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The Canadian Role in Operation "Charnwood," 8 July 1944 A Case Study in Tank/Infantry Doctrine and Practice

David A. Wilson

On the morning of 8 July 1944, soldiers of the 9th Canadian Infantry Brigade (9 CIB) left their startlines near the Norman village of Vieux Cairon heading for Buron and Gruchy; two villages nearly 2,000 yards across open ground to the south. Their advance was part of Operation "Charnwood," British I Corps' final assault on Caen. By the end of the day most objectives were secured, and on 9 July Caen north of the Orne River and Canal was captured. General Dempsey, General Officer Commanding (GOC) British 2nd Army expressed his satisfaction, saying that the operations of 8 and 9 July were "well and cleanly carried out."¹ Troops of the 3rd Canadian Infantry Division (3 CID) and the 2nd Canadian Armoured Brigade (2 CAB) shared in the victory no less than the British divisions that took part.

"Charnwood" stands apart from other Canadian operations in Normandy because it was the only operation of its type undertaken by 3 CID and 2 CAB as complete formations. After "Charnwood" II Canadian Corps became operational, and the scale, tempo and expectations of operations altered considerably. The capture of Caen, therefore, affords insights into tactical doctrine that are obscured by later large-scale operations with more ambitious objectives. In particular, in this operation the Canadian armour and infantry defeated the Germans by employing tanks as direct-fire close-support weapons. In fact, such intimate support had *not* been a part of Canadian tank/infantry doctrine since the introduction of the Sherman tank in 1943. Instead, since the fall of 1943 armoured units were told specifically to work to the enemy's flanks and support by fire, not by

participating in the close infantry battle. The fighting on 8 July indicates that in this instance at least, Canadian troops won in spite of the prevailing doctrine and not because of it.

Doctrine figures prominently in the continuing debate over the Canadian Army's battlefield performance in Normandy. In his concluding remarks on the Normandy campaign, C.P. Stacey clearly stated that the Germans achieved tactical superiority over the Allies.² Stacey's conclusions have been echoed and amplified in more recent works. Writing in 1991, John A. English offered a more detailed explanation for the Canadians' lacklustre performance, listing doctrine as a partial explanation along with inadequate commanders, inferior weaponry and lack of fighting skills.³ David Bercusson added superb German NCOs, junior officers, small-unit tactics, and training as reasons why the fighting went on so long.⁴ Jack Granatstein, although writing specifically of Canadian generalship, also noted the flaws in the British doctrine followed by Canada.⁵

Interest in the Normandy campaign and the nature of the fighting there has not abated over time. In recent articles, not all have been willing to grant the Germans total superiority on the battlefield. Oliver Haller clearly demonstrated that the 12th SS could be outfought, most notably in their counterattacks from 7-10 July 1944.⁶ His account of the fighting carries an implicit message: the Canadians won because their small-unit tactics were superior to those of the Germans in this particular battle. Marc Milner has recently added to this argument the observation that the

open ground the Canadians were constantly attacking was ideally suited to the German penchant for defending with fire. Milner also factored in the inadequate tanks, and concluded by reminding readers that it was the Germans who were ground down in Normandy.⁷ Set against Milner's analysis must be Roman Jarymowycz's argument that the source of tactical frustration was primarily doctrinal, a point of view he reinforced in a response to Milner.⁸

The literature to date, however, has not directly addressed the central core of the issue: the failure of Canadian tanks and infantry to coordinate their actions effectively on the battlefield. That failure may legitimately be attributed to the inadequate tank/infantry cooperation doctrine adopted from the British despite considerable evidence that it did not work.⁹ This returns us to the question, just what was this tank/infantry doctrine, how did it develop, and how was it applied at the divisional level in Operation "Charnwood"?

The Doctrine

Any discussion of tank/infantry doctrine must begin with the disclaimer that it is *not* the doctrine developed for armoured formations. Tanks and infantry in armoured divisions studied an entirely separate set of manuals with its own lineage. Intended for the breakout and pursuit phase of operations, armoured forces in armoured divisions focussed on coordination with infantry formations rather than cooperation with infantry units. As a rule, either "other formations" or the armoured division's infantry brigade created the breach in the enemy line through which the tanks were launched.¹⁰ In contrast, brigades of "army tanks" – e.g., the Royal Tank Regiments – were specifically developed to support infantry divisions on the battlefield, primarily in the direct-fire role.

The tank/infantry doctrine that guided Canadian troops in Operation "Charnwood" belonged – in theory – to the army tank brigade tradition and did not, of course, spring up overnight. A body of doctrinal literature existed that extended back as far as the First World War, although recent manuals reflecting wartime experience were of more obvious tactical value. These Second World War training pamphlets were

the blueprint for future battles, outlining in particular frontage, density, pace of advance and the ratio of tanks to infantry.

In 1939 when Canadian troops began to study how tanks and infantry divisions worked together they received their information from British manuals. Basic to British thinking was the primacy of infantry who were considered the backbone of the attack. However, the manuals informed the infantry that any success depended, among other things, on the "aid of tanks" to break into a position.¹¹ Royal Tank Regiments conformed to this view of their role, holding that they were a "supporting weapon" whose principle task was "to assist the infantry to gain and hold the objective."¹² In contrast to armoured brigades, the manuals specifically noted that army tanks were "not designed to act independently," and to that end they were organized in battalions intended for close cooperation with the infantry in the attack.¹³

According to doctrine in 1939, attacks arrived on the objective in echelons, with tanks moving at tank speed forming the Assault Echelon. More tanks, accompanied by infantry and moving at infantry speed followed in the Support Echelon.¹⁴ Recognition of the power of the "modern establishment of anti-tank weapons" led to the principle of concentrating even army tanks in time and space. Thus, the 1939 pamphlet warned against using less than one army tank battalion in an attack, and elsewhere it noted that in open country and reasonable visibility one such unit was able to neutralize the frontage which could be attacked by one infantry battalion.¹⁵ Foreshadowing later actions in "Charnwood," the tanks were specifically warned against bypassing villages as long as fire from them was holding up the infantry.¹⁶ For army tanks, close support meant close support.

Employing tactics in these training pamphlets the British enjoyed initial success on the battlefields of North Africa. Indeed, the attacks on the Italian fortified camps by 7th Royal Tank Regiment (7 RTR) have been characterised as representing the tank/infantry attack in its classic form.¹⁷ Actions in North Africa seemed to indicate that the doctrine worked and the was reflected in subsequent manuals. When the War Office issued *The Employment of Army Tanks in Co-operation with Infantry* in March 1941 much of



Photo by Ken Bell, NAC PA 131414

A Sherman tank of the 1st Hussars moving up in support of the infantry, Normandy, France, 28 June 1944.

the doctrine remained the same. Both infantry and army tank manuals continued to stress the need for a common doctrine without falling into routine methods.¹⁸ The closest cooperation was demanded of both arms, the infantry being informed that an attack against organised resistance must be supported by army tanks, and that the tanks needed engineers and infantry to cross tank obstacles.¹⁹ Also continued was the system of attacking in echelons, the tanks in the Assault Echelon moving at tank speed and the tanks in the Support Echelon moving at infantry speed. Unchanged was the ratio of tanks to infantry – against organized resistance one battalion of tanks was to work with one battalion of infantry. Within that allotment, the distribution might be one leading squadron with each leading company of infantry, followed in the next echelon by troops working with individual platoons.²⁰

Two years later in 1943, with rather limited battle experience, Canadian troops continued to follow British doctrine. By this time though the Canadian Army was producing manuals written in Canada. One such manual, from the Canadian Battle Drill Training Centre in Vernon, BC, displayed only minor differences from those of 1941. It impressed upon infantry that army tanks

were a necessary adjunct to success and that a favourable outcome depended upon the close cooperation between troops of tanks and platoons of infantry.²¹ Battalion attacks were to be on a narrow two-company frontage of possibly 600 yards. There would still be three echelons, with the tanks of the first echelon moving at top speed crushing initial resistance by velocity and weight of numbers. Unusually, this Canadian training pamphlet called for the second echelon tanks to also move at tank speed although the echelon as a whole moved at infantry speed.²² That this approach might present problems appears to have been neglected or dismissed.

Meanwhile back in Britain, the War Office issued *The Co-operation of Infantry and Tanks*, proclaiming that it superseded *The Employment of Army Tanks in Co-operation with Infantry* of 1941, and that “the doctrine here stated will be accepted as the basic teaching governing the employment of tanks and infantry in co-operation.”²³ In this manual, for the first time anti-tank mines were given serious consideration. It was now accepted that they restricted the freedom of manoeuvre of tanks, a freedom which could only be restored by the infantry first clearing paths through the minefields or by the

use of specialized devices such as flails.²⁴ Attacks were still mounted in echelons, with no less than one squadron per echelon. Maintained also was the employment of complete army tank battalions for specific operations.²⁵ As for frontages of attack, the pamphlet suggested that 300 yards should seldom be exceeded by a tank squadron. From that figure, it deduced that an infantry division attacking with two battalions and two tank battalions would normally operate on a 1,200 yard frontage. Although it cautioned that these figures were “purely for training purposes,” what is important here is the implied one-to-one ratio of infantry to tank units in the deliberate attack.²⁶ Taken as a whole, there was still not much new in this document, the primary exception was the increasing recognition of the serious problem anti-tank mines presented. Sooner than expected, this equation was to change.

Canadian troops barely digested even these minor alterations to tactical doctrine when the Headquarters of 21 Army Group intervened. In July 1943, their monthly Training Letter stressed the limitations of tanks in the face of minefields and anti-tank guns. Overturning the doctrinal beliefs of 20 years, they now claimed that infantry attacks could succeed without tanks. Consequently, the infantry would now lead the attack with the tanks supporting from hull-down positions, where their fire was “more effective than close contact.”²⁷ Advice such as this is reminiscent of the doctrine followed by armoured formations on those rare occasions when the tanks of the armoured brigade moved to the flank to support the motor battalion by fire.²⁸ More detailed instructions soon followed.

The Co-operation of Tanks with Infantry Divisions in Offensive Operations, issued by 21 Army Group in November 1943, effectively drove a wedge between the infantry and their supporting tanks. Documents such as this provide a written basis for English’s comments on the doctrinal tendency of armour to hang too far back in the Normandy campaign.²⁹ Although the manual claimed that it was based on *The Co-operation of Infantry and Tanks* of May 1943, that was true only in the most limited sense.³⁰ While Parts I and II were about the employment and tactical formations of infantry tanks cooperating with infantry, Part III dealt with the implications of using the Sherman in the army tank role. What

Part III had to say about the Sherman effectively negated all that had been said in the first 25 pages of the 33-page document.

In Part I ratios and frontages were unchanged from previous manuals. The best results were obtained by concentration, with one armoured regiment to one battalion of infantry still in favour. Further, the tanks were warned against splitting squadrons between echelons, now renamed Assault, Support and Reserve. That ratio would be maintained even when the allotment of tanks to an infantry brigade might consist of only one regiment. In such a case it explicitly stated that the one regiment would be employed on the frontage of one infantry battalion. The only cloud on the horizon was a caveat against the infantry expecting the immediate physical presence of the tanks. They were informed that being in communication with tanks was a more vital factor.³¹

In Part III the cloud on the horizon became a downpour. There, the implications of the changeover to Sherman tanks were clearly spelled out. Thinner armour on the Sherman (compared to the Churchill tank usually found in army tank brigades) meant it was more easily penetrated by heavy anti-tank guns and could not carry out the infantry tank role in the deliberate attack. Thus, the infantry were informed that tanks were no longer partners in the assault, but rather (in an unhappy phrase) the “backers up” to the assaulting infantry.³² Driving home the message carried in Part II, it admitted that occasions would arise when tank squadrons would be allotted one to a battalion. In those cases, the infantry were expected to lead as one tank squadron was not strong enough to support a two-company frontage.³³ Effectively, Canadian infantry had not only lost their intimate tank support but might have to attack with fewer than expected tanks in support. Thus, the advent of minefields and the increased number and lethality of anti-tank weapons had separated the infantry from the intimate support of the tanks.

Some infantry formations were not long in asking pressing questions about what “backers up” meant exactly. The British 49th Division worried that it might result in the tanks being too far back.³⁴ Twenty-First Army Group soon responded with another apparent shift of emphasis. Within two weeks of assuming

Privates Harry Parker (top) and Gus McKinnon of the Highland Light Infantry following the battle for Buron, 9 July 1944.

command of 21 Army Group, General Montgomery advised the War Office that he could not accept the doctrine from the previous November. Moreover, he promised that it would be replaced or modified to a large extent, presumably before the anticipated invasion of France.³⁵

While 21 Army Group was re-writing their doctrine, the War Office released a new *Infantry Training* manual that addressed some of the battlefield problems associated with tank/infantry cooperation. Issued in January 1944, this pamphlet contained information that contradicted itself. There were references to the importance of *The Co-operation of Infantry and Tanks* while acknowledging that cruiser tanks (the British term for the tanks contained in an armoured brigade) would be confined to supporting with fire in the deliberate attack.³⁶ Further, tank support was effectively halved; a tank squadron now expected to cover 600 rather than 300 yards. Moreover, that squadron would be "handled" by its commander according to the ground and not invariably beside the infantry.³⁷ The separation of tanks and infantry appears complete and the shape of future operations in Normandy more explicable.

Before Canadian units were committed to battle, 21 Army Group finally weighed in with their last advice on the problem of tank/infantry cooperation. Two aspects of *Notes on the Employment of Tanks in Support of Infantry in Battle* are worthy of mention. First was the return of tanks as the sole element of the Assault Echelon immediately following the engineers of the Gapping Force.³⁸ Second was the inclusion of other arms of service further forward in the attacking force.³⁹ This short and idealized booklet gave a precise view of the defences likely to be found, mentioning minefields, wire, anti-tank ditches, section posts, crawl trenches, anti-personnel mines and booby traps.⁴⁰ Despite its attention to detail it contributed little to providing instruction in tank/infantry cooperation, and by differing from concurrent doctrine may have added to the doctrinal confusion.

Having mentioned above the types of defences to be encountered it may be helpful to add more



Photo by M.M. Dean. NAC PA 131401



Photo by M.M. Dean. NAC PA 131400

detail, for the attacks in Operation "Charnwood" faced almost the classic form of German defences. The War Office pamphlet on that topic informed that the German intention was to "destroy the enemy by fire."⁴¹ Ground was chosen according to its suitability for such purposes, and the fortified ring of villages north of Caen fit that description well. Mines and wire certainly existed but they took second place to what the pamphlet called the "co-ordination of fire of high- and low-



Photo by H. G. Aikman, NAC PA 129035

Canadian infantry advancing near Gruchy, France, 9 July 1944.

trajectory weapons," that is mortars and machine guns.⁴² The theoretical employment of German armoured troops in defence also corresponded to the situation north of Caen. Their defences were usually built around anti-tank guns acting as a cover for the divisional artillery, with the tanks kept as mobile reserve.⁴³ This arrangement looks very much like the tactical situation of 8 July 1944. It was also noted that given several weeks the Germans would systematically construct continuous trenches and permanent dugouts, and they had certainly been allowed that time in Normandy.⁴⁴

A summing up of tank/infantry doctrine to this point in the war reveals elements of both continuity and change. Frontage of attack and pace of advance had remained constant throughout as they were keyed to infantry tactics. The ideal ratio of combat arms was maintained at one tank regiment to one infantry battalion despite circumstances when this rule could be broken. In 1944, defensive elements such as anti-tank mines and anti-tank guns brought more integration of other supporting arms and the relegation of tanks to further back in the attack. From leading the assault they were now found supporting with fire from the flank or rear. It remained to be seen whether this arrangement was workable under battle conditions.

The Operation

Operation "Charnwood" began on 8 July 1944, when the British I Corps, strongly reinforced to a strength of 115,000 personnel, opened its drive to clear Caen as far as the Orne River.⁴⁵ Three infantry divisions were to attack on an eight-mile front, the 3rd Canadian on the right, the 59th British in the centre and the 3rd British on the left.⁴⁶ The infantry were supported by the fire of 656 guns of various calibres, 350 tanks in two armoured brigades plus specialized armour such as flails, flame-throwers and AVREs.⁴⁷ Some of the artillery had begun firing a series of concentrations at 2300 hours the night before, targeting some 15 German-held villages around Caen.⁴⁸

As an operation, "Charnwood" was cast in the mould of the British way of warfare in the mid-twentieth century. Limited in its aims, this was a "set-piece" battle, the kind the British had been fighting for two years. Thus, its ultimate objectives were in the range of 4,000 yards; to be accomplished in four phases each with their own objectives. In Phase I the two British divisions would capture Galmanche, la Bijude and Lebissey Wood. Once these objectives were achieved, all three divisions would continue the advance in Phase II. This would see the

Canadians capture Buron, Gruchy, the Château St. Louet and Authie while the 59th Division pushed south on their left flank, moving through St. Contest and Epron. Phase III called for the Canadians to capture Cussy and the Abbey d'Ardenne, pushing the Germans back to the line Franqueville-Ardenne. In Phase IV, all formations would exploit to the final objectives.⁴⁹

The villages attacked by I Corps were on the last high ground before Caen, including some of the highest ground between that town and the coast. Once the Germans gave them up they would have to move back to the high ground to the south of Caen. That alone might have dictated defending the ground they presently held, but in any case, Hitler had forbidden withdrawal. To defend this critical ground the Germans could spare but two divisions in the front line, 16th Luftwaffe Field Division on the right and the 12th SS Panzer Division on the left. The former, with aid of a tank battalion from 21st Panzer Division, held the line from the Canal de Caen west to the railway near Cambes. From that point, the 12th SS continued the line through Galmanche, Buron, Gruchy and then south to Carpiquet airfield and finally crossing the Odon near Verson.⁵⁰ According to Kurt Meyer, commanding the 12th SS, there were "eleven dazed battalions" defending this ground the Allies wanted so much, a serious imbalance of forces by any measure.⁵¹ To lessen the odds, the Germans had made their usual clever use of ground, creating in the words of the British Official History, "mutually supporting positions based on what were by now virtually tank-proof villages." Ellis listed the villages of Lebissey, Galmanche, Gruchy, Franqueville, Cussy and Couvre-Chef as belonging in this category; four of these six were to be taken by the Canadians.⁵²

The Canadian Attacks

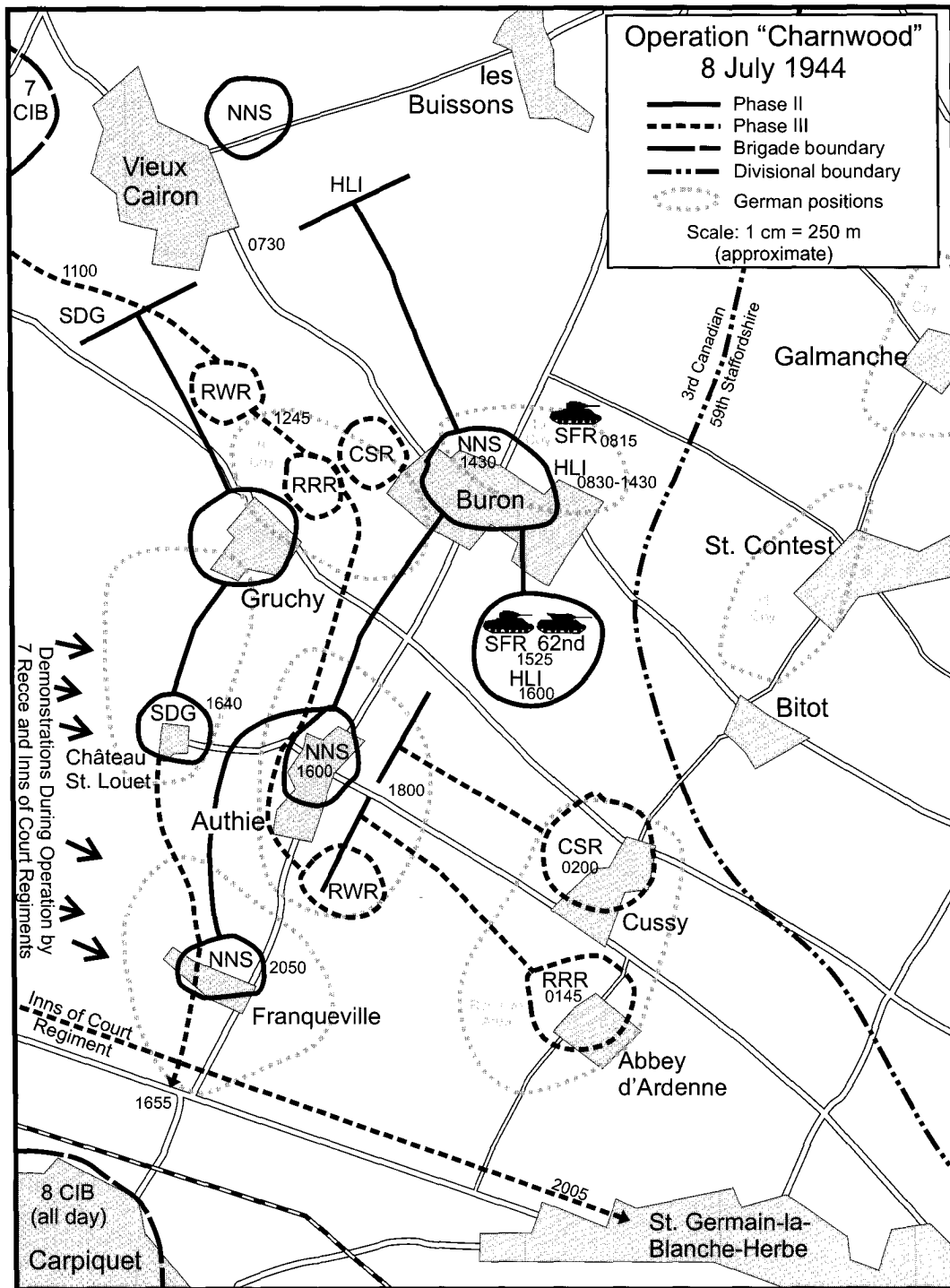
Canadian troops began to move at 0730 hours on 8 July, an hour after General Crocker, GOC of I Corps, ordered Phase II to commence. Objectives for 3 CID in this phase included the villages of Gruchy and Buron, while on their left the 59th Division attacked St. Contest, Malon and Epron.⁵³ On their assigned four-mile frontage Canadian planners made their dispositions as best as its convex shape allowed. That shape seemed to preclude attacking with two brigades

in line. A second complication was the inter-divisional boundary with 59th Division that narrowed around Cussy before widening again closer to Caen.

Operating under these constraints, 3 CID decided on a plan that entailed 9th Canadian Infantry Brigade (9 CIB) capturing Buron, Gruchy and Authie, with later exploitation to Château St. Louet and Franqueville. Once 9 CIB had secured Authie, Major-General Keller would swing his axis of advance 90 degrees, 7th Canadian Infantry Brigade (7 CIB) attacking southwest toward Cussy and Ardenne. Only in the exploitation of Phase IV would 8th Canadian Infantry Brigade (8 CIB) join in the advance.

To support the infantry, 3 CID assigned the three armoured regiments of 2 CAB to the three infantry brigades: the Sherbrooke Fusiliers Regiment (SFR) to 9 CIB, the 1st Hussars to 7 CIB and the Fort Garry Horse (FGH) to 8 CIB. At brigade level this process continued, with individual squadrons placed in support of infantry battalions. Even 8 CIB, though not participating in the initial phases, followed this form, allocating its armour to individual battalions.⁵⁴ This arrangement, while providing good direct support, was too weak and too dispersed according to earlier doctrine.

On the frontage that 3 CID would be attacking Kurt Meyer had placed his 25th SS Panzer Grenadier Regiment, reinforced by elements of the divisional tanks and artillery. Although Meyer had referred above to 11 defending battalions, that figure reflected the total of combat units within the division as a whole. Hubert Meyer, principal staff officer of the 12th SS, spoke more realistically of "four punch-drunk battalions" as holding the line.⁵⁵ He was obviously referring to the three infantry battalions of the 25th Panzer Grenadier Regiment and the single battalion from the 26th Panzer Grenadier Regiment. Rifle companies of the regiments (supported by the mortars and machine guns of the machine gun companies) were deployed along the front, occupying some villages and in front of others. Meyer had 60 tanks operational, most held in reserve or in ambush positions. Despite being a naturally strong position to defend by fire it lacked depth. As Michael Reynolds has noted, it was certainly not the "classic" defensive position of the manuals with Battle Outposts, Advance



and Main Positions.⁵⁶ In the sector attacked by the Canadians it was no secret where the Germans were. Defence overlays prepared for "Charnwood" more or less accurately plotted the location of troops, trenches, suspected minefields and support weapons.⁵⁷ The weight of the initial attack by 9 CIB would fall primarily upon the 3rd Battalion of the 25th with its three rifle companies, mortars and machine guns.

Once assigned his brigade objectives, Brigadier Cunningham of 9 CIB decided on a plan that involved attacking two battalions up. On the left, the Highland Light Infantry (HLI) supported by "A" Squadron of the Sherbrookes would assault Buron, while on the right the Stormont, Dundas and Glengarry Highlanders (SDG), backed by "B" Squadron of the Sherbrookes, would capture Gruchy. Once Buron was secured, the North Nova Scotia Highlanders (NNS) would mount their attack on Authie and the SDGs move

on to capture Château St. Louet. Failure to capture Buron quickly would impose subsequent delays on both brigade and divisional plans.

When the HLI moved from their startline around Vieux Cairon they attacked with two companies up, "D" on the right and "B" on the left. Supporting them, the tanks of "A" Squadron moved tactically with two troops up and two back: No.1 Troop supporting "D" Company, No.2 Troop with "B" Company, and No.4 and HQ Troop following in the rear.⁵⁸ As the Canadian infantry and armour approached Buron they came under machine gun and mortar fire just before 0800 hours. On the right, No.1 Troop quickly lost three of its four tanks to mines and 88 mm anti-tank guns firing from the southwest and had to be replaced by No.4 Troop. On the left the situation was initially more favourable, but there too Panzerfausts and 88s soon accounted for all of No.2 Troop. These casualties occurred while the tanks were supporting from the flank, according to current doctrine.

Squadron Headquarters then moved up to support "B" Company of the HLI, but fear of yet more minefields kept them from supporting the infantry closely enough to clear the enemy from their trenches. It took considerable time for the HLI to contact the tanks. The first message was passed at 0801 hours but at 0940 hours the infantry were still telling Brigade that there were no minefields northwest of Buron.⁵⁹ Finally, Lieutenant Campbell of the HLI made several trips out to the tanks to inform them that the left flank approaches to Buron were clear of mines. Once the tanks were convinced that this was the case they proceeded to assist "B" Company in cleaning out the enemy machine gun posts one by one.⁶⁰ This was very definitely intimate support, the sort that the Sherman tank could not provide.

Having cleared out the German infantry the tanks moved to the high ground southeast of the village, but their day was far from over. Joined by two troops of British 17-pounder M-10 tank destroyers from 62nd Anti-Tank Regiment, "A" Squadron now fought a defensive battle against counterattacking Panthers. Together they defeated the German tanks, the M-10s claiming 13 tanks at a cost of six of their own.⁶¹ "A" Squadron began this battle at half strength and by the end of the day was reduced to four vehicles. However, the

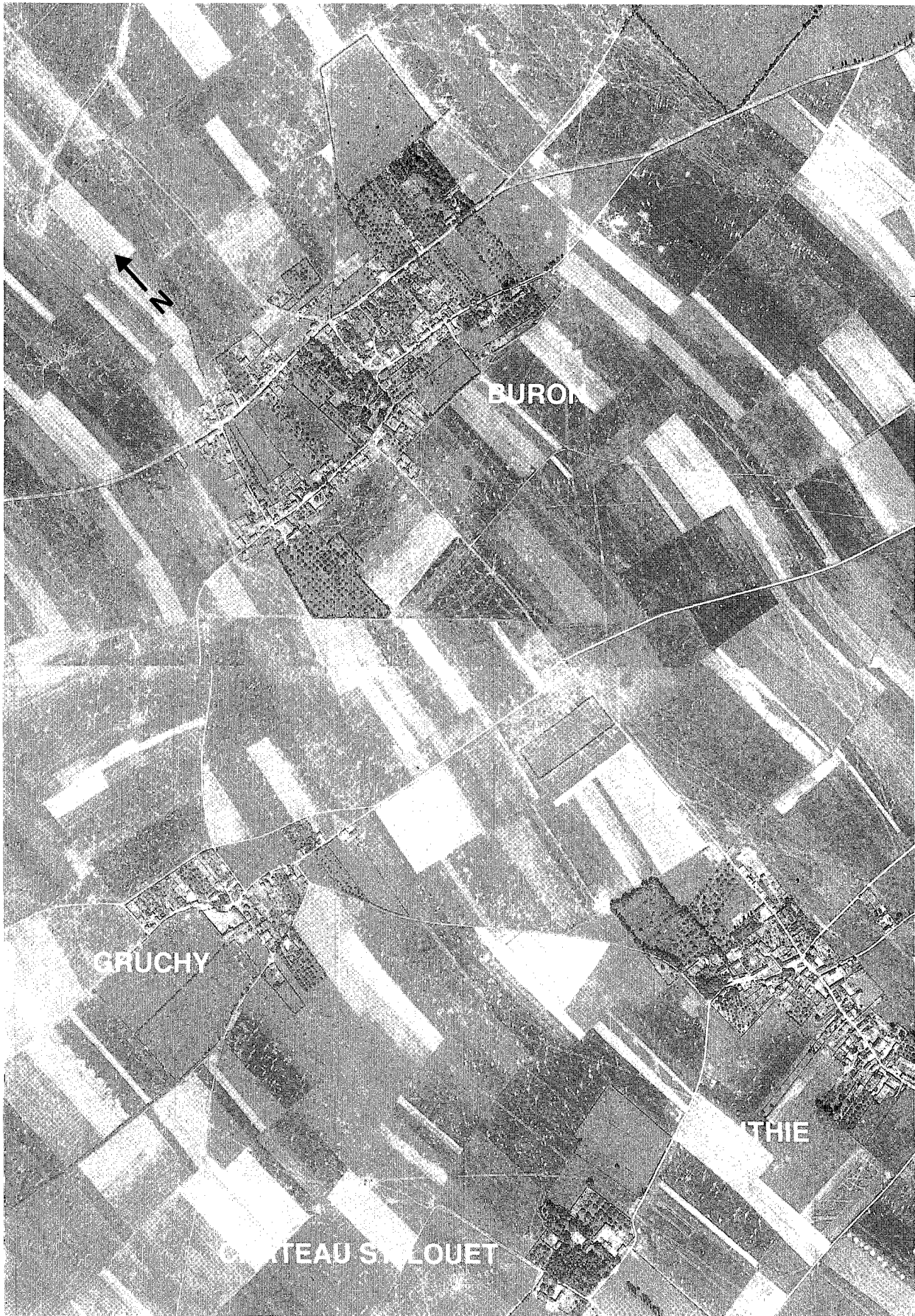
infantry fighting in Buron continued until 1430 hours and the SFR did not report consolidating on the high ground southeast of Buron until 1512 hours.⁶²

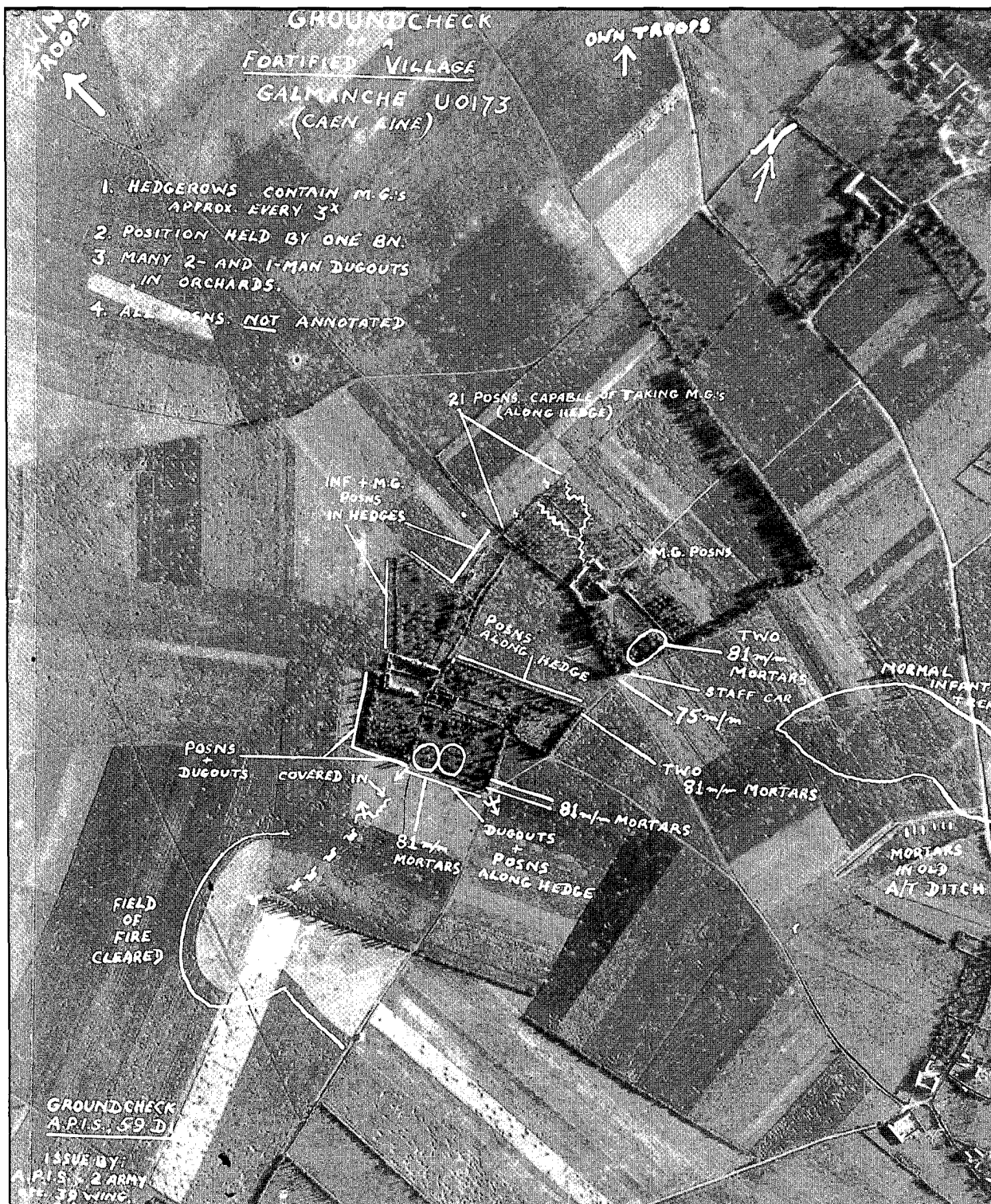
In their attack on Gruchy the SDGs also moved tactically two up, "B" Company on the right supported by No.2 Troop, and "A" Company on the left supported by No.1 Troop.⁶³ With the remaining tank troops grouped on the left flank, the intention had been to support by fire from a position 600 yards south of Vieux Cairon. Accounts vary slightly but it appears that the SDGs came under heavy mortar fire at 0745 hours and machine gun fire by 0754 hours. From that point the attack progressed rapidly. At 0805 hours the SDGs reported that the supporting tanks were going into Gruchy, by 0812 hours the enemy were observed leaving the far end of the village and by 0830 hours the tanks were mopping up between Buron and Gruchy.⁶⁴ Once again, success came from the intimate support of the tanks.

It was only after this tactical success that "B" Squadron's casualties mounted. The enemy infantry disposed of, Nos. 1 and 2 Troops moved south of the village while No.3 and HQ Troops moved north. The southern pair of troops came under fire from German tanks and anti-tank weapons firing from the Château St. Louet, losing several vehicles. North of Gruchy the remaining troops encountered "very stiff resistance" from German infantry, and there too long-range anti-tank fire accounted for all of No 3 Troop.

By 0950 hours the SDGs reported they were ready to take Château St. Louet, and five minutes later General Keller ordered Brigadier Cunningham to do so.⁶⁵ However, "C" Company did not close up to the Château until 1445 hours and accompanied by the armour went into it at 1510 hours. This time squares with the SFR account that reported all three squadrons were employed in putting the infantry into the Château at 1515 hours.⁶⁶

The varying fortunes of the two infantry battalions reflected a tactical anomaly that could not have been anticipated. The 10th Company of 25th Panzer Grenadier Regiment was in position forward of Buron but its 11th Company between Buron and Galmanche had already been attacked by the British 59th Division in Phase I. In





WLU Air Photo Collection 309/4180

Above: An example of German defensive positions around the town of Galmanche, typical of those encountered during Operation "Charnwood." Galmanche was one of the main obstacles in the path of the British 59th Division (attacking just to the east of the Canadians) during Operation "Charnwood." This groundcheck, compiled three days before the start of "Charnwood" by the Aerial Photography Interpretation Sections (APIS) of 59 Division and 2nd Army, is based on details from interpretation of the aerial photo and intelligence gathered from patrols and the capture of prisoners.. The photograph was taken by an aircraft from 39 Wing, Royal Canadian Air Force.

Left: A composite air photo of the Charnwood battlefield (Phase II objectives).



Photo by Ken Bell, NAC PA 129034

Sherman tank advancing through Buron, France, 9 July 1944.

retrospect, it appears that this company, faced with a breakthrough by British tanks and infantry, retreated towards 10th Company. The identical situation obtained between Gruchy and Buron where the 9th Company, attacked by the SDGs and "B" Squadron, moved toward battalion headquarters. In effect, this concentrated the whole of the 3rd Battalion in Buron supported by its own mortars and machine guns plus tanks and artillery from divisional assets. While not actually outnumbering their attackers in the Highland Light Infantry, the Germans were considerably better off with regard to supporting weapons. This situation at Buron occurred in a position believed at the time to be the key controlling other objectives and thus the most heavily defended.⁶⁷ Thus, despite all the resources at the disposal of I Corps, at the sharp end a single battalion of infantry supported by a single squadron of tanks was attacking another battalion defending from prepared positions. A careful reading of the doctrinal manuals indicates that this weak and dispersed assault was definitely not "by the book." Little wonder that the battle lasted all day in the ruins of Buron.

Like the SDGs, the North Nova Scotia Highlanders had their plans upset by the continuing fighting in Buron. Their Forming Up Place (FUP) was supposed to be in Buron from where they would advance southeast towards Authie. "D" Company would attack frontally as Fire Company supported by "A" on the left flank and "B" on the right. Once they secured Authie, "C" Company was tasked with the exploitation to Franqueville.⁶⁸ The NNS reported they were at their FUP at 1045 hours, but they had already received fire from St. Contest in getting there and worse was to follow. There were still Germans in trenches at the far side of Buron and their fire pinned down "D" Company. "B" Company discovered the same tactical situation on the west side of Buron. There were still Germans in the orchard on Buron's southern limits that had to be cleared out by infantry and tanks before the battalion could move on. Consequently, it was a "badly battered battalion" that jumped off at 1515 hours.⁶⁹ Fortunately, the NNS found no Germans in the first houses in Authie and the regiment reported the village captured by 1530 hours. Buoyed by this relatively swift victory and

supported by the remnants of "A" and "C" Squadrons of the Sherbrookes, "C" Company advanced towards Franqueville, reaching it by 1600 hours.⁷⁰

While 9 CIB's attacks were clearing Buron, Gruchy and Authie, 7 CIB was moving forward. At 1000 hours they were in position northeast of Vieux Cairon, at 1245 hours they had moved to a position between Buron and Gruchy, and by 1800 hours they were at their startlines southeast of Authie. From their startlines on the Buron-Authie road, the Regina Rifles supported by "A" Squadron of the 1st Hussars would attack on the right, first capturing the gun site at the point where two tracks converged northwest of the Abbey d'Ardenne and then the Abbey itself. Simultaneously, the Canadian Scottish supported by "C" Squadron of the Hussars, and keeping to the north of the Authie-Cussy road, were to capture defensive works several hundred yards northwest of Cussy and then the village.⁷¹ Having suffered substantial casualties in Operation "Windsor," the Royal Winnipeg Rifles (RWR) with "B" Squadron of the Hussars in support were in reserve for this phase of operations.

The Canadian Scottish, supported by "C" Squadron of the 1st Hussars, attacked with "A" Company on the right and "C" Company on the left, advancing in extended line for their "walk" to Cussy.⁷² They too had their difficulties, being shelled while moving to their assembly area near Gruchy and then receiving fire from Buron. Consequently, H-Hour was set back to 1740 hours.⁷³ "A" Company was tasked with reducing the strongpoint 300 yards short of Cussy while "B" and "C" took Cussy itself in a pincer movement. Soon after they began to advance an "unforeseen eventuality" complicated matters – both flanks were open. On their left, the British 59th Division had not taken Bitot, and the Abbey had not yet fallen to the Reginas. By 2000 hours they reported to Brigade that tanks were on "both sides of us."⁷⁴ In response, "B" and "D" Companies and the anti-tank section of the Royal Winnipeg Rifles were sent forward. One company proceeded to Cussy filling the gap between "B" and "C" Companies of the Regina Rifles with the other held in reserve.⁷⁵ Meanwhile, a German counterattack failed, losing six tanks to the supporting armour and prompting the CSR War Diary to refer to the "excellent service" performed

by Canadian tanks.⁷⁶ By 2300 hours Cussy was firmly in Canadian hands.⁷⁷

The Regina Rifles encountered many of the same difficulties as the CSR in reaching their startline, their attack being delayed until 1800 hours. Their plan was for "B" Company to first capture the small mounds 400 yards east of Authie, after which "C" and "D" Companies would pass through to capture the Abbey.⁷⁸ German anti-tank gun fire destroyed the majority of their supporting tanks, however, and when the attack went in it was without tanks or artillery. As a consequence, at 2100 hours they were just over halfway to the Abbey and tenacious German resistance caused heavy casualties in "B" and "C" Companies.⁷⁹ Nightfall found the Abbey still in German hands; the Canadian attacks were finished for the day.⁸⁰

Conclusion

So how did "Charnwood" compare to the infantry/tank doctrine that the Canadians had studied? In certain fundamentals, the battles north of Caen were very similar to those described in the training pamphlets. The frontages assigned to the infantry battalions and companies were close to those they had practised and the pace of advance equally so. Also expected was the physical separation of the tanks and infantry that had followed from the introduction of the Sherman in 1943.

However, there were two areas where the battle varied from accepted doctrine. The first was the diminished level of tank support. Thus far in the war the ideal had usually been maintained at one tank regiment to one infantry battalion. Despite occasional references in the manuals to individual squadrons supporting infantry battalions this level of armoured support invariably contained mitigating circumstances. In "Charnwood" the level of tank support was reduced without any compensatory factors, and the fighting clearly shows that earlier cautions about the tank squadron being too weak to support a two-company attack were well-founded.

In the attacks on both Buron and Gruchy the supporting tank squadrons were swiftly reduced in numbers with some troops being eliminated

entirely. Simply put, there were not enough tanks operating on the frontages of the two infantry battalions. By the end of the day all units of 2 CAB had seen action, suggesting that it might have made better sense to use an armoured regiment with each battalion attack in 9 CIB, including that of the NNS. This advice is tendered with the knowledge that the final objectives of the operation were limited to roughly 4,000 yards regardless of the success enjoyed on 8 July 1944. Saving a reserve of tanks made good sense if the advance was to continue immediately, or a major counterattack was expected. As to the first, this was simply not part of the plan. Once "Charnwood" succeeded 21 Army Group intended to mount another operation to clear Caen south of the river. Regarding the second possibility, local counterattacks could logically be expected, but larger operations could not be contemplated by the Germans in the face of ULTRA intelligence and the massive air and artillery superiority. In fact, employing the whole of 2 CAB might well have reduced the tank casualties of the units involved by swamping the German defenders.

The second departure from doctrine was the way tanks provided close support to the infantry. Analysis of the fighting reveals that the doctrinal tendency of the armour to hang back was not a viable technique. Any successes that the Canadians enjoyed on 8 July 1944 followed from the intimate support of their accompanying tanks, not from tanks firing from the flank or rear. Buron was cleared of its German defenders only when the tanks used their machine guns at close range just as infantry tanks had formerly done. Contrary to what *The Co-operation of Tanks with Infantry Divisions in Offensive Operations* had claimed, the tanks were "partners in the assault."

Fresh battlefield evidence existed that employing the Sherman tank as a direct-fire close-support weapon was viable. On 6 June 1944 Canadian tanks had performed in that role, a role that was planned for from the start. In General Keller's opinion, the overwhelming success of the seaborne assault, with less than half the expected casualties, was largely explained by the presence of the tanks.⁸¹ Canadian commanders ignored this evidence in the post-assault period to the detriment of operations.

Notes

1. General Sir Miles C. Dempsey Papers, WO 285/9-12, Personal Diary, 9 July 44, p.158.
2. C.P. Stacey, *The Victory Campaign, Official History of the Canadian Army in the Second World War*, Vol. III, (Ottawa: Queen's Printer, 1960), p.274.
3. John A. English, *The Canadian Army and the Normandy Campaign: A Study of Failure in High Command*, (New York: Praeger, 1991), pp.306, 312-313.
4. David J. Bercuson, *Maple Leaf Against the Axis: Canada's Second World War*, (Toronto: Stoddart Publishing, 1995), p.219.
5. J.L. Granatstein, *The Generals: The Canadian Army's Senior Commanders in the Second World War*, (Toronto: Stoddart, 1993), pp.264-265.
6. Oliver Haller, "The Defeat of the 12th SS: 7-10 June 1944," *Canadian Military History*, Vol.3, No.1, (Spring 1994), p.24.
7. Marc Milner, "Reflections on Caen, the Bocage and the Gap: A Naval Historian's Critique of the Normandy Campaign," *Canadian Military History*, Vol.7, No.3, (Spring 1998), pp.12, 16.
8. See Roman Jarymowycz, "Canadian Armour in Normandy: Operation 'Totalize' and the Quest for Operational Maneuver," *Canadian Military History*, Vol.7, No.2, (Spring 1998), p.19; Roman Jarymowycz, "The Naval Historian as Tourist: Comments on Marc Milner's Critique of the Normandy Campaign," *Canadian Military History*, Vol.7, No.4, (Autumn 1998), pp.7-8.
9. See David A. Wilson, "The Development of Tank-Infantry Co-operation Doctrine in the Canadian Army for the Normandy Campaign of 1944," MA Thesis, University of New Brunswick, 1992, *passim*.
10. Directorate of History and Heritage, National Defence Headquarters [DHH] File 87/177, *The Tactical Handling of the Armoured Division and its Components*, Military Training Pamphlet No 22, Part III, *The Tactical Handling of Armoured Divisions*, (London: War Office, July 1943), pp.5, 9.
11. DHH File 87/207, *Operations*, Military Training Pamphlet No. 23, Part I. *General Principles, Fighting Troops and Their Characteristics*. (London: War Office, September 1939), p.18.
12. DHH File 89/258, *Tactical Handling of Army Tank Battalions*, Military Training Pamphlet No 22; Part III, *Employment*, (London: War Office, September 1939), 5. This pamphlet asserted that tank speed was usually 200 yards per minute over "good going" and 50 yards per minute if the ground was difficult and there were machine guns to neutralize. These speeds work out to approximately 7 and 2 miles per hour.
13. DHH File 89/258, p.3; DHH File 87/207, p.22.
14. DHH File 89/258, pp.9, 13.
15. DHH File 89/258, pp.10, 17.
16. DHH File 89/258, p.13.
17. Bryan Perrett, *Through Mud and Blood: Infantry/Tank Operations in World War II*, (London: Robert Hale, 1975), p.43.
18. DHH File 86/435, Army Training Instruction No. 2. *The Employment of Army Tanks in Co-operation with Infantry*, (London: War Office, March 1941), pp.3, 7.

19. DHH File 90/38, *Operations*, Military Training Pamphlet No. 23, Part IX:- *The Infantry Division in the Attack*, (London: War Office, 1941), pp.24, 26-27.
20. DHH File 86/435, pp.7, 9; DHH File 90/38, p.29.
21. DHH File 367.064 (D1), *Training Précis*, Canadian Battle Drill Centre, Vernon, BC, 27 January 1943, p.195.
22. DHH File 357.064(D1), p.195.
23. Army Training Instruction [ATI] No. 2, *The Co-operation of Infantry and Tanks*, (London: War Office, May 1943), p.5.
24. ATI No 2, p.6.
25. ATI No 2, pp.9-10.
26. ATI No 2, p.17.
27. 21 Army Group Monthly Training Letters, National Archives of Canada [NAC] RG 24, Vol.9754.
28. DHH File 87/178, *The Tactical Handling of the Armoured Division and its Components*, Military Training Pamphlet No 41, Part 3, *The Motor Battalion*, p.17.
29. English, p.222.
30. War Diary [WD], SDGs, NAC RG 24, Vol.15270, "The Co-operation of Tanks with Infantry Divisions in Offensive Operations, 21 Army Group, 30 November 1943," p.1.
31. "The Co-operation of Tanks....," pp.2, 5, 10, 15. Canadian Army Tank units were re-named in mid-1943.
32. "The Co-operation of Tanks....," p.28.
33. "The Co-operation of Tanks....," p.25.
34. WD, 3 CID, NAC RG 24, Vol.15270, "Extract from 49 Br Inf Div re Shermans."
35. WD, BRAC, 9 January 1944, NAC RG 24, Vol.14186.
36. DHH File 83/388, *Infantry Training*, Part I; *The Infantry Battalion*, pp.32, 34.
37. DHH File 83/388, p.34.
38. DHH File 86/466, pp.4, inside back cover.
39. DHH File 86/446, "Notes on the Employment of Tanks in Support of Infantry in Battle," p.3. What the manual termed a "suitable composition" for an assaulting force included a battalion of infantry, a regiment of tanks, three Field Regiments of artillery, a proportion of medium artillery, an anti-tank battery, the troops of light AA, two companies of engineers and one company of Vickers.
40. DHH File 86/466, p.1.
41. DHH File 86/344, *Tactics of the German Army*, vol. I, *Defence and Withdrawal*, (London: War Office, April 1944), p.2.
42. DHH File 86/344, p.5.
43. DHH File 87/177, p.55.
44. DHH File 86/344, pp.11-12, 25.
45. L.F. Ellis, *Victory in the West*, Vol. I, *The Battle of Normandy*, (London: HMSO, 1962), p.310.
46. Stacey, III, p.157.
47. Reginald H. Roy, *1944: The Canadians in Normandy*, (Ottawa: Canadian War Museum/Macmillan), pp.51-52.
48. G.W.L. Nicholson, *The Gunners of Canada*, Volume II, (Toronto: McClellan & Stewart, 1972), pp.288.
49. Stacey, III, 160; Allan J. Snowie, *Bloody Burn: The Battle of Burn, Normandy - 08 July 1944*, (Erin, Ont.: The Boston Mills Press, 1984), p.56.
50. Ellis, I, p.311.
51. Kurt Meyer, *Grenadiers*, (Winnipeg: J.J. Fedorowicz Publishing, 1994), p.146.
52. Ellis, I, p.311.
53. Stacey, III, p.160.
54. WD, FGH, 9 July 1944, NAC RG 24, Vol.14234.
55. Hubert Meyer, *12 SS Panzer Division "Hitler Jugend", June to September 1944*, MS # P-164, (Historical Division, United States Army, Europe, 23 June 1954), p.83.
56. Michael Reynolds, *Steel Inferno: I SS Panzer Corps in Normandy*, (New York: Sarpedon, 1997), pp.152, 119.
57. WD, 3 CID, NAC RG 24, Vol.13766. "Trace 'A' Showing Dispositions of 25th SS Panzer Grenadier Regiment as at 062359."
58. WD, SFR, NAC RG 24, Vol.14287, "Report by 'A' Squadron 27 CAR on Operation "Charnwood" 8 July 44," pp.11-12.
59. WD, 9 CIB, 8 July 1944, NAC, RG 24, Vol. 14153.
60. Snowie, pp.68-69.
61. Tony Foulds, "In Support of the Canadians: A British Anti-Tank Regiment's first five weeks in Normandy," *Canadian Military History*, Vol 7, No 2 (Spring 1998), p.78.
62. WD, 9 CIB, 8 July 1944, NAC, RG 24, Vol.14153.
63. WD, SFR, NAC RG 24, Vol.14287, "Report by 'B' Squadron 27 CAR on Operation "Charnwood," 8 July 44," pp.13-14.
64. WD, SDG, 8 July 1944, NAC RG 24, Vol.15271.
65. Stacey, III, p.161.
66. WD, SFR, 8 July 1944, NAC RG 24, Vol.14287; WD, SDG, 8 July 1944, NAC RG 24, Vol.15271.
67. Snowie, p.56.
68. WD, NNS, 8 July 1944, NAC RG 24, Vol.15122; Will R. Bird, *No Retreating Footsteps: The Story of the North Nova Scotia Highlanders*, (Hantsport NS: Lancelot Press), p.120.
69. Bird, pp.123-126.
70. WD, SFR, 8 July 1944, NAC RG 24, Vol.142877.
71. WD, 7 CIB, July 1944, NAC RG 24, Vol.14129.
72. WD, CSR, 8 July 1944, NAC RG 24, Vol.15037.
73. "Summary of Operations," 3 Cdn Inf Div 1-31 Jul 44," CMHQ, 19 August 1944, p.5.
74. WD, 3 CID, 8 July 1944, NAC RG 24, Vol.13766.
75. "Summary of Operations," 6: Bruce Tascona and Eric Wells, *Little Black Devils: A History of the Royal Winnipeg Rifles*, (Winnipeg: Royal Winnipeg Rifles, 1983), p.160.
76. WD, CSR, NAC RG 24, Vol.15037.
77. Ellis, p.315.
78. Gordon Brown, "The Capture of the Abbaye D'Ardenne by the Regina Rifles, 8 July 1944," *Canadian Military History* Vol.4, No.1, (Spring 1995), p.91.
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81. DHH File 235C32.013 (D8), "The Technique of the Assault," p.2.

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