

Canadian Military History

Volume 7 | Issue 2

Article 3

1-20-2012

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Recommended Citation

Jarymowycz, Roman Johann (1998) "Canadian Armour in Normandy: Operation “Totalize” and the Quest for Operational Manoeuvre," *Canadian Military History*: Vol. 7: Iss. 2, Article 3.
Available at: <http://scholars.wlu.ca/cmh/vol7/iss2/3>

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Canadian Armour in Normandy Operation "Totalize" and the Quest for Operational Maneuver

Roman Johann Jarymowycz

Introduction

The Allied record in Normandy is irritating simply because we know we could have done better. The extensive casualty rates to infantry and armour nearly exhausted American arms and created a political crisis in Canada. The dazzling success of American armour during "Cobra's" pursuit eclipsed the Canadian armoured battles of August, despite the fact that the vast majority of Allied tank casualties from direct gunfire engagements occurred in II Canadian Corps. The exultation of operation manoeuvre, the closing of the Falaise Gap and the liberation of Paris obfuscated the reality of tactical deficiency. It required three bloody months and seven major operations to drive the Germans out of Normandy. This occurred despite total air supremacy and a strategical numerical advantage. The reasons for tactical frustration are technical, geographical, and primarily, doctrinal.

Second Canadian Corps has long been deprived of critical operational analysis. This is perhaps because the technical complexities of armoured warfare at the tactical and operational level generally are not well understood. Canadian armour fought tank battles throughout Operations "Spring," "Totalize," and "Tractable," but it did not maneuver. Canadian armour's greatest opportunity for strategic victory occurred in Normandy. It is appropriate that an armoured officer review these matters, pick up the thrown gauntlet and attempt to explain the armoured battlefield as it related to Operation "Totalize."

"Totalize" - The Plan

Totalize" was to be the last great offensive in the Normandy Campaign. It was General B.L. Montgomery's final opportunity to wrest personal victory and publicity from General Omar Bradley. The presence of the heavy bombers sealed the contract; it was all or nothing. "Totalize" was First Canadian Army commander Harry Crerar's first "Army" battle and he may have been nervous about it. The weight could not have been all that heavy since he turned everything over to General G.G. Simonds, commander of II Canadian Corps.

"Totalize" was a grand corps battle, as II Canadian Corps controlled almost every resource available to First Canadian Army. If there was any pressure, the lion's share fell on Simonds's shoulders. He decided that the Germans were not going to be surprised as to the location and direction of the offensive, but he was capable of perplexing them "in respect to time and method."¹ It has been suggested² that ULTRA briefings from the Signals Liaison Unit attached to First Canadian Army HQ convinced Simonds that 1st SS LAH (*Liebstandarte Adolf Hitler*) Panzer Division was still south of Verrières and dug in astride the main Falaise highway on the high ground near Cintheaux. Certainly Simonds was unique as the only Allied Corps commander in Normandy cleared for ULTRA dissemination³ but intelligence interpretation would have been stretched to report the Leibstandarte's presence south of Caen.

Simonds's own Intelligence Staff concluded that 89th Infantry Division had relieved 1st SS LAH but "estimated that 1 SS Pz had left one anti-tank battalion deployed on the front."⁴ An initial report admitted that the whereabouts of 1st SS and 12th SS Panzer Divisions was not so clear but subsequent intelligence made things clearer: "On 7 August news was received that large amounts of 1 SS and at least a battlegroup of 12 SS were fighting further West at VASSY and the FORET DE GRIMBOSQ respectively."⁵ This suggests that Simonds, rather than being influenced by ULTRA and his own Intelligence resources, chose to ignore most recent information and stuck to his original appreciation, written on 1 August wherein he concluded, mostly based on "Spring" analysis that: "The position [May-sur-Orne to Tilly and south to Hautmesnil] is at present manned by 1 SS Right and 9 SS Left."⁶ Faced with the latest ULTRA updates as well as his own Intelligence Summaries, Simonds was clearly not prepared to revise his estimate at this late date. He may have been overtaken by events.

Neo-Classical *Testudos* - Evolution of the Simonds Doctrine

General Simonds decided to launch another frontal attack.⁷ As there was little option for maneuver before breakout, Simonds settled on technique. "Totalize" is often used to show Simonds's creative mind at its best. It is sometimes used to demonstrate his genius for planning and his gunner's precision. Simonds crafted a plan of attack unlike any other. Again he decided to go at night. Again he used artificial moonlight. Now came the changes, and they were doctrinally astounding. Armour was to lead. The spearhead of this night attack was not going to be infantry but a meat grinder of armoured columns. He drew up two armoured *Testudos* before the startline which consisted of an intricate parade of navigation tanks, mine-clearing flail tanks, armoured bulldozers, flame-throwing Churchills, and main battle tanks⁸ in very cavalry columns of fours. These were followed by "Simonds' APCs," Priest self-propelled guns converted to armoured personnel carriers (Kangaroos) at the Corps Commander's request.⁹ Each armoured group was packed closer than Piccadilly Circus at rush hour. One officer recalls, "I left my tank and

walked back to the end of the regimental column, we were closed so tight that my feet never touched the ground, I just stepped from tank to tank."¹⁰

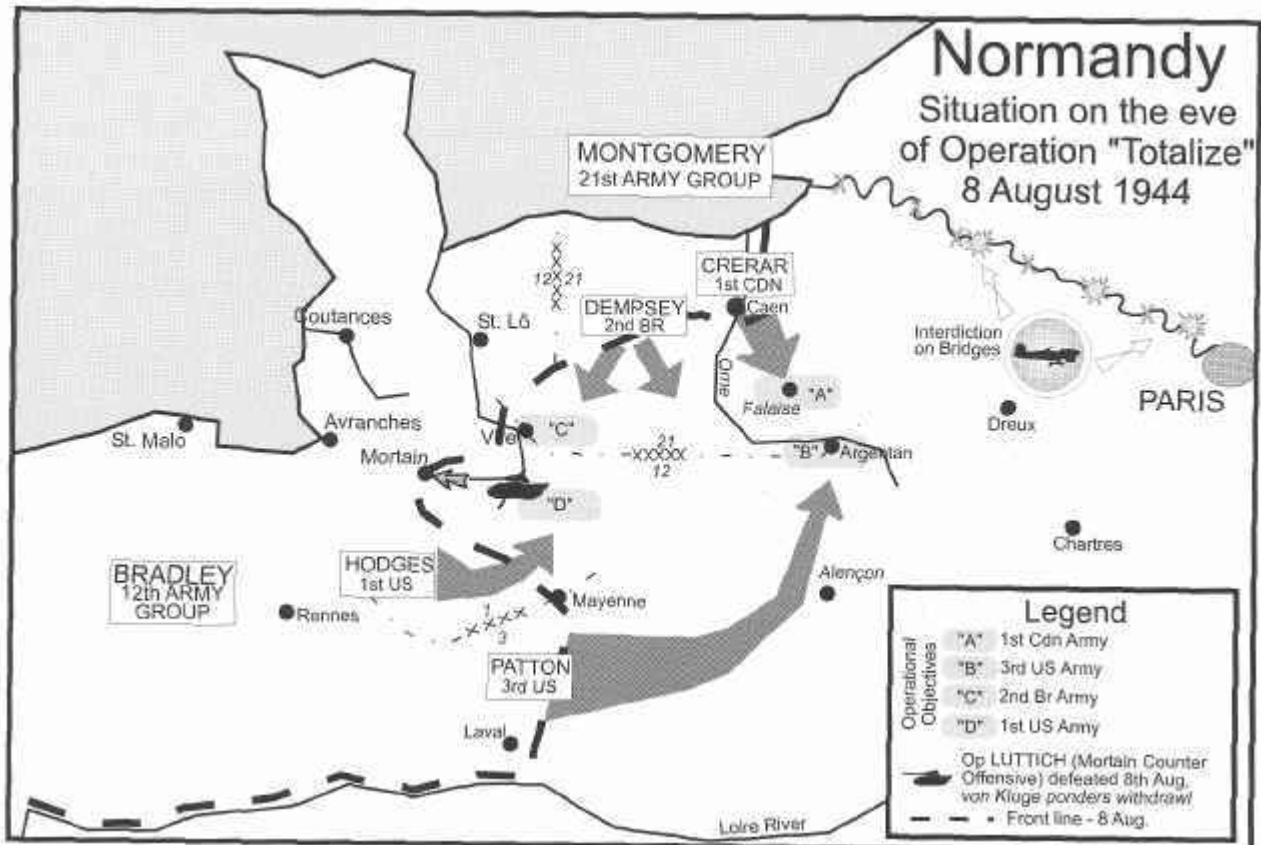
The attack was to advance on compass bearing while flails and dozers cleared the ground of mines. To ensure direction was maintained, Simonds had Bofors guns deployed on either side of the columns firing tracers down the axis of advance. Batteries of giant anti-aircraft search lights were used for both artificial moonlight as well as long distance beams that were fixed over the distant objective and served as a surreal guide. The Corps Signals Regiment set up radio homing beacons to guide the tank commanders.¹¹

This grand march was supported by attacks by heavy bombers designed to obliterate the towns that eluded capture during "Atlantic" and "Spring." "Totalize" was an extraordinary offensive, of such Cecil B. DeMille epic proportions that it overwhelmed senior officers in briefings:

I well recall his "O" Group before "Totalize" when the several div comds sat in a circle under the pine trees (all being much older than GGS and some with desert sand in their ears) to whom he opened, "Gentlemen we will do this attack at night with armour." Their jaws dropped noticeably.¹²

Its sheer scope was so much larger than life that it ensured every participant was a share holder in its success. It was Simonds' masterpiece and it had everything, from flame-breathing Crocodiles to electronic warfare. It was clearly bound to fail.

There were no doctrinal precedents, unless one decided that the classic was El Alamein, and the best way to win in Normandy was to launch a Montgomery-style desert attack.¹³ It was "Bluecoat's" terrible experience with mines that appears to have inspired Simonds to plan "Totalize's" armoured crawl. It is not recorded if any II Corps staff officer suggested to Simonds that mines readily sown by German infantry, such as in the closed country south of Villers-Bocage,¹⁴ was a near impossible task in the open country south of Caen. "Totalize" was too complex, and like "Spring" before it, based on untrained, unrehearsed troops. No one dared tell the emperor about his clothes. It is perhaps



unfair to criticize Simonds. At least he tried. At least he attempted innovation. But the simple truth was that he was out of doctrinal ideas. He really did not know what to do with his infantry or armour. He was trying new combinations, gambling with lives to save lives.

Whereas tanks were used in small-sized portions during "Spring" and "Atlantic," this time there would be a surfeit of armour - two tank brigades in Phase 1 and two entire armoured divisions in Phase 2. The forthcoming traffic jam should have been predicted by the movement planning officers. It probably was. The road march to the form-up place for Phase 1 was "a dusty hell-you couldn't see much."¹⁵ Simonds planned to use the cab rank in the air for support during the advance; he also created an armoured cab rank at the "Totalize" startline. Attack along narrow fronts seems to have been the only option he could think of:

Put down a fog upon it and it is helpless. Introduce into that fog, not a long straggling line of tanks, striving to see each other and painfully keeping direction, but a mass, a "phalanx," of tanks on a narrow front. What hope have the defenders got? Those in the path of the charge are overwhelmed from right, centre and left. Those on the flanks hear the noise, but cannot see to interfere. The tanks, followed by (or carrying) their infantry, go through to their

objective, consolidate it during darkness and wait for pick up in the morning.¹⁶

The solution to his problem was found on the Russian front which used overwhelming artillery on a front wide enough to tear holes that could not be plugged or covered by fire. The Russian offensive tore out divisional-sized sections of front, poured in armoured battlegroups and immediately did battle with panzer reserves which they overwhelmed. Simonds did not learn from the Russians, although ironically, a delegation from Stalin visited him on 27-29 July,¹⁷ just as "Totalize" was ordered.

...asking what the enemy strength opposite us was compared to our own. When we told them and that we were going to attack they were greatly surprised. They stated that they would not attack unless they outnumbered the enemy by at least 5 or 6 to 1.¹⁸

Simonds and his staff smiled politely and ignored the Russians; they lacked style and it was quickly assumed they lacked credibility. In fact, the Soviets were "echelons above"¹⁹ the Western Allies and Soviet strategic offensives were launched on a level of sophistication unknown to 21 Army Group.²⁰ Yet, if one compared actual infantry strengths and tank-artillery superiority, Simonds was very close to

the ideal Russian attack ratio of 10:1. Here was a golden opportunity for victory. "Totalize" required a classic artillery offensive. Instead, Simonds invented a monster mine field and then applied the principles that won El Alamein for Montgomery and cost him "Spring."

All Revved Up and No Place To Go

Totalize" has been misrepresented as a masterpiece of planning. The battle is seen for the tinsel not the tree. The simple fact remains that "Totalize" was essentially a slower and more tightly controlled version of "Spring." While the latter gave the brigades and divisions little room for creative maneuver, "Totalize" ensured there was none. Bombers were new, night was not. Simonds's mine phobia was new, although not a single "Spring" attack faltered because of mines, and the Germans paraded no less than eight panzer battlegroups across the open area behind Verrières throughout 21-26 July. Tanks leading was new. Tanks leading at night was most certainly unusual. Simonds hoped to succeed on the narrow corridor he predicted was the key to success in his February Operational Guide, except that this time there were four columns, and each was exactly four tanks wide.

It must be remembered that there was no place to go. Once a breakthrough had occurred, the entire offensive would stop and wait for a daylight attack by American B-17s to blast more Norman villages out of the ground. This imposed the initial delay on success. The attackers would then loiter at the startline until two armoured divisions completed a forward passage of lines and settled into the Phase 2 line of departure. Only then could the armour break out. The criticisms are obvious and have already been made elsewhere.²¹

A passage of lines exercise is always difficult, but was bound to be chaotic with two untried armoured divisions. To make it even tougher, Simonds had decided to attack two up; he squeezed 1st Polish Armoured Division (1st PAD) beside 4th Canadian Armoured Division (4th CAD) and gave each a frontage of one thousand yards. The Poles' startline "was complicated by the fact that they had heavily wooded areas on their front."²² The armoured

commanders did not like it. "Both General Maczek, who commanded the Poles, and I asked General Simonds to extend our frontage to give us room for maneuver, but he would not agree as it would mean changing the objectives of one of the assaulting divisions."²³

Simonds was gambling. He "wanted to shoot the works" on the second phase of "Totalize," "That is why he used two divisions, he thought that at least one would get through."²⁴ It seemed like a calculated risk, but armoured divisions do not function like Army Groups Royal Artillery (AGRAs). Squeezing more into less space does not result in overwhelming fire superiority, but instead, confusion and inviting targets for 88s.

"Totalize": 7/8 August - The First Night Attack

There were other difficulties.²⁴ Second Canadian Armoured Brigade (2nd CAB) and 33rd British Armoured Brigade (33rd BAB) were required, as the force in place, to assist 4th CAD and 1st PAD in their movement forward, secure the startline and allow them to launch into Phase 2 in an orderly fashion. But the lead tank brigades had their own problems. "Soon visibility literally nil...hampered by large bomb craters...tanks fell in...recovery impossible."²⁵ Navigation tanks soon became ditched and communication problems mounted. The leading elements became "hopelessly intermingled and confusion was made worse by the flails who had not been present at the rehearsal and who lost station very early in the proceedings."²⁶ Entire troops were lost, some for over 24 hours. Regiments lost direction and became involved in friendly firefights. Several squadrons actually steered a 180 degree course change in the dust, darkness and excitement of combat.

Morning found them anything but a force-in-place; rather, scattered combat teams holding an area that ended at the bomb line for Phase 2. No mines had been encountered.

German defensive fire was scattered, panicky, and mostly ineffective. The dust and confusion hindered progress. Tilly did not fall until 0800 hours and Rocquancourt was not fully secured until after midday. The Canadian armour arrived steadily on the battlefield until



A Sherman Flail tank, crucial in Simonds' mind, to deal with the "monster minefield" which lay in the path of the Canadian advance.

NAC PA 131366

both divisions had the bulk of their tank brigades formed up north of the start line, about 0830 hours on the morning of the 8th. Before them lay open country. Simonds had broken through.

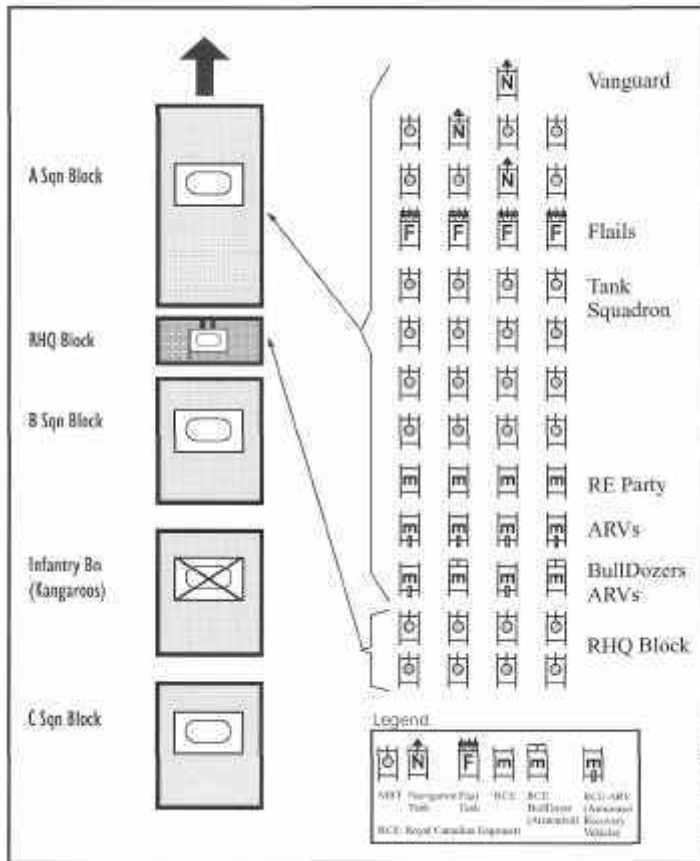
The *morgenmeldung* sent a chill through von Kluge: "We have to risk everything. A breakthrough has occurred near Caen the like of which we have never seen."²⁷ While all the criticism of "Totalize" may be valid - it was unnecessarily complex, confused and much too slow-nevertheless, 2nd Corps had muddled through. Despite himself, Simonds had broken past all three lines of the German defence-in-depth. Nothing lay between him and Falaise except scattered *Kampfgruppen* of 12th SS *Hitlerjugend* Division which were slowly moving northwards preceded by their worried commander.

Would Simonds boldly drive to Falaise? No. He called for a halt to allow the artillery to catch up and the heavy bombers to pulverize his imagined secondary defence zone. Simonds's conviction that von Kluge had created a *Grosskampf* HKL behind his HKL on Verrières is unfortunate, for there was no secondary area of defence. Every passing minute allowed Meyer and Dietrich to bring in more reserves into blocking positions to seal the break. It has been

suggested that it was too late to call off the bombers. Crerar would probably have been reluctant to tell Harris "no thanks after all" following the difficult staff work and coordination required to switch them on in the first place. At first light all forward advance stopped as II Canadian Corps waited on their startlines for the B-17s to arrive, something which would not happen for another six hours.²⁸

The Green Fields Beyond

Kitting must have realized he had finally taken his division into the "green fields beyond." Ahead of him lay golden wheat fields that stretched all the way to Patton and Paris. His opposite number, "Schnellemeyer"²⁹ responded in his traditionally aggressive style although he was momentarily shaken by the sight of the retreating 89th Infantry Division.³⁰ He got out of his *kubelwagen* and rallied the broken infantry.³¹ Meyer quickly organized a blocking position around Cintheaux then drove north to see for himself. *Auftragstaktik*, the doctrine of *ad hoc* command, again saved the German army. Although this scene could have happened in the Canadian, British or American armies, it was more normal in the German. The British/Canadian Regimental system, tribal identity, "our officers" - "their officers," the "look-



"Totalize" - Attack Formation
Lead Regimental Battlegroup
All troops in "line ahead"

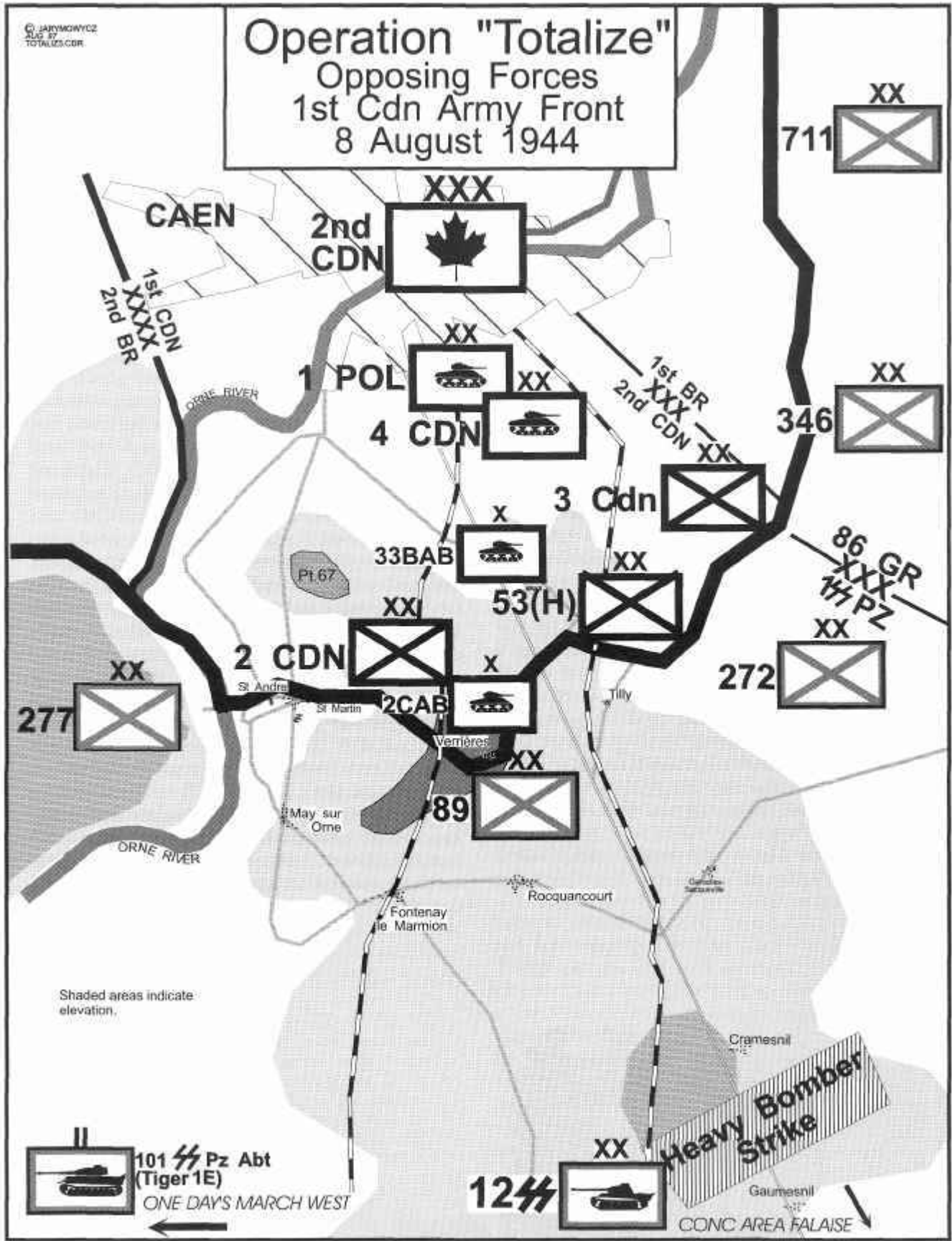
the-other-regiment-broke" mentality generally made *ad lib* regrouping difficult. Canadians and British lived in their solitudes. Regiments watched other regiments being shattered while waiting for orders. Brigade commanders watched brigades being decimated and waited for orders. *Auftragstaktik* doctrine allowed for tactical initiative; German discipline ensured that leaders of impromptu battlegroups followed orders without question. German senior headquarters reacted immediately to "Totalize." Sepp Dietrich, Commander I SS Panzer Korps ordered 12th SS to stop the enemy breakthrough with a counterattack. At the same time General Eberbach, the supreme commander of 5 Panzerarmee drove up to meet Meyer in Urville and "agreed with PanzerMeyer's assessment of the situation and supported his decisions for a counter-attack."³² Meyer decided to strike with two battlegroups: *Kampfgruppe* Waldmuller and *Kampfgruppe* Krause. He then deployed the remainder of his division.

Panzer Gegenangriff

When Meyer arrived at the Canadian front line he was astounded: "Seeing these concentrations of tanks almost took our breath away."³³ There before him lay Simonds' armoured might. The strange thing was that no one moved. The blitz that should have swept forward and carried away the 89th stragglers, his own *Kampfgruppen* and indeed, Meyer himself, sat fixed. "We could not comprehend the behaviour of the Canadians. Why did these overwhelming tank forces not push on their attack?"³⁴ As Meyer surveyed the Canadian armour, he noticed the single B-17 overhead. "It flew across the terrain several times and then set a visual marker."³⁵ It was a Pathfinder, the "FOO" of the heavy bombers; an airborne forward air controller, leading the heavy bomber stream and marking the target. Meyer had seen it before the bombing of Caen and "Goodwood." The puzzle of Simonds's inactivity was solved. He raced to his radio: "Get Closer! Get Closer!"³⁶ If his panzers remained on high ground, they would be destroyed. Safety lay near the Canadian startline. He directed his *Kampfgruppen* to attack immediately.³⁷

The counterattacks ordered by Meyer were another "who's-who" of tank warfare in Normandy. The *Hitlerjugend* brought up the great warriors of the SS: Krause, Waldmuller, Wunsche and, the "Black Knight" himself, Michael Wittman. The highly decorated Wittman was already a legend on both German fronts and his most recent coup was the almost single-handed thwarting of Operation "Perch" by counterattacking 7th Armoured Division on 12 June and forcing XXX British Corps back to its startline.³⁸

Waldmuller and Wittman arrived first and smartly went into the counterattack. As they shook-out in the open fields leading to Point 122, the center of the Canadian startline, Waldmuller left his panzergrenadiers and Jagdpanzer IVs from JPzAbt 12 at Cintheaux, creating a block on the main road. His Panzer Mk.IVs maneuvered northeast while Wittman's Tigers rumbled due north beside Route 158. Tigers always attacked if the opportunity presented itself. The benefit of creating elite *schwerpanzer* battalions was that they were well-trained, highly motivated and exhibited a faith in the superiority



of their machines that often ignored tactical reality. This time there was little choice. Wittman adjusted his throat mike and ordered "*Panzer Marsch!*"

Second CAB and 4nd CAB were assaulted by Waldmüller's *Kampfgruppe* (39 Mk.IVs and four Tigers) as they jockeyed for fire positions north of Gaumesnil. The odds, 43 tanks against 600, were ridiculous. However, because of the narrow frontage, the best Simonds's brigades could do was to each deploy two squadrons forward. That reduced the combat ratio to 1:2. With the advantage of high morale and unorthodox tactics, Waldmüller's *Kampfgruppe* used the scattered farmhouses for cover and closed the distance, firing as it moved from bound to bound.

Wittman, alone with a handful of Tigers, simply charged up the center: "raced right into enemy fire...his tactic during such situations: Get through! Don't stop! Into the dirt and reach a free field of fire."³⁹ His Tigers advanced in "V" formation, stopping briefly near the hedgerow at Gaumesnil, then rolled across the open fields, pausing now and then to fire and knock out a Sherman at long range. As the distance closed, 17-pounders from 2nd CAB replied. "The attention of the attacking Tigers was concentrated on the Canadian tanks of the 2nd Canadian Armoured Brigade which was advancing on both sides of the Route Nationale."⁴⁰ Suddenly Wittman's Tiger exploded. The flash, then fireball, temporarily blinded the Allied tank gunners. The turret was

lifted into the air and slammed into the ground behind Pzkw No. 007. The ace of aces was dead. The debate over who scored this most spectacular of tank kills still continues.⁴¹

The attack by Wittman's Tigers and Waldmüller's tanks disrupted the entire Canadian front. Although the 12th SS attack was a mixed bag of Mark IVs and JagdPanzer IVs, the ferocity and aggressiveness of their thrust set 4th Armoured and 1st Polish back on their heels. Directly above the German attack flew the 492 Fortresses from US 8th Air Force.⁴² A couple of lead bombers dropped short. The airborne OP desperately flew into the bomber stream wiggling his wings to signal the error, but the following squadrons followed suit and released their bombs. The 1st Polish Armoured was badly hit as were elements of 3rd Canadian Division, the main headquarters of 2nd CAB, 2nd Cdn AGRA and 9 AGRA. Shock and confusion followed. At 1330 hours Simonds's Headquarters demanded Crerar "Stop all bombing."⁴³ Simonds had considered calling off the bombers earlier, but it was too late. The 8th AF was already airborne and his communication chain was too cumbersome to allow quick action.⁴⁴ The bombing went in and it was a debacle. In typical style, Simonds pronounced: "From now on it will be the RAF."⁴⁵ The B-17s flattened the target villages but they disrupted more Canadian formations than German.⁴⁶ One Canadian casualty was General Rod Keller, last seen being carried into an ambulance shouting to his batman: "Roberts, bring me my pistol! I'm going to shoot the first American I see!"⁴⁷



A column of "unfrocked Priests"-M7 SPs converted to armoured personnel carriers - with troops from the 51st Highland Division, 7 August 1944

Command and Control: Kitching's *Kampfgruppen*

The bombers cost Simonds time. As the 1st PAD and 4th CAD were trying to sort themselves out, they were attacked by *Kampfgruppe* Waldmuller: "It immediately engaged Polish infantry. The grim duels of panzers against tanks were fought by the fighting vehicles of the 4th Canadian Armoured Division and Michael Wittman's Tigers."⁴⁸ The attack disrupted H-Hour. "Totalize's" second phase did not get going until 1530 hours, two hours late.

At the time, my division was accused of being slow in getting to our start line...because of our very restricted frontage, had only about five hundred yards in which to maneuver. This was the normal frontage for a squadron to operate in....⁴⁹

Kitching's grouping cannot be faulted. His vanguard was an armour/infantry battlegroup named, in German style, after their commander. By 1800 hours, the lead attack by Halpenny Force (The Canadian Grenadier Guards and The Lake Superior Regiment) had bogged down a kilometre south of Cintheaux, still held by the *ad hoc* rear guard thrown together by Meyer. Maczek's lead brigade, attacking two regiments up with 2nd Pulk Pancerna and 24th Lancers, had forced Waldmuller's Mk.IVs back but now ran into another counterattack from the east by the *Divisionbegleitkompanie* (Divisional Escort Company) which had Jagdpanzer IVs under command. The well-armoured, low-silhouetted tank destroyers brewed up 26 Shermans. "The Poles no longer dared to leave Cramesnill forest."⁵⁰ Simonds, trying to control the battle by radio was not pleased: "Why don't the Poles get on?"⁵¹ Maczek tried to explain but it fell on deaf ears.

Les Allemandes avaient caché des canons anti-tank et quelques "Tigres" dans deux bosquets, séparés par une petite plaine. Le 2e Regt tomba dans un guet-apens quand il arriva entre ces taillis. Sa surprise fut totale. Mais on effectua aussitôt un regroupement de blindés et dans un bruit infernal l'avance continua lente et inexorable.⁵²

Although they faced mostly Mark IVs, the 1st PAD attack against Meyer's elastic defence could not make progress on the narrow front. Worse, "Totalize's" pause gave Lieutenant-General

Wolfgang Pickert, commander 3rd Flak Corps, time to deploy his 88s to complement the anti-tank pak front 12th SS had formed with their own divisional flak in the Quesnay Wood area.

The Canadian attacks went in unsupported and piecemeal. As Meyer noted: "We were unbelievably lucky - the opposite side did not carry out one single concentrated attack."³³ By 1510 hours the Poles reported they were regrouping. The Canadian Grenadier Guards conducted a series of squadron-level attacks, trying to shoot infantry battalions into Cintheaux or attempting to maneuver past individual strong points. By last light, the regiment had lost 17 tanks. 4th CAB had fought 40 tanks south to Langannerie, east of Route 158. There they were finally stopped by 88 fire from Pickert's guns and *Flakabt* 12 in Quesnay Wood. "In less than forty-eight hours the hulks of over 150 Sherman tanks dotted the rolling wheatfields north of the Laison River."⁵⁴

Despite exhortations throughout the day by Kitching, who was in turn being hounded by Simonds, the armoured regiments could not get going. Inexperienced, rattled by Waldmuller's counter-attack, and shaken by the friendly bombing, 4 CAB moved gingerly past the craters and reacted with undue tactical intent to any enemy salvo. This was their baptism of fire. The Commander of 4th Armoured Brigade, Brigadier R.A. Booth, proved a disappointment in that he behaved in the same indecisive manner as Wyman. He had been promoted from lieutenant-colonel directly to Brigadier and was given 4 CAB because of his alleged battle experience and tactical competence. He was a firm believer in the battlegroup and was convinced that the Fuller system (massed tanks alone had little chance of success) was wrong. Actually, "tanks alone," more correctly, a tank-heavy battle group with little or no infantry but accompanied by FOOs, FACs and engineers, could do wondrous things against an armoured counter-attack force. Dynamic leadership was essential, but Booth had as little success with his regiments as Wyman.⁵⁵

When Halpenny Force approached Bretteville-le-Rabet, they were engaged by fire from Meyer's anti-tank battalion and 88s from Pickert's pak front. The tactical answer was maneuver by battlegroup, not tactics at the

squadron level. Maneuver required a brigadier or GSO to point regiments in the right direction. The battlegroups were overwhelmed by their first action. They either forgot about the supporting arms or were "not wholly aware of the capabilities of the gunners; we were never asked for smoke."⁵⁶ Instead of using the team work to take out rear-guard positions, the squadrons tried to do it themselves and failed: "...during these actions we never received one request for fire support and we began to think we were just along for the ride."⁵⁷ In its first battle, 4th Armoured tried to feel its way around the blocking force, looking for a hole. When it found an enemy strongpoint, its regiments attacked it. It has been suggested that the inexperience of 4th CAD and 1st PAD resulted in the error of "pausing to deal with strongpoints rather than bypassing them."⁵⁸ In fact, there was no room to do this as long as Corps held them to their boundaries. There were no open flanks in the narrow frontage Simonds gave to Kitching and Maczek. An armoured regiment bypasses an enemy strongpoint by saturating it with direct and indirect fire, then maneuvering around the open flank using its own smoke as protection. Any attempt to seek out *un trou Normande* would meet with the long reach of an 88 or super 75.⁵⁹ Eventually it was too late; the squadrons required fuel, ammunition, rest, and mostly a conference to sort everyone out. Kitching, pushed by Simonds, quite rightly wanted the breakout to keep going. Every hour lost meant more Tigers, more Panthers and more panzergrenadiers on the battlefield.

The Corps commander had ordered them to press on through the night. But they were not going to heed his requests. It was not in their doctrine. To Simonds's rage, the armoured regiments did exactly what all armoured regiments had been doing since 1939. To Simonds's fury and Kitching's exasperation⁶⁰ the regimental COs fell back on their Dorset training⁶¹ and went back to a "rear rally" and laagered.⁶² "[A] momentous decision - which granted Brigadefuhrer Kurt Meyer a respite of seven hours to rally the 89th Division and deploy his 12th SS Panzer Division - vitiated Simonds's intention 'to press straight on steadily regardless.'⁶³ This was combat refusal with dire future consequences both on the men of 4th CAB and their commander.

Nothing Booth could do would change things; indeed, he does not seem to have tried. He disappeared from the battlefield and had to be personally ferreted out by Kitching, who was so exasperated that he went forward to sort out Booth personally. He found him asleep in his tank:

I had the greatest difficulty in locating him and he would not answer calls on the radio. When I finally found him he was nearly two miles away from the battle and fast asleep in his tank. I personally had to climb up on the tank to wake him and tell him to go and see what was happening. I was so angry that I ordered him out of the tank and gave him a tongue-lashing for five minutes. He was almost in tears when he went forward.⁶⁴

By then it was too late for everyone. 4th CAB did not get going again until the next day and "Totalize" lost another eight hours.

Kitching or Maczek waited too long to sort things out when their brigade commanders began to lose their grip. Simonds tried to light a fire under his corps but was not sure which division needed his attention most. First Canadian Army HQ watched patiently, hoping Simonds would find a solution. While Crerar stayed in his Headquarters,⁶⁵ his opposite number, SS General Eberbach, his face badly scarred from battle burns, a *Ritterkreuz* at his throat, drove forward to see "Totalize" and then went to von Kluge to discuss their dilemma: the "personlichen Befehl des Fuhrers" ordering continued efforts toward Avranches versus the very real threat of at least two Canadian armoured divisions about to breakthrough to Falaise. His sombre evaluation convinced the Fieldmarshal to release the Panther *Abteilung* of 9th Panzer Division and 102nd SS sPzAbt (Tigers) as reinforcements for Meyer: "I have no other forces left. If this keeps going the same way tomorrow, we shall be unable to stop it."⁶⁶

Simonds was still determined to make something of "Totalize"; he would again attack at night and would use searchlights to create "movement light."⁶⁷ Both battlegroups were given objectives astride Highway 158, the road to Falaise. The Grenadier Guards were told to clear Bretteville-le-Rabet. Aggressive leadership could push them past Quesnay woods. A brisk flanking maneuver would easily bring them to

Point 140, highest of the bluffs overlooking the Laison River, and a springboard for Falaise. The BCRs were ordered to take Point 195, a knoll with the same characteristics as Hill 67 in that it resembled an open plain until the crest then fell away south overlooking the approaches to the Laison, the Laize and finally, Falaise. Point 195 was west of Highway 158. The arrival of two armoured battlegroups on the Laison would break down the door leading to Falaise, Chambois, and Argentan. The *Hitlerjugend* would not be able to cover a breakthrough six miles wide.

"Totalize" deserves some study. It was the first Canadian attack by a complete armoured corps. It was the first occasion since early June that balanced battlegroups were used in the attack and was also the first time that proper armoured battlegroups were created. Le Mesnil-Patry saw Wyman order the Queen's Own Rifles to ride on tanks which entered the battlefield a squadron at a time. Wyman never used his brigade as a complete weapon, although it was available. Kitching gave Booth the reins.

The combat ratio finally favoured the attacking Canadians; Booth alone had 240 tanks against about 100 tanks available to Meyer. Further, Meyer, whose panzers were still arriving in the area, had to cover the entire front and maintain a reserve. The only reinforcements expected were the Panther battalion from 9 Panzer, seconded to Meyer on von Kluge's order and the grenadiers of the 85th Infantry Division, arriving on bicycles via Vimoutiers and Trun.

Attacking with two armoured divisions forward meant Meyer would be forced to divide his resources. At best, 50 German tanks would be capable of interfering with Booth's concentration of over 200 Shermans. As well, Simonds had immediate access to Wyman's 2nd CAB, which had already enjoyed a punch up with Waldmuller and Wittman. This allowed an attack ratio of roughly 425 Shermans and another 240 Polish tanks against Meyer's scattered *zugs*. The prospect of tactical victory was within realistic reach. In terms of Fireflies alone, the Canadian attackers held a decisive numerical advantage.

In the early hours of 9 August 4th CAD finally got its regiments going. Kitching had a rough idea of how to go about this armoured business. This was another opportunity to break out and

achieve operational maneuver. All the bold things that were going on in "Cobra," that had occurred in Barbarossa and France 1940, were there for the taking.

Fourth CAB deployed two-thirds of its armoured brigade as balanced *Kampfgruppen*: "Halpenny Force," and "Worthington Force" which was a second armoured battlegroup based on the 28th Canadian Armoured Regiment (the British Columbia Regiment) grouped with three companies of the Algonquin Regiment mounted in White half-track armoured personnel carriers. However, as one military historian put it "the subsequent performance of this force in contrast with that of Halpenny's illustrated the depth of the tactical schizophrenia that gripped the armoured corps of the British and Canadian armies."⁶⁸

Armoured Breakthrough: The Death of Worthington Force - 9 August

Lieutenant-Colonel Don Worthington (no relation to General F.F. Worthington), started out in darkness. The plan was simple: south beside Route 158, then cross the highway and head west to the highest piece of ground. It should have worked. However, a night approach through what had now become a German defensive zone instead of a rear area, was a risky challenge for a regiment in its first battle. The atmosphere, already electric with the excitement of first enemy contact, was heightened by the confused pace of the advance.

It was so dark I could only see the red back lights of the tank in front. Sometimes we crawled along. Finally we just stopped and waited for first light. There were break downs. My troop pulled out around a broken down Sherman and promptly got lost-there were too many tank tracks. The Regiment was being led by Lt "Wing Ding" Wilson - he made a right turn but everyone else turned left - didn't believe "Wing Ding" could navigate...that's how we got lost."⁶⁹

The main body of Worthington Force turned east. They may have been confused by the hard surface road that ran east from Bretteville-le-Rabet and mistaken it for Highway 158. Then, "high ground was sighted and we headed for it."⁷⁰ They arrived in the area of Point 140, bluffs overlooking the Laison River, and stopped. "Without knowing it Worthington had captured



Canadian armour awaits the order to advance.

NAC PA 1136

one of the Polish armoured division's objectives."⁷¹ Tragically, they were on the wrong hill.

Worthington's force set off a real panic in 12th SS. The front had been penetrated. The only thing that stood between the BCRs and Falaise was Meyer's own HQ, about three kilometres away. He ordered *Kampfgruppe* Wunsche to counterattack immediately. Using a Panther company from 1 Abt, 12th SS Panzer Regiment and a handful of recently arrived Tigers from the 102 SS sPzAbt, Wunsche ordered a double envelopment to hit the BCRs from north and south. This was more practicality than clever tactics. Each element served a double purpose. The southern hook of Tigers would engage Worthington's Shermans at long range while covering against an approach along Route 158. The northern hook blocked an advance by 1st PAD Armoured whose regiments were right behind Worthington.

The Poles' performance was not discernibly better on the 9th. Although they were operating on the eastern flank of Simonds's morning attack and thus faced considerably fewer anti-tank positions, their advance was quickly halted as was the Grenadier Guards' advance on Quesnay Wood. The real tragedy was their

inability to close the distance to Worthington's battlegroup as it was being steadily decimated on Hill 140. A determined drive would have not only rescued the BCRs but probably crossed the Laison and completely turned Meyer's flank.

Maczek's leading squadrons could not have helped but notice the plight of the BCRs and Algonquins. Several times their tanks attempted to give support-10th Chasseurs advanced to St. Sylvain but were forced back by a handful of Panthers. A second regiment, 1st Fulk Pancerna, commanded by Major Stefanowicz, attacked from the northeast and claimed to have reached the Laison River near Rouvres where they shot up a bicycle company from 85th German Infantry. They were immediately engaged by Wunsche. Stefanowicz, without infantry or FOOs, decided to retreat.⁷²

Meanwhile, around Point 140, 12th SS Panzer Regiment counterattacked by fire from long range. The remainder of SS schPzAbt 101's Tigers (reinforced with a *zug* from 102) approached from the southwest, crossed Highway 158, and took out 28 CAR's Shermans from an area south of Quesnay and the high ground across the Laison. Concurrently, Wunsche's Panthers drove northeast then circled to complete the envelopment. The Polish armoured regiments were taken on at long range

by these Panthers supported by a few Mk.IVs and JPz.IVs left over from Waldmuller's 8 August attack. Again these were mistakenly reported as Tigers and the over cautious leading Pulks stopped short and withdrew from the disadvantage of a long-range gun duel. Although 12th SS *Kriegesichte* credits Maczek's attack with destroying two German combat teams,⁷³ Simonds was exasperated with both Kitching and Maczek and the "complete lack of communication."⁷⁴ His anger finally forced him forward, where he chewed out the first regimental commander he saw.⁷⁵ The Poles vexed Simonds and drew scorn from Kitching:

I don't know what went wrong with the Poles on those two days, 8 and 9 August, but they certainly were no help to us.... I formed a poor opinion of the Poles in that battle. If they had been as aggressive as Worthington had been they would have been there to relieve him of some of the fierce pressure....⁷⁶

In Maczek's defence, the inexperience and real fear of his men cannot be discounted. On their move to the "Totalize" form-up point both the 4th CAD and 1st PAD drove through part of the "Goodwood" battlefield. Tank crews gaped at the sight of the 60 odd burned out hulks that still littered the area. If that did not shake them up, it certainly created an attitude of serious caution. Aggressive leaders quickly

overcame this as with the example of Canadian Grenadier Guards troop commander Lieutenant LP. Phelan who knocked out 11 anti-tank guns "in as many minutes"⁷⁷ during "Totalize." But the Poles, despite seeing the BCR's predicament decided not to rush the Panthers engaging Worthington. Whenever a Pulk advanced, it was savagely engaged by Wunsche. Maczek reported:

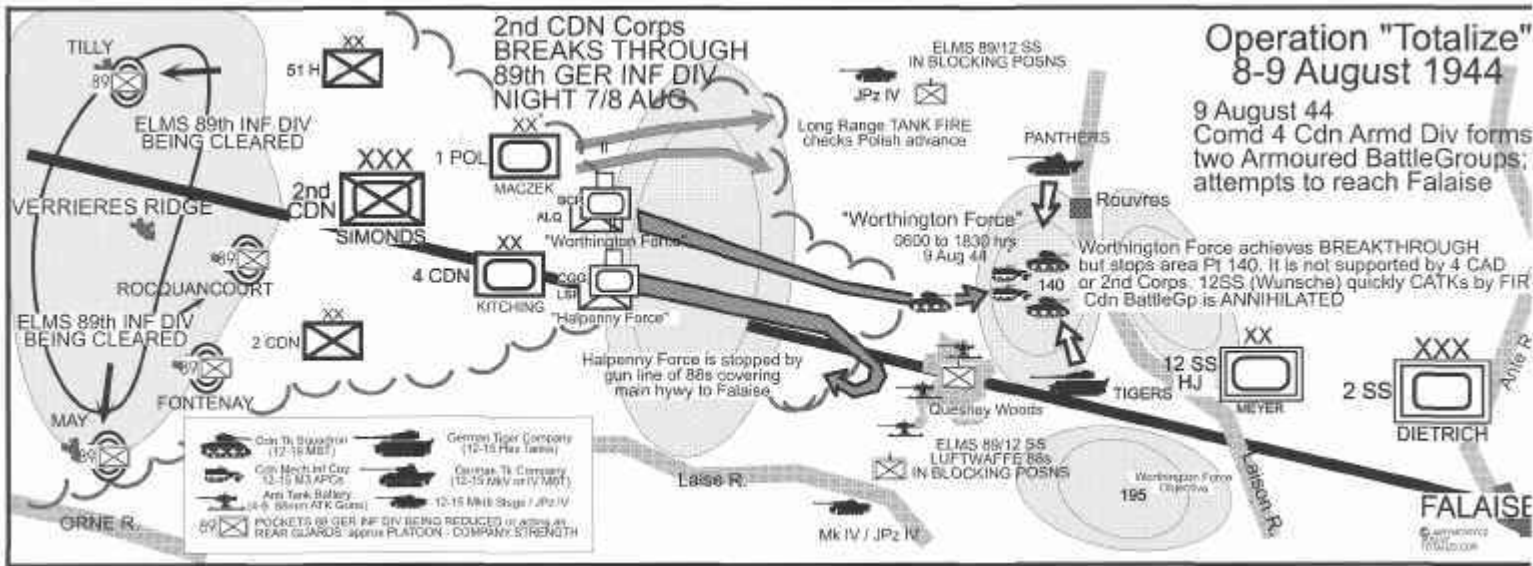
right flank held up by enemy anti-tank guns at 110485...can you do anything about it?...3 PW taken 1700 hrs...ident 25 Gr Regt. 25 PzGr divided into 3 groups. First Waldmüller. Second Krause.. other battle group on their right flank. They have tanks Mk IV and VI estimate 10-20 strong. Enemy inf defending St. Sylvain. En making good use of mortars.⁷⁸

German aggressiveness, and the ever present fear of Tiger by inexperienced crews, saved Meyer but killed Worthington: "les Allemandes lancèrent de fortes contre-attaques appuyées par des Tigres. Elles furent toutes brisées et nous infligeâmes des pertes très lourdes à l'ennemi...les Allemandes contre-attaquerent farouchement."⁷⁹ Despite strikes from RAF Typhoons and the presence of the Polish vanguard only two miles away, Worthington Force was left unsupported throughout the entire day as Wunsche's tanks picked them off one by one.

Canadian infantry moves up to attack.

NAC PA 116528





By evening the entire Regiment's tanks, the half tracks of the Algonquin Regiment, and most of the men had been killed or wounded.⁸⁰ Hill 140 was an armoured graveyard abandoned to the Germans. Among the dead was the gallant Lieutenant-Colonel Worthington.⁸¹ Kitching's armoured assault was over, and for all intents and purposes, so was "Totalize." Kurt Meyer's analysis bears repeating:

Every opening phase of a Canadian Operation was a complete success and the staff work a mathematical masterpiece...every Canadian Operation bore the mark of intensive planning and was built on sound principles. Canadians never followed up their opening success to reach a complete victory. Every one of the Canadian attacks lost its push and determination after a few miles. Armoured warfare is a matter of using opportunities on the battlefield, therefore the Divisional Commander belongs with the leading combat group.⁸²

Much has been made about the BCR's arrival on the wrong objective: "This episode, with its tragic mixture of gallantry and ineptitude..."⁸³ The BCRs may have been lost but II Canadian Corps had also lost the BCRs. Worthington's attack has been seen as the glass half empty; the fact remains that a battlegroup had broken through and penetrated into Meyer's rear area. Nothing lay between Worthington and Falaise. What the BCRs (indeed, Kitching) desperately needed was to have success reinforced. In the full scope of an armoured breakthrough, particularly at the corps level, a matter of four miles is mere *bagatelle*. Maneuver warfare rapidly encompasses enemy positions. Had Worthington been followed immediately by a second regiment and then by a second armoured brigade,

whether Canadian, British or Polish, the BCR breakthrough would have been the tale of Rommel's 7th Panzer on the Sedan. One difficulty was that Worthington did not know where he was, but conversely neither did Kitching or Simonds. To paraphrase Wilde, losing one's armoured regiment in the dark is unfortunate, but for a division to lose an entire battlegroup in clear daylight is sheer carelessness.⁸⁴

There were attempts made to find them. The 4th Division Commander, Royal Artillery, Brigadier J.N. "Herm" Lane, frustrated at his guns' seeming inability to support the BCRs, flew his Moth spotter aircraft south along Route 158 searching for Worthington Force. His eyes fixed onto Hill 195; he reported no contact as he determinedly flew past that feature until he could actually see Falaise. Had he glanced left⁸⁵ he would have quickly spotted a regiment of Sherman tanks on high ground, mixed with half-tracks and infantry, with scores of vehicles burning black smoke. That he failed to see them is a mystery. The simplest explanation is he did look and because they were not supposed to be there, he did not see them. What he did see, he decided, were the Shermans of Maczek's Polish Division.

Liaison between II Corps and the supporting RAF headquarters was poor. Typhoons had been supporting the BCRs for hours. The information was not relayed to Kitching or Simonds. Finally, an armoured officer might ask the obvious question: where was the *recce*? With five reconnaissance regiments at their disposal, two of them armoured,⁸⁶ Kitching and Simonds had the resources to find Worthington. Again the

answer may lie in doctrinal evolution. By the summer of 1944 wise heads in the Armoured Corps decided that a better way to use the divisional reconnaissance regiment would be to ignore doctrine and use its tanks as another armoured unit, either as reserve or a supporting battle group.⁸⁷

Simonds sent the Canadian Grenadier Guards south to look at 195. They were quickly turned back by Pickert's 88s.⁸⁸ The rest of the day was spent in frustrating radio calls. Simonds

was alarmed at the lack of information as to the whereabouts of some 4th Division units. He visited 4th Division Headquarters twice on the 9th hoping to find things straightened out. I knew he was disappointed but trying not to show it.⁸⁹

II Canadian Corps (13 armoured regiments) simply stopped and waited for the BCRs to find themselves. Neither the Poles nor 4th CAB seemed to be capable of maneuvering past the handful of tanks Wunsch had holding the flanks. The determination of Maczek's division is in question. They were well past the shock of being bombed and now faced an open front where they could maneuver. The presence of a Canadian regiment on their objective seems to have made little impression:

There certainly was a tremendous difference between the aggressiveness of the leading armoured regiments - more particular the Canadian than the Polish....Some seemed to turn away in face of comparatively minor opposition.⁹⁰

The real mystery is Army communications. The Germans benefited from Canadian lapses in wireless and general security.⁹¹ If Maczek's rear link reported the action and contact with Canadian Shermans to II Canadian Corps Headquarters, it does not appear to have reached Simonds.⁹² The status of communications is one of the more serious difficulties that Simonds experienced both at "Totalize" and "Tractable." Eventually this lack of control was to cost Kitching his job. It should be pointed out that neither Kitching nor Simonds had exercised their commands in England before Normandy.⁹³ Fourth CAD and 1st PAD arrived in Normandy in time to shake out and get ready for "Totalize." Simonds sent a complete armoured corps into his greatest battle seemingly without testing tactics or

communications.⁹⁴ Again, his plans were overtaken by events.

Veteran Canadian and British armour had easily defeated the initial counterattack by Waldmuller. Fireflies had Tiger's number. Old hands seemed capable of taking Tiger on while new crews still feared the Tiger bogeyman. Simonds briefly tasted operational maneuver then lost it. The fault for a failed army-level breakthrough cannot be laid at the feet of one armoured regiment.⁹⁵

The II Corps continued to butt its head against Meyer's front door for one more day. Simonds gained a couple of pieces of tactical real estate, but the battle was over. The actual end came with the failure to reinforce Worthington on Hill 140.

"Totalize" - Analysis

The operational results of "Totalize" were a gain of over eight miles and the virtual destruction of one German infantry division. It was the deepest penetration made by either First Canadian or II British Army thus far in the campaign. The German forces were stretched to the breaking point and Crerar was poised on an excellent jump-off place to attack Falaise. Strategically, the western front, to quote von Kluge, "had burst."⁹⁶ Patton had entered le Mans, 80 miles due south of the Laison and the "Falaise pocket" had been formed. "Totalize's" tactical results were disappointing. Night moves for armour were dangerous and, one could argue, irresponsible. There was only the vaguest doctrine for a night attack by armoured divisions and it had not been practised since El Alamein. "Totalize" demanded complex phases that would have sorely tested the most experienced armoured formations; to set them upon Kitching and Maczek was venturesome planning. Finally, as Meyer noted in his personal critique, "Stopping to water your horses in the middle of a cavalry charge"⁹⁷ is not maneuver warfare. There was no operational breakthrough, despite the fact that by the morning of the 8th a considerable gap had been created in 1 SS Panzer Corps. A congregation of 13 armoured regiments had been stopped by the equivalent of one. Again, a handful of Tigers rattled the Allied armoured force. While Bradley had successfully defeated the Mortain



A Canadian-built Ram OP tank advancing near Cintheaux on 8 August 1944. In the background can be seen a burning ammunition truck, a likely casualty of the short bombing by B-17s of the US 8th Air Force.

counteroffensive of four German panzer divisions, Crerar had been unable to crack one. "Totalize" was Simonds's battle. It should have become Crerar's battle as soon as penetration occurred.

First Canadian Army was not directed with convincing operational skill. Both Army and Corps Headquarters were mesmerized by Falaise. Crerar should have considered his left flank and the Seine. The entire eastern front of Normandy, from the Caen-Paris highway, to the Laison River, was held by Schack's 272nd Infantry Division. Its three regiments could not scrape together more than the equivalent of two to three rifle battalions.⁹⁸ Behind Schack there was nothing, no panzer reserve, not even a single Tiger. Crerar continued to drive south where Meyer was being reinforced daily from Eberbach's panzer divisions inside the pocket." It would have been most interesting to see Crerar

behave like Patton and head for the Seine and Paris, via the shortest route.

Directing the Corps: Simonds as Chairman of the Board

While Bradley directed his two armies and Collins and Patton maneuvered their corps, Montgomery looked over both Dempsey's and Crerar's shoulders. Crerar let Simonds do pretty much as he liked. Simonds had enough to attempt to wreck a front line, but he could not break out - at least in the correct Soviet style. If he turned to his boss for help, Crerar could honestly say he had given him everything he had. There were no more tanks in the cupboard. Delay became embarrassing; by 9 August, First Canadian Army was still fighting "The Normandy Campaign" while the 12th US Army Group was 16 days into "The Campaign for Northern France."¹⁰⁰

The Corps is the heart of operational maneuver; it is the first permanent planning structure that guides operations. Dynamic corps win campaigns. American doctrine stated that:

...the attack by a corps ordinarily is a matter of days and not of hours...planning requires weeks, even months ahead of contemplated, probable or possible Operations...all units are provided with operation overlays and objectives designated.¹⁰¹

By those standards Simonds's hurried preparations for "Spring," "Totalize" and "Tractable" show him to be a remarkably skilled technical, if not tactical, planner. Conversely, it says little for Crerar's or Montgomery's ability to forecast operations. The time denied Simonds could have been better used to prepare divisions: "most important, subordinate commanders and their staffs, through conferences and war games, [should] become familiar with all plans and their variations."¹⁰²

American General Wade H. Haislip argued that the corps commander and his staff must have complete flexibility of thought and action and develop simple plans.¹⁰³ Simonds had remarkable freedom of action and it could be argued that he enjoyed too much. On 26 July Montgomery wrote a letter of advice to Crerar on how to handle Simonds: "When an Army Commander has only one corps in his army he will, unless he is careful, find that he is trying to command that corps himself in detail. He has to exercise great patience and restraint."¹⁰⁴ Bradley had to intervene and check Patton when, with impatient cavalry gusto, he countermanded or "adjusted" his own corps commander's orders.¹⁰⁵

Crerar took the advice too literally and evolved a hands-off policy that virtually gave Simonds command of the First Canadian Army until the end of the Falaise Campaign. Crerar's "Attack Doctrine" was finally published in July 1944 and dealt in generalities until he mentioned artillery. It was uninspiring.¹⁰⁶ Crerar had little concept of an armoured breakthrough attack. He felt more comfortable in issuing a "Tactical Directive" for his Army which was nothing more than aspects of a brigade-level attack prepared by a gunner. Nevertheless, it may be argued in his defense that he had enough sense to let his corps commander do the

thinking for him, even though Simonds, like Crerar, was learning through experimentation.

It is easy enough to go "Simonds bashing." But if II Canadian Corps had achieved total success, what would Montgomery, or specifically, Dempsey, have done on 26 July? He was not organized to either reinforce or, more importantly, exploit, a Canadian breakthrough. Montgomery had not deployed Second British Army in anticipation of victory but rather in expectation of Canadian failure. It is unlikely Montgomery schemed against Crerar or Simonds, but he certainly failed to plan ahead.¹⁰⁷ The tactical deployment of Second Army could only lead to a "Bluecoat" type operation, an attack on the wrong side of the Orne and into the wrong terrain. The best Dempsey could do is send a corps east via Caen - a long trek. Montgomery's concept of future operations, despite his energetic claims to the contrary, was short-sighted.

There is another simpler possibility. In hindsight, the grand Cannae encirclement that was Falaise was brilliant. It was everything Montgomery was not. It is far more creative than dull tidy Montgomery who was simply sticking to the basic plan he laid out on 15 May.¹⁰⁸ His goal was to support Bradley, to push south, not to encircle the Germans. Montgomery wanted to accomplish his stated aim - clear Brittany and capture a decent port:

As to Caen, even General de Guingand didn't tell the truth about that. It is true there was a plan which showed the Americans coming up on the right towards the Seine while they [21st Army Group] swung at Caen. But that is far different from the decision to strike out on the right and pull quickly around. Monty undoubtedly intended to start the breakout on his front and then let the Americans come around as they could. He intended at first for Patton to spend his time cleaning up the few Germans in Brittany.¹⁰⁹

Minor Tactics

Tactically, Simonds has and should be criticized for an inability to handle armour after Phase 2; this failure somehow mutated into official bewilderment, echoed even by Stacey, at the action of the BCRs. However, by 9 August, Crerar should have been well forward and

directing the pursuit from Simonds's tactical HQ, if not from a tank. At this stage it was a question of coordination with British forces and the creative direction of operational level formations. Simonds was juggling the equivalent of two corps. He was controlling the largest armoured force yet available to a Canadian general.

Any tactical analysis must also note the conduct of Kitching and Maczek. From the outset, both were quite unable to get anything out of their divisions. Frustrated directives sent by radio were generally ignored. Both the Polish and Canadian armoured brigadiers had no practical effect on the battle.¹¹⁰ "Totalize" was fought at the battlegroup level by lieutenant-colonels and majors.

"Totalize's" operational set backs - the decision to stop for a second bombing phase, the unfortunate bombing of friendly vanguards by 8th USAAF and finally, the inability to get going against scrappy but inferior opposition - may be attributed to bad luck but the *post mortem* will find doctrinal inexperience as the probable cause of death. Kurt Meyer was unforgiving in his evaluation of "Totalize":

British and Canadian planning was absolutely without risk; neither army employed its armoured strength for (the job for) which it was created. In both armies, the tank was used, more or less, as an infantry support weapon.

Armoured warfare is a matter of using given opportunities on the battlefield, therefore the Div Comd belongs on the leading combat gp, to see for himself, to save precious time, and to make lightning decisions from his moving tank. He, and no one else must be the driving force of his div.... The Brit and Cdn forces executed the ops in an inflexible, time wasting, method. Never once did "Speed" as the most powerful weapon of Armd Warfare, appear.¹¹¹

Meyer's comments have been sniffed at by both veterans and historians. This may be sour grapes. His qualifications to criticize "Totalize" are the best imaginable - he won the battle.

Notes

1. 2 Cdn Corps Gen G. G. Simonds "Planning Operation Totalize, A. Appreciation by the Corps Commander," 1

- August 1944, p.9. National Archives of Canada (NAC) Record Group (RG) 24 Vol. 10,811.
2. McGill historian David O'Keefe suggests that Simonds's reading of ULTRA transcripts convinced him that 1 SS LAH was still in II Corps' operational area of responsibility: "Without any other information to corroborate the Ultra decrypts, Crerar's Chief of Staff, Churchill Mann, phoned Brigadier Elliot Rodger (Simonds Chief of Staff) to tell him that there were signs that 1 SS Panzer division was pulling away from the front....After reviewing Ultra information which came to his attention on 6 August, Simonds called Crerar to tell him he had changed Totalize...Simonds appreciated that the second "break-in" might meet stronger resistance than originally anticipated but felt assured that the original Air plan would now be even more beneficial...he scrapped the original idea of sending the 4th Canadian Armoured and the 3rd Canadian Infantry to attack the second line and instead, put the Polish and 4th Canadian Armoured division together." David O'Keefe, "Situating the Appreciation: Intelligence for Operation Totalize," unpublished manuscript, p.2, and personal interview, 2 May 1997.
3. "Canadian First Army recipients of ULTRA: Lt. General H.D.G. Crerar GOC, Lt.General G.G. Simonds, Bdr., CC, Mann COS, Col G.E. Beament ColGS, Lt.Col W.B.T. Reynolds GSO I Air, Lt.Col E.D. Danby GSO 1 Ops, Lt.Col McDougall GSO (IB), Lt.Col P. Wright GSO 1, Major J.A. Apis GS02," G2 SHAEF Internal Memo "List of Recipients of Ultra."The Richard Collins Papers (G2 SHAEF), August 1944, US Army Military History Institute (MHI), Carlisle, PA. See also, "Reports by US Army ULTRA Representatives with Army Field Commands in the European Theatre of Operations 1945." SRH-023, MHI.
4. War Diary (WD) 2 Cdn Corps Report: Section III "Planning Operation Totalize - Section III, The Enemy. General Situation mid-July 1944." 15 August 1944. NAC RG 24 Vol.10811.
5. WD 2 Cdn Corps, Totalize "The Enemy. General Situation mid-July 1944."
6. WD 2 Cdn Corps "Planning Operation Totalize - Appreciation by Corps Commander" 1 August 1944. NAC RG 24.
7. WD 2 Cdn Corps. 5 August 1944. Instr No. 4 Operation Totalize. "Intention: To Breakthrough the enemy positions astride the Caen Falaise Road. Method: 3 Phases: I. Breakthrough tile Fontenay (0358) - La Hogue (0960) posn. II. Breakthrough the Hautmesnil (0852) - St. Sylvain (1354) position. III. Exploit as ordered by Comd 2 Cdn Corps." NAC RG 24 Vol. 10808.
8. Totalize contradicted accepted procedures, a daring experiment within British as well as then current American armoured theories.
9. The SP M7 Priest regiments (3rd Div: 12th, 13th, 14th, 19th Field Regts RCA) were armed with 105 mm gun howitzers but outranged by 25-pounders, the standard gun in RCA Field Regiments. Sexton SPs (found in 4th CAD, 5th CAD and 1st PAD) carried 25-pounders. The decision to strip the infantry SP regiments was made to standardize artillery. "Defrocked Priests" did not come about because SPs were no longer required by II Cdn Corps. The infantry was supported by towed 25 pounders, the armoured brigades by Sextons.
10. General S.V. Radley-Walters, personal interview, May 1990.

11. *Totalize Reports*. NAC RG 24 Vol. 10456. "If you went too far left on your tiller your ear phones were filled with 'Dit-Daw...Dit-Daw"-if you went too far right you heard 'Daw-Dit...Daw-Dit. If you were right on the centre you heard a steady mushy sound." Radley-Walters, May 1990.
12. Elliot Rodger, quoted by Dominiek Graham, *The Price of Command- A Biography of General Guy Simonds* (Toronto: Stoddart, 1993), p. 148.
13. See J.A. English, *The Canadian Army and the Normandy Campaign*, (New York: Praeger, 1991), p.266. English reviews the influences on Simonds and notes that "El Hamma, Montgomery's suggested model for Epsom, may also have been the precursor of Totalize," p.267.
14. Allied intelligence traced the removal of panzer divisions from the *bocage* throughout early July as Rommel tried to rebuild an operational reserve. As the armour left, it was replaced by second grade infantry divisions who sowed mines to increase protection. This was not the case in the area around "verrières. Canadian Intelligence reports never reported extensive engineer activity. Operational Research data showed that only 9 per cent of tank wastage was caused by mines compared to 89 per cent from AP shot. RG 24 Vol. 10,460 2 CAB Papers: Report No. 12. "Analysis of 75 mm Sherman Tank Casualties 6th June to 10th July 1944" (hereafter ORS Report No.12), p.1, and Report No. 17 "Analysis of German Tank Casualties in France 6th June to 31st August" (hereafter ORS Report No. 17), p.3.
15. Radley-Walters, May 1990.
16. *Current Reports from Overseas* (CRFO) 6 (26 July 1943), pp.17-18. Quoted by English, p.267.
17. They had just returned from Bradley's Headquarters (visit 13-26 July) where American wags cracked: "My god, the Russians have broken through to St. Lo!" The visitors frightened Russian PWs and unnerved Germans. "Young, black-haired, savage looking, inclined to glower a good deal, trim and neat and incredibly bright....Russian asked a German paratroop captain what he thought might have to happen to Germany after we win the war. Capt was terrified, guessed, he said, that Germany would probably be broken up into little pieces. Without moving a muscle, Russian stiffened, 'Not Germany, captain-Germans.' He did not mean to be clever." Chester B. Hansen Papers, personal diary, p. 13, 26 July 1944. The Russians saw Simonds on 27 July.
18. Correspondence between Captain Marshal Stearns and Professor Reginald Roy (hereafter Stearns Papers), 27 April 1981, p.2.
19. W.C. Frank, Jr., and P.S. Gillette, *Soviet Military Doctrine from Lenin to Gorbachev, 1915-1991* (London: Greenwood, 1992), p. 135.
20. One possible rebuttal was suggested by Brooke in a letter to Montgomery: "the German density in Normandy is 2 1/2 times that on the Russian front whilst our superiority in strength was only in the nature of some 25% as compared to 300% Russian superiority on Eastern Front." Brooke did not point out that real Soviet superiority was also 25% and the overwhelming numbers were achieved because of STAVKA planning and a working doctrine. Quoted in Nigel Hamilton, *Master of the Battlefield: Monty's War Years 1942-1944* (New York: McGraw-Hill, 1983), p.767.
21. But not with great resolve. Copp and Vogel, Morton and Granatstein, Roy and even English appear more fascinated with the intricacies of "Totalize" than with its strange obsession with mines and Simonds' considerable difficulty with massed armour.
22. George Kitching, *Mud and Green Fields: The Memoirs of Major-General George Kitching* (St. Catharines: Vanwell, 1993), p. 193.
23. Kitching, p. 193.
24. Stearns Papers, 14 July 1982, p.3.
25. Totalize's first bombing was delivered by 660 heavy bombers. "Because the bombing ended early [called off by master bombers as targets "became obscured"], the ground attack (which had been scheduled to begin half an hour *before* the last bombs fell on the distant targets) actually began half an hour *after* the bombardment had concluded. Dust and smoke from the bombing, combined with darkness (and sadly inadequate map- and compass-reading) led many of the attackers to lose direction." Brereton Greenhous et al, *The Crucible of War, 1939-1945 The Official History of the Royal Canadian Air Force - Volume III* (Toronto: University of Toronto Press, 1994), p.814.
26. "An Account of Ops by 2 Cdn Armd Bde, 14-16 August 1944", p.4. NAC RG 24 Vol. 10455. "There were numerous halts, due to unavoidable delays by the leading tank.. though collisions were frequent the work of the tank drivers was most commendable." *Vanguard*, p.52.
27. 2 CAB, p.5.
28. 2 SS Pz Korps WD. Von Kluge to Hauser, evening 8 August 1944. NAC RG 24 Vol.10677.
29. The armoured vanguards were almost in position by 0600 hours, the two armoured divisions would be in place by 1100 hours. Time for bombs on target was 1255 hours.
30. By now he was "Panzer Meyer" to the *Hitlerjugend* but still known as "Schnellemeyer" to Von Kluge and Eberbach. Hubert Meyer, *Kriegsgeschichte de 12.SS-Panzerdivision "Hitlerjugend"* (Osnabruck: Munin Verlag, 1987), p. 162.
31. "For the first time during these long and cruel years...I see fleeing German soldiers...Mesmerized, I stare at the leaderless soldiers. My uniform sticks to my skin. Cold sweat breaks from all pores. I know that the fate of the city of Falaise and thus the safety of the two German armies depends on my decision." quoted by H. Meyer, p. 172. See also Kurt Meyer, *Grenadiere* (Munich: Schild Veriag, 1957), pp.281-282.
32. K. Meyer, p.281. Hans Siegel recalled that Meyer is supposed to have said, "What? Do you expect me to stop the Tommies all by myself Siegel, personal interview, September 1992.
33. H. Meyer, pp. 175-176.
34. "Special Interrogation Report BdeFuehrer Kurt Meyer 12 SS Pz Div "Hitler Jugend" 24 August 1945," "Operation Totalize," pp.6-7, NAC RG 24 Vol.10474; Also MS B 814. Interrogation Report "12.SS.Pz. Division, 28.4.48," p.2; Craig Luther, *Blood and Honour: The History of the 12th SS Panzer Division "Hitler Youth," 1943-1945* (San Jose, CA: R. James Bender Publications, 1987), p.232; H. Meyer, p.173.
35. "Operation Totalize," p.7; H. Meyer, p.173.
36. H. Meyer, p. 173.
37. Siegel interview, September 1992.
38. "I shook Michael Wittman's hand and mentioned the extremely critical situation. Our good Michael laughed his boyish laughter and climbed into his Tiger." K. Meyer, quoted in H. Meyer, p. 173. Also, Special Interrogation Report Kurt Meyer, 24 August 1945, p.7.
39. "Here was an opportunity which might be made the turning point in the bridgehead battle....In

- mean time... Out of the woods lumbered a Tiger tank which drove on to the road and proceeded right down the line [of 22nd Armd Bde]...'brewing up' one vehicle after another...the road was an inferno with 25 armoured vehicles blazing - all the victims of this lone Tiger." Chester Wilmot, *Struggle for Europe* (London: Collins, 1952), p.309; also Eric Lefevre, *Panzers in Normandy* (London: Battle of Britain Prints Ltd., 1990), pp.169-176.
40. H. Meyer, p. 173; also Special Interrogation Report 24 August 1945, p.7. Direct attack was not considered rash by German officers with Eastern Front experience: "One of the simplest methods of sealing off a break-through or eliminating a penetration is the frontal counter-attack." German Defense Tactics against Russian Break-throughs US Army Trg Pam No.20-233. October 1951, p. 63. "Tigers sometimes used almost recklessly; their crews taking risks to a degree which indicates the utmost confidence in the vehicle." NAC RG 24 Vol.141186, BRAC, 1st Cdn Army CAC Bulletin No.1 Appx F "Experience with Tiger Tanks."
 41. H. Meyer, p.336.
 42. Both 2nd CAB and 33rd BAB were in the area. For a while it was assumed that Wittman was hit by Typhoons. His body was not discovered until 1982. German War Graves Commission corroborated that an identification disc, fragments of a leather jacket and a pistol belonged to Wittman. Investigation of Canadian archives photographs confirmed Tiger 007 was hit by tank fire, see NAC RG 24 Vol.10,458, File 212cl.1009 (D37). Also, Les Taylor, "Michael Wittmann's Last Battle" *After the Battle*, No.48, 1985, pp.46-52. Taylor suggests the credit goes to Trooper Joe Ekins, Firefly gunner in "A" Squadron, 1st Northamptonshire Yeomanry. The unit WD records "Three Tigers reported moving towards "A" Sqn and were brewed at 1240, 1247, and 1252 hours." Another claimant is Canadian General S.V. Radley-Walters whose squadron ("A" Sqn, 27 CAR) engaged Wittman from the northwest - his gunner knocked out a Tiger. Visits to the site have satisfied him that his claim may well be valid. Max Hastings notes Wittman "met his end in the thick of concentrated fire from a clutch of Canadian Shermans." Max Hastings, *Overlord* (New York: Simon and Schuster, 1984), p.299. "Wittman spotted a number of Allied Shermans advancing towards Cintheaux and began firing at these machines...these tanks were from a Canadian armoured unit trying to take the high ground in the vicinity of Pt.112 from the West..." Gary L. Simpson, *Tiger Ace: The Story of Panzer Commander Michael Wittman* (Atglen: Schiffer, 1994), p.304. Wittman was finally buried with his crew (grave No. 120, R3, B47) in the German war cemetery at la Cambes.
 43. The Heavy Bomber Phase of "Totalize" was actually rescheduled for 1226 hours. Marker shells were fired by 23rd Field at 1255 hours. The bombers may have started bombing early, mistaking the Cramesnil east-west road for the Bretteville-le-Rabet road that lead to St. Sylvain. Surprisingly there was laughter from the 12 SS. "The tension had been broken by a young panzergrenadier ("a typical boy from Berlin") who shouted: "Welche Ehre, für jeden von uns schickt Churchill einen Bomber!" (What an honour. Churchill is sending one bomber for each of us!). K. Meyer, p.286. The 12th SS counterattack seems to have taken place during the bombing raid. 1st Northamptonshire WD records Tiger combat from 1220 to 1252 hrs. Taylor, p.47.
 44. WD Ops Message Log. 2 Cdn Corps HQ, 8 August 1944, Operational Report CO. 1 Polish Armd Div "Fighting During The Period From 7-12 August 1944" 13 August 1944, p.2. NAC RG 24 Vol.10635.
 45. "General Simonds had a constant complaint and had already voiced it several times, that our contact with the Air Force was too remote. Toward the latter stages of operations in Europe we did get forward observation Air Force personnel who would be with the forward units and through wireless would contact the fighter bombers overhead and call them down on specific targets like a house or a tank, etc. But the Air Force never trusted an army character to do this. They would never surrender to the Army the right to have authority to direct their actions." Stearns Papers 23 March 1981, p.7.
 46. *Ibid.*
 47. 65 dead, 250 wounded, 55 vehicles destroyed. Most of the casualties were in Maczek's division. CP. Stacey, *The Victory Campaign: The Operations in North-West Europe, 1944-1945* (Ottawa: Queen's Printer, 1966), p.223. After Totalize's fire day Maczek was optimistic: "Our own losses were insignificant." NAC RG 24 WD 1 Pol Armd Div: Operational Report, CO. 1 Polish Arm Div "Fighting During the Period From 7-12 August 1944," p.3.
 48. Tony Foster, *Meeting of Generals* (Toronto: Methuen, 1986), p.360; and Brigadier General Megill, personal interview, 15 January 1990.
 49. H. Meyer, p. 173, Interrogation Report 7-8.
 50. Kitching, p. 194.
 51. H.Meyer, p.173.
 52. WD Ops Message Log. 2 Cdn Corps HQ. 1705 hrs, 8 August 1944. NAC RG 24 Vol.10635.
 53. La Première Division Blindé Polonaise (Brussels: Welfare Section of 1st PAD, 1945), p.11.
 54. H. Meyer p.173, Interrogation, p.8.
 55. "I warned the Field Marshal," said Dietrich, "that the Canadians had only been stopped on the Liaison River for a short period." Quoted in Milton Shulman, *Defeat in the West* (London: Seeker and Warburg, 1947), p. 151.
 56. Booth's frustration, and inability, is recorded in 4 CAB Ops Log: 1617: "You are reporting no opposition so push on. If there is opposition then I should know about it" 1702 "Fetch Sunray, what is hold up? Push on...no opposition in front - yet the going is very slow. I am not waiting any longer..." 1736 "Put Sunray on set. Put Sunray on set. Get Sunray immediately!" From 1736 to 1830 4 CAB Logs records consist mostly of ignored commands from Booth to 22 and 28 CAR to "Put Sunray on set." RG 24 Vol. 14052 WD 4 CAB, 8 August 1944.
 57. Lieutenant-Colonel R.S. Lucas, FOO, 23rd Regt (SP) supporting 4 Cdn Armd Bde during Totalize. Correspondence with LCol J.A. English, 12 March 1990.
 58. *Ibid.*
 59. R.F. Weigley, *Eisenhower's Lieutenants* (Bloomington, IN: Indiana University Press, 1990), p.204.
 60. The opposition amounted to a battalion's worth of anti-tank fire. "Die 12.SS PzDiv Hitlerjugend (Meyer) vertarkt durch 80 sturmgeschutz und 88 Flak, brachte die Polen bei St. Sylvain zum stehen und hinderte die Kanadieran Heraustreten aus Bretteville-sur-Laize." Eddy Bauer *Der Panzerkrieg* (Bonn: Verlag Bodo Zimmerman, 1965), p. 135.
 61. Ops Log 4 CAB, NAC RG 24 Vol.14052; 8 August. Brigadier Booth's and General Kitching's exhortations

- took on increasing annoyance and directness. By 1800 hours, exchanges between HQ 4th CAB/4th CAD and the armoured regiments were decidedly angry. The regimental commanders, either due to enemy action or to simply avoid confrontation, ignored most of the calls: "You can get cracking!...Are you moving?...Push on!...Fetch Sunray...What is hold up?...If you have no opposition you must push on! Outflank and push on! No opposition in front yet the going is very slow. I'm not waiting any longer -I want you to move fast!"
62. Training by British/Canadian officers fresh from the Desert and Italian Campaigns resulted in a "tanks only fight in day" mentality. "Unless there is some final objective there is no limit to the advance which must be pressed from first light until the light fails. As a matter of routine approximately one hour before dark comds automatically begin their night dispositions and if possible get themselves disengaged, secure and capable of being replenished. If this is done well a good start can be made at first light the next day." Director General History, Department of National Defence, Ottawa (DG Hist). Royal Armoured Corps. Operational Circular No. 1. *7th Armd Div Ops*. 26 Nov North Africa to Nov 43, Voltorno River Italy. NAC RG 24 BRAC files and TRG Files 4th CAD.
 63. "...went back to a regtl harbour at Gaumesnil. It was then 2000 hrs and it was considered that in view of the fact that darkness was rapidly approaching, the fact that some regrouping and proper tying up for the next advance was necessary." NAC RG 24 Vol. 14260 WD 22 CAR, 8 August 1944.
 64. H. Meyer, p. 264.
 65. Kitching, p. 195. Booth realized Canadian/British armoured doctrine was flawed. During a TEWT, (Exercise Iroquois, 1 July 1944) he ordered his syndicates to use battlegroups ("designed to beat the enemy"). It is likely Booth not Kitching who created Halpenny and Worthington Forces. NAC RG 24 Vols. 14051 and 15098. However, J.A. English notes that "Booth...delegated tactical responsibility down to battle groups with the result that artillery was never effectively brought to bear against pockets of resistance..." English, p.290.
 66. "Crerar...operated by very different methods...Weather permitting, he used to fly daily over the fighting area...in a light aircraft." Sir Brian Horrocks, *Corps Commander* (New York: Charles Scribner & Sons, 1977), p.31. "When Guderian first tried to explain the concept [of commanding massed armour circa 1938]...General Fritsch asked him "And how do you intend to control this division?" and Guderian answered, "From the front using radio!" Fritsch replied, "Nonsense. The only way to command a division is from a desk at the rear, using a telephone." Translated Taped Conversation with General Hermann Balck, 12 January 1979, Battelle, Columbus Laboratories Tactical Technology Centre, Columbus, p.21.
 67. Quoted in H. Meyer, p. 174. See also: RH 21-5/52 Kriegstabuch des Panzer Armeekorpskommando 5.9.8.44-9.9.44: noch 9.8.44. Bundesarchiv, Freiburg.
 68. WD 344th Independent Searchlight Battery RA. 8 August 1944, NAC RG 24; and, Stacey, p.225.
 69. English, p. 280.
 70. Account by Lieutenant Harvey McDermott, Troop Leader BCRs, 9 August 1944, BCR historical file, provided by adjutant 1994.
 71. WD 28th CAR, 9 August 1944, NAC RG 24 Vol. 10,800.
 72. Kitching, p. 196.
 73. S. Maczek, *Avec Mes Blindés* (Paris: Presses de la Cite, 1961), p. 188; and H. Meyer, p. 178.
 74. "The Korpsbegleitkompanie was wiped out by that attack, the Divisionbegleitkompanie was overrun from the south at approximately 1400 hours. However, it was able to hold on and withdraw to the woods 2 km southeast of St. Sylvain in the evening." H. Meyer, p. 178. This success seems to have been ignored by Simonds and subsequently, by modern Canadian military historians.
 75. Stearns Papers, 27 April 1981, p.2.
 76. The 4 CAB Radio Log 10 August 1944, follows the BCR predicament and the less than determined Canadian response: 0937 hrs. We are being fired on from rear... 1228 hrs. Must have assistance, cannot hold posn... 1236 hrs BM (Chubb) 4th CAB: How does it look? 22nd CAR: Damn Serious... 1301 hrs. Strongly attacked...severe cas, several tks brewed up... 1305 Brig (Booth) 4th CAB to 21st CAR: Make a mad dash to help sit Will give good results...To 22nd CAR: Hold on to yr posn and gains you have made at all costs. 21st CAR will help you... 22nd CAR: I have 15 tks left!...Inf still here. We are few in numbers... 1652 hrs 22nd CAR: Ambulance can come up all the way here. Rd clear... 1712 hrs 22nd CAR: Can you give us some suggestions about our tgts in ref to bombing... 1828 hrs 22nd CAR: Quite a bit of activity on right flank..." Rest unintelligible to operator.
 77. Kitching, p. 196.
 78. Phelan was awarded the Military Cross. Colonel A. Fortescue Duguid, *History of the Canadian Grenadier Guards 1760-1964* (Montreal: Gazette Printing, 1965), p.264.
 79. WD 2 Cdn Corps. Msgs fm 1 Pol AD, 1800 and 2345 hrs 9 August 1944. NAC RG 24 Vol.13712. Despite the ragged, incomplete nature of the Sitrep, it was the most useful message sent by an armoured unit to II Corps that day.
 80. *La Première Division Blindée Polonoise* (Bruxelles: Impremerie Union Office, 1954), pp.12, 13.
 81. Forty-seven tanks, 250 men from BCR and Algonquins plus an undetermined number of half-tracks. 12th SS suffered no losses in this engagement: "Wir selbst haben nicht einen Panzer verloren." K. Meyer, p.294.
 82. The destruction of the BCRs unlike the destruction of The Black Watch during "Spring" was given little official attention. The difference was the political clout of the Montreal Watch which forced an investigation by the Minister of Defence. As late as 19 August 1944, correspondence from Stuart to Crerar about the 25th July action at Fontenay were listed "Top Secret. No Circulation." NAC RG 24 Vol.10635.
 83. Interview Kurt Meyer, Canadian Chaplain's Report 3 September 1950, DG Hist 81/104.
 84. Stacey, p.229.
 85. Brigadier Booth, in a less than controlled manner, ordered 21st CAR "to make a mad dash forward to relieve it!" He had no idea where the BCRs were nor any practical solutions. NAC RG 24 Vol. 14052 WD 4th CAB. 10 August 1944.
 86. This flight was duplicated by a Kiowa helicopter in May 1991. The author flew the route simulating Moth speeds at varying heights along the described approach as well as one further west. At all times, both hills were clearly visible with very little effort. Point 140 was particularly

- easy to identify. Point 195 was more difficult because of its particular geography.
87. 18th Armd Car Regt (12th Manitoba Dragoons)-the II Cdn Corps recee (Staghounds); 8th Recce Regt (14th Cdn Hussars) - 2nd Cdn Inf Div recee; 7th Recce Regt (17th Duke of York's Royal Canadian Hussars) - 3rd Cdn Div recee; 29th Recce Regt (The South Alberta Regiment) - 4th Cdn Armd Div recee - equipped with Shermans; 10th Chasseurs - 1st Pol Armd Div recee (equipped with Cromwells).
 88. The Corps recee 18th Armd Car Regt was screening the left flank, east of 1st PAD. The other recee regiments were not given recee tasks.
 89. At 1305 hours Booth ordered the Guards to "Make a Mad Dash to help sit. Will give good results." By 1307 hours 22nd CAR reported to Booth: "I have 15 tks left! 3 robots exploded beside us, 88s to front and left flank - they have us covered from all directions." 4th CAB Log, 9 August 1944.
 90. Stearns Papers, 23 March 1981, p.2.
 91. *Ibid.*
 92. Meyer recalled that: "...most excellent documents were always to be found in captured Shermans." Wisch, p.3.
 93. It is interesting to note that 4th CAB WD reported "Poles report 28 CAR badly shot up...has only 7 tks left." NAC RG 24 Vol. 14052 WD 4th CAB, Ops Log 9 August 1944.
 94. Stacey, p.276.
 95. Although individual units from 4th CAD conducted a test "raid" before "Totalize" and participated in two unsuccessful attacks against Tilly-la-Campagne, the two armoured brigades were not tested.
 96. At one point he seems to have considered blaming the 1st Polish Armoured Division. In correspondence to General Stuart he wondered "If Poles not inclined for the battle" and proposed: "We take away their tanks to keep up the offensive strength..." NAC RG 24 Vol.10634. Msg Simonds to COS 1130 hrs, 12 August 1944. Simonds's second night attack certainly prompted an OKW response: "9 August 0300 hours to instruct the Panther battalion of 9 Pz Div to pivot toward I SS Pz Corps." OKW WD, 82.
 97. Hitler, seeing von Kluge's worried report snapped at Warlimont: "You tell Field Marshal von Kluge to keep on looking to his front, to keep his eyes on the enemy and not to look over his shoulder." Walter Warlimont. *Inside Hitler's Headquarters 1939-1945* (New York, Praeger, 1962), p.446.
 98. "Extracts Kurt Meyer Chaplain's Report of Interview 3 September 1950", p.1. DG Hist 81/104.
 99. RH26-272/5. Bundesarchiv. 272 Infanterie-Division, 28-34. Also, "By 29 July-all elements of 21st Panzer had been relieved except for 2d Coy of 192 Mtn Inf Regt and the 200th Assault Gun Bn [converted French tanks] which remained in the 272 sector for some time." MS B-702 Gen der Inf A. Schack, "272 Inf Div (26 July-12 Sept 1944)," p.3.
 100. Meyer was reinforced throughout "Totalize": 101 SS sPzAbt, 102 SS sPzAbt; the Panther battalion from 9th SS and 85th Infantry Div arriving on bicycles (interesting target for recee armoured cars) via Vimoutiers.
 101. American Operational Histories consider the Normandy Campaign over on 24 July (before "Spring" is launched); the Northern France Campaign (25 July-14 September) begins a month before Simonds closed the Gap.
 102. FM 100-15 Larger Units. Para 173, see also, FM 101-10. (The Corps).
 103. FM 100-15.
 104. "...once you have made a decision stick to it...always have a main effort and pour it down in front of the place you want to go." "Example of the Attack of a Fortified Zone" Wade H. Haislip Papers, 16. OCMH, MHI.
 105. NAC MG 30 E157 Vol 8. Crerar Papers. The incident with General Sir J.T Crocker, Commander 1st British Corps, led to the infamous "I fear he thinks he is a great soldier...He made his first mistake at 1205 hrs and his second after lunch" crack by Monty to Brook re Crerar. Montgomery was wrong; Crocker behaved like a snot. Crerar was right to have wanted him disciplined. Patton would not have stood for it but Crerar was too polite, too inexperienced and too insecure. See Stacey, pp.196-197.
 106. Often necessary, but just as often led to confusion. Patton simply had no time for slow thinking generals, at any level. "I had to use the whip on both Middleton and Milliken today - they are both too cautious." Patton in Charles M. Provinge, *The Unknown Patton* (New York: Bonanza Books, 1983), p.170.
 107. "Montgomery's decision not to reinforce the Canadians was made August 11," Bradley, quoted by Carlo D'Esté "Falaise: The Trap Not Sprung?" *The Quarterly Journal of Military History*, Spring 1994, Vol.6 No.3, p.61. "I could not understand why at so crucial a moment Monty had not reinforced the Canadians...His unrealistic faith in the Canadians had cost us the golden opportunity." Omar N. Bradley and Clay Blair, *A General's Life* (New York: Simon and Schuster, 1983), p.299.
 108. The scheme was an ever widening bridgehead that would eventually reach the Seine but only after Brittany and the northern Bay of Biscay ports were seized. The intent was to push out in the southwest toward Vire and Avaranches. The planned campaign as outlined by Montgomery had no "Cannae" strategy. See: Maps and schedules, First US Army Group: "Invasion of the Continent of Europe, Discussion, Planning and Operation, Land, Air and Sea, Initial Planning, December 1941 to Fall of Metz, November 1944", Numa A. Watson Papers, MHI; "Strategy of the Campaign in Western Europe 1944-1945" The General Board United States Forces, European Theatre, 1945, pp.30-31.
 109. Wing Commander Leslie Scarman, Aide to Lord Tedder. Interview by Dr. Forrest C. Pogue, 8 March 1947. The Naval Chief of Staff offered a different spin. "Monty's talk of his original plan to hinge on Caen is absolute balls. Monty's a great operational commander. When he was checked in his original intent of taking Caen he had the idea of doing the other op. I believe the second shows greater insight. I don't see why he doesn't tell the truth." Capt J. Hughes Hallet, Naval COS COSSAC. Interview by Dr. Forrest C. Pogue, 12 February 1947, Pogue Manuscripts. Patton Museum Library, Fort Knox, KY.
 - HO. Maczek did not think they had done too badly. "La Division a bien passé son baptême du feu." *La Première Division Blindée Polonaise*, p. 13.
 111. Kurt Meyer Interview, p.2.

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