

THE BATTLE OF KURSK, THE OUTCOME OF THE SECOND WORLD WAR AND CONTEMPORARY MILITARY HISTORY

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1. INTRODUCTION

War and its impact on society are a central theme in the history of humanity and are omnipresent in our world. We are all affected by it and war has presented us with some of the most haunting and destructive images in the history of humanity. Battles are dramatic events experienced very intensely on a personal as well as on a national level for many years after it had taken place. Due to their place in world history wars are analysed by historians. Wars and battles of the past are part of our present and will become part of the memory of future generations.

During the Second World War theatres of war spanned the globe and warfare seemed practically limitless as much of the traditional restrictions of morality and international law was disregarded. As an epic struggle between three conflicting ideologies (capitalism, fascism and communism) the Second World War was fought on an unprecedented scale and is not only remembered for its great battles, but invoked mass human suffering. It therefore continues to fascinate many people, specifically those too young to have experienced it.

The Second World War differed dramatically from the First World War. Land forces still dominated the fighting, but due to tank development between the two world wars (greatly improving mobility, firepower and protection) and the contribution made by radio communications and the aircraft, a new form of warfare became possible. Tanks became the key ingredient of a mobile combined force – a more aggressive form of war emphasising the offensive called *Blitzkrieg*. But for success it depended on bluff, the element of surprise, attacking the weak points and an enemy not able to mount an effective riposte.² Early in the war, Nazi Germany took the offensive and deployed this approach with much success against Poland,

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² GD Sheffield, "Blitzkrieg and attrition: Land operations in Europe 1914-1945" in CMcInnes and GD Sheffield (eds), **Warfare in the Twentieth Century. Theory and practice** (Unwin Hyman, London, 1988), pp. 68-70.

France and in the initial stages of an attack against the Soviet Union. However, the perception that the Second World War was only a war of movement and that the tank was the all-conquering weapon system of the war is at best misleading. At battles like the Battle of Kursk in July 1943 the war bogged down, becoming a massive slogging match involving fixed defences and concentrated artillery bombardments, leading to the destruction of men and material on a grand scale.

Wars and battles are also remembered because the history of warfare has importance for individuals and nations. Military history is the branch of history most often in the news and it is probably also the branch of history most widely read, as the large number of publications in bookshops and libraries would indicate. Military history is news in its own right.³ Anniversaries of battles and wars often receive coverage in the media and incidents like the discovery of old war graves, or the exploration of the wreck of a long sunk warship bears testimony to this. Yet, as many dislike war due to its accounts of death and destruction and questions the feasibility of studying the history of war at all, a study of war should have utility value and contribute towards our understanding of this phenomenon.

This paper briefly explores the war on the eastern front from the Battle of Kursk to the end of the war, suggesting that after the failure of *Blitzkrieg* the protagonists had to adjust to a new style of warfare. The merit of a study of wars and battles is also questioned in a brief survey of the value of contemporary military history. Finally the relevance of some of the universal threads evident from an analysis of war (military history) is discussed with specific reference to the period under focus.

2. WAR ON THE EASTERN FRONT: FROM THE BATTLE OF KURSK TO THE END OF THE SECOND WORLD WAR

Nazi Germany's attack on the Soviet Union, Operation Barbarossa, originally scheduled for the spring of 1941, was delayed to 22 June due to the diversion of troops to North Africa, Greece and the Balkans to assist Italian armies facing serious difficulties. When it commenced the *Blitzkrieg* against the Soviet Union seemed to be as successful as the earlier campaigns against Poland and France. The Germans achieved surprise, exploiting the linear deployments of the Red Army and neutralising large forces in battles of encirclement.⁴ However, during the winter of 1941 determined Soviet resistance and the effects of the bitter cold, neither of which the Germans had really sufficiently prepared for, hampered their progress of German forces.

³ P Browning, **The changing nature of warfare. The development of land warfare from 1792 to 1945** (Cambridge University Press, Cambridge, 2002), p. 1.

⁴ Sheffield, p. 70.

A commonly held belief is that the German Führer, Adolf Hitler, ignored history (not learning from 1812) and was defeated by geography. In truth he thought that the speed of his overwhelming offensive would overcome geography. His Directive 21, issued on 18 December 1940, stated that the mass of the Soviet army in western Russia had to be destroyed in a quick campaign and that the withdrawal of units "into the vastness of Russia" was to be prevented. *Panzers* were to win the war against the Soviet Union as quickly as possible. In the first months deep armoured wedges did indeed penetrate deep into Russia defeating the mass of the Soviet army in western Russia. But, defeat did not mean victory. The Soviet State and its citizens did not admit defeat and kept on fighting.

Germany's problems were compounded when in December 1941 Hitler declared war on the USA who was at war with Japan, his ally in Asia, after the Japanese attack on Pearl Harbour. In essence, though the process was still to take a number of years and despite some minor successes, the period from the end of 1941 to 1945 was one of growing military defeat for Nazi Germany.

As the Germans advanced deeper into Russia, inflicting massive defeats and driving the Soviet forces back on three fronts, the Soviet system decided to stop further retreats by using brutal methods to enforce order. The day after German forces had crossed the River Don, on 28 July 1942, Joseph Stalin issued Order 227 known for its stark language, stating "Not one step backwards! ... Panic-mongers and cowards must be destroyed on the spot."⁵ Stalin simply refused to allow any retreats or surrender, often resulting in large losses. Order 227 was used - and perhaps as much as 13 500 Soviet troops were killed by firing squads at Stalingrad. To be fair though, besides Soviet severity against transgressors and brutal orders, the Red Army was a disciplined force and its bravery was not just as a result of Stalin's orders.

The winter of 1942-43 was a turning point for Germany's war in Russia, but Hitler still fanatically insisted to defeat the Soviet Union at all cost despite it becoming apparent that Germany could not fight a prolonged war on so many fronts at once. Hitler constantly interfered in military matters, often negated sound military advice and kept the bulk of Germany's military might concentrated on the eastern front.

The grave effects of Hitler's interference in military matters and Stalin's approach not to give a step back, are obvious in the tragedy known as the Battle of Stalingrad, 1942-43. The battle combined the massive scale of battles during the

⁵ Browning, p. 157 and M Gilbert, **Second World War** (Phoenix Gaint, London, 1989), p. 346.

war with the small-scale battles fought inside the city, showing that sieges and close combat were still the essence of war and armoured warfare by itself was not enough. As both the opposing ideologies did their utmost to succeed, this battle became the turning point in the land war in Europe. The dire effort to take Stalingrad and its absorption of fighting men and equipment exposed the limitations of the whole German plan, as they had to hold a long front with allies (Hungarian, Romanian and Italian) often unconvinced of the objectives and lacking the proficiency of the Germans.⁶ Through a number of offensives in the bitter winter conditions Soviet forces isolated the German army at Stalingrad, forcing them to surrender at the end of January 1943. As Clausewitz had warned with reference to 1812, more than a century before, the Russian defensive power could suddenly become offensive.⁷ This then became reality - the German reverse commenced.

Immediately after Stalingrad a Soviet thrust in the direction of Kursk and Kharkov followed.⁸ German counterstrokes drove the Red Army out of Kharkov and early in 1943 a great salient formed around Kursk. Field Marshal Von Manstein convinced Hitler that the eastern front could be stabilised with the destruction of the Soviet units in the salient. Hitler agreed, but despite protests from his generals, he delayed the offensive a number of times, until German forces could reach peak strength.⁹ At this stage Soviet intelligence knew exactly when the German attack would commence and were preparing to face it with superiority in men, tanks and artillery.¹⁰ In the early hours of 5 July, more than two hours before the attack had been scheduled to begin, the Red Army started to pound the German positions with artillery in a massive pre-emptive artillery barrage.¹¹ The German attack commenced with seventeen panzer divisions and 1900 German tanks attacking. Failing to achieve surprise the Germans ran into a fully prepared enemy and a colossal web of defensive positions up to 110 miles deep at places with a further defensive network stretching back to the Don.¹² Minefields channelled *panzers* towards strongpoints of antitank guns (up to 25 to 30 per kilometre of frontage), backed up by masses of artillery (the Soviets deployed more than 20 000 pieces).¹³ When the Germans broke in, the Russians held close to the sides, with the Germans battling to widen the gap instead of driving fast and deep on a narrow front. Severe

⁶ A Jones, **The art of war in the Western World** (Harrap, London, 1988), p. 558.

⁷ Browning, pp. 162-5.

⁸ P Young, **Great battles of the world** (Bison, London, 1981), pp. 201-3.

⁹ J Keegan, **The Second World War** (Arrow, London, 1990), pp. 466-8.

¹⁰ Soviet numerical superiority, in manpower, 1,3 million to 900 000, tanks 3 300 to 2 700 and artillery 20 000 to 10 000. See M Lyons, **World War II. A short history** (Prentice Hall, Englewood Cliffs, 1994), p. 248.

¹¹ Gilbert, p. 441.

¹² Young, p. 204.

¹³ Sheffield, p. 72.

fighting took place and at the peak of the battle 3 000 tanks were simultaneously on the move. German penetration in the north and south reached its pinnacle on 10 and 12 July respectively and as they could not break in, by 16 July the Germans were withdrawing.¹⁴

Kursk proved that the Red Army had acquired formidable skills at the operational level of war and following the first two years of war, the strategic and tactical initiative passed from the attacker to the defender. Soviet morale also received a major boost. After Kursk a number of Soviet counterattacks turned into a large offensive from prepared positions in the rear, placing the Germans on the defensive for the duration of the war. The Soviets committed 2,6 million men, over 51 000 guns and mortars, 2400 tanks and self-propelled assault guns as well as 2850 combat aircraft on a 400 mile front between the Pripet Marshes and the Sea of Azov. They took Kharkov on 22 August, the Germans retreated from Smolensk on 24 September and by 30 September the Red Army had five bridgeheads over the Dnieper, actually seizing some with parachute assaults. Through this offensive the Soviets regained the critical agricultural and industrial regions of the Ukraine and isolated the Seventeenth Army Crimea as they reached the Black Sea.¹⁵ If Stalingrad was the turning point of the war on the eastern front, then the massive battle at Kursk and its immediate aftermath banished any doubts about the outcome of the war or the Soviet Union's ability to survive.

The tank and mechanised corps (comparable to divisions) were the basic Soviet formation since late 1942, but due to the changing nature of the eastern front the role of the tank in the Russian army was still expanding by the end of the war. Marshal Rotmistrov, commander of the Fifth Guards Tank Army at Kursk, later wrote that from July 1943 armoured and mechanised troops became the "main striking and mobile force" of the Red Army.¹⁶ To cope with German defences the calibre of the T34's gun increased to 85mm and Stalin tanks with 122mm guns as well as self-propelled artillery supplemented firepower. Specifically in artillery the Russians had important superiority, concentrating it in preparation of attacks. By the end of 1943 they had 80 artillery divisions, 90 000 guns and 73 independent artillery brigades and by 1945 almost half of the Red Army consisted of artillery.¹⁷

As they pressed forward, Soviet attacks would be simultaneous and related along the front, and when the Germans would move to counter a thrust at one position, a fresh advance would take place in another, exhausting German reserves. But the

¹⁴ Gilbert, p. 445.

¹⁵ Keegan, p. 473, Gilbert, pp. 454-64 and G Parker (ed.), **The Cambridge illustrated history of warfare. The triumph of the West** (Cambridge University Press, Cambridge, 1995), p. 328.

¹⁶ Sheffield, pp. 74-5.

¹⁷ H Strachan, **European armies and the conduct of war** (Unwin Hyman, London, 1983), p. 185.

attacks were so related that no exposed salients developed and once the line became fluid it could not be stabilised again. Soviet industrial power assisted progress as they regularly outnumbered the Germans in a ratio of four or six to one; their strength constituted surprise in the offensive.¹⁸ After Kursk the tank was not the dominant arm of the offensive on the eastern flank and became a component of a combined arms approach instead. Antitank defences became better and the moral impact of the tank declined, armoured attacks were countered with a more flexible approach, linear defence was replaced by area defence and flanks were held at the point of break-in (as the Russians did at Kursk). Tanks could no longer independently break into a defensive system, this had to be achieved primarily by infantry and artillery – yet tanks still had an important role to play in the later phase of break-out and exploitation.

With a continuing Soviet advance, German forces were numerically too few to cover the whole front even when thinly spread and had to rely on counterattacks to limit the expansion of enemy footholds.¹⁹ This was a precarious approach specifically with their own reserves being scanty, but an answer to Soviet armoured offensives developed. As German forces often found themselves enveloped, they used their central position and the mobility mechanised forces operated to their advantage, hitting an armoured thrust in one of the flanks, then moving rapidly to repeat the process in another sector.²⁰ Furthermore in North Africa they learned to rely on artillery to break up enemy tanks and artillery before counterattacking the infantry. This trend was evident in the east from 1943, with mobile defence supplemented by greater firepower. *Stukas* would directly attack Soviet armour as Tigers with 88mm guns, Panthers 75mm high velocity guns and self-propelled assault guns joined in. With the focus on the defensive and the mass production of antitank guns, tanks were used as mobile defensive artillery. (By the end of the war self-propelled assault guns outnumbered conventional tanks in the German forces.)²¹ Though German defensive operations were much admired, at best it slowed, but did not halt the Soviet advance.

Hitler acknowledged after Kursk that Germany was on the defensive, but argued that since his enemies were an unnatural alliance they might fracture under pressure. Perceiving his enemies in the west (liberal democracies) to be more vulnerable than the totalitarian Soviet Union, after Kursk he also focussed on the allied landings in Sicily, directed V-bombs against Britain and launched the Ardennes offensive in December 1944. In the east he wanted a rigid defence

¹⁸ Strachan, p. 183.

¹⁹ BH Liddell Hart, **History of the Second World War** (Pan Books, London, 1970), pp. 515-6.

²⁰ Sheffield, pp. 72-3.

²¹ C Townshend, **The Oxford illustrated history of modern war** (Oxford University Press, Oxford, 1997), p. 128 and Strachan, p. 184.

against the advice of a number of his generals, including Guderian and Manstein, who favoured a mobile defence. They argued that drawing back would shorten the front and their only hope then would be to lure the Soviets into an overly aggressive pursuit, creating the opportunity for counterattacks.²² It was a very elastic approach. But by his insistence to 'stand and fight', Hitler undermined the German tactical superiority in the east.²³

Fighting in the summer of 1943 was a triumph for the Red Army as it reached the objectives Stalin laid down, despite large human losses and massive material expenditure (artillery alone consumed 42 million rounds of ammunition).²⁴ The Red Army's offensive capabilities grew, and as they paused to regroup for a next offensive, the rain of October 1943 gave the Germans some respite. Winter was the Red Army's favoured time of attack. Russian soldiers were more accustomed to it and better equipped than the Germans. As winter approached and the first frost stepped in, the Red Army attacked with four million troops and more than 4000 armoured vehicles, their advance aided by American four and six-wheeled trucks providing logistic support. The offensive reached the Carpathian Mountains and the frontiers of Hungary and Romania by May 1944 and the Germans were forced from their positions around Leningrad. Hitler also refused to withdraw German forces from the Crimea as he thought it would be difficult to recapture and would divert much of the Soviet forces. But the Red Army recaptured it during April and May 1944.²⁵

In the spring of 1944 the Germans were fed bogus intelligence indicating that a major Soviet attack would be launched against Army Group South in preparation for a drive into the Balkans, while in truth the Red Army prepared to attack Army Group Centre. Stalin waited for the Anglo-American D-Day landings in Normandy before launching a massive offensive (Operation Bagration) on 22 June 1944 at the German position in the Minsk theatre of operations, using 166 divisions supported by more than 2700 tanks and 1300 assault guns. Army Group Centre opposed it on an 800 mile front with only 37 divisions and weak armour support.²⁶ Hitler ordered his troops to hold out until the last round and the last man, which in some cases were literally done, resulting in the total destruction of Army Group Centre - 17 divisions were annihilated and most of the rest lost half or more of their strength by 20 July.²⁷ On the same day an attempt on Hitler's life by a group of officers, dismayed by his handling of the war, failed.

²² Lyons, p. 247.

²³ Strachan, p.174.

²⁴ Keegan, pp. 473-4.

²⁵ Liddell Hart, pp. 602-3.

²⁶ Keegan, p. 480.

²⁷ Parker, p. 328.

The advance of the Red Army continued for another month and by 29 August 1944 when it halted, the Soviets had reached the Vistula close to Warsaw with German losses totalling about 300 000. The Soviet advance was far enough to the west to make it possible for them to move forward and participate in a final assault on Germany, if the Anglo-American forces were to win a great victory that would carry them into Germany. During August Anglo-American forces broke out of the Normandy bridgehead (taking a further 50 000 Germans prisoner in the Falaise pocket) and commenced their advance through France. By autumn 1944 Germany was on the defensive in the east and the west, being pressured by the combined push of the massive allied war machines.

Stalin moved the focus to the Balkans and on 20 August a very successful assault commenced on German and Romanian positions north of the Danube delta. The Romanians and Bulgarians were overrun by early September and Soviet forces entered Yugoslavia with Tito's consent. The Romanians abandoned their alliance with Germany and within a number of days much of the Romanian forces assisted the Soviets in attacking the Germans.²⁸ Bulgaria also capitulated but German troops from Greece and Macedonia managed to create a front in Hungary. A Hungarian plot to abandon the alliance was not successful and by November Germans and Hungarians were fighting in the suburbs of Budapest.²⁹ At this stage the Soviets controlled much of what would be their empire during the Cold War.

On the western front German forces decided to attack weakly held American defences in the Ardennes on 16 December 1944, aiming to recapture Antwerp. Though the offensive (known as the Battle of Bulge) brought surprise it failed after some intense fighting and the last German operational reserve was destroyed. In the meantime the allied air offensive continued as air forces launched and succeeded with large-scale attacks on a wide variety of tactical and strategic targets. In the process even cities of no pertinent military or industrial value such as Dresden suffered severely from destructive bombing attacks.³⁰

During January 1945 the Russian attack in the east commenced, with East Prussia, Pomerania and Silesia falling in the hurricane of revenge and terrible suffering that followed Soviet soldiers. Germans reaped the "whirlwind of the ideological war they had sown in 1941".³¹ After the Red Army had closed in on the Oder, its commanders halted for the final push on Berlin. By early March the Americans

²⁸ Lyons, pp. 252-3 and Gilbert pp. 574, 587.

²⁹ G Wright, **The ordeal of total war 1939-1945** (Harper & Row, New York, 1968), pp. 195-6 and Parker, pp. 328-9.

³⁰ Gilbert, pp. 640-1.

³¹ Parker, p. 332.

reached the Rhine, crossing at the Remagen Bridge literally moving at will in western Germany by April. Soviet forces then slammed into Berlin on 16 April with 41 600 guns (670 guns per kilometre of front).³² A week after Hitler's suicide on 30 April his commanders surrendered unconditionally.

In the early stages of the Second World War German style armour warfare (*Blitzkrieg*) seemed unbeatable, but as the war slogged on Germany's enemies learned how to cope with these lightning attacks. Its limitations became more obvious causing the war to become more of a war of attrition, which was mainly due to a number of limitations inherent to the German approach. Firstly, on the strategic level it did not succeed against the Soviet Union because they just did not admit defeat. Since the Soviet Union had more resources they were prepared to fight the type of war armoured warfare was supposed to end. Furthermore numerous weapons and countermeasures developed to limit the effectiveness of armoured attacks such as special armour penetrating ammunition, armoured vehicles designed as tank destroyers, antitank weapons for infantry and landmines. Thirdly armoured vehicles had innate limitations of their own in certain types of terrain and over extreme distances and were relatively unreliable as they needed much logistic and regular technical support. Since only a small portion of most armies during the war consisted of armour, much of the fighting, specifically in the last phase of the war, was traditional infantry and artillery operations. Armour also became too vulnerable to enemy fire without infantry and artillery support.³³ Though the Germans were more innovative on the tactical and operational level, they made serious strategic errors. *Blitzkrieg* suited a short campaign not a long war and the defeat of the Soviet Union could not have been possible without abandoning *Blitzkrieg*. Ultimately, *Blitzkrieg* was broken on the eastern front and it was here that the decisive land battles of the Second World War were fought.

3. BEYOND KURSK: CONTEMPORARY MILITARY HISTORY AND THE RELEVANCE OF A STUDY OF THE WAR ON THE EASTERN FRONT

A study of wars and battles of the past such as our study of Kursk and the Second World War is essentially the stuff of military history. But military history is often, somewhat unfairly, associated with militarism and the societal abhorrence with the study of something as obscene as war adds to this making it an 'unpopular' field in many circles. So, what is the function of studying military history and can its study contribute towards our understanding of war? The study of history should be its own reward, but from its beginnings the practical value of military historiography was proclaimed. One must distinguish between the didactic function of military

³² Strachan, p. 185 and Gilbert, pp. 646-8, 666.

³³ Browning, pp. 165-6.

history and the purely historical study of warfare. As military history can be seen as the 'corporate knowledge' of the profession of arms, it is necessary to provide a thorough understanding of the use of military power in all its dimensions to the military leaders of tomorrow. Before military professionals encounter the reality of conflict (something not of their own making, but which they are called upon to manage) they should enlarge their limited stock of experience, and the only way of doing so is vicarious - they must study military history. Hence a study of military history should have utilitarian value to the profession and as JFC Fuller stated, "(u)nless history can teach us how to look at the future, the history of war is but a bloody romance".³⁴

According to the well-known military historian, Michael Howard, war is a distinct and repetitive form of human behaviour, it is intermittently clearly defined and distinct criteria with regard to success or failure in war exist. Yet, its lessons are never clear, or only understood when it is too late. Military history is therefore often abused in the dogmatic or generalised approaches to *lessons learned*, so often held within the military profession. To assist our understanding of war a study of military history should be in width, in depth and in context. It would enable the student of military history to appreciate the nature of war, illustrate how war has shaped society and contribute towards professionalism.³⁵

The study of military history should not merely be concerned with an analysis of campaign detail, but also with the preparation for war in the broad and more interdisciplinary context. This implies understanding the phenomenon of war and its impact in terms of the operational conduct of war, as well as having a clear grasp of the horrific nature of war and its far-reaching impact on society. Though studying military history does influence judgements and promote an intellectual culture amongst students of military affairs, perhaps by fundamentally grasping the nature of war and fully understanding its impact on society, we can contribute towards eradicating it. Military history contributes towards this objective, as it analyses and describes war as a phenomenon, and endeavours to enlighten the future managers of conflict about its reality. If they do not study and understand it - who should then?

The nature of military history has changed much in the late twentieth century and at present it is possible to distinguish between three different schools. The traditional approach focused on battles and campaigns, analysing generals and politicians. This was the way in which it had always been written and is still mostly

³⁴ Strachan, p. 1.

³⁵ M Howard, "The use and abuse of military history" in **The causes of wars and other essays** (Temple Smith, London, 1983), pp. 193-7.

understood. Then, since the late sixties, much emphasis was placed on the fact that wars had been fought between or within societies and such wars have impacted severely on society. Since the seventies many historians shifted the emphasis to the experience of the individual soldier in battle, providing a unique picture of the harrowing experiences of soldiers, sailors and airmen.

Besides these schools different perspectives influence accounts of wars greatly. In nationalist accounts the focus would be on the wartime successes of a nation, often explaining failures away, as in many official histories of the Second World War where the emphasis is on the military prowess of a nation's armed forces. Accounts from a political or ideological perspective, such as the Soviet history of the Second World War, take a distinct view of the war. Success would be explained in terms of the triumph of one ideology over another. Furthermore a different perspective probably exists between those writers that have experienced war and those that have not, or have never donned a military uniform. It is noteworthy that many of the most notable theorists on war (Clausewitz, Liddell Hart, Tukhachevsky) have experienced war first hand.³⁶ It is a pity that military professionals are amongst the most infrequent contributors to military theory and history.

Unfortunately the Anglo-American military history of the Battle of Kursk and the eastern front has suffered as a result of the conflicting ideologies of the Cold War era. (Also due to language constraints we have to rely on the Anglo-American history to a great extent.) The Battle of Kursk is downplayed in many Anglo-American histories of the Second World War, as in fact is the case with much of the history of the war on the eastern front. Their Soviet counterparts on the other hand often used it as proof of the complete superiority of their military, economic, social and political system.³⁷ The reality that German power was broken on the eastern front and that basically until June 1944 the Soviet Union faced the brunt of the German military might in Europe, is significantly stressed. Soviet historians referred to the Second World War as the Great Patriotic War, stressing that the defeat of Nazi Germany was due to the military prowess and endurance of the Soviet Union and its people. With hindsight it is accurate to say that Kursk was definitely one of the greatest battles in history and a decisive battle in the Second World War, leading to a new phase in the war against Germany – probably the beginning of the end.

A study of military affairs invariably deals with how states achieve their objectives through the use of, or the threat of force - putting it quite simply, the use of military power to achieve political objectives. However, not only the relationship between

³⁶ Browning, pp. 3-4.

³⁷ Young, p. 212.

war and politics comes into the equation, but also the relationship between war and cash as economic constraints severely limit the state's ability to conduct military campaigns and achieve its political objectives. This is very evident from the way in which both Germany and the Soviet Union were forced to restructure their economies and industry and the fundamental influence this had on the outcome of the war.

A key factor in the survival of the Soviet Union and many of its greatest victories such as Kursk and Operation Bagration was its industrial strength. With state control and a centralised decision-making process no other system could match the Soviet system's ability to adapt to the economic and industrial needs of total war. Despite appalling blows in the early stages of the war and it losing much of its raw materials and some of its most important industrial regions, the Soviet Union relocated more than 10 million people and 1523 plants to the Urals and Western Siberia. Production was resumed at an impressive speed - partly due to the standardisation of equipment and fewer designs (compare for example the types of armoured vehicles in the German and Soviet armies). Standardised interchangeable parts also eased problems of repair in the field. Kursk is a good example as there were 3800 Soviet tanks in the salient on 5 July 1943, by 13 July tank strength was down to 1500, but by 3 August it had recovered to 2750. After Kursk the Soviet industrial recovery created an immense force giving overwhelming local superiority in attack and ensuring surprise. The Soviet achievement was impressive and by 1944 its armaments industry produced 251% of its 1940 total, amounting to 122 000 guns and 29 000 tanks.³⁸

Though economy and resource allocation were central in Hitler's understanding of war he could never relate it to necessities of the military situation as his orders to hold ground were at times motivated by his concern for resources in specific areas. Also the transition of the German economy was too slow and it was not put on a total war footing until 1943 when Albert Speer (the new minister of armaments) received the power to organise war materials and mass production.³⁹ The German war economy reached its peak in June 1944, when its output was three times that of February 1942. Yet, in spite of this massive boost to Germany's production of weapons in 1943-44, it never matched the capacity of the Soviet Union or the USA. Germany placed the emphasis on producing materials for the eastern front, moving from tanks and medium bombers to guns and fighters, producing 40 600 guns and 28 925 fighters in 1944.⁴⁰

³⁸ Strachan, p. 172.

³⁹ A Todd, **The European dictatorships. Hitler, Stalin, Mussolini** (Cambridge University Press, Cambridge, 2002), pp. 186-7.

⁴⁰ Strachan, pp. 172-3.

The relationship between theory and military history is a complex one. Theory must develop and be tested by military history and the theorists that contributed most to the theoretical framework for conducting operations during the Second World War had analysed previous wars. Clausewitz stated that

"theory ... cannot equip the mind with the formulas for solving problems, nor can it mark the narrow path on which the sole solution is supposed to lay by planting a hedge of principles on either side. But it can give the mind insight into the great mass of phenomena and of their relationships, then leave it free to rise into the higher realms of action..."⁴¹

The first step in understanding war, Clausewitz reminds us, is an historical study that accords with the highest demands of scholarship. If uncomfortable facts do not correspond with theory, then the facts must not be suppressed, but the theory should be revised. The task on the shoulders of the potential warriors of the future is thus a heavy one. In order to gain knowledge of war before the reality is encountered and to enlarge on a limited stock of actual experience, their only alternative is to read military history.

An analysis of military history and military theory illustrates that the oft-quoted opinion that military systems usually prepare to fight their previous war could be wrong. The work of many soldiers and military historians such as Liddell Hart, Fuller, Guderian and Tukhachevsky, to mention just a few examples from the twentieth century, is proof of this. Though very difficult, it is possible to make relevant deductions pertaining to tendencies in warfare through thorough analysis. Very telling is the following passage by Tukhachevsky written in 1937:

"...offensive operations ... can last for weeks. As for the *Blitzkrieg*, which is so propagandised by the Germans, this is directed towards an enemy who doesn't want to fight or won't fight it out. If the Germans meet an opponent who stands up and fight and take the offensive himself, that would give a different aspect to things. The struggle would be bitter and protracted; by its very nature it would induce greater fluctuations in the front on this or that side and in great depth. In the final resort, all would depend on who has the greater moral fibre and who at the close of the operations disposed of operational reserves in depth."⁴²

⁴¹ Strachan, p. 6.

⁴² Browning, p. 148.

With references to Napoleon's Russian Campaign of 1812, Clausewitz provides clear insight into the inherent problems or impossibility associated with capturing a country the size of the Soviet Union. He emphasises that initial success in battle, captured cities and provinces do not necessarily increase the chances of success. Stating that to the contrary the "Russians showed us that one often attains one's greatest strength in the heart of one's own country, when the enemy's offensive power is exhausted, and the defensive can switch with enormous energy to the offensive."⁴³ This was indeed the case after 1943, when German forces were systematically driven back and destroyed.

Though war has been transformed during the last two and a half centuries and in scale has become something unimaginable before, from our study of Kursk and war on the eastern front, it is obvious that some typical attributes of war endured. The experience of the individual soldier remained. Large periods of boredom were replaced by periods of great danger and exertion. Also typical of war is the fact that for officers tactical and operational dilemmas remain much the same. At Kursk and beyond, warfare was, and still is subject to much uncertainty and chance as a variety of variables such as supplies, the nature of the enemy, moving forward, falling back, intelligence and leadership exercise an important influence. This makes military decision-making a complex affair. Moreover, for the military commander strategic problems remain constant whatever the period. The general has to consider how to move troops and material to achieve victory or prevent defeat, how to outflank or encircle, how not to be outflanked and of course how to find more men and resources. Imagine the extent of these dilemmas for commanders at Kursk and on the eastern front. It would be difficult to suppose that these aspects are not constants in war.

One thread that tied the military commanders of the Second World War to their predecessors was their study and understanding of military history. Decisions made would partly have been based on an understanding of past campaigns and battles. Yet, despite being acquainted with the universal rules of military strategy, they so often failed to apply them correctly. It seems that the one eternal constant was what Clausewitz dubbed friction, stating that four elements dictated " the climate of war, danger, exertion, uncertainty and chance", which can thwart even the best war plans.⁴⁴ The general is also prey to 'friction' as his force is never as strong and ready as on paper, most of the time his intelligence is not detailed enough and supply is perpetually lacking. This, Clausewitz stated he must accept and master.

⁴³ **Ibid.**

⁴⁴ Strachan, p. 95.

War on the eastern front offers fascinating studies on how men coped with the most extreme pressures and how commanders managed to wage war on the scale they did. It seems that extremity was at the order of the day - this front is both remembered for the most brilliant military leadership with dashing command abilities shining through, while also the worst characteristics of human nature were exhibited and war at its most destructiveness occurred. Campaigns on the eastern front posed severe challenges with mud, armour and endless spaces, the three constant factors in the spring and autumn, while severe cold and frost replaced mud in winter and it was heat and dust during summer. In the extreme expanses worn tanks would grind to a halt and with few and bad roads logistic support was a perplexing task. German soldiers suffered in winter due to their uniforms and boots being inadequate for the severe temperatures and it was only by the third winter of the war that they received improved equipment. Soviet soldiers were more accustomed to the winter conditions and with special boots and uniforms, they were better equipped than their German counterparts.⁴⁵

Many of the typical problems the Germans faced in Russia were linked to the ratio of force to space, as they needed a large force for the vast expanses of Russia. Mobility had to compensate for force, but imposed serious logistic problems.⁴⁶ Though this is certainly true of the war on the eastern front, at Kursk success and failure could be related to Clausewitz's belief that the best strategy is always to be very strong, first in general and then at the decisive point. Hitler wanted to straighten a small bulge in the line while Stalin wanted the line to be held. The result was a massive concentration of force on a 200 mile front absorbing the ability, willpower and hopes of both sides with 6000 tanks (biggest tank battle in history) and 4000 aircraft used in combat. The result was devastating for the Germans, leading to their military defeat and the eventual ruin of Hitler's political system. This was a stark reminder of the statement of Clausewitz that "the destruction of the enemy forces was the path to victory..."⁴⁷

After the initial stages of *Blitzkrieg* most battles were attrition battles fought on a wide front and not the rapid limited campaigns that Fuller and Liddell Hart envisaged. Though armour gave many battles a degree of mobility, most fighting men experienced positional fighting from holes in the ground, had to slog from building to building in build-up areas, or at best participated in a slow advance, not a lightning war. Defences had to be broken with force and the extent to which the

⁴⁵ Keegan, p. 474.

⁴⁶ Jones, p. 549.

⁴⁷ Strachan, p. 96.

battlefield began to swing back to the defender was disguised by the growing imbalance of forces in favour of the Red Army.⁴⁸

During the continuing Soviet advance large concentrations of artillery and infantry played a major role in Soviet breakthroughs and such operations became reminiscent of the style of the First World War. The difference however is that mechanised forces could exploit the tactical success and advance far forward implying that without tracks and wheels many of the offensives might not have gone much further than in the First World War. The Germans were forced to fall back by the overwhelming strength and the mobility of large attacking mechanised forces, until the Soviet forces halted because of a combination of counterattacks and the full extension of their own line of communication.⁴⁹

On the strategic level the war was an attritional struggle. At the end of the First World War (1918) Germany collapsed due to the attrition of the previous campaigns, while the demise of the German military machine in the Second World War was the direct result of the 'wearing-out' battles of 1942-45. The eastern front was the decisive theatre, as the Soviet Union took on the bulk of the *Wehrmacht* until 1944. Consequently the First World War's battles of attrition such as Verdun, the Somme and Third Ypres could be compared to Stalingrad, Kursk and Operation Bagration. Germany was only defeated after a "bitter, prolonged, attritional struggle that left most of the victors almost as weak as the vanquished".⁵⁰

A very traditional way in which science is applied to warfare is with regards to the refinement of old weapons and the development of new ones. At the beginning of the war, Germany enjoyed a clear lead over the allies in terms of weapons technology. The advantage soon became less and in the end it was quantity, not really quality that determined the outcome.⁵¹ Furthermore, though new technology has a fundamental effect on all the levels of war - specifically on the operational and tactical level – it is important that equipment must be tested and proven. When urgent replenishment is needed due to shortages, the alternative is often to commence with production and operational deployment without sufficient testing. This was the case at Kursk, when Panther and Tiger tanks were rushed into battle before their vulnerabilities had been resolved.

⁴⁸ Townshend, pp. 128-9.

⁴⁹ Jones, p. 559.

⁵⁰ Sheffield, pp. 75-6.

⁵¹ Wright, pp. 88-91.

The development of new technology is always followed by counter developments and often a whole process leading to new weapons would follow. Though many pertinent examples with regard to the development of new weapons exist, the war altered armoured warfare significantly. In 1939 the typical tank would weigh between 10 and 15 tons armed with a 37mm gun of modest velocity. At the end of the war such tanks had little use and tanks of between 25 and 30 tons with high velocity guns of around 75mm were common, while many German and Soviet tanks were even greater than 40 tons mounting guns bigger than 75mm. Tanks had to fight other tanks causing both the Soviets and the Germans to adopt self-propelled assault guns, and a turretless tank with a powerful gun mounted in the hull, capable of dealing with larger antitank tanks. (Often these heavy, thickly armoured antitank tanks lacked mobility.) Infantry's vulnerability against armoured attacks was addressed by the development of the shoulder-fired rocket, providing infantry with an antitank capability by the end of the war.⁵²

Since the Second World War, modern armies rely more heavily on the internal combustion engine. Of the 150 divisions in Hitler's army of 1940, 138 depended on their feet or horses for transport. Currently, if not airborne, infantry divisions in the armies of developed countries are usually armoured or mechanised.⁵³ This adds dramatically to the number of armoured vehicles moving with contemporary divisions, making mechanised war possible on a scale never seen before. Conventional military equipment is and was very expensive and with budgets stressed it is difficult to maintain large numbers, or acquire new weapons. New armoured vehicles might cross terrain three times as fast as previous generations, but they use twice as much fuel. If one adds to this the enormous firepower and destructive capacity of modern weapons systems, both on land and airborne, conventional war on land would be difficult to sustain for long periods of time. It is true that new technology might be easier to maintain, is much more effective and deadly and have a longer service life, yet stocks of modern tanks and other state-of-the-art weapons are limited and very few states can really afford to constantly update their arsenals.⁵⁴

Armour maintained a prominent role on the post-1945 battlefield. During the Six Day War in 1967 fast moving Israeli armour supported by aircraft dictated the tempo of much of the fighting. The value of professionalism, a serious study of war and reliance on the latest technology were clearly shown. However, in the initial stages of the Yom Kippur War (1973) their over-reliance on tanks cost the Israelis dearly as their reserve armoured brigade on the canal counter-attacked with massive

⁵² Jones, pp. 570-1.

⁵³ J Pay, "The battlefield since 1945" in McInnes and Sheffield (eds), p. 221.

⁵⁴ Pay, p. 219.

casualties. They drew the wrong lesson from the Six Day War believing that armour could penetrate alone, rather than in a combined arms team and were forced to quickly return to a more coherent approach, paying heavily for misreading the lessons of their previous war. In a general counter-attack against the Syrians the Israelis forced the Egyptians to come out from under their anti-aircraft and antitank umbrella and engage in mobile war. In the largest tank battle since Kursk they devastated their opponents, crossed the canal with armour, destroyed anti-aircraft missiles and almost surrounded the Egyptian Third Army. The war showed the value of doctrine and technology as well as educational and professional skills.⁵⁵

During the Kuwait War of 1991 heavy reliance was placed on air power alone and some analysts claimed that air power could have won the war on its own. In the end ground forces had to move in to significantly defeat the remnants of the severely bombed Iraqi land forces in the theatre of operations. But as one analyst remarked this was the first time in history that "the ground campaign supported the air campaign".⁵⁶ With regard to the 2003 Anglo-American conflict against Iraq, high speed armoured dashes supported by aircraft and helicopters might be some of the most endearing images, yet infantry operations were obviously crucial to coalition success. Furthermore the aftermath of the conflict is once again a classic example of how political attitudes make military victory precarious. Though the military forces of the developed world are technologically superior, some traditional variables remain: Good training, discipline and organisation are vital for military success and had been the trademark of successful military systems for millenniums. Yet, although new weapons and advanced technology might be a dominant feature of some wars, technology on its own is not enough - it must be utilised within a proper political and strategic framework.⁵⁷

During the First World War, as the deadlock continued and massive offensives achieved nothing, a French general stated that "whatever you do, you loose a lot of men".⁵⁸ Lethality is inherent to the application of military power with killing, maiming and the large-scale destruction of men and equipment an obvious outcome. "War is an act of force" Clausewitz wrote and "there is no logical limit to the application of that force".⁵⁹ Specifically when war became total and a survival struggle by conflicting ideologies, the nature and scale of the application of military power had less logic limitations. The war had a terrible and destructive effect on

⁵⁵ Parker, pp. 356-61.

⁵⁶ Parker, p. 363.

⁵⁷ Townshend, p. 137.

⁵⁸ General Mangin's remark, "Quoi qu'on, fasse, on perd beaucoup de monde" has become an epitaph of the whole 'wearing-out' struggle during the First World War. See J Terraine, **White heat. The new warfare 1914-1918** (Sidgwick and Jackson, London, 1982), pp. 208-9.

⁵⁹ Strachan, p. 93.

the infrastructure and populations of both Germany and the Soviet Union. The Soviet Union's great ideological victory over Germany came at a massive cost of around 25 million of its citizens and a high cost to the Soviet economy. Soviet forces destroyed some 607 divisions of Germany and its allies while two thirds of German tank losses occurred on the eastern front.⁶⁰ Unimaginable human suffering marched with the armies of the protagonists and many beautiful historic cities and villages were destroyed (1 700 cities and towns and 70 000 villages were devastated in the Soviet Union).⁶¹ By the final stages of the war Germans from the East were uprooted as part of a panic flight before the Red Army and a deliberate expulsion of German populations in eastern Europe occurred at the end of the war. Millions died in the process and by 1946 the 17 million Germans living east of the Elbe were reduced to 2,6 million.⁶²

War is also revolution. The stresses and strains of protracted conflict lead to profound changes in men and institutions. The Second World War has left its mark on every aspect of human organisation. It disrupted the political and economic fabric of the world, destroyed property to an extent unknown before and no doubt psychologically scarred millions. The urge to renovate and build a new society after the destruction of the old is a common theme during wars, yet the changes men work towards are often not the end result. More sweeping, in the case of the Second World War, was the unintended and unforeseen result of mass warfare in the industrial age, the twisting and distorting of political, social and economic institutions and the impact on those caught in between. Terrible forces of destruction were unleashed, reinforcing the dark side of humanity and destroying any moderation that might have existed in war. The battlefield was everywhere resulting in indiscriminate military and civilian casualties.⁶³ While long lists of statistics show a frightening picture, it bears testimony to the destructiveness of the war – and man's inhumanity to his fellow man. From the ashes of the Second World War a completely different system emerged: Germany was divided, Eastern Europe came within the grips of the Soviet Union, traditional ideological animosity created a tense, or 'cold', atmosphere amongst the erstwhile allies and the de-colonisation of former European colonies commenced. To measure the effects of war precisely is difficult, but its severity cannot be ignored.

⁶⁰ Townshend, p. 129.

⁶¹ Wright, p. 264.

⁶² Keegan, pp. 592-3.

⁶³ Wright, pp. 234-67.

4. CONCLUSION

After the German defeat at Stalingrad, and their subsequent retreat, it became obvious that no real hope for victory against the Soviet Union remained. The Germans were unable to overcome two crucial obstacles namely the vast distances and the Soviet staying power. It became clear by 1943 that the Soviet Union was superior in numbers and material. Yet, the Germans became involved in large battles that drained their equipment and resources, while the Soviets could absorb huge losses. Kursk (July 1943) was the archetype of such a clash, becoming a battle of attrition with the Germans not doing much more than denting the Soviet defences, while suffering fatal losses themselves. After Kursk the Soviet steamroller continued across the Steppes and into German territory with many civilians fleeing in panic. A final assault was launched on Berlin in April 1945, resulting in Hitler's "Thousand-Year Reich" coming to an end after 12 years.

The study of wars, campaigns and battle is an important part of modern history and is central in the development of all modern societies. Though the specifics of warfare and battles would always fascinate some and be of use to others from a professional point of view, the development of war should interest all of humanity. Military history has utility value to the military profession and it is one of the few branches of history studied by non-historians in order to learn about their profession. But to have value to the military profession, an analysis of war should at least be in accordance with the untrammelled demands of scholarship.

From the history of warfare a number of constant features are prevalent. These features are remarkable, as they are applicable to the Battle of Kursk and the war on the eastern front and beyond. For military commanders, officers and men war are known for its danger, exertion and chance. Soldiers have to endure the realities of conflict while military decision-makers are confronted with strategic operational and tactical dilemmas. War is constant in that it involves high cost both in the human, societal and the material sense. Due to this it attracts much condemnation and despite philanthropic endeavours our world has not yet succeeded in eradicating this incessant phenomena. Technology influences the nature of war dramatically and the quest for better or improved weapons is a perpetual feature of war. Though development might replace men with machines, soldiers operate machines and placing personnel beyond enemy lines would not necessary imply being out of range. The fact that soldiers fighting on their feet have a primacy in war is also a feature of war. Despite the important roles played by armour, artillery and aircraft, infantry remains essential. A very common activity in war is the siege, or fighting from a prepared position, making it very difficult for an attacker to penetrate prepared defences, specifically in the face of concentrated firepower.

Another constant feature is the value of logistics in maintaining armed forces in battle for protracted periods. Big battles or campaigns are often preceded by long periods of gathering resources and building up force, and this is particularly relevant to Kursk and the war on the eastern front. The cost of conventional military equipment is extremely high in peace and war and states have difficulties to maintain numbers of aircraft, tanks and ships. The war economies of Nazi Germany and the Soviet Union had to undergo a process of reorganisation in order to enable them to continue with their massive 'wearing-out' struggle.

An enticing aspect with regard to military experience is that despite the destructive and aversive nature of war, many of those that served found it to be a positive experience and would recollect the comradeship, the sense of personal achievement and the pride often experienced when serving in the armed forces. In a society where many might never don military uniforms it is difficult to understand a complex phenomena such as war, hence in an effort to understand it, many will turn to military history accounts. In this way military history meets an important human need.

In a time when the nature of warfare is changing, often away from the conventional clash of regular armies towards conflicts of a lower intensity and peacekeeping, many are of the opinion that traditional military history does not have a purpose. Perhaps, as some authors suggest, the societal aspects and the psychological side of killing should receive more analysis. However, as long as states use military force in pursuit of their national (political) objectives and conventional military force is used to decide issues between states (the 2003 war against Iraq is a good example), there is a future for the study of the great battles of the past.

In analysing war the wrong conclusions are so often drawn. This is not due to the fact that history has no value, but rather to the misapplication of history - a penchant to have simple solutions for complex problems just bouncing from the pages of history books. In drawing from history it is often not the history that is at fault, but it is rather a problem of analysis. Perhaps, it should not be forgotten that the true use of history is not "to make men clever for next time; it is to make them wise for ever".⁶⁴

⁶⁴ Howard, p.197.