SEARCHING FOR THE STRONGER FORM OF WAR IN THE
20th CENTURY: THE DEFENSE OR THE OFFENSE

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A key theoretical proposition offered by Clausewitz in *On War* was that the defense was the stronger form of war over the offense. Members of the military, theorists, and historians have intermittently grappled with this proposition and have tended to reach conclusions flawed by poor analytic methodology or by the manipulation of Clausewitzian criteria. One would be distorting the very essence of Clausewitz to suggest one form of war always maintained an advantage over the other. Even when discussing the offense and defense Clausewitz recognized that the relationship of one to the other was situationally dependent. The purpose of this study is not to redefine, manipulate, or interpret any new criteria to determine which form of warfare is the stronger but rather to use the model developed by Clausewitz which he utilized to support his thesis in favor of the defense and find if it is applicable to 20th Century tactical warfare.
19. The study showed that surprise, terrain, and concentric attack are indeed key elements within the relationship between the offense and the defense. The study also confirmed that two other elements identified by Clausewitz, time and initiative, also play critical roles in determining which form of war can gain the advantage during a conflict. Though all the elements have their respective influence on the attacker and the defender relationship, terrain, as stressed by Clausewitz, still is the primary advantage of the defender in the tactical environment. But it is the defender's preparation of that terrain as much as the terrain itself which insures that the defense, even in modern warfare at the tactical level, is still the stronger form of war.
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ABSTRACT

Searching for the stronger form of war in the 20th Century: The Defense or the Offense, by Major Oliver J. Moss III, USAF, 40 pages.

A key theoretical proposition offered by Clausewitz in On War was that the defense was the stronger form of war over the offense. Members of the military, theorists, and historians have intermittently grappled with this proposition and have tended to reach conclusions flawed by poor analytic methodology or by the manipulation of Clausewitzian criteria. One would be distorting the very essence of Clausewitz to suggest one form of war always maintained an advantage over the other. Even when discussing the offense and defense Clausewitz recognized that the relationship of one to the other was situationally dependent. The purpose of this study is not to redefine, manipulate, or interpret any new criteria to determine which form of warfare is the stronger but rather to use the model developed by Clausewitz. This study will concentrate on those elements identified by Clausewitz which he utilized to support his thesis in favor of the defense and find if they are applicable to 20th century tactical warfare.

The study showed that surprise, terrain, and concentric attack are indeed key elements within the relationship between the offense and the defense. The study also confirmed that two other elements identified by Clausewitz—time and initiative—also play critical roles in determining which form of war can gain the advantage during a conflict. Though all the elements have their respective influence on the attacker and the defender relationship, terrain, as stressed by Clausewitz, still is the primary advantage of the defender in the tactical environment. But it is the defender's preparation of that terrain as much as the terrain itself which insures that the defense, even in modern warfare at the tactical level, is still the stronger form of war.
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SUPERIORITY OF THE DEFENSE

INTRODUCTION

Determining which form of war is the stronger, the offense or the defense, has always been a topic of debate but never more than when Carl von Clausewitz formalized the issue in his epic work On War. There, Clausewitz no doubt piqued the interest of theoretical scholars, raised questions of heads of state, and greatly irritated offensive minded members of the military by stating that "The defensive form of warfare is intrinsically stronger than the offensive". Since the posthumous publishing of On War Clausewitz's declaration in favor of the defense has continued to be either defended or condemned.

The focus of this paper is to neither defend or condemn Clausewitz's proposition. This paper will attempt to clarify his concept and then apply his proposition and determine if his declaration for the defense is valid to modern warfare at the tactical level. Various disciples of Clausewitz have attempted to reconcile their admiration for his work with their disdain for the defensive premise and still others have even suggested "skipping" many passages of On War to understand the general flavor of the work. This selective method towards understanding Clausewitz has largely been credited as a gross misrepresentation of Clausewitzian theory and as a major contributing factor to the costly frontal assault tactics used by both sides during WWI. This paper will not reconcile, rewrite, create or skip Clausewitzian theory concerning the defense but will apply Clausewitzian standards to two battles of the 20th Century. This will
help determine if the defense at the tactical level can still be classified as the stronger form of war as proposed by Clausewitz's criteria.

Before comparing modern battles to determine whether or not the 19th century proposition of the superiority of the defense is correct on the modern battlefield a closer look at Clausewitz's model directed at the defense must be accomplished. This will be done by clarifying his definition of the defense; examining various elements analytically applied by Clausewitz which have an effect on the defense; and finally by addressing some of the criticisms of the defensive model posed by critics of the proposition. After laying a common foundation from which a methodology can be derived a subsequent comparison of two selected battles will be accomplished to see if the theory is applicable at the tactical level.

When Clausewitz began his endeavor on how to analyze war and determine what it was, he was not attempting to develop new doctrine but instead was trying to understand the phenomenon of war. He utilized an analytic procedure which looked at identifying the means (history, experience, logic), the aim (direct observation), and the purpose (better understanding) to fulfill his quest. One of the concepts of war which was of particular interest to Clausewitz, and to which he devoted two books of On War, was the relationship between the attack and the defense. Bernard Brodie has written that Clausewitz's conception of the defense, being the stronger form of war, was treated with as much suspicion in Clausewitz's own time as it is by most members of the military today. Clausewitz's conception, Brodie surmises, was formulated by his participation in two of history's most
famous defensive operations: The 1812 campaign in Russia; and the Waterloo campaign of 1815. Clausewitz was aware that his defensive proposition was "at odds with prevalent opinion" but brushed off any criticism of his concept by writing that opinions contrary to his own on the subject proved how ideas could be confused by "superficial writers".

Clausewitz began his thesis on the superiority of the defense over the attack methodically. He stated that the concept of defense was "the parrying of a blow" and the characteristic feature being "awaiting the blow". So the defense consisted of two separate actions--waiting for the blow to be struck; and then parrying the blow when the action was taken. From these two actions Clausewitz extracted two of the more subtle points of his proposition which have tended to be ignored by those critical of his concept: Waiting is the defense's chief advantage; and parrying the attack is the essence of the defense.

These two elements will be further developed later in the discussion.

So does Clausewitz consider a defensive action just the waiting for and then the parrying of a blow. No! Clausewitz is quite clear and extremely firm in stating that the pure defense would be contrary to the very idea of war (two antagonists fighting) because only one side would actually be waging the war. "The defensive form of war is not a simple shield, but a shield made up of well directed blows". The defense may have the passive purpose--preservation; and attack the positive purpose--conquest; but each have elements of the other in them. "The offense is not composed of active elements alone, anymore than the defense is made up solely of passive elements. Indeed, any attack that does not immediately lead to peace (in tactics the victory)
must end on the defensive”. And on the defense Clausewitz clearly states, "Defense is not the final purpose". It was to be used as long as weakness compelled but was to be abandoned when sufficient strength had been attained to pursue the "positive objective".

Clausewitz used history as empirical evidence that the defense was the stronger form of war and points out that "... commanders accept defense as the stronger form, even when they personally would rather attack". At the end of Book Six, Chapter One a dialectic approach is used to restate its proposition.

"If attack were the stronger form, there would be no case for using the defensive, since its purpose is passive. No one would want to do anything but attack: Defense would be pointless.... Experience shows that, given two theaters of operations, it is practically unknown for the weaker army to attack and the stronger stay on the defensive. By using the defensive, stronger form, successfully the weaker purpose is usually able to achieve a better balance of strength from which a counter attack may be directed."

And for Clausewitz the counterattack was the "crucial element" of defense. "Retaliation", he further stated, "is fundamental to defense". Simply stated, defense is the stronger form of war which allows the weaker side to engage an attacker and reduce the attacker's force until the defender has achieved a better balance of power from which he can unleash his "flashing sword of vengeance". That moment of transition Clausewitz stated was "the greatest moment for the defense".

When conducting his theoretical analysis of the relationship between the attack and the defense he concluded that there were only three elements which seemed to produce decisive advantages: surprise, the benefit of terrain, and concentric attack. Of these three elements, the first and third he considered gave small favor to the
attacker with the majority of their benefit, and all of the benefits of terrain, going to the defender. A short discussion of these and other factors considered by Clausewitz to influence the attack/defense relationship follows:

**Surprise:** Considered by Clausewitz to be the "most powerful medium" in the art of war because it allows us to gain numerical superiority at selected engagements which is distinct from numerical superiority in general". Though surprise may initially be with the attacker Clausewitz felt it was more than offset by the defender's ability to monitor major roads into his area and his own ability to launch counterattacks against invaders from concealed positions. 20 Clausewitz states, "surprise lies at the root of all operations without exception:". Michael Handel wrote that he felt Clausewitz was convinced that on the tactical level the defender could make better use of the element or surprise.21

**Terrain:** May give the advantages of obstacles to the defense of "steep slopes, high mountains, marshy streams, hedges, and the like". Clausewitz felt that terrain may be just as useful by its allowing the selection or construction of concealed positions.22 As in surprise it can work to the advantage of the defender because the terrain will normally allow the attacker to be observed during his approach. It is the terrain which is the ground chosen by the defender and incumbent with that status is it allows prepared defenses, the establishment and maintenance of communications, permits the sighting and ranging of artillery batteries, and the selection of covered assembly areas.23
Another contributing factor to terrain providing the advantage to the defender is that it normally allows him to already have his forces deployed in the field in prepared positions.

**Concentric Attack:** Clausewitz defines this as comprising all tactical envelopment which finds its effectiveness increased by the effects of cross-fire and the fear placed on the defense of being cut off. Here the attacker has the advantage of freedom to strike at any point but Clausewitz says the defense offsets this with its ability to surprise the attacker with the strength and direction of its counterattacks throughout the engagement.24

"Moreover, eccentric action or maneuver along interior lines more than compensates for the advantages of the concentric offensive: movement along interior lines can become such a multiplier of forces that the attacker cannot expose himself to this disadvantage unless he is vastly superior."25

Though surprise, terrain, and concentric attack are identified by Clausewitz as being the three main elements which produced decisive advantages, other factors surface during his dialectic which have an influence on the battlefield. These he identified as either being of no concern25 or which his discussion identified as having some impact on the attack/defensive relationship. Two of the more visible elements are time and initiative.

**Time:** Throughout his proposition stipulating the strength of the defense over the attack Clausewitz equates any passage of time as accruing an advantage to the defense. Since waiting can be defined as the passage of time, waiting and time will be considered synonymous. As already stated at the beginning of the introduction Clausewitz considers waiting the defense's chief advantage.26 Characteristics
which may contribute to time/waiting are bad judgement, fear, indolence, and poor intelligence. Clausewitz is described by Raymond Aron as being one of the first individuals to stress the importance of waiting which had never before been "elaborated by theoreticians". Aron agrees with Clausewitz that waiting is the essential element of the defense and broadens the discussion by stating:

"If defense... leads more surely to victory it enjoys the combined advantages of security and greatness of success. Assuming that it faithfully expresses Clausewitz's thought it only applies to the total concept of defense which integrated not only action or counterattack but the decision as well. It cannot apply to the defense in the narrow meaning of the word, which is satisfied by waiting or repelling."

Another factor which can be classified as an element of time is friction. This element, which differentiates real war from war on paper, increases the amount of time utilized in an engagement so according to Clausewitz should accrue additional advantage to the defender.

Initiative: This is a factor most theorists, including Clausewitz, have confined to the attack. Clausewitz readily admits that an Army's sense of superiority may well spring from its awareness that it is taking the initiative. But this he stipulated "is soon overlaid by the stronger and more general spirit that an army derives from its victories/defeats, and the talent or incompetence of its commander", which of course may be found in the defense as well. Aron interprets Clausewitz's proposition by advancing an analysis that:

'A defender... thus lays down the first laws of the war; he forces the attacker to establish his plan in terms of the interior preparations of positions of his enemy. The defender at the same time retains the advantage of playing second. According to this analysis the temporal priority of defense over attack has
praxiological implications. In the reciprocal action... the
defender benefits from the double advantage of starting the war
and of being the last to lay his cards on the table."

This analysis clearly places a great degree of initiative in the hand
of the defender.

Before continuing with the analysis of whether or not the defense
can still be considered the stronger form in 20th century warfare using
Clausewitzian analytical criteria, two important criticisms of
Clausewitz need to be briefly addressed. One criticism has been that
the theoretical structure of *On War* is incomplete since he did not
accomplish a comprehensive analysis of strategy or tactics by
addressing the factors of technological change, administration,
organization or the navy.

Liddell Hart carried the criticism further by arguing Clausewitz
was even more outdated for not being able to address the role of air on
the battlefield. But all these criticisms were ably addressed by Peter
Paret. Paret stated,

"Friction, escalation, the interaction of attack and defense exist
in war on and under the sea--and in the air--as much as they do on
land. It is fallacious to consider the theoretical structure of
*On War* incomplete on the ground that its illustrations are drawn
only from the types of conflict that Clausewitz knew best and that
interested him most."

The other criticism has been that Clausewitz assumed the
relationship between the two forms of war to be static and not
cyclical. Michael Handel in his article "Clausewitz in the Age of
Technology" believes the relationship to be cyclical and agrees with
Clausewitz that if all things were equal that the defense is still the
stronger form of warfare. But unlike Handel, Clausewitz did believe
the relationship to be static. In Chapter Two of Book Six he presented historical representations of how the advantage between attack and defense may ebb and flow. But at the conclusion of the discourse he pronounced the defense possessed a natural supremacy. Thus, while he recognized the "upper hand" or advantage may be achieved by the attacker from time to time he also stated to regain the upper hand the defense had only to "change its methods." Thereby supporting his natural superiority premise and static relationship criticism, the criticism appears to be correct. But this should not be considered a total indictment of his stronger form of war proposition. For if one were to use his criteria to evaluate the situational relationship for a particular battle the dialectic would still prove helpful. The basic elements used to support the proposition that the defense is the stronger form of war are still valid pronouncements and valuable tools to measure whether or not the advantage portion of the proposition is true for 20th century tactical warfare.

The theoretical proposition presented above provides an excellent device to examine two historical tactical battles and determine whether the proposition can be proven or denied in modern warfare. By examining the tactical implications of surprise, terrain, concentric attack, time, and initiative in relation to the first battle of the Somme in WWI and the battle of Kursk in WWII we can test the application of Clausewitz's proposition on the modern battlefield.

Both the Somme and Kursk were chosen due to the overall influence each battle had on its particular theater of operations, the tactical scope of each battle, and the individual elements of interest which set these battles apart from others tactically. The Somme was one of the
largest battles of WWI, it was one of the last to see infantry wave tactics applied to trench warfare, one of the first to see stepping artillery barrages, one of the costliest in terms of casualties in history, and its result still influences British military thought.

The battle at Kursk is of particular interest due to its size—one of the largest battles of WWII—it remains the largest armor battle in history. The results of the battle had far reaching consequences for both its participants. Combined with the first battle of Somme, Kursk represents a tactical environment which is conducive to analyzing Clausewitz's tactical concept of the superiority of the defense on modern battlefields. Supplementing this discussion are maps of both battles in the appendix.

Somme

The first Battle of the Somme in World War I was fought between the Allies under the French commander General Joffre and the Germans under General Erich von Falkenhayn. Though Joffre was the commander of the Allies it was the British who for the first time on the Western Front would be bearing the major effort of this second Allied offensive of 1916. General Douglas Haig commanded the British forces which consisted of four armies. The Fourth Army, which was to be the main effort, was commanded by General Henry Rawlinson.

By June of 1916 France appeared to be on the verge of collapse. She had been severely weakened by her losses of men during the campaigns of 1914 and 1915 and the German pressure at Verdun was the cause of great concern. The French felt that unless the British launched an offensive against the Germans near the Somme to ease German pressure at Verdun that the French may possibly be defeated. Other
Allied efforts weren't going much better; Italy had suffered a series of setbacks at the hands of the Austrians in May and Russians Brusilov Offensive had accomplished little on the Eastern Front. In order to relieve pressure on France and to shoulder more of the burden of the war the British agreed to launch an attack in northern France by mid-summer (See Map #1).

The British offensive was originally intended to be a supporting attack. It was to be conducted as a joint venture with the French being the main effort in the south attacking the Somme River and with the British attacking the north. Joffre had intended for the French to launch their attack with 20 divisions along a 25 mile front but losses at Verdun caused him to adjust that plan to five divisions and narrow the front to eight miles. The British then became the major assault and after continued French pleading agreed to begin their attack at the end of June with 18 divisions. From that point onwards the British carried the main burden of the Western Front Campaign.

The British main objective during the attack was the town of Bapaume while the French objective was towards Péronne. By achieving these objectives near the rear of the German defenses it was hoped a breakthrough could be achieved which might lead to the defeat of the German front-line forces and an end to the war.

On 24 June the attack was kicked off by an artillery bombardment which though originally scheduled to end on 28 June was continued to 1 July when the infantry attack was postponed two days due to bad weather. The French in the south due to massed heavy artillery support and infiltration tactics quickly achieved their objectives. However, they were unable to exploit their success because of the lack of
British success in the north which was leaving the French flank exposed. In the north the British ran into unexpected stiff resistance from the German defenders and achieved less than 1/3 of their objectives. Lack of concentrated artillery fire resulted in little damage to the well prepared German positions and the assault tactic of massed waves of infantry resulted in the British suffering more casualties than they had ever suffered in a single day's fighting in their history. Though the British suffered 50% casualties of the 66,000 men who went over the parapets in the first hour they continued to press the attack the rest of the day.

The Germans suffered the majority of their losses in the south. There, they didn't expect the French (due to Verdun) to be capable of launching an attack, while in the north their preparations for the expected British attack paid high dividends. Though outnumbered 7:1 the Germans in the first day of fighting reversed that statistic and inflicted casualties at the rate of 7:1. At the end of the day militarily the attack had achieved nothing. Most of the bodies lay in territory which was British owned before the attack or in no man's land.

It is the first day of the Battle of the Somme, 1 July 1916, that this paper will analyze in the relationship of Clausewitz's model to the tactical battle. Though the battle did not officially end until 18 November it was the results of the first day which ended any hopes of a breakthrough for the allied forces and marked the beginning of a costly battle of attrition. British history officially marked the day as one of the "eight phases" of the five month long conflict and even today it remains the worst day for British casualties in their history. The
losses suffered by the British in that one day at the Somme were
greater than they suffered in the Crimean, Boer and Korean Wars
combined.44

The first day of the Battle of the Somme provides an excellent
element of Clausewitz's model. It provides a stronger offensive force
seeking to achieve a positive objective against a vastly weaker
defender who is merely trying to achieve the negative objective--
preservation.

Though the Somme was a joint endeavor by the French and British, it
was the British who bore the brunt of the attack. So, unless a key
point needs to be addressed concerning the French, the majority of the
analysis will be concerned with the British attack.

Surprise: The British exhibited little understanding of the value
of surprise. Liddell Hart criticized the planners of the attack by
stating, "There was a fundamental unrealism in a plan which, while
disregarding the old and ever new master key of surprise, made no
pretense to provide a substitute".45 Surprise was almost non-existent
before the British attack on the Somme. Though the Germans held the
terrain which overlooked the British trenches, the British commanders
did little to cover or conceal the build up of troops which progressed
over an extended period prior to the attack. Still worse, little
concern was given to concealing the movement of the troops forward to
the front line trenches just before the attack was initiated. The
Germans were able to watch those forward movements and due to their
possession of the higher ground were able to monitor every feature and
movement within no mans land.46 Little surprise by maneuver could be
hoped for under such circumstances, but it appears none was attempted
near the trenches. Another comment by Liddel Hart describes his displeasure: "Surprise, difficult in the face of such commanding positions, was the more difficult because the art of concealing preparation, and camouflage, had yet to be relearned". 47

But the movement of troops into the trenches was not the only indicator the Germans had of an impending attack. Hart wrote, "If the base preparations had not given it (the attack) away, a bombardment of a week's duration would in any case have announced the coming assault". 48 For one full week the British artillery bombed the German positions with almost 1,500,000 shells. The bombardment, which could even be heard in England, surely left it beyond anyone's doubt that the "Big Push" was about to happen. 49 The shelling did nothing to damage the deep hardened defenses and also did little to mask the fact that an attack was imminent.

Along with an artillery preparation, it was a common tactic by both sides during the war to plant mines. The mines would be detonated to collapse an opponent's trenches, destroy his hardened shelters and would provide craters of shelter for the infantry near the opponents defenses. When the British exploded these mines along with the artillery prep, and other signs of an imminent attack, the German reaction was "swift and deadly". 50 When the bombardment stopped the Germans rushed out of their shelters, manned what was left of the trenches, occupied the mine and shell craters before the attackers could reach them, and started raking the British infantry in no man's land. In many instances British troops were killed before they were able to get out of their trenches to launch the attack.
Two other events occurred which alerted the Germans and contributed further to the lack of surprise in the British attack. In a couple of instances British scouts, who were evaluating the effects of the shelling on the German defenses, were captured and revealed the plans. But in a far more damaging occurrence Rawlinson's eve-of-battle message was picked up by a German listening post. The message stated that the attack would be in the morning.\textsuperscript{51}

General Rawlinson did create a deception in his northern sector. A diversion any attack worked to deceive the Germans as to where the main thrust of the attack was to be, along with the German surprise of the French attack in the south, managed to delay the German reserves from being deployed to the main thrust in the middle sector.\textsuperscript{52} But that deception worked at the operational level.\textsuperscript{53} The front line trenches of the German defenses knew they were going to be attacked and were prepared.

Though, for the most part, the British failed to surprise the Germans the favor was not returned. The British did not realize how secure and well developed the German defenses were prepared. The German shelters had been dug so deep and were so reinforced that few were damaged by the week long bombardment. Along with the security of their troops the Germans also managed to conceal the existence of large elements of artillery. Rawlinson's tactical plan was predicated on "the artillery destroying and the infantry occupying". He and most of the British leaders expected after a week long artillery barrage that the troops would be able to "walk across and conduct mop-up operations in the German sector". But when the attack began John Keegan relates that the troops.
... suffered from German barrage fire laid by guns which had either escaped destruction...or had remained "masked" (present but silent so undetectable), or else had arrived on the Somme front towards the conclusion of the bombardment - an event which had given the German high command all the notice to reinforce any general could require.

The strength of the German defenses certainly surprised the British forces and made them pay dearly for their ignorance.

At the Battle of Somme the element of surprise, instead of being used to advantage by the British was abused and given to the enemy.

Terrain: If, as according to Clausewitz, terrain is the factor which insures the superiority of the defender over the attacker how much greater is that advantage multiplied by the conscientious defender who diligently works to improve his position and maximize that advantage? The Somme is the quintessential example in the Clausewitzian model of an inferior strength force engaging a superior strength force and utilizing the terrain to equalize the conflict tactically.

At the tactical level of the Somme battle the Germans improved their positions through terrain selection. Since their advance had been stopped in the fall of 1914 the Germans had surveyed the terrain and selected the best areas to place their defensive positions. On the entire front of which the Battle of Somme was fought the Germans fortified the high ground. Through every river valley, across every rolling meadow, on the crest of every hill the Germans built their deliberate defenses on the highest ground available. This selection process served three purposes: 1) when the battle began the Germans had positions which granted them almost unlimited visibility of the British trenches; 2) the high positions insured the best drainage in
the area so there was almost no limit to the depth to which trenches could be dug; \(^55\) and 3) any attacker would have to maneuver uphill in full view of the defenders and range of their weaponry.

It was the high ground which provided the Germans the asset of observation. Optimum observation allowed the Germans to know every British trench position to the meter, most of their gun positions and every feature of no man's land. This knowledge was put to use when front line soldiers gave signals to the artillery for defensive barrages. \(^56\) The high ground provided the drainage which allowed trenches to be dug as deep as ten feet and shelters for the infantry as deep as forty feet. Finally, the high ground gave the defender the advantage over the attacker. Liddell Hart wrote that, "Almost in every part of this old front our men had to go up hill to attack...the enemy had the lookout posts, with fine views over France, and the sense of domination". \(^57\) Martin Middlebrook in his book *The First Day on the Somme* described it this way:

"An attacker faced a dreadful dilemma: He could make a short, but dangerous and uphill, Direct Assault on the spurs or a longer approach along the naked floors of the valleys, being overlooked on two sides and with an enemy trench waiting at the far end of the valley." \(^58\)

This description makes the 'Charge of the Light Brigade' look like a cake walk.

The German sense of domination was enhanced by their recognized superiority of machine-gun tactics. The Germans placed their machine-guns in all the key avenues of approach, in the cellars of bombed out buildings, \(^59\) covering openings in the barbed wire and always in mutual support of the next machine-gun. They had placed their machine-guns so well, and used the terrain so effectively, that it was discovered
sometimes one German machine-gun had held up a whole British battalion or even a brigade.\textsuperscript{60} In one sector two German battalions faced one British division and maintained its position.\textsuperscript{61} So in this instance the terrain along with a force multiplying weapon system, J.F.C. Fuller called the machine-gun 'concentrated essence of infantry',\textsuperscript{62} allowed an inferior strength force outnumbered seven-to-one to repulse the attacker.

But the superiority of the terrain gave the Germans other advantages. It caused the British to lose control of their troops the second they went over the parapets due to the lack of effective control and communications measures.\textsuperscript{63} The total number of British casualties increased since the wounded lost in no man's land and German trenches couldn't be brought back to their own aid stations for immediate treatment.\textsuperscript{64} The German defenses allowed for relatively secure communications, aid for their wounded and the capabilities granted by interior lines to launch counterattacks or bring up reserves. Several British efforts failed when units which had seized German positions were forced to withdraw, surrender, or die when they failed to receive any reserve support due to the German control of no man's land and German counterattacks. The Germans used the terrain to its greatest possible advantage and inflicted on the British Army the worst day in its history.

\textbf{Concentric Attack:} There was little of Clausewitz's concentric attack definition to be found in the British offensive plan during the initial stage of the Battle of the Somme. The artillery like the infantry was spread out evenly along the whole 18-mile British front, unlike the Germans at Verdun where their assets had been concentrated.
for penetration, while the only plan for a concentric attack was in the north as part of the deception attack. As already observed there was little surprise, an inherent element of concentric attack as identified by Clausewitz, in the British assault nor was there any chance of the Germans being cut off in the rear. But the elements Clausewitz identified as belonging to the defense did exist.

The German defense benefitted from the strength of its interior lines and its ability to counterattack from the rear throughout the engagement. Their interior lines allowed good command and control with the rear and reserves and telephone lines laid deep in the ground allowed almost constant contact with the artillery. This communication resulted in timely barrages which severely attrited the attacking forces and prevented any British reserves from being brought into the battle. While on the other hand German reserves were readily available for required counterattacks and proved especially effective in the central and northern sectors of the attack. So concentric attack along with the elements of surprise and terrain also have to be recognized as advantages in this battle which were more effectively used by the defense.

TIME/WAITING: Since the Germans had first taken up their positions along the Somme in 1914 they had utilized the time and the lack of Allied attacks in that area to strengthen their defenses. They had the time to develop a defense in depth which went beyond the normal frontline, supply and reserve trenches constructed by the Allies. The German trench network consisted of three to four and up to 12 complete trench systems before an attacker could reach the German rear area and
open country. And this system manufactured time—by defeating or delaying any aggressor time was created which allowed the reserves to be called in and a counterattack launched.

Time created by the Germans was wasted by the British. Their assault tactic called for a creeping barrage fire from the artillery to support the advancing infantry. However, the mass wave tactic advanced the troops so slowly that once the barrage fire passed the front-line trenches of the Germans they had plenty of time to get into their positions and blast the British as they slowly progressed across the no man's land. The Germans were given additional time to fire on the advancing British infantry because the British were further slowed down by backpacks which weighed anywhere from 70 to 90 pounds.

Finally, one other factor found in the British attack created time for the Germans and that was Clausewitz's factor of friction. After the attack was launched the British command posts, located two to three miles behind the front-lines, had no way of knowing how the attack was progressing. The majority of the junior officers who went over the top (75 percent) didn't live to see another day. Reports to the rear were vague and tended to say what the generals wanted to hear. Waves of troops continued to be ordered forward because the rear command centers did not know the true conditions that were existing at the front. Units that did manage to reach the German trenches and secure some of their objectives could not establish contact with their reserves and before help or further orders could arrive the Germans normally had time to launch a counterattack.
The Germans created time in other ways. Their elevated defensive positions slowed the British advances as did their artillery barrages, barbed wire, and machine-gun emplacements. Though time on the operational and strategic levels allowed the Germans to strengthen their defensive network, that network and German front-line tactical units delayed the British which allowed more time for coordinating reserve counterattacks.

INITIATIVE: The initiative at the Somme was without a doubt with the British. After their last offensive effort in 1915 the Germans recognized the existence of a stalemate and assumed a basically defensive, economy of force posture on the Western Front in general, and on the British sector in particular. They felt they held the advantage by being on French soil and could wait for: 1) the collapse of Allied will; 2) a compromise peace settlement; or 3) the opportunity to attack and gain victory. So the Somme had a German defender, solidly entrenched in his positions, waiting for a known attack, but not having sufficient forces to seize the initiative and attack if the situation presented itself. Any counterattacks the Germans were to launch would be just to regain any lost positions.

So the British held the only opportunity to seize the initiative. This initiative materialized in the British plan which called for an ultimately one week long artillery barrage on the German positions; massed wave infantry tactics for the assault; and the possible use of cavalry to dash into the German rear, seize the objectives and assist in turning the German flank.
As so graphically pointed out by John Keegan in *The Face of Battle*, the artillery was misused during the preparation for the battle. The week-long bombardment was to accomplish two things: destroy the German trench positions; and clear away the barbed wire in no man's land. Well, the British didn't have enough heavy guns to penetrate the German reinforced positions and those guns they did have were distributed evenly along the entire front, not massed in the center where the main effort was to be launched. Due to the mud and problems with shell fuzes, almost one-third of all the heavy artillery shells failed to explode. Seventy-five percent of all the shells fired during the prep were shrapnel which had little effect on the hardened positions. However, shrapnel will clear away barbed wire if exploded at the proper altitude. Unfortunately, most of the artillerymen were inexperienced which resulted in most of the shells exploding too high or too low leaving a large portion of the barbed wire in place. As for the cavalry, General Rawlinson ordered them back to the Allied rear and failed to use them even though the opportunity to exploit a limited success in the south had presented itself.

There were examples of initiative being displayed at the small tactical unit level during the battle but even these instances bore little success. The lack of communications, command and control, and the loss of the majority of the front-line officers and NCOs stifled any progress.

**KURSK**

In the Spring of 1943 Hitler's Nazi Germany found itself reeling from a number of setbacks. In the south Allied forces had thrown the Germans out of Africa and would soon launch a coalition attack against
Italy; the Italian Government of Mussolini was on the brink of collapse; in the west Allied bombing missions were flattening the homeland; and in the east the "inferior" Slavic Hordes were menacing German forces along the length of the Eastern Front. It was in the east, centered around the small town of Kursk, that Hitler began his last offensive operation in Russia.

The Battle of Kursk was chosen for this study due to its vast implications and its outcome. It was the largest battle on the Eastern Front after 1942. It was the first battle in WWII to see the Germans use their new weaponry consisting of the Tiger and Panther Tanks and the Ferdinand assault guns. It remains the largest armored battle ever fought and it marked the end of German offensive strategy on the Eastern Front and the beginning of the Soviet offensive strategy.

The Battle of Kursk was fought over a vast territory comprising the present Orel, Bryansk, Kursk, Belograd, Sumy, Kharkov and Poltava regions (See Map #2). A Soviet offensive in the winter of 1942 followed by a German counter-offensive in early 1943, directed by German Field Marshal Erich von Manstein, led to the creation of a bulge in the German front known as the Kursk salient. Hitler and the German staff picked the elimination of this bulge and the capture of the Russian troops within it as the objectives of a limited offensive operation.

The operation and its success were necessary for a number of reasons. First, after Stalingrad and Leningrad the prestige of the German Army in Russia needed a victory to maintain Hitler's credibility with his allies. Secondly, if not eliminated the Russians could use the Kursk salient as a starting point for its own offensive campaign.
A Russian thrust could cut off the Germans to the south and regain possession of the precious Donetz area, the granaries of the Ukraine, and create an opening to the Balkans and Rumanian oilfields. Finally, by eliminating the Kursk bulge the Germans could significantly shorten the length of their front and reduce the demands placed on its precious manpower. The attack upon the Kursk salient submitted by Manstein was known as his "forehand" option. His "backhand" option, a strategic defense posture by which a series of localized powerful counter blows against the attacking Soviets could sap the Russian strength to a decisive degree through the loss of prisoners, was unacceptable to Hitler.

In April Hitler formalized the plan in Order No. 6 and authorized its execution at a later date. Hitler stated in the order that the aim of the offensive was to destroy the Soviet forces in the salient by means of a "concentric offensive" launched with the intention of encircling the Soviet forces. Hitler stated "the victory at Kursk must be a beacon for the whole world." To accomplish Hitler's goal the German generals in the attack knew the main emphasis had to be on surprising the Soviets and launching a speedy, massive blow in narrow penetration areas. Manstein knew the offensive had to be launched before the Soviets were given time to retrain, refit, and replenish their troops. The attack, however, would not be approved for two more months. The delay had catastrophic results for the Germans.

While the Germans planned, the Soviets were not idle. Near the conclusion of their spring offensive Marshal Zhukov had been appointed by Stalin to stop the German counter offensive which had retaken Kharkov and had practically erased the Russian gains. Zhukov was
successful and the Kursk salient was the result. Now the Soviets also found themselves with two options. The first, initially favored by Stalin, was to attack the hated invaders and push the "Bolshevik Hordes" from Mother Russia. But Zhukov persuaded Stalin to choose the second option.

The second option was a "deliberate defense". Zhukov stated, "I consider it inexpedient for our troops to launch a preemptive offensive in the near future......It would be better to wear down the enemy on our defenses, knock out his tanks and then bring in fresh reserves and finish off his main grouping with a general offensive". Zhukov's goal was to preserve his forces to fight another day and to "bleed the Germans white". Stalin finally approved this second option.

So by the end of April and early May the stage was set—the Germans would attack in a limited offensive to encircle the Soviet armies in the salient as soon as possible. The Russians would dig in and attempt to halt the German penetrations and "bleed them white". After two months of delay, Hitler didn't want to attack until his units could be equipped with the new Tiger and Panther tanks, the Germans attacked before dawn on 5 July 1943.

Basically the battle broke down to two fronts: The German's Central Army Group in the north attacking the Soviet Central Front towards the south; and the German's Southern Army Group which was attacking towards the north into the Soviet Voronezh Front. By 12 July the German effort in the north had ground to a halt. Soon after Manstein's forces in the south were withdrawn to their original start-lines.
The following discussions will be concerned with examining the battle by elements of Clausewitz's proposition to see if his assumptions could still be applicable.

**TERRAIN:** Kursk has been described as an ordinary town with a rather uninteresting landscape of wheat, sugarbeet fields and orchards.\(^{81}\) Clausewitz noted that the advantages of terrain were more than a matter of obstacles, that it may just enable one to gain concealment. What the terrain did not present to the Soviets in the form of obstacles or concealment the Soviets constructed.

The Soviet engineering effort was focused towards a single purpose—"to maximize preparations which would exact the most damage against the attackers while preserving the strength of the defensive forces" per Zhukov's directions. The engineers worked to facilitate the movement and concealment of the Soviet Forces "which also played a large role in the surprise element against the German forces".\(^{82}\) To maximize the defeat of the German Blitzkrieg tactic the first line of Soviet tactical defenses were designed to kill tanks.

The tactical anti-tank defenses were linked by a wide use of company, anti-tank strong points reinforced by 4-6 anti-tank guns, 15-20 anti-tank rifles, a platoon of sappers and several tanks and self-propelled guns to be used for counterattacks. In certain sectors where the brunt of an attack was expected there were as many as 25-30 anti-tank mines per kilometer of frontage.\(^{83}\)

As Clausewitz stated the defense will always be certain of having the benefit of terrain and this will generally ensure its natural superiority. In the example of Kursk this advantage was magnified
several times by the fact the German offensive was delayed over two
months allowing the Soviets to construct an extensive deliberate
defensive system.

The Germans obtained no advantage from terrain. Any advantage
which may have been incurred by determining the area of conflict,
though Clausewitz states terrain is an advantage exclusive to the
defender, was sacrificed with the postponed attack and the knowledge
where that attack would take place gained through Soviet intelligence.

SURPRISE: The element which Clausewitz identified as being an
advantage available in a small part to the attacker because he is able
to "strike at any point along the whole line of defense, and in full
force". Surprise was almost completely absent, with cataclysmic
repercussions, from the German plan. Though not wishing to delve to
deep beyond the tactical level of Kursk it must be noted that at the
strategic level the Russians knew almost every detail of the German
plan. A German spy, "Lucy", had access to the most sensitive of
Hitler's communications and provided this information to Moscow. The
Russians have admitted that transmission of some of these
communications was so rapid that often "OKW orders were being read in
Moscow before they reached the German field commanders who were to
carry them out". Such foreknowledge of German plans left little
factor of surprise available to the Nazis.

However, the German's southern army introduced two elements of
surprise into the battle. One was the exact route of attack to be used
in its push northward. The terrain offered three corridors of advance
which could provide adequate maneuver area for the thrusts to the
north. The Soviets were unable to identify the exact avenue and
suffered limited penetration of their tactical lines of defense. In the north only one optimum route of advance was available to the Germans, and that route having been identified by the Soviets, resulted in the attack failing to achieve any degree of surprise or success.85

The second element that achieved tactical surprise for the Germans in the south was a variant of the normal blitzkrieg attack. In the north conventional tactics were used which called for the infantry to precede the panzers. Normally, the penetration would then allow an exploitation by massed armor.86 The Soviet tactic was to separate the infantry from the tanks in order to facilitate the destruction of both. In the north the Russians were extremely successful.

Though the Russian defensive tactics also finally proved successful in the south the Germans did manage to penetrate to the operational depth of the Russian defenses. In the south Manstein was faced with two problems: A lack of infantry; and as in the north the knowledge that the Russian defenses were extensive.

In an attempt to overcome those problems, Manstein varied the normal method of attack and employed a different tactic. He began the German assault with a massive concentration of panzers in the initial wave to gain a quick penetration.87 The variation surprised the Russians and gained limited success. But Manstein's method also encountered extensive casualties and losses within his armor units. No degree of tactical surprise could repair the damage caused by lack of operational and even strategic surprise.

The Russians, however, enjoyed a great degree of tactical surprise during the battle. Their observation posts, partisan informants, German deserters, and of course "Lucy", provided enough information on
the disposition of the attacking forces that the Russians were able to
deprive the Germans of almost all aspects of surprise—which to the
Germans, even considering the delay, proved surprising. The
extensiveness of the engineering effort provided another area of
surprise for the concealment of the Russian troops. Their trench
network allowed the build-up of Russian units to go almost unobserved
by the Germans. This resulted in their underestimation of Russian
strength and what was considered "strategic adventurism" caused by the
miscalculation. Finally, when the attack began the same trenches
allowed unobserved tactical maneuvering resulting in unexpected
counterattacks at every level. "German ignorance of what was happening
'on the other side of the hill' was almost complete". As discussed
by Clausewitz over a century earlier, "The defender is better placed to
spring surprises by the strength and direction of his own attacks".

CONCENTRIC ATTACK: The concentric attack and convergance of forces
are characteristics of the attacker's plan. Clausewitz said the
advantage of the concentric attack lies in the ability to concentrate
the effects of crossfire; to concentrate the attack on a single force,
and cut off any line of retreat. It was a "concentric offensive" that
was planned by the Germans and ordered by Hitler. For the attack to
be successful the armies from the north and south had to penetrate the
Russian defenses and meet near Kursk to isolate those forces in the
salient. But the Russian defenses did not allow the Germans to achieve
any of the advantages of the concentric attack.

The first advantage of concentric attack could not be achieved
because of the width of the salient, approximately 70 kilometers wide,
because the strength of the Soviet defenses prevented the two German
armies from closing within mutual supporting range for effective
crossfires. Tactically, though each German army was able to mass and
concentrate its fire power on a single area of the Russian defenses,
they were not able to achieve the second advantage due to Russian
firepower. The Russians had an advantage of 1.4:1 superiority in
troops; 2:1 advantage in guns and mortars; 1.2:1 in tanks and self-
propelled guns and 1.3:1 in aircraft.91 Even though the Germans massed
after encountering one intensely defended strong point after another
they became too depleted by 13 July to remain an effective offensive
fighting force. As for any hope of the Germans cutting off the
Russians from a retreat--the situation never came close to
materializing.

So we are left with the defender's response to the concentric
attack--the divergent attack. Clausewitz felt the divergent attack
offset the advantages of the concentric attack by the fact that its
troops were closer together and operating on interior lines.92 Thus
the closeness of troops and interior lines allows a more effective use
of units when directed in counterattacks. A Russian description of the
battle described it this way:

"(Our) Defense alignments allowed a correct choice be determined of
the direction of the enemies main attack, massing of forces in that
direction, the mounting of artillery and air offensive strikes, and
large-scale troop maneuvers to maximize divergent attacks on enemy
flanks assured numerical superiority at selected positions even
considering the German tactic of massing for a penetration".

The Germans found themselves under constant pressure from
counterattacks during the entire battle. The concentric attack
achieved no advantages for the attacker during this confrontation.

-30-
TIME/WAITING: Though not identified by Clausewitz as being one of the three primary factors when considering the relationship between the defensive and offensive forms of war he did state that "waiting" was the chief advantage of the defender. In the Battle of Kursk how true that proved to be!

Manstein had proposed his plan for the "Battle of Kursk on the premise that "The whole idea had been to attack before the enemy had time to replenish his forces and had gotten over the reverses of the winter". So with well rehearsed Blitzkrieg tactics the Germans would be able to penetrate through the weakened Russian forces to achieve their objectives. With the operation pushed back from May until the beginning of July the advantage of the "forehand" attack was lost.

At Kursk, it must be stressed, this loss of time had implications at the tactical as well as the operational and strategic levels. German Blitzkrieg tactics stressed that the need for surprise and speed of a massive blow dealt by the panzer forces would be necessary to achieve success. Taking the elements of surprise, speed, and mass in relation to time, the delay caused by Hitler cost the Germans the tactical battle. As previously determined surprise was lost because the Russians knew the relative time, and objectives of the attack. Speed was negated because the Russians were able to construct deliberate defensive positions which were developed specifically to kill tanks and slow down the panzer advances. And finally the German element of mass was neutralized since the Soviet obstacles served to either separate or deplete the German units which were then subject to counterattacks by the Soviet forces that were assured of numerical superiority at selected German flank locations. So the time element at
the tactical level equated to the German panzer units loosing time due to the Soviet barriers and attack positions. This allowed the Soviets to wait and observe the attack in order to prepare and launch their counterattacks at positions of their choosing. The German delay from May to July clearly placed any advantage associated with time on the side of the Russians.

**INITIATIVE:** This element is normally associated with the attacker. In *On War* Clausewitz concedes that an Army's sense of superiority springs from the knowledge that it is taking the initiative. But that spirit can be overcome. Dr. Robert Epstein, a professor of history at the Army's School of Advanced Military Studies, feels initiative may be "the most vital aspect of war", and that initiative is the attacker's greatest asset which is automatically ceded from the side occupying the defense. But Dr. Epstein has also stated "It is easier for a stronger force to cede the initiative to destroy the enemy mass but not for the weaker force". And this is the situation, as identified by Dr. Epstein, that was the case at Kursk. The Russians were the stronger force by every measureable means. So the situation materialized where the stronger force chose Clausewitz's "stronger" form of war for the negative purpose which would allow them to later achieve the positive objective. The German's found themselves in Clausewitz's proposition as being the weaker force utilizing the "weaker" form of war - the results show they were doomed.

But the question is raised: did the Russians have any tactical initiative? The answer should be yes! Starting in Spain and watching the Nazi advance across Europe and into their own country the Russians observed Blitzkrieg tactics. They took steps to develop a defensive
equation which could solve the Blitzkrieg problem— at Kursk this was accomplished with as much credit due to the tactical level of defenses as to the operational and strategic levels. Soviet initiative was demonstrated when Zhukov initiated powerful counter-preparation fire against the assembling German units waiting to attack. The Russians actually initiated the fighting and threw the Germans into confusion. Initiative found its expression in the timely occupation of prepared tactical defense lines, large-scale maneuvering with manpower and weapons, and in counterattacks against enemy troops. Unit commanders displayed initiative by avoiding head-on attacks, instead made wide use of enveloping or outflanking movements by launching attacks at night. The Soviets also showed initiative in utilizing their armor assets. The extensive use of Russian tanks allowed new possibilities of increasing the activity of the defending units. The infantry division commanders who were reinforced with tank assets utilized the increased mobility potential to launch more frequent counterattacks. The Soviets developed mobile anti-tank teams and anti-tank artillery reserves which dealt successfully with any enemy tanks which penetrated the defenses. The tactic was implemented in Soviet Doctrine immediately after the battle. Finally, for a defensive system which was designated to kill tanks and stop the concentrated massed Blitzkrieg attack the Soviets decreased the width of each defensive sector and increased the depth. The Soviets achieved initiative through strength and their ability to adapt. At the Battle of Kursk they stopped the formidable Nazi war machine. They accomplished that by controlling all the factors of
Clausewitz's proposition and proved that, at least at this battle, in 20th century warfare the defense could still be the stronger form of war.

CONCLUSIONS

The purpose of this study was to determine if Clausewitz's proposition that the defense is the stronger form of war can still be valid in 20th century warfare at the tactical level. In this endeavor three major elements, as they pertained to two major battles, were analyzed in some detail. The study brought to light a number of insights and possible lessons to be learned. The study, however, did not attempt to create a new theory to address the issue. The study set out to use Clausewitz's theory on defense and see if it was still valid in modern warfare. That purpose has been accomplished.

The study concluded that, at least at the tactical level, the defense can still be the stronger form of war. Notice the operative word in that sentence was 'can'—not 'is' or 'isn't'—but can still be the stronger form of war. The proposition must be considered situationally dependent even if Clausewitz might roll over in his grave. What the battles of Kursk and the Somme brought to attention was the evidence that the factors of surprise, terrain, concentric attack, time, and initiative are still important elements in the attacker/defender relationship. But more importantly they should be considered assets which may be wasted or accrued to the side which utilizes them more effectively in the execution of their tactical plan. At Kursk and the Somme neither attacker insured that surprise was an integral part of their plans. The similarities between the two battles in the attacker's abuse of neglect of surprise was interesting. In
both instances lack of secure communications allowed the defender to
know approximately where and when the attacker would launch his
assault. In both battles the attacker failed to conceal the extent of
this build-up from the defender, while intelligence sources of both
defenders were able to compile relatively accurate information on the
size, location and even unit designations of the attacking units.
Deception efforts conducted by the Germans at Kursk and the British at
the Somme were no more than feeble attempts. Their accomplishment
casted little confusion to the defenders and any redeeming value was
far outweighed by the overall lack of surprise missing from their
plans.

However, surprise was an element used by the defenders at both
battles. At Kursk and the Somme the defender was able to mask his
strength from his opponent and was able to keep the extent of his
resources and defenses obscured from the attackers view. After each
assault had been launched the attacker was caught totally off guard by
the force of the defender's response. So in the final evaluation, just
as Clausewitz had written, surprise was a key factor in achieving the
decision in the battle. But it was a factor whose advantage was
neglected by the offense and actively pursued by the defender.

Terrain in the Clausewitzian proposition is the factor whose
advantage goes exclusively to the defender. That proved to be the
case in this study. At Kursk and the Somme the battle was fought on
terrain chosen, for all intensive purposes, by the defender. From that
terrain both sets of defenders were able to observe the preparations of
the attacking forces and their battlefield maneuvers once the conflict
had begun. In both examples the defenders shaped the battlefield and
caused the offensive forces to conform relatively close to expected parameters. Finally, the terrain was improved for the defense by the construction of an elaborate network of obstructions, and in the case of the Somme, the selection of the best topographical positions available.

The element of concentric attack in the Clausewitzian theory did not play as a decisive role as Clausewitz would have expected it to play in these battles. Though the Germans at Kursk predicated the success of their plan on the concentric attack the element of surprise was absent. With the Russians knowing the directions of attack, its approximate time and its objective it failed to gain any type of advantage for the Germans. An opportunity lost by one side in this instance automatically was gained by the opponent.

On the Somme a concentric attack was not utilized for the main effort. But in both cases the defender was unable to derive another advantage of the concentric attack—the mutually supporting, concentration effects of cross-fire. At Kursk the attacking forces were too far apart. At the Somme the effort was never attempted with all fire-power assets being evenly distributed along a wide linear front. Concentric attack—the element which Clausewitz stated would give some advantage to the offense was not effectively employed by either attacker in their battles.

If the study reaffirmed any of Clausewitz's dicta, it was that time unused accrues to the benefit of the defender and that waiting is still the chief advantage of the defense. The delaying of the German attack at Kursk and the long period of relative calm on the Somme were major reasons for the failed attacks at both battles. Though those delays
should be considered more appropriate material to be discussed on the operational or strategic levels their effects on the complexion of the defenders tactical level preparations needed to be addressed. For in these two battles, the time allowed the defenses to be constantly improved. Those improvements materialized at the tactical level when the extent of the obstructions and defensive networks, in both battles, slowed the attackers down and effectively reduced their strength. Therefore, allowing the defenders time to position their reserves and launch crucial counterattacks.

Also, in both battles initiative was examined. This is a factor, which as discussed previously, should belong solely to the attacker and which the defender automatically concedes when he takes up the defense. However, a strong case was constructed to show that if the Soviets didn't have the initiative at Kursk they were certainly ready to seize it. Though initiative may prove more a decisive factor at the operational or strategic levels, at the tactical level its value may be diluted by the ineffective use of the elements of surprise, terrain or time. As stated earlier, Clausewitz accepted that initiative gave the attacker an important moral advantage but he also stated that effect could be negated by other factors. In this study that effect was diffused by a combination of other factors.

Finally, some discussion should address the criticism identified at the beginning of the study that Clausewitz's proposition did not technological advances when considering the attack/defender relationship. J.F.C. Fuller felt that any weapon developed by one side would achieve only temporary advantage since the opposing side would soon attain weapon parity. Others have felt that any technological
advance in firepower normally benefits the defender and advances in maneuverability the attacker. At Kursk any technological improvements tended to only reinforce the strength of the defense—especially when integrated into the elements of Clausewitz's basic proposition.

During the beginning of the Somme, three weapon systems found widespread implementation by both sides: aircraft; artillery; and the machine-gun. At Kursk it was the tank and aircraft. The aircraft at the Somme increased mobility while artillery and the machine-gun increased firepower. Though the British achieved air superiority over their own lines and no man's land aircraft played mainly only a reconnaissance role in the battle. They were not capable of delivering large enough payloads to damage the German defenses and German aircraft were able to provide adequate protection for their own lines. The aircraft's impact was negligible. At Kursk, though the Germans had initial air superiority Soviet anti-air defenses and superior number of aircraft finally gave command of the air to the Soviets. The increased mobility of the aircraft for the offense was offset by defensive counterair.

At Somme, German control of the terrain increased the effectiveness of their artillery and machine-guns. The British artillery was controlled by inexperienced crews, against concealed positions with ineffective ammunition. Time was unavailable to train them; terrain and prepared defenses limited their observation and effects of the weapons. German gunners had extensive time to prepare and were highly
trained; the artillery and machine-guns positions maximized the use of terrain for cover and concealment and occupied positions which provided optimum fields of fire.

New technology, in the form of the Panther and Tiger tanks, also failed to pay dividends for the Germans at Kursk for similar reasons. The Germans did not have sufficient time to develop the tanks or work out their flaws. Though the tanks were faster, more maneuverable, had more firepower and better armor than the previous German tanks Soviet anti-tank defenses, tanks and defensive tactics sufficed to defeat them. The defenders at the Somme and at Kursk were able to utilize new technology to compliment the elements of Clausewitz's proposition to enhance the superiority of the defense in each case.

So, is the defense still the stronger form of war at the tactical level? The study would indicate that it is—but the evidence may be inconclusive. What would have been the outcome at Kursk and the Somme had the attackers made a more determined effort to integrate surprise into their plans? How much more effective would the Germans at Kursk have been had they followed Manstein's plan, attacked immediately and not have delayed for two months? Could the British at the Somme been more effective, like the Germans two years later, had they massed their artillery and infantry at a decisive point? The misuse or disuse of the factors studied more accurately describes the effects the elements of surprise, terrain, concentric attack, time and initiative had on the battle of Kursk and the Somme than the advantages they inherently offer. The study indicates all the factors are still critical to the relationship between the attacker and the defense so that Clausewitz's basic proposition is still valid, but due to the opportunities seized
or lost the relationship must be considered situationally dependent.

The study shows that even in modern warfare the defense can still be
the stronger form of war.
7. Ibid., p. 356.
11. Ibid., p. 379
12. Ibid.
13. Ibid., p. 357
14. Ibid., p. 365
15. Ibid., p. 358
16. Ibid.
17. Ibid.
18. Ibid., p. 359
19. Ibid., p. 358
20. Ibid., p. 360
23. Ibid., p. 390
24. Ibid., p. 360
25. Ibid.
26. Ibid., p. 379.
31. Ibid., p. 212.
39. Ibid.
40. Ibid, p. 127
41. Ibid., p. 245.
42. Keegan, *Face Battle*, p. 249
43. Ibid., p. 285.
44. Middlebrook, *First Day*, p. 246
48. Ibid.
50. Ibid., p. 104.
51. Ibid., p. 136.
55. Ibid., p. 42.
56. Ibid., p. 83.
60. Ibid., p. 167
61. Ibid.
63. Ibid., p. 264.
64. Ibid., p. 274.
65. The counterattacks were less effective in the south due to the fact that the Germans had few reserves there believing the French were not capable of launching an attack due to their losses at Verdun.
67. The 'creeping barrage' was begun by the British and perfected during the entire Battle of the Somme. It called for the artillery to step out its fires on a time scale rather than from one objective to the next. The technique was not perfected for 1 July and ranged far beyond any useful support to the infantry who often took longer to advance than planned. Near the end of a schedule the barrage would be so far out in front it was considered worthless.
68. Middlebrook, *First Day*, p. 244.
69. Ibid., p. 29.
70. This tactic was emphasized by Gen. Rawlinson, commander of the 4th Army which led the attack, because he felt that first the artillery would destroy all the German resistance leaving the infantry to just walk in and mop up. Second he considered the majority of his troops almost untrained. The majority were volunteers within the past two years. He felt proven tactics of infiltration were too complicated for his troops.

72. The 30th Division and two other divisions in the south did achieve a number of their objectives and waited for reinforcements. The commanders in the rear were not aware of the success due to the lack of communications and so an opportunity slipped away.


75. Ibid., p. 445

76. Ibid., p. 445

77. Ivanov, Kursk, p. 16.

78. Ibid., p. 16

79. Ibid., p. 17.

80. Ibid., p. 19


82. Ivanov, Kursk, p. 217.

83. Ibid., p. 163.

84. Jukes, Clash of Armor, p. 46.


87. Ibid., p. 5.

88. Ivanov, Kursk, p. 17.


90. Ivanov, Kursk, p. 16.

91. Ibid., p. 22.

92. Clausewitz, On War, p. 368.

93. Ivanov, Kursk, p. 165.

94. Manstein, Victories, p. 447.
95. Ibid.

96. Ivanov, Kursk, p. 16.

97. Clausewitz, On War, p. 366.

98. Ivanov, Kursk, p. 27.

99. Ibid., p. 165.

100. Ibid., p. 164.

101. Ibid., p. 225.


103. A proposition put forth by LTC Hal Winton an Army officer, military historian, and an instructor at Ft Leavenworth's School of Advanced Military Studies.

104. British artillery crews were considered inexperienced and poorly trained. They were part of the massive number of volunteers who enlisted in the British Army after the outbreak of WWI. The volunteers were known as "Ketchners Army".

105. Hitler had delayed the offensive until he could equip his divisions with the Panther and Tiger tanks. However they were shipped to the front-line units with no developmental testing straight from the factories. The result was many of the tanks broke down immediately upon going into combat and since the production time had been limited there was also a shortage of spare parts. (Interestingly the British encountered the same problem in the later phases at the Somme. Gen. Haig threw the newly developed tank into the Battle in insufficient numbers after limited testing. The result was massive breakdowns and minimal success. Haig had been advised against a hasty employment of the system but was in a hurry to utilize anything which may break the stalemate on the front.)
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THE BATTLE OF KURSK

5 JULY, 1943
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THE SOMME

1 JULY, 1916
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