demonstration of various trench warfare techniques" put on by the Second Army Central School of Instruction.<sup>14</sup> The trench warfare demonstration was designed to be a state of the art example of how an attack on a realistic German position was to be carried out and how soldiers should be trained. The demonstration, as shown in the program given to attendees, emphasised ten key points:

- a) Preparation for attack by bombardment by 2" and 9.45 cm Trench Mortars
- b) Explosion of mine
- c) Occupation of crater [created by the mine] under cover of:-
- d) Barrage put on by Stokes Guns
- e) Consolidation of Crater and enemy trenches

- f) Smoke screen from Artillery Observation
- g) Bombing and blocking of trenches
- h) Installation of Snipers' Posts
- i) Intercommunication by aeroplane
- j) Intercommunication by amplifier<sup>15</sup>

The simulated attack was conducted in three waves. The first wave was to pass over the "enemy's" main fire trench and take his support trench, some 100-200 yards beyond (see Map 1). The second wave was then to occupy the newly-created crater and the enemy's front line. A third wave would carry forward ammunition, bombs and supplies and aid in the consolidation of the two trenches. In this way the battlefield was divided into three zones of operation: the most forward zone containing the enemy's support and communication trenches (labelled "C" and "D"), a middle zone consisting of the enemy's main fire trench (labelled "B") and a rearward area from which the attack was launched (labelled "A"). To capture and consolidate these positions specific tactical principles were to be observed.<sup>16</sup>

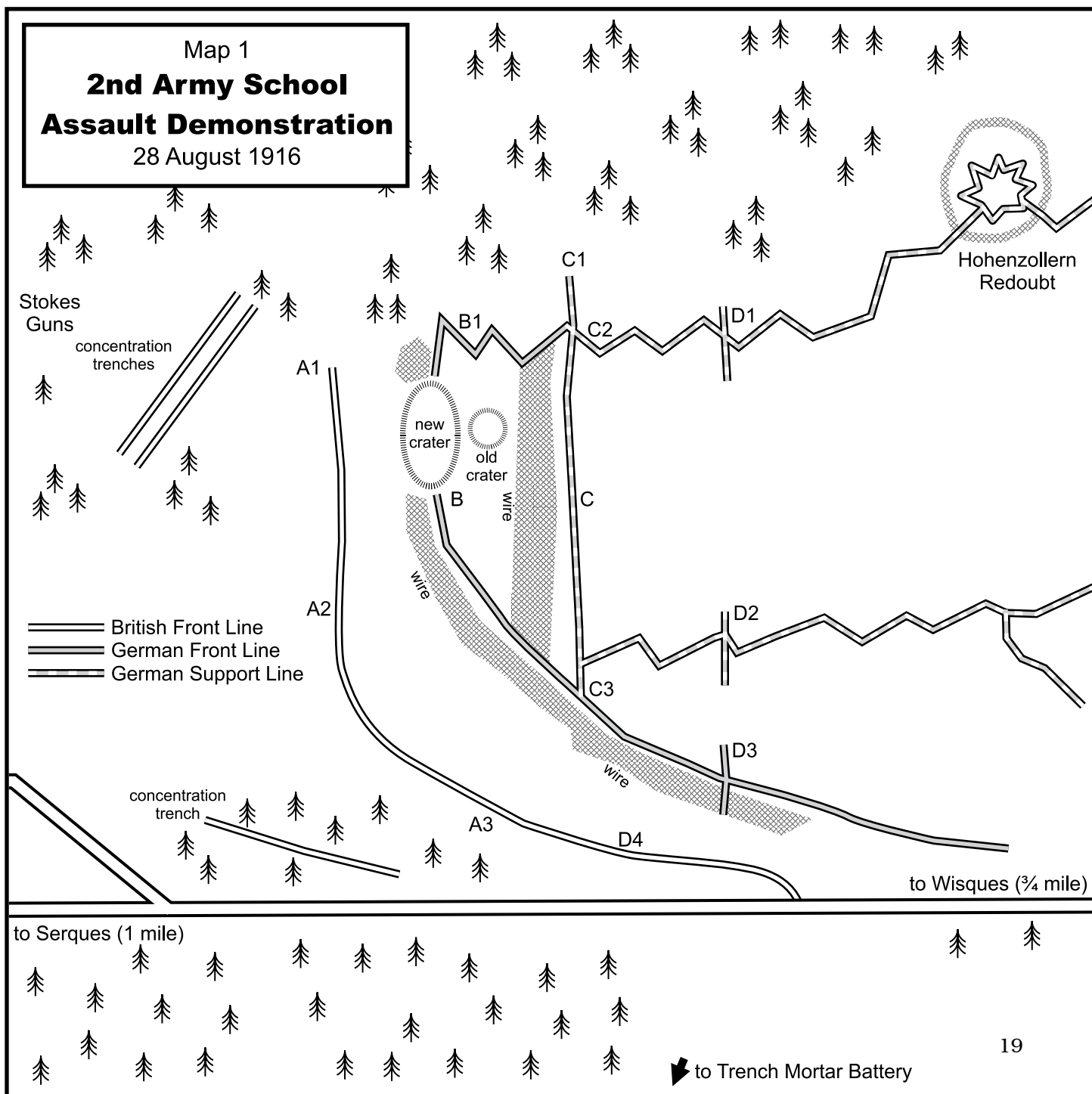
The "waves [were to] advance to [the] objective in parties of ten or less, in single file," a type of formation which mirrors the small unit "shock troop" tactics of 1918.<sup>17</sup> As well, in the attack, specialized squads and sections within the attacking force itself provided fire support for the assaulting infantry. The barrage, covering the advancing troops, was initially conducted by trench mortars which subsequently assumed a supporting role, moving forward with the infantry. The actual assault on the trenches was completed by the infantry, supported by bombers and Lewis Gunners.<sup>18</sup>

The assault itself was a highly coordinated effort. The first wave was composed of 125 men, and was further subdivided into a series of groups, each with a specific task. The 50 men of Force "1" were assigned the task of taking the support trench and then reversing the parapet in anticipation of a counterattack. Forces "2" through "5" were to assist Force "1" in taking C trench and then each force was to split off and block the communications trenches at the following points marked on Map 1: D1, D2, D3 and D4. Force "5a" was to assist in taking C trench and then signal the airplanes that the objective was secured with flare guns. Forces "6" and "7" were to, again, assist in taking C trench

and then break off from the main force and clear the communications trenches from point C.2 to the “new crater” and from point C.0 to the “old crater.” These last two forces would then link up with the second wave which had its attack broken down by objective in a similar manner.<sup>19</sup>

As the plan suggests, the success of the assault relied not on masses of men, marching in time towards an objective, but rather on the cooperation of small groups which were given

specific and predetermined tasks. In this way, this simulated attack concentrated training on the same doctrinal points as had been emphasized in SS 109 and in the official pre-war manuals. As well, we see evidence for what would later be called “small group tactics,” – the division of the assaulting force into several small and independent formations designed to work in concert towards a common objective. However, there is an underlying principal that is



map drawn by Mike Bechthold ©2005



A Canadian Lewis gunner fires  
at a German aircraft, July 1917  
LAC PA 1416

suggested by this demonstration that may not be immediately visible: fire and movement.

While it is not explicitly stated, the success of the 28 August demonstration attack relied upon the fact that in order for infantry soldiers to attack a prepared position over open ground, the enemy needed to be prevented from “manning his parapet.” A tactical memorandum prepared by the General Officer Commanding XIV Corps, Lieutenant-General Cavan and dated 3 August 1916 described how artillery fire could be used to cover the advance of the infantry under a “creeping barrage.”<sup>20</sup> However, as subsequent exercises carried out by the 12th Brigade indicate, it was also recognized that soldiers in small groups needed to provide covering fire for each other.

At the end of September the 12th Brigade began to train specifically for its upcoming deployment to the Somme front. During section and platoon training, while time was allotted for the men of the brigade to familiarize themselves with the newly-issued Lee-Enfield rifle in musketry practice,<sup>21</sup> the main emphasis was on learning to move “in shallow columns [with] rapid deployment.”<sup>22</sup>

Because, the term “shallow columns” is used in the plural, it can be inferred that the platoon was to be divided into several small columns, each comprised of a single section of infantry, similar to the “single file lines” of ten or fewer soldiers demonstrated on 28 August 1916. These groups would utilize ground as cover far more efficiently than could men deployed in a horizontal line comprised of an entire platoon or company. These small groups could be controlled more efficiently than could a company of 120 men or a platoon of 40 men. This type of formation also necessitated that command and decision making power be delegated to the NCOs who were in command of sections and squads. As well, this type of deployment was much more effective against prepared positions.

In instructions to the 38th Battalion, Brigadier-General MacBrien wrote, “reserves should not be wasted in impossible frontal assaults against strong places but rather be thrown in between these strong places and [should] work around them to attack them in the flank and rear.”<sup>23</sup>

MacBrien ordered that attention be given to the “avoidance of unnecessary losses owing to over crowding of trenches after the position has been consolidated. A system of defence with machine guns, Lewis guns and small parties of Infantry will usually suffice.”<sup>24</sup> Furthermore, he instructed, “during these exercises the greatest importance is to be attached to the issuing of clear and concise orders...Each man should have a definite job, and understand it.”<sup>25</sup> He suggested that assaulting formations “practice being held up at certain [enemy strong] points in the attack [and that] methods of communications with artillery [be practiced] with a view to having those points done in, and [the] reorganization of attack against these points.”<sup>26</sup> These infantry attacks were to be combined with Lewis gun and Stokes Mortar teams, commanded at the battalion level and lower which incorporated into the attack in a supporting role.<sup>27</sup>

What MacBrien described are what would later be termed “infiltration” or “storm troop” tactics, that is, tactics which allowed small groups of infantry to penetrate the enemy’s main line, supported by other infantry and artillery, to attack enemy positions in their flanks. These tactics, which would be referred to as “fire and movement” in the Second World War, required the advancing infantry to support itself: one group of infantry would fire in the general area of the enemy to “keep his head down” while a second group of infantry rushed forward. This “leap frog” process would eventually culminate in a close quarters battle decided by the bayonet, rifle butt, fists and the grenade. While historians such as Bruce Gudmundsson and Martin Samuels<sup>28</sup> (among many others) would suggest that these tactics were pioneered by the German army in 1917 and 1918, they were in reality much older.

The official training manual, *Infantry Training, 1914* printed before the beginning of hostilities discusses the importance of fire and movement in the attack. It reads,

When the ground permits, it is generally necessary to detail special detachments of infantry to provide covering fire for the leading troops....in flat country it is impossible for infantry or machine guns to fire over the heads of their own troops, and opportunities for supplying covering fire must be sought on the flanks. Troops detailed to give covering fire to others must take care to select as targets those



bodies of the enemy whose fire is chiefly checking the advance...As soon as their fire ceases to be effective in aiding the advance of the firing line, it is the duty of troops detailed to give covering fire at once to join in the advance.<sup>29</sup>

Here the manual described the basic principals of fire and movement: fire is used to promote and enable movement. The attacking force was to be divided into an advancing unit and a fire-unit.<sup>30</sup> The duties of the fire-unit was to cover the forward movement of the assaulting unit. A 1915 Canadian manual described how the process was designed to work,

When advancing line is checked, advance will be made by rushes. Proximity of enemy and formation of ground govern whether whole line simultaneously or portions of it alternately will advance. As a rule portions of line will advance alternately in rushes to successive halting places. Length of rush governed by enemy's fire, physical condition of troops and available cover....

*Fire and Movement:* Object of fire in attack and counter attack is to facilitate movement, check or hinder movements of enemy.<sup>31</sup>

These manuals clearly placed emphasis on small unit tactics, which necessarily decentralised the command structure.<sup>32</sup> These tactical units were expected to at least provide some of their own fire support through the use of trench mortars and Lewis Guns. The training of 12th Brigade suggests that these small groups were to close with the enemy through fire and movement. None of these concepts were either new or revolutionary: they are all taken directly from the prewar field manuals. The basic tactical principals laid down in the official training literature remained consistent between the outbreak of war and the Battle of the Somme. Indeed, as we shall see, this continuity in tactical doctrine extended to 1918.

\* \* \* \* \*

**D**uring the spring of 1918, the Canadian Corps missed the main thrust of the biggest German offensive since 1914. Because the Canadians were largely unbloodied, they were chosen, along with the ANZACs, to lead the first major Allied counteroffensive in mid-summer 1918. While the Battle of Amiens would prove to be a major Allied victory and would be remembered by Eric Luddendorf as “the black

day of the German Army,” the victory was not the product of new tactical principals. Instead, as training records demonstrate, the tactics used at Amiens were essentially the same as those suggested by the official prewar manuals. As well, specific tactical training differed little between the battles of the Somme and Amiens.

Training for what would eventually become the Llandovery Castle operation began in mid-spring 1918.<sup>33</sup> Like at the Somme, a series of exercises were set for the 12th Brigade which were designed to teach tactical concepts. On 6 May 1918, MacBrien issued “‘Delta’ Training Instruction No 1.” MacBrien wrote, “Owing to the fact that the Division will have only a few days to train – (possibly 7) – it is essential that every available hour be fully occupied in the training of officers, NCOs and men.”<sup>34</sup> Faced with a limited period of training, it is interesting to note the activities which were emphasized. MacBrien wrote:

In training particular attention should be paid to the following:-

- a) Day and night marching by compass bearings (officers and NCOs).
- b) Scouting and patrolling.
- c) Rapid communications (keeping in touch with flanks).
- d) Musketry (to be carried out with fixed bayonets):- Rapid fire, fire orders, fire direction, fire control and description of targets.
- e) Physical training and bayonet fighting.
- f) The training of specialists – such as Lewis Gunners and Rifle Grenadiers....
- g) Sections to be practiced in approaching an imaginary strong pint, making use of hedges, ditches, and other cover.
- h) Platoons moving in Section columns opening to line in extended order. Sections advancing under supporting fire of other sections.<sup>35</sup>

These specific “areas of concentration” were not groundbreaking by any means. Indeed, bayonet fighting, night marching, scouting, patrolling, musketry and physical training were the most basic elements of infantry training.<sup>36</sup> However, once the “basic” training described above was completed, the 12th Brigade began to practice attacks at the company level.



**Left:** A Canadian soldier practices his musketry skills, June 1916.

**Below:** Testing a Vickers Machine Gun, September 1916

LAC PA 133

MacBrien's instructions set out just how these practice attacks were to be carried out and what points were to be emphasised. In the same instruction noted above he continued,

When platoons have received a brushing up in 4h [refers to the list above] a simple tactical scheme for the attack of a company should be carried out. The attack could be made on a farmhouse, or two of them, which would represent enemy strong points. If ground is suitable attacks should start from five hundred yards from the objective. In these schemes attention should be paid to the action of the Lewis Guns – the use of cover – initiative of platoon and section commanders in pushing forward – fire orders – action of rifle grenadiers....Platoon must be practiced in capturing strong points and Machine Gun positions alone – and in co-operation with platoons on the flanks. Companies are to be exercised in clearing up areas containing several hostile localities. Smoke bombs should be used.<sup>37</sup>

The points emphasized in this brief training syllabus are almost identical to those points highlighted in both the prewar manuals and the exercises carried out in preparation for the Somme. Units were expected to attack in small groups and operate as sections, not platoons or companies. Initiative at all levels of rank was emphasized and the importance of using ground and cover in the advance was underlined.



LAC PA 635

Basically there seems to be little difference between this practice attack and the exercises carried out in August and September of 1916. This is also true for training carried out later in the summer by 12th Brigade.

The most detailed training exercise conducted by the 12th Brigade took place on 5 July 1918. The instructions issued for the attack read:

Plan of action

- I. OC divides the area into 3 zones and disposes his troops as under:-
  - “C” Company [Coy] to clear OUTPOST ZONE...
  - “B” Coy to clear BATTLE ZONE...
  - “A” and “D” Coy to clear REAR ZONE...
- II. 3” Trench Mortars [TM] to follow “B”, “A” and

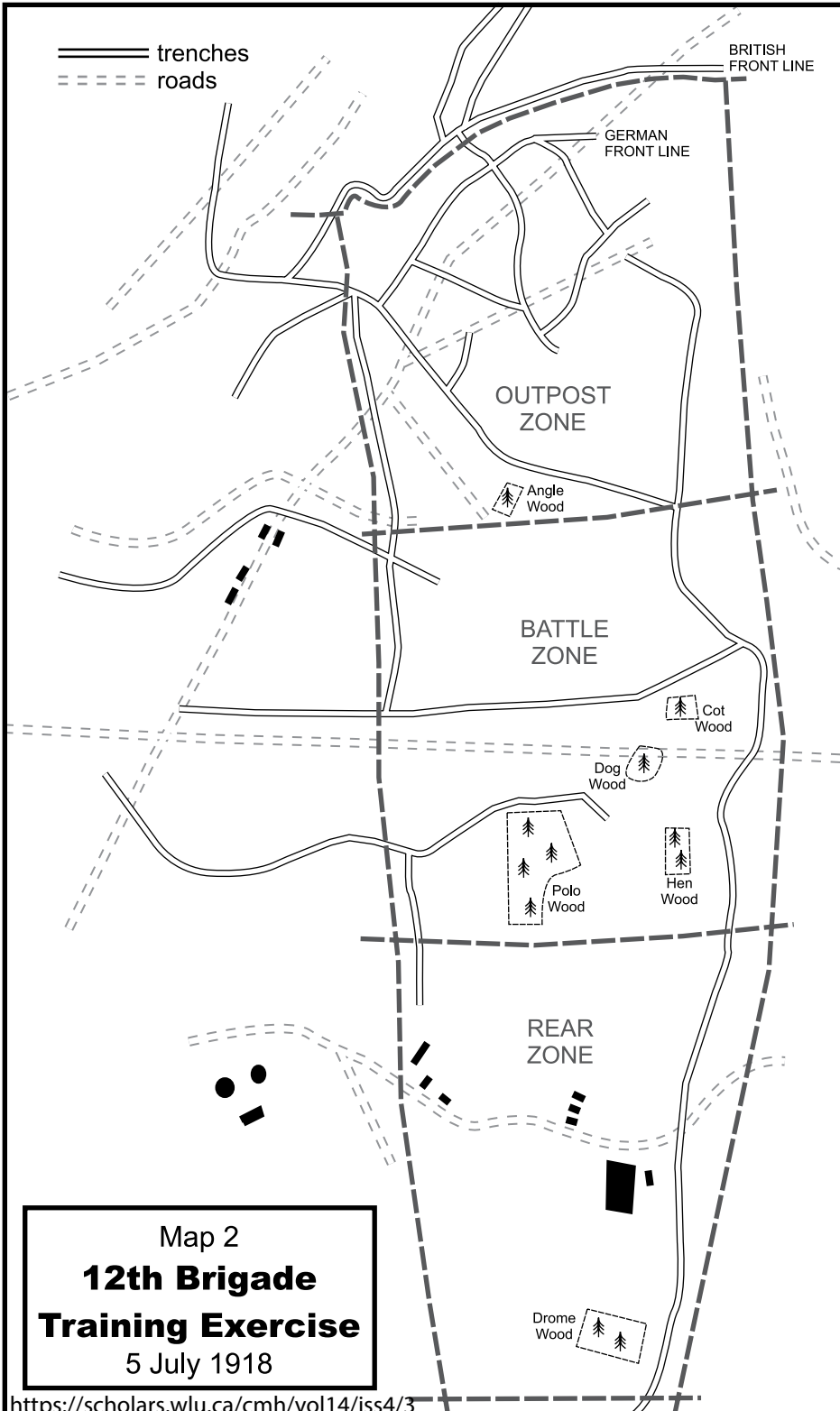
- "D" Coys, and give assistance as required.
- III. 6" TMs will be kept as a Battalion reserve and employed on request for assistance from companies.
  - IV. 1 Section Canadian Field Artillery to operate in area and render assistance by direct and indirect fire as required by the Bn. Commander according to situation which may develop.

- V. Battery of Machine Guns: 1 section on Slag heap (C.15.a) to deliver covering fire. 1 section to follow infantry to assist with covering fire and to help hold ground gained.
- VI. 1 Section of Tanks: Held as a reserve in the first instance owing to the limited number available, to go forward and deal with points of opposition which arise.

VII. Aeroplane: A) to carry out a reconnaissance and try to find centres of resistance, dropping bombs on them. B) report progress of out most advanced troops from ground flares.<sup>38</sup>

This is an almost identical exercise to that carried out on 28 August 1916 in both form and substance. The division of the attack's objectives into three zones (see Map 2) was quite similar to the scheme laid out in Map 1. As on 28 August, the three zones were to be cleared in a "reverse leap frog" fashion where the farthest objective was to be secured first. The use of trench mortars to assist in the advance, under the command of the assaulting infantry, was exactly the same as the previous exercise. The use of the Canadian Field Artillery section was in accordance with the suggestions made by Caven in the summer of 1916. Likewise, the use of machine guns to provide covering fire was in accordance with the provisions of the prewar field manuals discussed above. The only major difference between the 1916 attack and the 1918 attack was the use of tanks and airplanes in offensive roles.

In reality, tanks were not in use on the Western Front when the 1916 demonstration attack occurred. Airplanes were likewise not generally able to operate in an offensive role. By 1918, both had become commonplace on the field of battle. However, while their use in 1918 may appear to have been innovative, they were actually



employed in a conventional manner, meaning that these new weapons were merely integrated into the existing tactical doctrine. In many ways, tanks and airplanes were used as mobile artillery.

If we look back to the training conducted in 1916, we see that the role of the artillery was, after the initial barrage, to assist the infantry in dealing with strongpoints.<sup>39</sup> Indeed, this was still the role of the artillery in 1918 (at least according to 12th Brigade's Tactical Scheme No.3). Here we see that tanks were to be used sparingly and only to deal with strongpoints. As well, airplanes were to drop bombs to destroy strongpoints. Basically, while the weapons delivery system may be different in 1918 than in 1916, the tactical principal guiding the employment of that weapon remained the same throughout: infantry were used to advance and occupy ground; artillery, tanks and airplanes were used to assist and support the infantry by dealing with strong points.

The concepts that MacBrien hoped to teach his soldiers in 1918 were remarkably similar to the concepts that he emphasized in 1916. The instructions read,

Lessons which it is desired that the exercise should teach

1. The method of overcoming Machine Gun Defence in depth:

- a. Initiative on the part of platoons in making use of the ground and in working forward on the flanks of the enemy positions.
- b. Infiltration.
- c. Close Liaison....

First Phase:

- a) Platoon tactics in capturing any points of resistance left in the enemy's outpost zone after our preparatory bombardment has ceased. Normally this zone is lightly held but it is necessary to provide for the capture of whatever may live through out bombardment.
- b) Re-bombardment of some points in outpost zone may be necessary but in this scheme it is taken for granted that the infantry does not require further assistance but overcomes the opposition met with by its own weapons.

Second Phase

- c) Shows the Coy and Platoon tactics in manoeuvring to outflank and destroy the enemy positions after having penetrated where possible into his battle zone, infiltration being used
- d) Both Artillery and Trench Mortars will be moved forward to fire as necessary to overcome opposition in this zone

Third Phase

- e) Shows Battalion tactics in dealing



Canadians advancing east of Arras, September 1918.  
LAC PA 3074

with the enemy in the “rear zone”. Coys give mutual support to one another in the advance. Platoons engage hostile machine gun nests with fire. Platoons will work forward on both flanks before the advance in the centre commences.<sup>40</sup>

These “lessons” are almost identical to the discussion of fire and movement offered above. Indeed, in 1916 these concepts were more defined and were discussed in more depth.

Before the Somme MacBrien suggested that troops not be wasted in “impossible frontal assaults against strong places but rather be thrown in between these strong places and work around them to attack them in the flank and rear.”<sup>41</sup> While the actual term “infiltration” (or enfiltration) is used in 1918, the concept remains the same as discussed in 1916 and in the prewar field manuals. Likewise, “Close Liaison” is merely a new term applied to a concept discussed in 1916 and in the prewar field manuals: the use of artillery (and in 1918 tanks and aircraft)

to deal with enemy strongpoints.<sup>42</sup> The use of platoon tactics and the focus of the attack on the flanks of the enemy, has already been discussed in some detail both in reference to the prewar field manuals and training conducted in 1916. However, it is important to stress that this was not a new idea: not in 1918 and not in 1916. This point gets at the heart of the matter.

In *Shock Army of the British Empire* Shane Schreiber writes,

the battle of Amiens was not only the beginning of the end for the German Army on the Western Front, but also the culmination of technological and tactical changes that foreshadowed the development of modern mechanized warfare.... The British, Australian and Canadian triumph at Amiens was in fact a story of technological innovation, tactical metamorphosis and careful, detailed planning and orchestration that acted as a harbinger of the sea change [sic] that had taken place in modern European land warfare during 1917 and 1918.<sup>43</sup>

Canadian troops with a tank  
move across no-man's-land.  
LAC PA 1496



But where is the evidence that such a change took place?

Schreiber writes,

[In the winter of 1918, Canadian] infantry units continued to incorporate innovative platoon level tactics into their training, borrowing much from German “stormtroop tactics” and from innovations made by others in the British and French armies, such as Ivor Maxse. This tactical system focused on small, independent groups of about 40 soldiers fighting their way to a specific objective using dispersed formations, the terrain, support fire and movement to their advantage. Fire support came in the form of Lewis light machine guns and other light support weapons, such as grenades and light mortars. Gone were the days when waves of infantry charged into a hail of machine gun fire, replaced instead with carefully planned, short, sharp dashes under the cover of vicious, close-range supporting fire.<sup>44</sup>

As we have seen, not only did these tactical principles exist in 1916, they are also clearly described in the prewar manuals. Fire and movement was not new and neither was the

use of light and heavy automatic weapons for covering fire.<sup>45</sup> The decentralization of command, necessary for small group tactics, was called for in the prewar manuals and the use of small groups of men, working in alternate rushes, utilizing terrain as cover was clearly important, both before the war and during training in 1916.<sup>46</sup> How then are we to account for this discrepancy, as Schreiber is only one among many historians who make similar arguments?<sup>47</sup>

While it is true that tens of thousands of British soldiers died on 1 July 1916 on the Somme, killed by a sleet of machine gun bullets, it is also true that the Allied armies broke the German army in the summer and fall of 1918 forcing Ludendorff to call for an armistice on 11 November 1918. Historians, who are trained to look for “change over time” and then describe the causal agent behind that change, necessarily have tried to explain why Allied fortunes altered so dramatically between 1916 and 1918. The prevalent Canadian historiography assigns causality to the “learning curve.”



Much of the Canadian historiography is steeped in nationalism and, ultimately, seeks to prove that the Canadian Corps was the “best” Allied formation on the western front. Naturally the myth follows the archetypal hero story: the Corps, a rag tag bunch of citizen soldiers, struggles against the inflexible and conservative regular British Army structure, until the Canadians are able to come into their own (despite the cards stacked against them) at Vimy Ridge and, in doing so, they secure their place at the front of the 1918 Victory winning offensive which brings Canada acclaim and the right to call itself a country separate from Great Britain. Because the Canadian First World War myth is essentially about the child (Canada) coming to the rescue of the parent (Great Britain), central to the mechanics of the story is the suggestion that Canada, and not Great Britain, overcame the riddle of the trenches. Naturally, this myth focuses on Sir Arthur Currie, the Canadian Corps Commander who led the Canadians after Vimy Ridge until the end of the war. This myth suggests that it was under Currie’s leadership that the Canadian Corps became the “shock army” of the British Empire. While Currie was an able and effective Corps Commander, perhaps it is time to look beyond the Canadian myth to explain what changed on the Western Front between 1914 and 1918. Perhaps the answer is far more simple than it seems.

Historians, concerned with change, causative agents and the capacity of individuals to affect the course of history, often look beyond the mundane forces that operate beneath the surface. What is clear from the above evidence is that continuity in tactics and training was as notable as change. However, there *was* a deadlock on the Western Front. Indeed, it is often assumed that this deadlock was the result of a breakdown and failure in tactical thinking. However, it could be argued that the same tactics that historians argue “broke down” in 1914 are hailed as “innovative” and the “keys to victory” in 1918.

Perhaps it is true that tactics designed to utilize fire, movement and the enemy’s flanks were simply useless against a strong enemy without assailable flanks from 1914 to 1917. However, by 1918 many other factors were at work: the German army had been stretched thin and then failed in its own attempt to “solve the riddle of the trenches” in the spring of 1918. This exacerbated the already significant problem brought about by four years of attritional warfare: by the summer of 1918 it was apparent that in only a matter of months, there would simply be no more Germans to “man the parapet.” Weakened by blockade and drawing on an ever smaller resource and manpower pool, the German army was, in 1918, not able to offer the same level of resistance as it had earlier in the war. By 1918

Canadians enter the main square in Cambrai, France during the advance east of Arras, October 1918.



the German army had also resorted to a system of defence-in-depth, which some historians have argued was a tactical breakthrough,<sup>48</sup> but was really based on a need to economize defence over greater distances. Because prewar and mid-war Allied tactics were designed to attack an enemy in his flanks, overcoming strongpoints using small groups of self-supported infantry, this system may have simply played into Allied hands: suddenly the Germans, deployed in a network of strongpoints, had flanks to attack. This helps to explain why an examination of the training of the 12th Canadian Infantry Brigade between 1916 and 1918 suggests that there was at least as much continuity as change in the tactics emphasized during training. Clearly, future case studies of training must be done to confirm whether this was a more generalized phenomenon.

### Notes

1. While the official history, G.W.L. Nicholson, *Canadian Expeditionary Force, 1914-1919* (Ottawa: Queen's Printer and Controller of Stationary, 1964), is largely silent on this issue, the salience of this idea is readily evident in the historiography. See David Campbell, "Schooling for War: Canadian Infantry Training, 1914-1917," in *Perspectives on War : Essays on Security, Society & the State*, ed. Chris Bullock & Jillian Dowding, (Calgary: Society for Military and Strategic Studies, 2001); D.J. Goodspeed, *The Road Past Vimy: The Canadian Corps, 1914-1918*, (Toronto: Macmillan, 1969); Stephen John Harris, *Canadian Brass: the Growth of the Canadian Military Profession, 1860-1919*, (PhD Diss., Duke University, 1979); A.M J. Hyatt, *The Military Career of Sir Arthur Currie*, (Durham, NC: Duke University, 1965); Desmond Morton, *When Your Number's Up: the Canadian Soldier in the First World War*. (Toronto: Random House, 1993); John Swettenham, *To Seize the Victory: The Canadian Corps in World War I*, (Toronto: Ryerson Press, 1965).
2. Tim Cook, *No Place to Run: the Canadian Corps and Gas Warfare in the First World War*, (Vancouver: University of British Columbia Press, 1999); Bill Rawling, *Surviving Trench Warfare: Technology and the Canadian Corps, 1914-1918*, (Toronto: University of Toronto Press, 1992); Shane B. Schreiber, *Shock Army of the British Empire*, (London : Praeger, 1997); James McWilliams and R James Steel, *Amiens: Dawn of Victory*. (Toronto: Dundurn Press, 2001).
3. See Andrew Iarrocchi, *1st Canadian Infantry Division at War. 1914-15: An Assessment of Training, Tactics and Leadership*, Diss. (unpublished PhD, dissertation, Wilfrid Laurier University, Waterloo, ON, 2005) and David Campbell "Schooling for War: Canadian Infantry Training, 1914-1917," in *Perspectives on War : Essays on Security, Society & the State*, edited by Chris Bullock and Jillian Dowding, Calgary: Society for Military and Strategic Studies, 2001, pp.15-30.]
4. The best history of the Somme operations is still the British Official History: J.E. Edmonds, *Military Operations: France and Belgium, 1916*. Volumes Five and Six. (London: Macmillan, 1932-1938). The best overview of Canadian operations is found in the Canadian Official history: Nicholson, pp.160-194.
5. See discussion of Kiggell's SS 109 below.
6. Lieutenant-General Kiggell, British General Headquarters, "SS 109: Training of Divisions for Offensive Action," reprinted in Edmonds, *Military Operations: France and Belgium, 1916, part I (appendices)*.
7. SS 109, pp.125-126.
8. *Ibid.*, p.127.
9. *Ibid.*, p.128.
10. General Staff, War Office, *Infantry Training, 1914*, (London: His Majesty's Stationary Office, 1914), p.120.
11. General Staff, War Office, *Field Service Regulations Part I, Operations, 1909, reprinted 1914 with Amendments*, (London: His Majesty's Stationary Office, 1914), p.138.
12. *Ibid.*, p.2.
13. Paddy Griffith, *Battle Tactics of the Western Front: The British Army's Art of Attack, 1916-18*, (London: Yale University Press, 1994), p.26.
14. Telegram: David Watson, General Officer Commanding 4th Canadian Division, "Message to Officer Commanding 10th, 11th, 12th Canadian Infantry Brigades," 2? August 1916. Library and Archives Canada (LAC) RG 9, series III c 3, v 4234, Folder 30, File 2.
15. Second Army Central School of Instruction , "Program for Demonstration," 28 August 1916. LAC RG 9, series III c 3, v 4233, Folder 29, File 3.
16. *Ibid.*
17. See Discussion below.
18. Second Army Central School of Instruction , "Program for Demonstration," 28 August 1916.
19. *Ibid.*
20. Lieutenant-General Cavan, Officer Commanding XIV Corps, "S 72: Tactical Memoranda Circulated by GOC XIV Corps," 3 August 1916, reprinted in Edmonds, *Military Operations: France and Belgium, 1916, part II, (appendices)*.
21. War Diary: 4th Canadian Division, 26 September 1916. LAC RG 9, series III D 3, v 4859, Files 156-157, Part 1.
22. Brigadier-General MacBrien, 12th Canadian Infantry Brigade, "Attachment to 12th CIB Memorandum 440", 26 September 1916. LAC RG 9, series III c 3, v 4233, Folder 29, File 3.
23. *Ibid.*
24. *Ibid.*
25. *Ibid.*
26. *Ibid.*
27. *Ibid.*
28. Bruce Gudmundsson, *Stormtroop Tactics*, (New York: Praeger, 1989); Martin Samuels, *Doctrine and Dogma: German and British Infantry tactics in the First World War* (New York: Greenwood Press, 1992).
29. General Staff, War Office. *Infantry Training, 1914*, p.135.
30. These terms are actually used throughout the manual. See especially pages 123-136 of *Infantry Training, 1914*.
31. N.A., *Infantry Training for use of Canadian Militia*. (Ottawa: n.p., 1915)



32. Indeed, on page 121 *Infantry Training, 1914* states: "In view of the importance of decentralization of command, it is essential that superior officers, including battalion commanders, should never trespass on the proper sphere of action of their subordinates."
33. Llandoverly Castle, named after a Canadian hospital ship which was sunk in the early summer of 1918 by a German U-boat, was the operational name given to what we today know as the Battle of Amiens. It should also be pointed out that training was initially directed at another operation, codenamed "Delta," which never actually took place. This operation was tentatively designed as a counterattack to relieve pressure on Allied forces during the German spring offensive. While it never took place, the Canadian Corps trained extensively in preparation for it, which undoubtedly contributed to preparations for the Llandoverly Castle Operation. For this reason, I have made no distinction between the training conducted for either operation as the tactical doctrine suggested by both remained consistent.
34. Brigade Major, "12th Canadian Infantry Brigade (Delta) Training Instruction No 1", 6 May 1918. LAC RG 9, s III c 3, v 4234, Folder 30, File 2.
35. J.H. MacBrien, "'Delta' Training Instruction 1." LAC RG 9, s III c 3, v 4234, Folder 30, File 3.
36. Each of the elements described are found both in the official manuals as well as in a standard training syllabus from 1915. See, for example, "D Company (38th Battalion) Training Syllabus", 13 September 1915– 30 October 1915. LAC RG 9, III c 3, v 4235, Folder 5, File 5.
37. J.H. MacBrien, "'Delta' Training Instruction 1."
38. War Diary (appendices): T. P. Jones, Brigade Major, 12th Canadian Infantry Brigade, "12th Canadian Infantry Brigade Tactical Scheme No 3," 5 July 1918. LAC RG 9, series III d 3, v 4909, File 331.
39. See footnote 25 and the accompanying text.
40. War Diary (appendices): T. P. Jones, Brigade Major, 12th Canadian Infantry Brigade, "12th Canadian Infantry Brigade Tactical Scheme No 3," 5 July 1918.
41. Brigadier-General MacBrien, 12th Canadian Infantry Brigade, "Attachment to 12th CIB Memorandum 440", 26 September 1916. LAC RG 9, series III c 3, v4233, Folder 29, File 3.
42. In truth, the 28 August 1916 practice attack also included a demonstration of "intercommunication with aircraft". This was also dealt with in the autumn of 1916, when various methods were tried: coloured placards carried by the infantry and the use of coloured flares and smoke.
43. Schrieber, p.33.
44. *Ibid.*, p.27.
45. See footnote 29.
46. See footnotes 31 and 32 (as well as corresponding text).
47. See footnote 1 and corresponding text for additional sources that make similar assumptions.
48. See Samuels.

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