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CLAUSEWITZ AND THE CULMINATION
POINT OF VICTORY

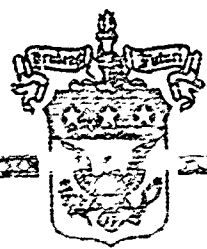
BY

COLONEL HANS - PETER von KIRCHBACH

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Besides his basic theories which have proved their validity for over a century, Clausewitz in "On War" also discussed and developed practical concepts on how to conduct war. Since technology has revolutionized warfare, the practical concepts have to be reexamined.		

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Both concepts are different but they influence each other. As a deduction of Clausewitz's thoughts a new concept, the Culmination Point of Defense can be developed. It is an implied concept and can be used by the defender once the attacker has crossed his Culmination Point of Attack. It is not useful to look for "recipes" to apply these concepts. Clausewitz gives no recipes, he shows his reader how to think.

The concepts are examined in greater depth by using case studies. The war in North Africa during 1941 and 1942, and an excursion to the Eastern front is evaluated to find important criteria for the application of Clausewitz's concepts in modern warfare on the operational level, as well as, the level of military strategy.

Strength in numbers is an important but not the only factor for success. Intelligence, surprise, deception, quality of equipment, command and control, logistics and supply contribute as well to achieve a relative superiority. The military leader has to carefully evaluate all criteria to determine the CPA, the CPV or the CPD in an actual situation. Intuition is still important, but the relative importance of intelligence has increased.

The NATO alliance can and should apply Clausewitz's concepts on the operational level, as well as, the strategic level. Since NATO cannot achieve a superiority in numbers, the alliance must

use all the other factors which contribute to success. Applying this it will be possible now and in the future to convince the opponent that neither a decisive victory nor a CPV can be achieved and thus peace can be preserved.

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CLAUSEWITZ AND THE CULMINATION POINT OF VICTORY

AN INDIVIDUAL STUDY PROJECT

by

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Carlisle Barracks, Pennsylvania 17013
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ABSTRACT

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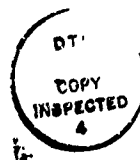


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CLAUSEWITZ AND THE CULMINATION POINT OF VICTORY

"Often even victory has a Culmination Point."¹
Carl von Clausewitz

CHAPTER I

INTRODUCTION

BACKGROUND

The basic theories of Clausewitz have proved their validity for more than a century. In addition Clausewitz also developed and discussed a number of military concepts concerning the conduct of war. These lower level concepts do not necessarily have the same validity as the overall theory. More so than the theory, the concepts reflect the technological conditions as they were in the early 19th century.

Technology since that time has revolutionized the nature of warfare. Handel discusses in some detail these connections: "His [Clausewitz's] picture of warfare is as accurate as it could have been for his own time. In addition, these aspects of his theory which deal with human nature, with uncertainty and friction, with the primacy of politics, and the need to conduct war in a calculated rational fashion, will remain eternally valid. In all other respects technology has permeated and irreversible changed every aspect of warfare."²

It seems, therefore, necessary to reexamine the relevance of some of Clausewitz's concepts. It should be useful, to evaluate them in the light of the technological and industrial revolution. The question to be answered remains, namely, if Clausewitz's practical

concepts belong to the timeless elements of war or if they have been only temporarily valid.

CLAUSEWITZ'S CONCEPTS

Clausewitz has developed and discussed several concepts, including the followings:

- surprise,
- concentration of forces in space,
- the center of gravity,
- economy of force,
- the key to the country.

Other concepts he has developed in greater depths are the "Culmination Point of an Attack"(CPA) and the "Culmination Point of Victory"(CPV). Both concepts were invented by him.

THE CULMINATION POINT OF ATTACK AND THE CULMINATION POINT OF VICTORY IN ON WAR

Clausewitz has written about the CPA and the CPV in seven different places of his book "On War."

The chapters

- "the Culmination Point of an Attack"³ and
 - "the Culmination Point of Victory"⁴
- deal exclusively with this subject.

In addition the concepts are also mentioned in five other chapters.⁵

The concepts, however, although discussed in two separate chapters can only be understood in the general context of his entire work.

Therefore it is not possible to examine one concept without regard of its dependences on and relations to other basic principles. As I will show below, the concepts of the CPA and the CPV are closely linked to:

- the purpose of war and its means,
- the military genius,
- art of war or science of war,
- politics and war,
- the relationship between attack and defense,
- war with limited aims.

Clausewitz assigns great importance to the concepts of the CPA and the CPV. Therefore, we are justified to select them as examples for an evaluation of the importance and validity of his concepts for warfare in general and modern warfare in particular.

PURPOSE OF THE EVALUATION

The purpose of this study is fourfold:
first, to define and explain the concepts CPA and CPV in detail,
second, to examine the concepts in the overall context of Clausewitz's book,
third, to analyze the relevance and the criteria of the concepts for modern warfare using case studies,
and finally to come to some conclusions concerning the applicability and utility of the concepts of the CPA and the CPV for NATO's operational concept and military strategy.

CHAPTER II

DEFINITION AND EXAMINATION OF THE CONCEPTS

CLAUSEWITZ'S UNDERSTANDING OF STRATEGY IN OUR TIME

Since Clausewitz gives us no definition to distinguish between the CPA and the CPV we have to evaluate the two chapters of his book carefully and in the context of his overall work. At first, we have to translate his understanding of strategy and policy to our understanding of national strategy, military strategy and operational art. This is necessary for a clear apprehension of the CPA and the CPV and their relationship to the different levels of warfare.

Clausewitz understands strategy as "the use of the engagement for the purpose of the war"⁶ as well as the planning process: "The strategist must therefore define an aim for the entire operational side of the war that will be in accordance with its purpose. In other words, he will draft the plan of the war."⁷ That means that Clausewitz understands strategy as covering the campaign as well as the whole war.

Today, we have a different perception of strategy. We distinguish between national strategy, military strategy and operational art, all within Clausewitz's definition of strategy.

First our definition of national strategy:

"the art and science of developing and using the political, economic and psychological powers of a nation, together with its armed forces during peace and war, to secure the national objectives."⁸

In Clausewitz's terminology this would be policy. It covers also a part of his understanding of strategy.

Next we have military strategy:

"The art and science of employing the armed forces of a nation to secure the objectives of national policy by the application of force or the threat of force."⁹

In Clausewitz's terminology this comes very close to his understanding of strategy. It covers also a part of his understanding of policy.

Finally we come to the operational art:

"The operational art defines sequencing of tactical activities and events to achieve major military objectives, concerns the design, organization and conduct of major operations and campaigns, achieves a strategic objective in a theater of war."¹⁰

In Clausewitz's terminology our definition of operational art is within his understanding of strategy.

Clausewitz relates the CPA as well as the CPV to his understanding of strategy. We now must relate both of these concepts to our understanding of operational art and military strategy in order to reach valid conclusions.

THE CULMINATION POINT OF ATTACK (CPA)

Clausewitz starts his discussion concerning the CPA with the observation that the force of an attack diminishes as the attacker advances from his point of departure and from engagement

to engagement. "The diminishing force of the attack is one of the strategist's main concerns."¹¹ In other parts of his book, he explains the different factors which diminish the force of an attack.¹² These are, for instance, losses in action, sieges and investment of fortresses, relaxation of effort or defection of allies. There are other factors which contribute to additional strength of the attacker, such as the defenders loss of assets, cohesion or courage.¹³ Normally, in Clausewitz's opinion the different factors tend to favour the defender and to diminish the initial superiority of the attacker. This leads him to conclude: "All this should suffice to justify our proposition that defense is a stronger form of war than attack."¹⁴

However, that is not to say that if the initial superiority of the attack is large enough, the objectives may be achieved in spite of the diminishing strength of the attack. In most cases however, there is an imaginary point at which the remaining strength does not permit the attacker to continue the offense. "Their remaining strength is just enough to maintain a defense."¹⁵

In other words, there is a point at which the contradictory influences on the attack and the defense lead to an equilibrium.

This is what Clausewitz calls the CPA. (fig.1, p.6a)

The CPA can therefore be defined as follows:

The CPA is reached, when the initial superiority of an attack is consumed and a balance of strength between the opponents is reached, leaving the attacker with enough strength to conduct a successful defense.

In regards to the CPA, Clausewitz speaks of attack, the success of

The Culmination Point of Attack

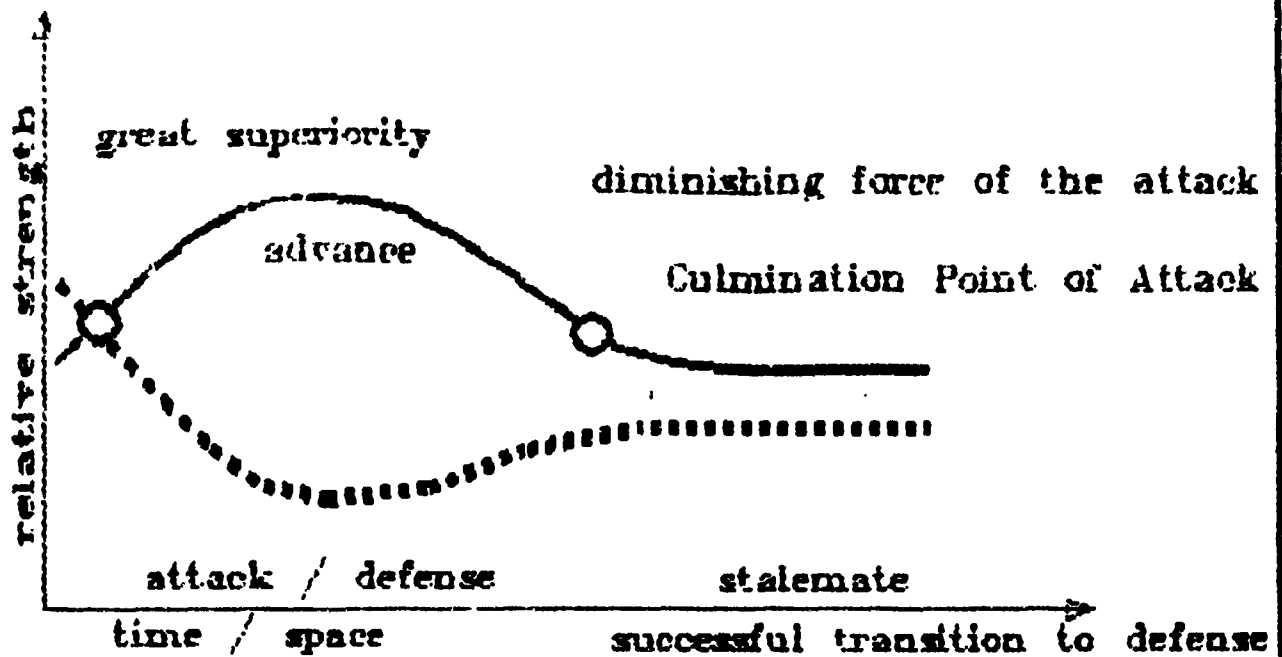


Figure 1 ————— attacker
 - - - - - defender

The figure shows the Culmination Point of Attack as defined by Clausewitz

Due to his initial success the attacker achieves superiority over the defender. However, as the attack proceeds, the force of the attack diminishes. The CPA is reached when the initial superiority is consumed, the remaining strength of the attacker, however, still allows a successful defense.

an attack, the force of an attack and the objective of an attack. He attaches all this to his understanding of strategy. As pointed out earlier, today we find it very close to our understanding of operational art and relate it to the conduct and the military success of operations and campaigns. This is not to deny that Clausewitz connects the attack and the object of an attack to "the possession of the enemy's territory."¹⁶ However, in my opinion every sentence of this chapter has in mind the conduct of campaigns and their success.

THE CULMINATION POINT OF VICTORY (CPV)

Let us move next to the Culmination Point of Victory. As mentioned before, Clausewitz's discussion of the CPV is not merely a repetition of the chapter on the CPA. Surely, it is no coincidence that Clausewitz speaks first about the Culmination Point of an Attack, in the other section of the Culmination Point of Victory. In his opinion, victory has a culmination point just as the attack. In his own words: "Often even victory has a culmination point."¹ Clausewitz discusses the CPV in a broader context than the CPA and unfolds the topic at the level of military and national strategy.

He speaks of the unfolding war, the overall view of differing and opposing principles and the general prospects in war and in peace negotiations. The criteria he refers to reach from losses of manpower, assets and territory to psychological aspects and political alliances. All this, as we understand it today,

includes the conduct of military operations but it goes far beyond. His description links the conduct of a campaign with the strategic aims of a campaign, it links the military strategy and the national strategy with the outcome of the war. Clausewitz's main conclusions in this chapter show us the relationship between the CPV of a campaign and the strategic objectives of a campaign, as well as, the relationship between the CPV in the military strategy or even national strategy and the outcome of the war. In his own words: "The end is either to bring the enemy to his knees or at least to deprive him some of his territory - the point in that case not to improve the current military situation but to improve one's general prospects in the war and in the peace negotiations," and on the same page: "This culminating point in victory is bound to recur in every future war in which the destruction of the enemy cannot be the military aim."¹⁷

If all this is valid, we are obliged to find a definition for the CPV. This definition must be broad enough to harmonize our understanding of military strategy.

Paying close attention to Clausewitz, the following definition can be formulated:

The Culmination Point of Victory is the imaginary point in planning or execution of a military operation or a military strategy up to which

- at the operational level, a favourable outcome of the campaign in relation to the strategic objectives of the campaign can be achieved, and
- at the level of military strategy and national strategy, a war

termination with a positive outcome in relation to the objectives of the war is still possible.

DIFFERENCES AND RELATIONS BETWEEN CPA AND CPV

We must now discuss the differences between the CPA and the CPV. As concerns both, we are not able to directly prove that it was Clausewitz's intention to differentiate between the two. However, evaluating the subject in its entire context, it seems justified to place the CPA and the CPV at two different levels within Clausewitz's understanding of strategy.

The CPA refers mainly to our understanding of the operational art of war, the CPV mainly to our understanding of military strategy.

This association allows and demands that we spell out the differences. These are:

- The CPA is related to the conduct and military success of a campaign. The CPV is related to the strategic outcome of a campaign and the outcome of a war.
- The CPA is related to the present, with a short time view. The CPV is related to a long time view of the development of the campaign and the war.
- the CPA is related to the forces immediately available and reserves, which can be made available in a short time period. The CPV is related to all the national resources or the resources of an alliance, which can be made available over a long time period.
- Miscalculation of the CPA is a risk for the campaign,

miscalculation of the CPV risks reaching the strategic objectives of the campaign or even loss of the war.(fig.2,p.10a)
There are not only differences but also interconnections between the CPA and the CPV.

During the course of a campaign, a CPA can be reached several times by either side as will be shown in the case studies.

This is not valid concerning the CPV. Only one belligerent side is able to apply the concept successfully. Only one side is able to gain a final favourable outcome of the campaign or the war in relation to the strategic objectives.(fig.3,p.10b)

The conduct of operations and the CPA, however, are factors which have an important influence where, when and if the CPV can be reached. Or, in general terms, it is useless to wage a war or to extend a war if a careful estimation leads to the conclusion that a CPV cannot be reached. It would be irrational to wage such a war.

THE CULMINATION POINT OF DEFENSE (CPD). A NEW CONCEPT ON THE OPERATIONAL LEVEL OF WARFARE

Having said all this, I would now like to introduce the Culmination Point of Defense. This will be a new concept and a deduction from Clausewitz's writings. We defined the Culmination Point of an Attack as the imaginary point where the initial superiority of the attacker is consumed and a balance of strength between the opponents is reached. The attacker's remaining strength is still enough for a successful defense. This justifies the following next conclusion:

Relations and differences between CPA and CPV

Criteria	Culmination Point of Attack	Culmination Point of Victory
level of warfare	operational	operational in relation to the strategic objectives, strategic
decision	military success of operations within a campaign	strategic outcome of the campaign, outcome of the war
decision making	military leader	military leader, military and national command authorities allied codetermination
area	theater of war	theater of war, national and alliance territory
resources	forces and reserves immediately available	replacements for losses national and alliance resources
timeframe	present and short time future	long time future
possible risk	military defeat in a theater of war	final defeat in a theater of war, final defeat in war

Figure 2

Relations between CPA and CPV

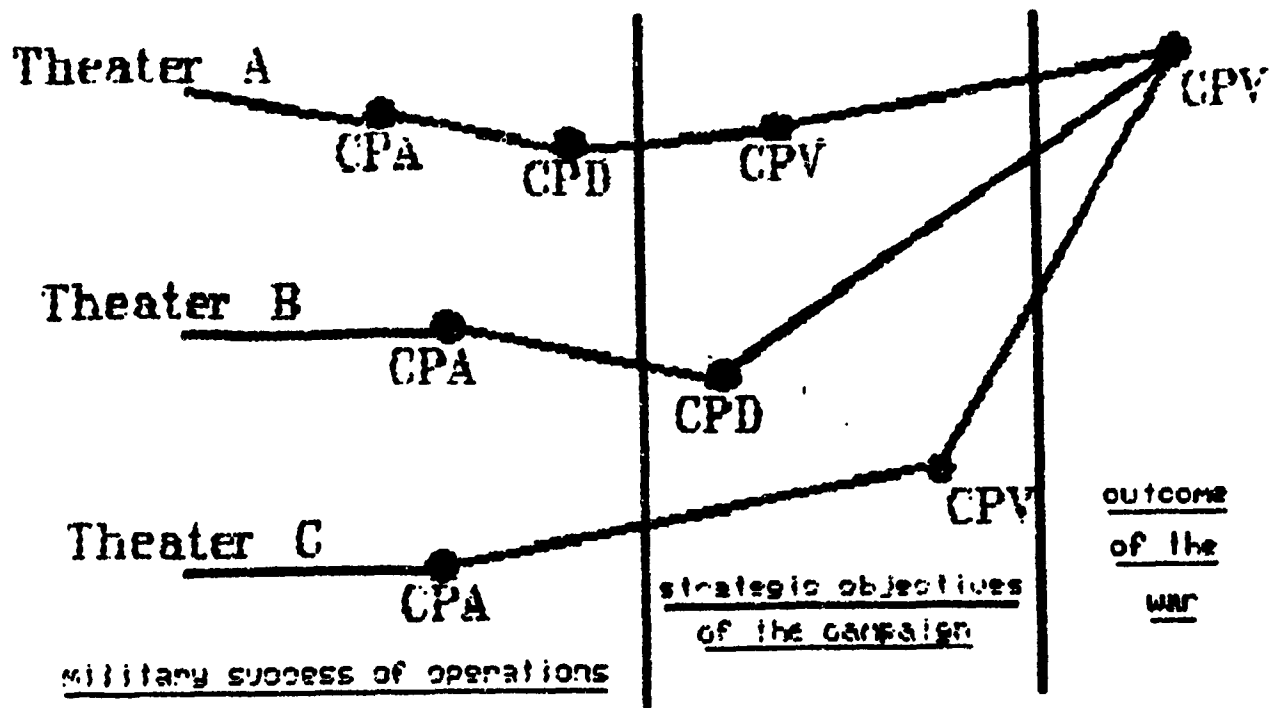


Figure 3

The figure shows possible relations between the CPA, CPD and the CPV

A war is conducted in different theaters. Only one belligerent side is shown. Each campaign is unique and different, but all together influence the outcome of the war. The CPV of a campaign is decisive to the extent that the strategic objectives of the campaign can be reached. We find the aggregation of the (successful) campaigns in the final CPV which is decisive for the outcome of the war.

When the attack is continued beyond its culmination point, the balance of strength changes in favour of the defender. Now he has the superiority and should counterattack himself. To cross the culmination point too far can be a step into defeat.

Or, in Clausewitz's words: "Beyond that point the scale turns and the reaction follows with a force that is usually much stronger than that of the original attack."¹⁸

I wrote carefully "can be a step into defeat" because it will only be a step toward defeat, if the situation is exploited by the defender. The defender must realize, that the attacker has crossed his culmination point and launch a counterattack. To recognize this moment will not be easy. Nevertheless, if the defender is able to evaluate the attacker's situation correctly, if he exploits it by a carefully launched counterattack at the right moment, he will be able to change the initial situation to his favour.

In other words :

There is not only the concept of the "Culmination Point of an Attack" which can be used by the attacker, there is also a concept of the "Culmination Point of Defense" which can be used by the defender. (fig.4,p.11a)

Clausewitz didn't write about this concept, but we are still within the scope of his considerations. Clausewitz demands from a defender to conduct a counterattack at the right moment. He regards the transition from the defense to a counterattack as one of the essential features of defense.

"A sudden powerful transition to the offensive - the flashing

The Culmination Point of Defense

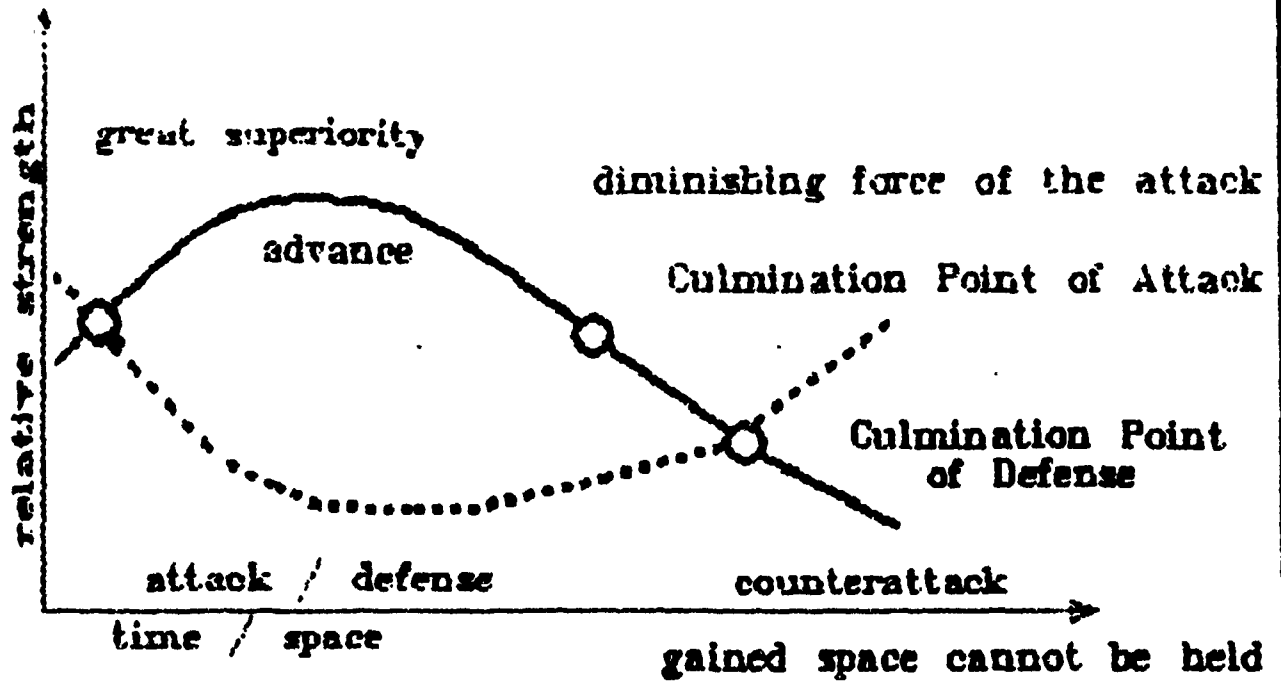


Figure 4

————— attacker
 - - - - - defender

The figure shows the Culmination Point of Defense as defined
in this study

The CPD is an implied concept, based on Clausewitz's definition of the Culmination Point of Attack. The attacker crosses his CPA and continues to lose strength. At the same time the defender gains strength. The point, where the scale turns, is the CPD. The attacker has driven his attack too far. At that point the defender now can and should counterattack himself.

sword of vengeance - is the greatest moment for the defense."19
The suitable moment for this transition has come when the enemy has overestimated his possibilities and his attack has crossed its culmination point. This means, that the two points, the CPA and the CPD, cannot be the same. Nevertheless, they can be very close. The Culmination Point of an Attack is reached and the concept properly used when a smooth transition to a successful defense is still possible. The defender has his chance when this point is crossed and he has realized it.

The defender has to wait for the right moment. It has come when the attacker has driven his attack too far. The defender can, therefore, not use the concept independently. The proper use depends on mistakes of the attacker. At a later stage we will discuss the possibilities of the defender to encourage the attacker to miscalculate his possibilities.

Based on our examination of the relations between attack and defense at the operational level, we can postulate three propositions:

- At the operational level of war we find not only the "Culmination Point of an Attack", but also the concept of the "Culmination Point of Defense".
- The Culmination Point of Defense is reached, when the attack has crossed its culmination point. The superiority now shifts to the side of the defender and he can use it by counterattacking.
- The defender cannot use the concept independently. His use of the concept depends on mistakes of the attacker and his ability

to recognize them.

The defender can and should, however, encourage the attacker to overestimate his possibilities. Once the attack has crossed the CPA, the chances for the defender's counterattack improve considerably.

To explore this subject further, we must now introduce the element of time. The equilibrium following the transition from attack to defense is neither stable nor in most cases lasting. Both sides will try to use the break in order to regroup and reinforce. After that, either the attacker can continue with a new gained superiority or the defender is now able to attack himself. There is no general rule as to which side will gain an advantage from the break. Often, however, the defender, with his shorter lines of communication, will have better possibilities to gain superiority.

CONSIDERATIONS ON THE LEVEL OF MILITARY STRATEGY

Next, I will proceed to some considerations at the level of military strategy. When looking at military strategy we must broaden our perspective. The main differences between military strategy and the operational art are:

- at the center of the considerations is the decision to start and to conduct a war,
- the considerations are not limited to one theater of war,
- the strategy, as well as the decisions to be made might be codetermined by allies,
- the national influence, in different theaters of the war,

might not be the same,

- decisions about the military strategy include political considerations and are made at the highest political level.

Clausewitz, as we saw, had mainly strategic objectives and outcome in mind, when he spoke about the Culmination Point of Victory. If we use our previous definition it becomes clear that calculations are necessary to determine up to which point offensive warfare can be successful and up to which point initial gains can be maintained by defensive warfare. That means we need to consider not only the initial possibilities but also future possible developments. It must be evaluated which theater of war is the decisive one. It must be considered how alliances would develop in the course of a war. The possibilities to make additional resources available must be carefully taken into consideration, as well as, one's own chances to gain additional strength. It would be careless to calculate only the first move or campaign and to neglect the future. It would be careless and irresponsible to base the decision to wage a war only on the probable outcome of the first campaign. War planning needs to include the planning for war termination.

To cross the CPV on the strategic level or to miscalculate it is by far more dangerous than to cross the CPA in a campaign. It can mean losing the war. Clausewitz: "If one were to go beyond that point it would not merely be a useless effort which could not add to success. It would be in fact a damaging one,"²⁰ and, "one can usually be grateful if one has to sacrifice only conquered

territory, and not one's native soil."21

Most of these considerations are also valid for the defender. If he is able to prevent a quick decisive defeat he has several possibilities. He can fight a war of attrition, he can decide to delay and trade space for time, he can decide to choose mobile defense and he can act different in separate theaters of war. He can use the time gained by his defensive operations to make additional resources available. He can look for new allies. If the attacker overextends his forces, he will be able to gain the initiative himself. If the defender has additional resources available, time might become an extremely important factor. The CPV for the attacker, as well as, for the defender might be determined not only by space but also by time. If the defensive alliance can prevent the attackers initial decisive success and gain enough time to make its resources available the attacker might not be able to hold the terrain gained by his first attack. Based on these considerations the following conclusions are justified:

- In military strategy there might be a Culmination Point of Victory for the nation or alliance with an offensive strategy as well as for the nation or alliance with a defensive strategy.
- The Culmination Point of Victory might be determined not only by space but also by time. Depending on the resources which can be made available over a longer period, time may become the most important factor for the Culmination Point of Victory.

Before we leave this subject, we have to look at the planning process. We will do so from the viewpoint of the nation or

alliance which has a defensive strategy. The first purpose of a defensive military strategy is always to prevent an enemy attack. If there is no attack, the purpose of the strategy is reached. The attacker has to be confronted with the probability that no Culmination Point of Victory can be achieved. There must be no point at which he can finish the war with a favourable outcome in relation to his strategic objectives. The attacker must, therefore, be confronted with the probability that

- a quick decisive victory cannot be achieved,
- his initial superiority is not large enough to decide the war in only one campaign,
- the defender will not agree to a peace treaty based on the attackers initial success,
- the defender will use time to make all his possible resources and those of his alliance available,
- possible gains of the attacker will not compensate him for his losses.

In the age of nuclear weapons we must also think about their influence on the concept of the CPV. We will do this at a later stage.

CHAPTER III

CPA AND CPV IN THE GENERAL CONTEXT OF "ON WAR"

Here we must come back to Clausewitz's thoughts on war in general and tie the discussion to the rest of his book. Clausewitz demands "to detect the CPA with discriminate

judgement."²² He states the importance" to calculate this point (the CPV) correctly."²³ He offers, however, no clear help, how to do this. This is not surprising. To give a "recipe" would be contradictory to Clausewitz's view of war. He considers war to be more an art than a science. He regards war to be an act of human intercourse. War is real life with danger, frictions, uncertainty. "Everything in war is simple but the simplest thing is difficult."²⁴ So, Clausewitz cannot offer formulas. Whoever looks for them in his book will not find them.

The following sentences show only a few examples how all of his thoughts are linked together. There are criteria for superiority, they decide about the initial success of an attack. The superiority, however, and the force of an attack diminishes from the point of departure. Therefore, most of the attacks have a culmination point. The course of attack and defense are influenced not only by measurable factors such as the number of forces, weapon systems, and supplies. Many other criteria such as surprise, deception, intelligence or moral factors have to be considered also. Frictions and uncertainty are the normal environment in war. The criteria have to be considered prior to the decisionmaking of the military leader. Since war is more an art than a science, the military leader must not only have knowledge, but also apply his intuition. Intuition enables the military genius to detect the truth through the fog of uncertainty.

What we can learn is a way of thinking. This way of thinking can and should support the discriminative and sensitive judgement, it

should help to strengthen the ability to find the truth.

Clausewitz offers some help in thinking. He offers the use of criteria for the operational, as well as, the strategic level which influence the strength of an attack, of offensive and defensive strategy and therefore simultaneously the CPA and the CPV. We will use this method in the case studies.

We look for the criteria, because they help us in our thinking. Finding the criteria which influence the outcome of an operation or the outcome of a war will not necessarily prevent mistakes since the proof lies in applying them in a given situation. Nevertheless, it is necessary to know the criteria to avoid that actions are governed by coincidence.

CHAPTER IV

CASE STUDIES

PURPOSE OF THE CASE STUDIES

The concepts of the CPA and the CPV can be further explained and developed in greater depth by case studies. Case studies also provide the best vehicle to examine and propose criteria for the application of the concepts. The case studies have to cover the operational as well as the strategic level of war.

I selected the campaign in the western desert between the German intervention February 1941 and the first battle of El Alamein July 1942. "The desert warfare was war in its purest form."²⁵ The North Africa campaign was a sequence of attacks and counterattacks, a sequence of actions and counteractions. (fig.5,

p.19a) The different campaigns between May 1941 and July 1942 offer, therefore, unique opportunities to evaluate the criteria of superiority in attack and defense and gain insights about the application of the concepts of the CPA and the CPD. A view at the strategic interdependences should help to gain some additional knowledge concerning the CPV.

THE AXIS OFFENSIVE APRIL 1941

Description:

Rommel arrived in Africa on 13 February 1941. The British offensive against the Italian forces had come to a halt. It had been stopped by the British national authorities, especially Churchill. He wanted to make forces available to attempt to establish a Balkan front. The 13th Corps was disbanded, a stationary command, the Cyrenaica Command was set up. The remaining forces consisted mainly of one Australian Brigade Group and one Armored Brigade of the 2nd Armored Division, partially equipped with captured Italian tanks. General O'Connor the winner of the first campaign in the desert became commander of the British troops in Egypt. When he was sent back to the desert after Rommel's attack he was captured by German troops. The British CINC Middle East Forces, General Wavell, had taken the risk to leave only small forces in the Cyrenaica because he was convinced that no German attack was possible before May. The Axis forces in March 1941 consisted mainly of the 5th Light Division with about 70 light and 80 medium tanks, the incomplete

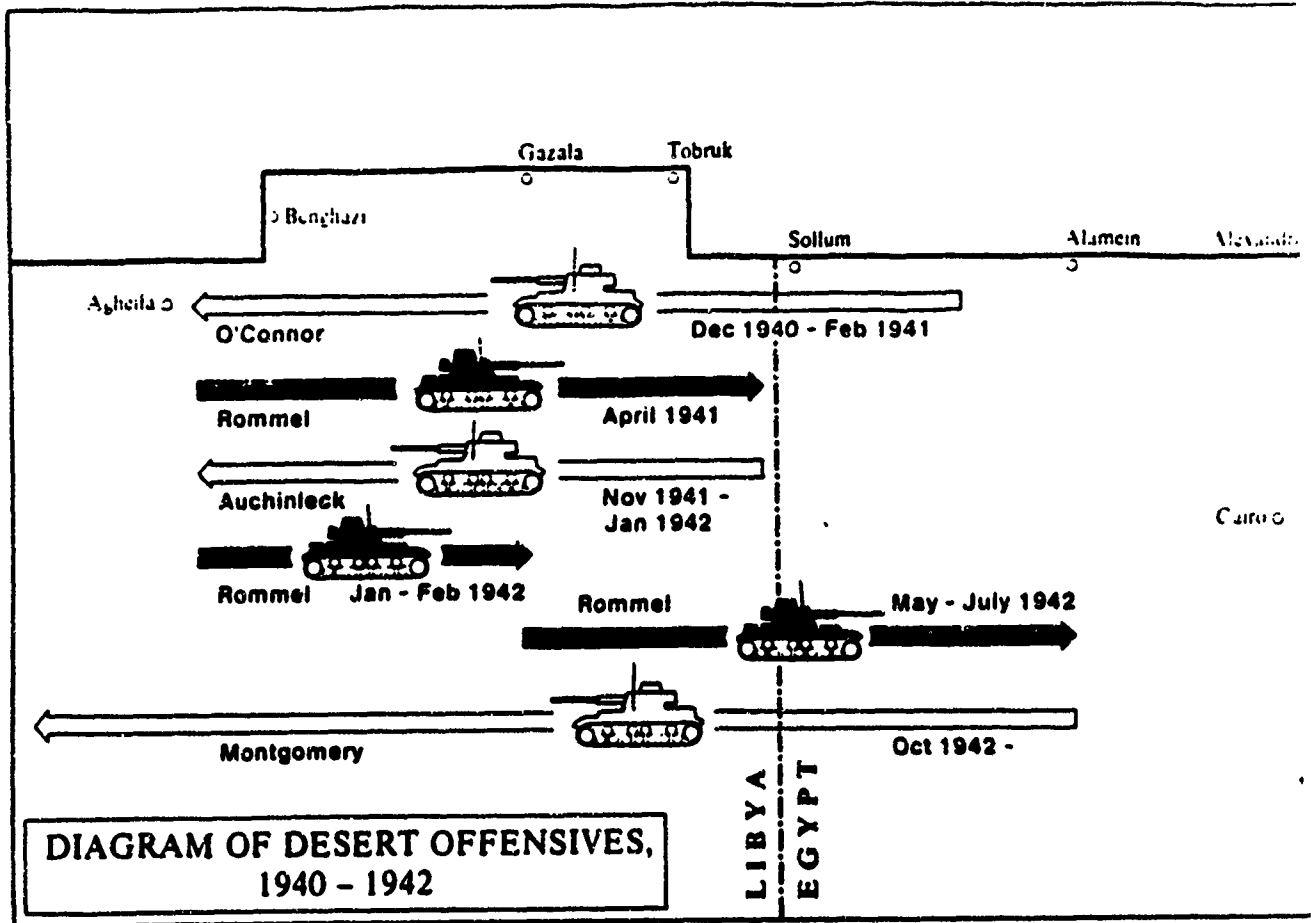


Figure 5

source: Ralph Benett Ultra and Mediterrean Strategy
New York 1989

Italian Ariete Division and four Italian Infantry Division without artillery.²⁶ With this small force Rommel seized the initiative. (fig.6,p.20a) El Agheila, Mersa Brega and Agedabia were conquered easily within four days. The British, trying to keep their forces intact, retreated. Despite orders to wait for supply and reinforcements (and against the original intention to continue the offensive in May) Rommel decided on April 3rd to continue the offensive with three spearheads through the Cyreneica. On the same day, the abandoned Benghazi could be seized, Mechili fell on April 7th, Tobruk was reached and encircled on April 11th, Bardia was conquered on April 13th and Sollum on April 28th. Rommel, however, failed with some hastily conducted attacks in the 2nd week of April to seize Tobruk. Also a carefully preplanned attack at the end of April brought no success. The important Halfaya position, however, temporary lost after a British counterattack, could be regained. After this last success, the offensive had to be stopped, there was a stalemate.

Evaluation:

Rommel conducted a hazardous attack. For some days the decision of the campaign was at balance. On April 6th, the Axis forces were scattered over 100 miles. Tobruk couldn't be captured and would become a thorn in the flesh of Rommel's advance. Nevertheless, the offensive was conducted successfully. It is a brilliant example of the operational art at work. The British forces were thrown out of balance from the very beginning. From a strategic point of view, the operation brought no success. The destruction of the British forces could not be achieved. The

Axis Offensive March 1941

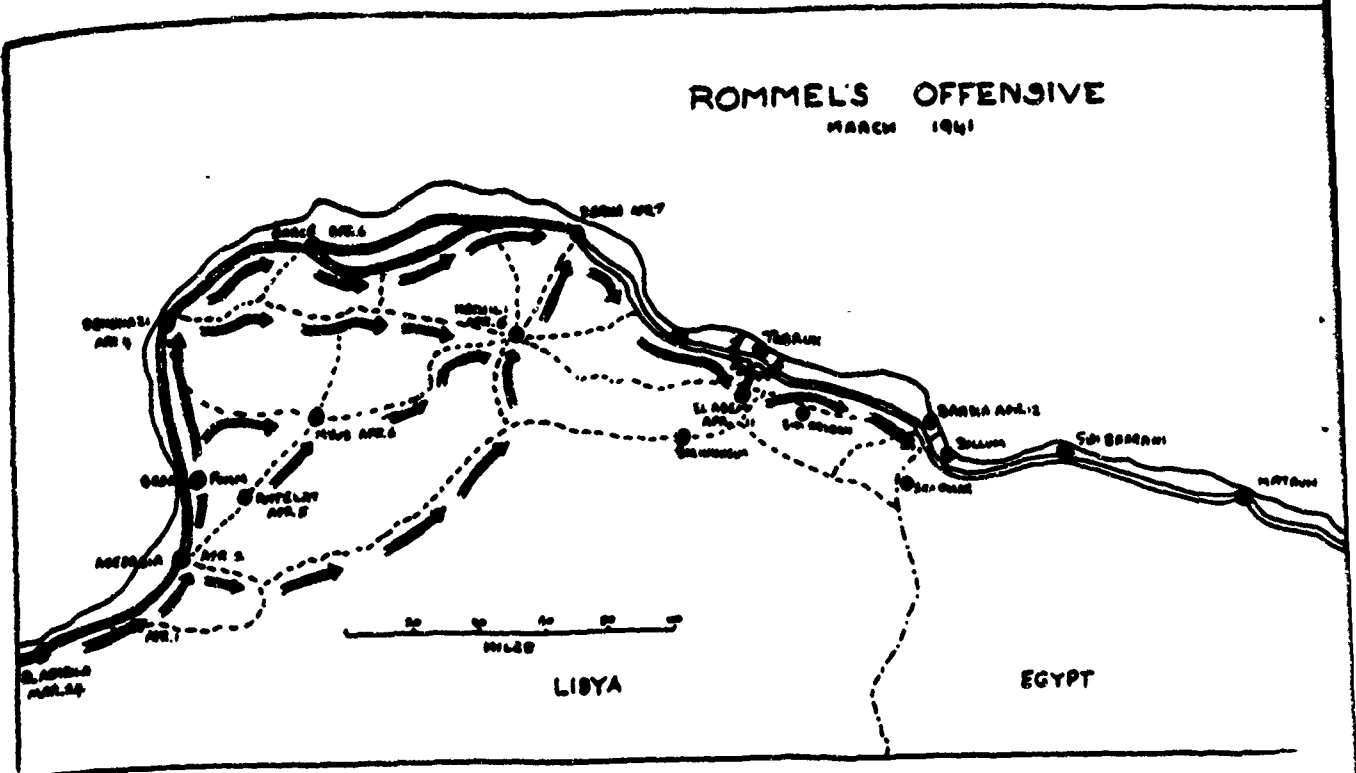


Figure 6

Source: Jack Coggins The Campaign for North Africa New York 1980

The British Offensive "Battleaxe" June 1941

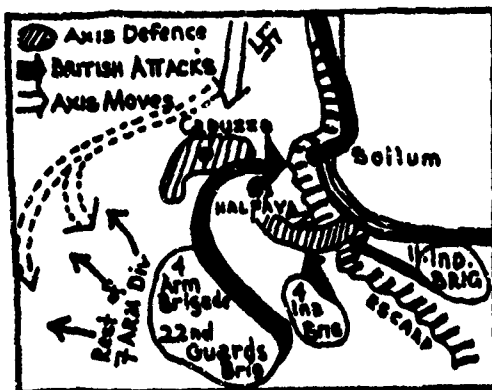


Figure 7

Battleaxe Phase A

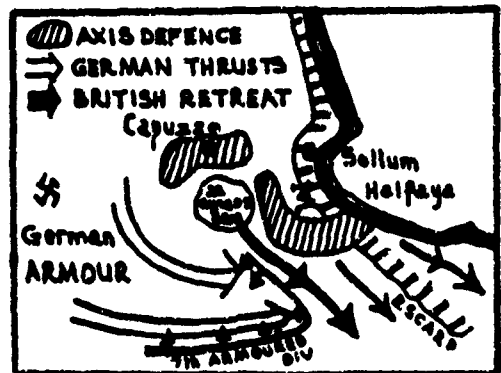


Figure 8

Battleaxe Phase B

Source: Corelli Barnett The Desert Generals Indiana University Press 1982

seizure of terrain was of no great importance in the desert. The lines of supply, with the addition of 700 miles, were overstretched by far.

Criteria for Superiority:

- Surprise

Rommel could achieve operational surprise, despite fact that the arrival of German troops in Lybia was well known. The British commander also had a clear picture about the strength of the Axis forces. "British intelligence was able to build up a fairly full picture of Rommel's strength and deployment before his first Desert Offensive (31st March 1941) through the Luftwaffe Enigma."²⁷ The British CINC concluded that Rommel wouldn't be strong enough for an attack before May. Normally, this evaluation could have been correct, but Rommel was not a normal military leader. He was bold and determined and forced the attack. "Here was an early illustration of the pitfall of good intelligence: it is one thing to have accurate information, but it is another to draw from it the correct operational conclusions."²⁸

- Deception

Rommel succeeded with some deception measures (on the tactical level) which in the course of the Africa campaign he repeated several times. "He ordered his troops to manufacture hundreds of dummy tanks of wood and cardboard."²⁹ According to the 5th Light's Division war diary the deception worked. "Intercepted enemy radio messages report having sighted medium

tanks. This shows that our deception worked."³⁰

- Training and Doctrine

The German troops had no experience in desert warfare, nor had their leaders. But they were experienced in mobile warfare and combined operations. The British forces which had successfully fought in the desert had been disrupted and replaced by inexperienced troops. But more importantly, there was a general lack of knowledge in mechanized warfare on the British side.

- Equipment

The 5th Light Division was a balanced force with armor, anti armor, reconnaissance, a motorized machine gun unit, artillery and engineers. The British armor had many deficiencies. One regiment with light tanks was below strength, another had captured Italian tanks which were slow, unhandy and unreliable. The British cruiser tanks were in a very bad mechanical state.³¹

- Command and Control

The German command and control system was superior. Rommel lead the offensive out of a small mobile headquarters, the British forces were under command of a static headquarters with lack of a trained staff and signal equipment necessary to control mobile operations.³² Additionally, as a whole, the German commanders were more experienced in mobile warfare and had more initiative. This enabled them to improvise were there were no adequate orders. Difficult situations due to lack of supply could be overcome.

The Culmination Point of the Attack :

After the Germans had taken the Halfaya position there was a

stalemate. The Axis troops had gained a position, favourable for defense. From this position, in a later stage Rommel could halt the British offensive "Battleaxe". The attack had lost its momentum, but the remaining strength was still enough for a successful defense. This means, the Culmination Point of the attack was reached but not overtaken. The most important criteria were:

- lack of supply, there was not enough petrol available, to continue the attack,
- lack of forces, Tobruk, the pole in the flesh could not be conquered, so forces had to be withheld for the siege of the fortress,
- strategic implications of the OKW, which had simultaneously to consider the imminent offensive against Russia.

But, the stop of the offensive was not a conscious application of the concept of the CPA. It was unwillingly enforced through circumstances. The developments following Rommel's advance prove that the stalemate reached with the CPA is not stable. The fighting goes on and both sides will use the time to reinforce, to improve their positions and try to gain superiority in order to seize the initiative.

THE BRITISH OFFENSIVE "BATTLEAXE"

Description:

The offensive "Battleaxe" could begin after the 7th Armored Division had been reequipped with about 250 tanks of different

types. (fig.7,8,p.20a) The offensive was to be conducted in two phases. The first objective was to defeat the enemy near the border and seize and secure the area Bardia, Sollum, Capuzzo. The second objective was to relief Tobruk, to defeat the Axis troops between Tobruk and El Adem and continue the advance towards Derna and Mechili.

The decisive Halfaya position was to be attacked frontally by two separate infantry units, while the main effort by the armor forces was on the left flank and directed against Capuzzo and Sollum.

The frontal attack on the Halfaya position was repulsed immediately. The armor forces succeeded to gain Capuzzo but were stopped west of Sollum. On June 17th, the third day of the battle, Rommel conducted a counterattack to the flank and rear of the British armor. The British forces had to retreat with heavy losses. They lost 91 tanks in this battle, while the Axis losses were only 12 tanks destroyed and some others damaged.³³

Evaluation:

Although the British offensive "Battleaxe" was no more than an interlude, it is useful to evaluate it for two reasons:

- The repulse of the offensive by the German troops proves that Rommel's forces had indeed reached the CPA. They were unable to attack but able to successfully defend their positions.
- The offensive shows that there is no CPA if the defender can deny an initial success. If intelligence can prevent operational surprise, the chances of a successful defense improve considerably. Without initial success, there is no chance of a successful transition to defense. The attack has to

be abandoned completely and the attacker should be glad if the defender is not able to exploit his success.

Criteria for Superiority:

- Command and Control

Without repeating well known statements about Rommel's abilities, the following statement about the British leadership is interesting: "...it deserves attention as an example of what happens to an army when there is no commander to animate its limbs and supply its brain; when mediocre minds plod narrowly along a precedent."³⁴

- Intelligence

The British forces had adequate knowledge concerning the overall shape and the intentions of the Axis forces by breaking the German Air Force Enigma. They knew about Rommel's supply difficulties. The correct impression about Axis shortages was in fact one of the main reasons for the timing of "Battleaxe".³⁵ But intelligence failed on the tactical level. "In planning the attack, little was known of enemy dispositions, partly owing to a shortage of cameras for air reconnaissance."³⁶

The Germans however, at this time, had ~~good tactical intelligence.~~ Their analysis of wireless traffic was very good and enabled them to expect the offensive prepared.

- Technology

The first appearance of the 88mm gun caught the British by surprise. The successful employment of an anti aircraft weapon in an anti tank role was a great contribution to the successful

defense of the Hafaya position. The 88mm gun should become the most feared German weapon of the desert war. The evaluation shows not only the importance of technology in general but also the importance of technological surprise.

The Culmination Point of the Attack:

The attack was a failure from the beginning. Despite some gain of terrain on the left flank, a Culmination Point of the Attack, that is, a point at which a transition to defense in a more favourable position than at the beginning would have been possible, was never reached. We can, however, gain some additional knowledge about the concept of the Culmination Point of Defense. Battleaxe is a very good example of an offensive without success. There was no CPA, but nevertheless we find a point which meets all our conditions for the CPD. When the British attack on Halfaya had failed and the British armor was stopped in front of Sollum, there was a good chance to launch a counterattack against weakened forces in an exposed position. In this decisive phase of the battle the attack had lost its momentum, the losses of the attacker were higher than those of the defender. The initiative could be regained by the defender. It seems that we have to broaden our view of the CPD. The CPD can be reached either if the momentum of the attack is lost due to crossing the CPA or due to losses by a successful defense.

THE BRITISH OFFENSIVE "CRUSADER"

Description:

The time following "Battleaxe" was used by both sides.

Rommel prepared an attack to finally seize Tobruk. The British forces, considerably reinforced and under new command (the commander of the new formed 8th Army was now General Cunningham, the CINC Middle East had been replaced by Field Marshal Auchinleck) prepared an offensive with the final objective to destroy the Axis forces in North Africa. Churchill wanted this offensive to be conducted as early as possible.

The British plan for the offensive "Crusader"(fig.9,10,p.27a) was, to outflank the Axis defense between Bardia, Sollum and Sidi Omar and to defeat the German armor. The decisive battle was expected to take place in the Gabr Saleh area. After the armor battle had been fought, the British infantry (13th Corps) was to fight its own battle against the German and Italian units in the frontier defense. To prevent a counterattack through the gap between armor and infantry, one armor brigade was to protect the left flank of the 13th Corps. Rommel had employed the Italian forces, reinforced by German anti armor units, for the frontier defense. One German Armor Division (21st) was held in reserve. Even the other Armor Division(15th), preparing the attack against Tobruk, had to be ready to join the 21st Division on 24hours notice. Rommel was in a dilemma. He was aware that the British forces were preparing for an attack, but he didn't want to stop his own preparations for the conquest of Tobruk.

The British had a considerable superiority in tanks. Cunningham had 450 tanks of different types in the 7th Division against Rommel's 270 German (96 of them Mark II hardly fit for battle) and

The British Offensive "Crusader"
 Source: Corelli Barnett The Desert Generals
 Indiana University Press 1982

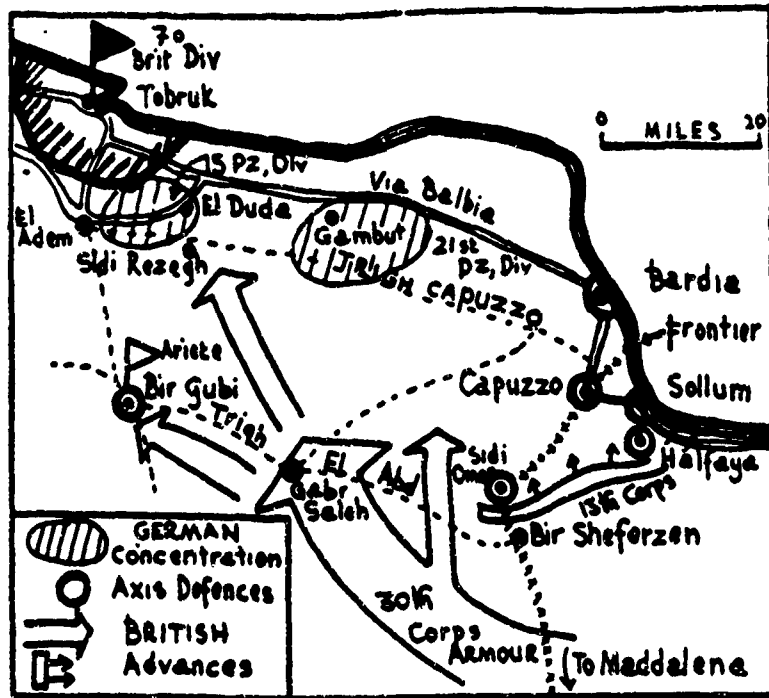


Figure 9

Crusader Phase A November 1941

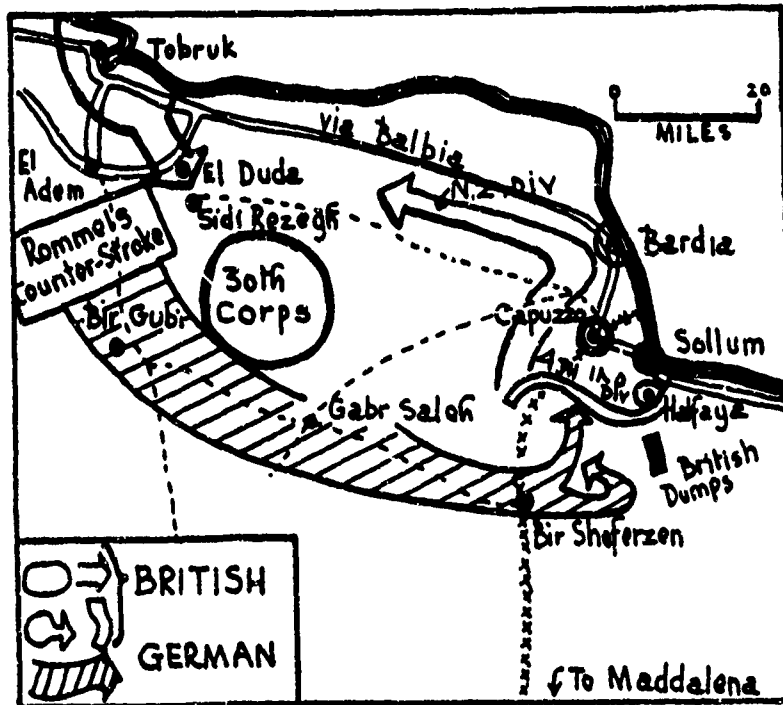


Figure 10
 Crusader Phase B November 1941

138 Italian tanks. The British forces had another 225 tanks in the Infantry Corps, but they "had been designed only for co-operation with infantry and, though a powerful weapon, had not the speed for a battle of manoeuvre and could not take part in the decisive tank action."³⁷

The British offensive started on November 18th. Rommel's intention to capture Tobruk prevented a timely regrouping of the Axis forces. For several days, Rommel's evaluation concluded that the British offensive was only a reconnaissance in force.

The offensive was not very well organized. Finally, only one brigade instead of three fought the armor battle, one repulsed by the Italian Ariete Division, one still protecting the flank of the 13th Corps. The German counterattack at first with one, later with two divisions could defeat the British armor piecemeal. The 7th Division had to give up Sidi Rezegh, the key to Tobruk. About half of the British tanks had been destroyed.

Rommel now seized the initiative and conducted a counterattack deep into the British left flank. The Commander of the 8th Army, Cunningham, considered the battle as lost and requested a discussion with Auchinleck, his CINC. Auchinleck, considering Rommel's situation as equally bad ordered the offensive on the right flank (13th Corps) to be continued. Auchinleck's words: "He is making a desperate effort, but he will not get very far. That column of tanks simply cannot get supplies, I am sure of this."³⁸ Cunningham was relieved and replaced by Ritchie, Auchinleck's Chief of Staff.

Auchinleck's estimation proved right. Rommel's offensive ran out

of supplies and failed. The New Zealand Division succeeded in seizing the decisive position Sidi Rezegh and relieved Tobruk. In the next days, Rommel once more was able to cut off the fortress, but this was only a short interlude. His force was worn down and consequently finally had to withdraw and give up not only Tobruk but the whole Cyreneika. Bengazi fell on Christmas Eve.

Evaluation:

The Crusader offensive was a British success at the operational level. It was not a skillfully conducted offensive, but the superiority in strength and especially the possibility to make reserves available was enough to relieve Tobruk, regain the Cyreneika, and drive the offensive to El Agheila. Here the superiority was consumed, the defender had gained strength and a further advance was not possible.

From a strategic point of view the offensive was indecisive. Though considerable German and Italian forces had been destroyed, the only result was the gain of terrain. The British losses in the last stage of the battle were high and Rommel's chances improved to regain the initiative.

Criteria for Superiority:

- Material Strength

As already mentioned, the British forces could begin their offensive with a considerable numerical superiority. The initial superiority was 4:3 against the combined German and Italian armor and more than 2:1 over the Germans alone.

Despite the British superiority, initial success could not be

achieved. Contrary to Rommel, the British commander failed to bring his strength to bear. His armor could be beaten piecemeal. When both forces were down in tanks, however, the British had some reserves available, while Rommel had no reserves.

- Leadership

Concerning leadership, I will only refer to Rommel because he was the only constant factor of the battle. The commander of the 8th Army was relieved during the battle, the most important decisions on the British side were made by the CINC. Rommel, at this stage of the campaign, showed all his abilities but also some of his deficiencies. In the beginning he refused to recognize the realities that disturbed his own plans. Once he had realized the danger, he conducted a skillful, energetic, and in the first phase successful counterattack. After this, however, he overestimated the possibilities of his exhausted forces and went too far. On the other hand, coming to the conclusion that retreat was inevitable, Rommel conducted it despite advise to the contrary and so prevented a decisive defeat. He receives a great deal of credit for this decision in the "British History of the second World War": "A retreat.....could only succeed if it took place before the British could interfere seriously. If General Rommel had weakened on this decision there is little doubt that the Axis forces had been destroyed and the whole course of the war in the desert changed."³⁹ After the successful retreat, Rommel could continue the campaign, defending at a favourable position of his own choice.

- Supply

Due to successful British interference, Rommel had supply difficulties throughout the battle and the British were aware of this. "In the two months up to the middle of December 1941 the combination of high grade shipping intelligence and the permanence of Force K in Malta enabled the British forces to bring about a virtual stoppage of Axis supplies to north Africa."⁴⁰ Rommel's stroke deep into the left British flank ran out of supplies and failed. On December 4th, when the battle was hanging in the balance, Rommel received the information that his forces would get no more supplies until the end of December. At this time, the German Air Force was expected to be in Sicily and to be able to give better protection to the lines of supply. "For Rommel, aware of the prostration of his men and of acute shortage in suppliesthis news was decisive."⁴¹

- Intelligence

The British commanders had good knowledge about the overall status of the Axis forces by regularly breaking the Luftwaffe Enigma. They knew of the arrival of the 90th Light Division, the supply difficulties, as well as, the location of Rommel's main formations. Knowledge about Rommel's supply difficulties and the fuel crisis of the Luftwaffe played some part in Auchinleck's estimation that Rommel's counterstroke would have to be abandoned.⁴²

Tactical intelligence provided exact knowledge about Rommel's imminent raid, but the news didn't influence the dispositions. No

timely information was available about Rommel's intention to retreat and his conduct of operations during the retreat. The lack of tactical intelligence was the cause for heavy British losses during the last phase of the battle and the final inability to continue the attack.

Rommel, on the other hand, had no clear picture of the imminent British attack. Nevertheless, he knew from the German intelligence that an attack was possible.

The British forces, however, succeeded to prevent German air reconnaissance and keep ground reconnaissance at a distance. Lack of intelligence was the main cause for the British offensive to achieve operational surprise. Once the attack had started, Rommel rejected the results of his intelligence because he did not want to abandon his attack on Tobruk.

The Culmination of the Attack, the Culmination Point of Defense.

There is an interesting moment in the battle, when, looking through the confusion and in retrospective, the Culmination Point of the Attack, as well as, the Culmination Point of Defense can be identified clearly. On the 23th of November, Rommel in his counterattack had recaptured Sidi Rezegh. Nearly 300 tanks or two thirds of the British armor had been destroyed. But, Rommel's army also had suffered heavily. He had about 100 tanks left, still less than the British. But, he had conquered a favourable position; the key to Tobruk was in his hands and he would have been able to defend this position. Rommel now overestimated the combat strength of his remaining forces. The counterattack into

the deep British flank was conducted beyond the Culmination Point. On the other hand Auchinleck made a correct estimation of the situation. "The Africa Korps milled inconclusively about the Omars throughout the 24th and 25th November, its units periodically paralyzed through want of fuel."43

Auchinleck insisted to advance with his infantry. At last "General Auchinleck had recaptured the key to Tobruk that Rommel had had in his hands and had thrown away."44

Looking on the end of the British offensive it is clear that the British came to a halt because of the heavy losses and the exhaustion of the troops. They were not capable of continuing the attack. The concept of the CPA was not applied. The British offensive ended after a risky attempt to continue it had been repulsed. "But the courage of Auchinleck and Ritchie was rewarded by a minor disaster. A frontal attack by the Guards Brigade was repulsed. The flanking manoeuvre of 22nd Armoured Brigade met a German counter-stroke that destroyed sixty-five British tanks."45

THE AXIS OFFENSIVE 1942

Description:

The Axis offensive of 1942 (fig. 11-17, pp. 33a, b) showed that Rommel despite his tendency to "overshoot", was a great military leader. He was able to achieve great results with limited means. During this offensive against a numerically superior enemy, Rommel destroyed most of the British armor, recaptured Cyrenaica, took about 80 000 prisoners and finally reached El Alamein the last

The Axis Offensive to El Alamein

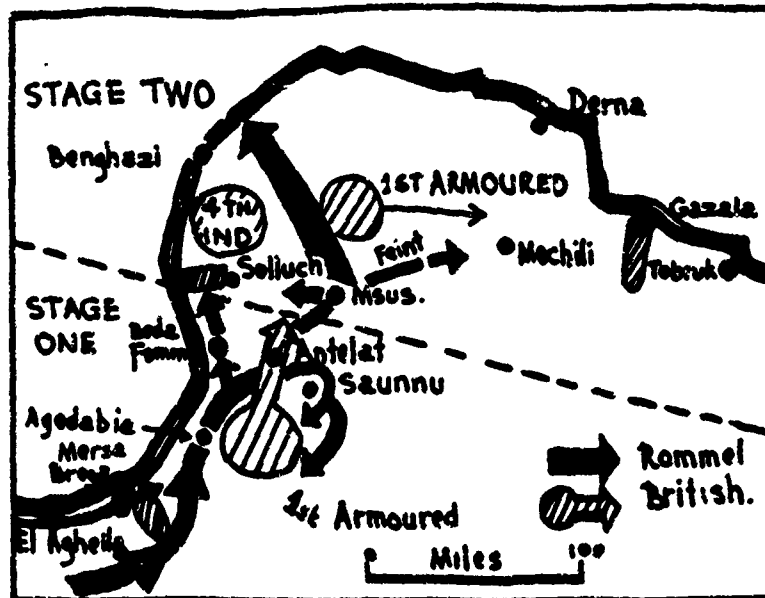


Figure 11
Rommel's Advance to Gazala January and February 1942

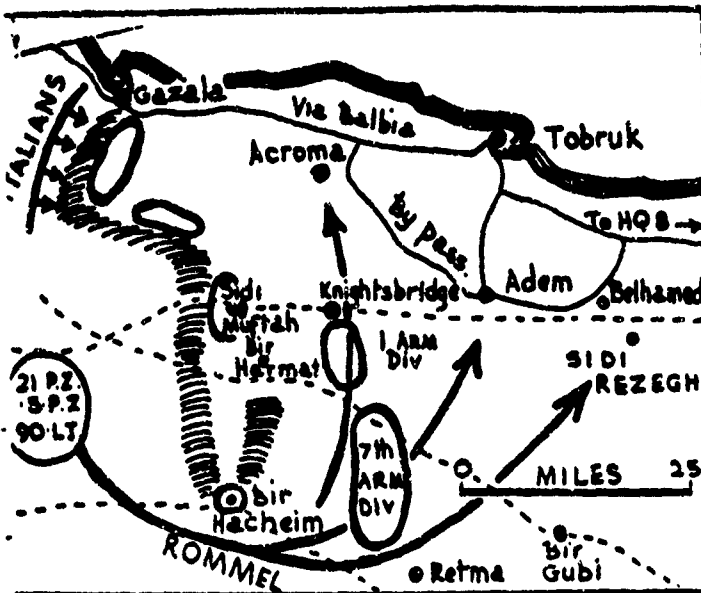


Figure 12
The Battle of Gazala Phase 1
27 - 28 May 1942

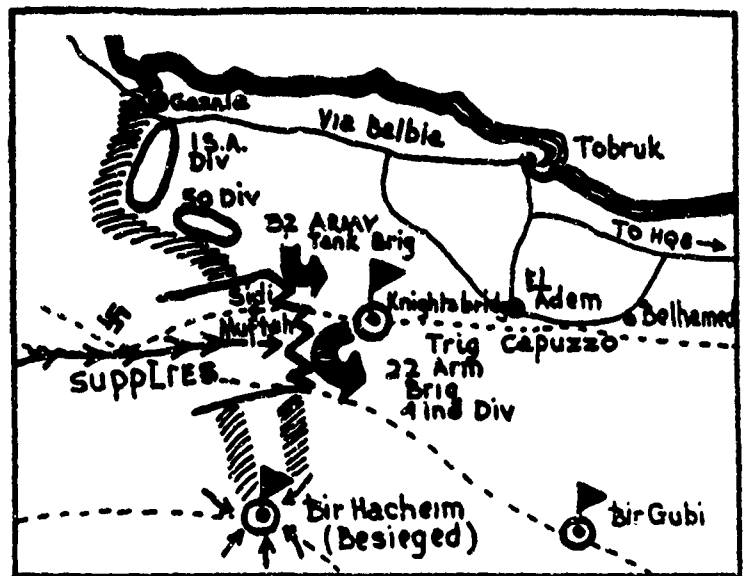


Figure 13
The Battle of Gazala Phase 2
31 May - 05 June

Source: Corelli Barnett The Desert Generals
Indiana University Press 1982

First Battle of El Alamein July 1942

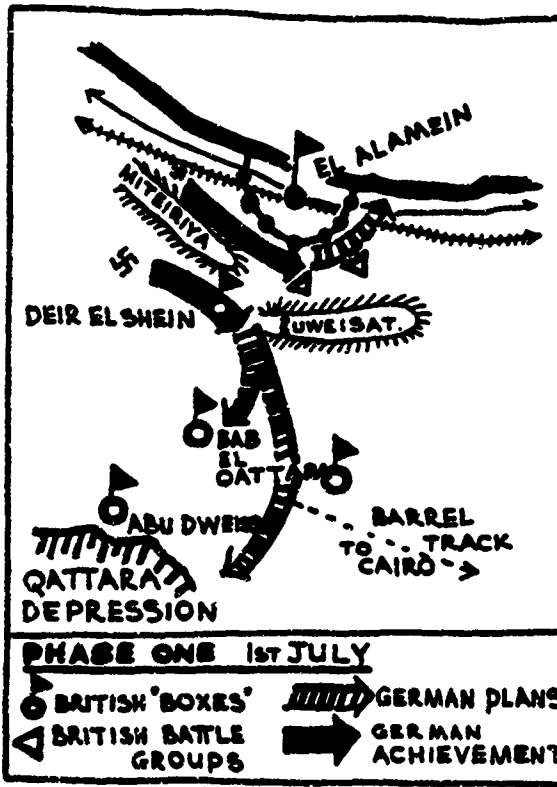


Figure 13

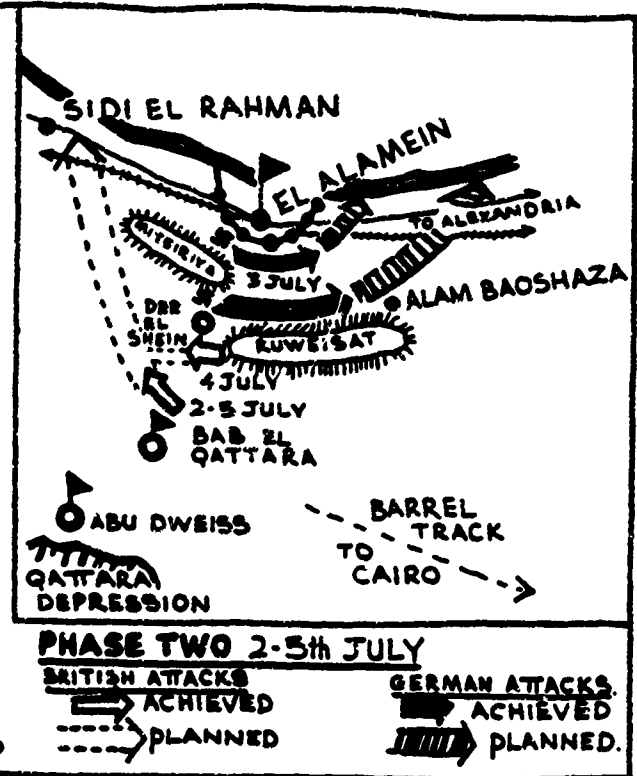


Figure 14

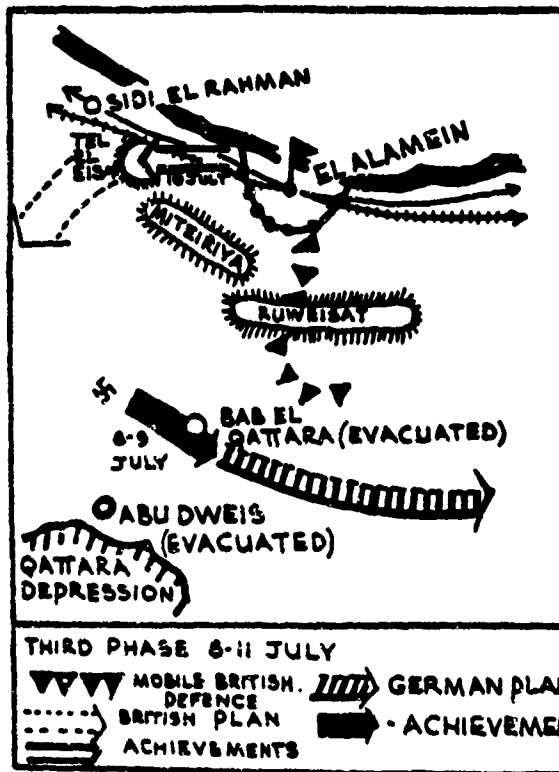


Figure 16

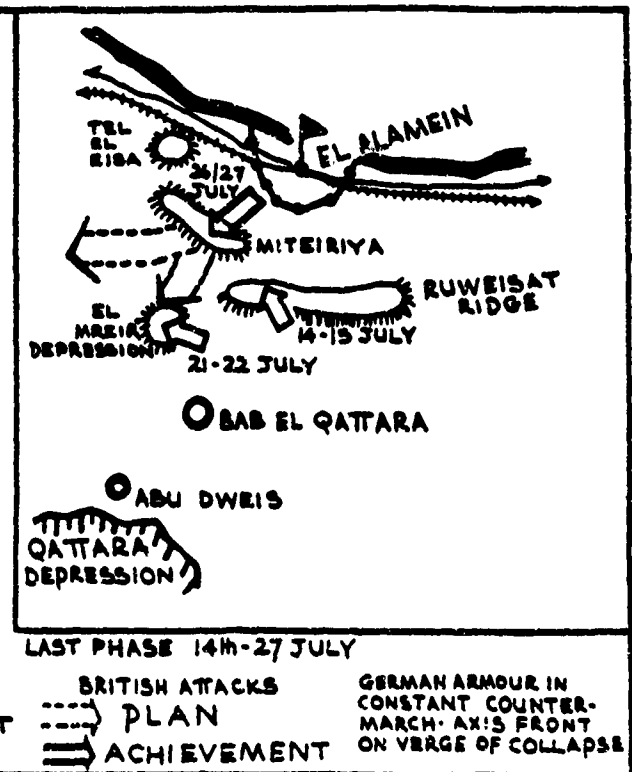


Figure 17

Source: Corelli Barnett The Desert Generals
Indiana University Press 1982

possible defensive position in front of Alexandria.

On January 21st, Rommel surprisingly attacked the dispersed British positions in two columns with speed and agility. In the very first advance, he reconquered Bengazi and the Western Cyreneica. The British forces had to withdraw to Gazala. Both sides used the next months to reinforce. At the beginning of the "battle of Gazala" Rommel had about 550 German and Italian tanks while the 8th Army was reequipped with about 970 tanks.⁴⁶ Auchinleck had refused Churchill's demand for an early offensive despite his numerical superiority because he wanted to avoid mistakes made during "Battleaxe" and "Crusader". He wanted to train his troops some of which had arrived in the desert only a short time before. But when Rommel attacked on May 26th, the British forces weren't ready, neither for an attack nor even for a successful defense. Rommel again achieved surprise. His plan was to outflank the British defense by moving around Bir Hacheim and then continue the attack towards Tobruk. The beginning of the attack was far from a success. The swing towards Tobruk was blocked and disrupted, the supply routes around Bir Hacheim were long, easy to interrupt and unreliable. So, Rommel decided to concentrate his forces inside the British minefields and open a corridor to the west in order to split the British defense position and gain a short and secure line for his supplies. Rommel's weakness during his attempt to reorganize his forces was not exploited. He was given four days to regroup and to prepare for the British counterattack. When the counterattack finally was

conducted it was repulsed. The British forces lost about 180 tanks.⁴⁷ Having repulsed the British counterattack, Rommel continued his offensive and defeated the uncoordinated British armor decisively. Within 2 days the British forces lost 260 tanks.⁴⁸

Rommel now could advance to Tobruk and close the ring on June 18th. Tobruk, against the original intention was to be defended, but Rommel succeeded with his very first attack and conquered the fortress on June 21st.

The objective of the offensive was reached, but with Hitler's permission Rommel continued his advance. In hot pursuit he chased the British forces to Marsa Matruh. Here he faced the British under new command. General Ritchie, who was helpless against Rommel's boldness and abilities, had been relieved and the CINC, Auchinleck had taken the command of the 8th Army himself. He was not able to prevent another defeat at Marsa Matruh. He could not alter the dispositions which did not allow to employ the armor concentrated. The confusion within the British command and forces could not be altered within a few hours or days. Another retreat to El Alamein was necessary. It was conducted in total confusion. But also the Axis troops were exhausted when they reached El Alamein. They suffered especially under the attacks of the British Air Force.

El Alamein was a good defensive position. It is a bottleneck between the Mediterranean and the Quattara Depression about 40 miles to the south. Rommel, forced to reorganize, gave Auchinleck a short breathing-space which he used very well.

He organized the defense employing his infantry for the first time in battle groups, able to move and to hit. This was the system, Rommel had applied from the very beginning with great success. Rommel's strength was far from enough to continue the attack. He had about 60 German and 30 Italian tanks left, his supply was down at a very low level. He relied on bluff and speed. His intention was to break through the right center and to envelop both British flanks. Both envelopments, however, failed.

Rommel now tried to conduct a concentrated attack with all his remaining armor in the 90th Light Division's sector. After having gained only a little ground, the attack finally had to be abandoned. Rommel had only 26 tanks left. His lines of supply were stretched and heavily attacked by the British Air Force. His troops were exhausted. Now, the initiative slightly shifted to Auchinleck. Rommel had to prevent a defeat. The desert war had reached its turning point.

Evaluation:

The Axis advance to El Alamein with

- the approach to Gazala as a prelude,
- the battle of Gazala as Rommel's most brilliant operation,
- the battle of Marsa Matruh as interlude and
- Auchinleck's success in the first battle of El Alamein as conclusion

is one of the finest examples of operational art in military history. Fighting outnumbered, feinting, beating in unexpected directions, mastering crises, Rommel fought the most admired

offensive in his military career and from an operational point of view achieved an unexpected and great success. Corelli Barnett describes it with following words: "Auchinleck also was outwitted by the brilliance of Rommel's manoeuvres which have raised the German commander to the level of Marlborough or Napoleon."⁴⁹ From a strategic point of view, however, the brilliant attack was a failure. It failed to bring a decision despite the fact that the bulk of the British armor had been destroyed. Operational skills, bluff and speed were not enough. The lack of forces and essential supplies for a large scale operation like this prevented a successful decision. The final breakthrough to the Nile Delta could not be achieved. Having failed to reach this aim, all advantages now were transferred to the British side. They had the short lines of supply, could replace their losses quickly and moreover considerably reinforce their forces. They had a nearly complete air superiority. The Axis forces never again got supplies and forces sufficient for a large scale attack and finally neither sufficient for a successful defense. Rommel's most brilliant operation set the stage for the final defeat in North Africa. El Alamein was to be the Axis' high watermark in the desert war.

Criteria for Superiority:

- Surprise

This offensive offers another example of successful surprise.

Before the advance to Gazala, several measures were taken to keep the date of the intended attack secret. Even the Axis Regimental

Commanders received their orders only one day before the attack actually was launched. Daylight vehicle traffic to the front was forbidden before the attack.

- Deception

Deception measures were very important for Rommel's initial success. As a result of Rommel's feinting attack in the direction of Mechili on January 27th, the British armor was moved to the East. Rommel was now able to seize Bengazi and cut off the 4th Indian Division.

Another good example for the importance of deception is Rommel's conquest of Tobruk. General Toppe describes the operation: "On the afternoon of June 19th Rommel let the Africa Corps pass Tobruk in an easternly direction, he let it turn at night and attacked the fortress in the morning of June 20th from the South East. The fortress had to capitulate on June 21st with 25 000 troops and a big storage of weapons."50

- Leadership

It is necessary to write a few words about leadership. Rommel's operational abilities were obvious again as well as the 8th Army Commander's inability to match them with Rommel. This is not valid for the conclusion of the advance, the first battle of El Alamein. After Auchinleck took command of the 8th Army, Rommel had a matching counterpart. He maintained the strategic outlook beyond the crisis of the battle. It proved right that Auchinleck tried to avoid a final decision at Marsa Matruh. When he made his final stand at El Alamein, the prospects for the defense were by

far better than at Marsa Matruh. He had shortened his lines of supply, he had better positions for his defense, he had gained time and he met an exhausted and weakened Axis army.

Based on excellent intelligence Auchinleck resisted Rommel's attempt to seize the El Alamein positions by bluff and speed. His order to the troops retreating from Marsa Matruh shows that he had a clear overview and that his success at El Alamein was no coincidence: "The enemy is stretching to his limit and thinks we are a broken army.....He hopes to take Egypt by bluff. Show him what he gets off."⁵¹

- Supply

The supply situation changed several times during the battle.

While in the first phase of the battle Rommel's supply situation was adequate, the British forces, at the same time, had a shortfall of supply. "By the end of 1941 the British ability to interfere with the Axis supplies had been severely weakened."⁵² Malta was neutralized. Most of the convoys which were sent to North Africa reached it, suffering only little losses. For the second step, the battle of Gazala and the seizure of Tobruk, Rommel had been able to build up a storage, sufficient for a limited operation. "The situation of supply in May was exceptionally good. Till the beginning of the attack on May 26th sufficient supply of petrol on African soil was available. Also the supply of ammunition was sufficient."⁵³

The situation changed, when the offensive was continued beyond its

objectives. Rommel arrived in El Alamein with the shadow of an army. Lack of forces and lack of supply in the El Alamein position and increasing strength of the defender set the stage for the turning of the initiative to the British forces. "So starved was Rommel of essential supplies and equipment by the ships of the Royal Navy and the stupidity of the German Supreme Command that four out of five soldiers had travelled up from the frontier in captured British trucks."54

- Intelligence

The intelligence situation too changed dramatically during the offensive. The British operational intelligence failed to provide a warning about Rommel's advance to Gazala. Enigma could give no warning, perhaps, because Rommel made his attack without consulting Berlin or Rome.

On the other hand, Rommel at the end of January "received valuable assistance from his intelligence staff."55 He was able to read some of the traffic in which the British made their arrangements. By May 1942 the cooperation between the British intelligence staffs in Cairo and London was considerably improved. The British had good knowledge about the build up of the Axis forces. The estimation of Rommel's strength in April/May was very close to his real strength. After some dispute the British National Command Authorities and the CINC Middle East agreed that an Axis attack at about May 20th was probable. "And by the evening of 26 May the units of Eighth Army had been warned that the enemy might be expected to attack that night."56 The British forces lost the

battle of Gazala not because of a lack of intelligence but despite good intelligence and sufficient warning.

It is interesting to evaluate another phase of the offensive from an intelligence point of view. Intelligence gave a clear picture about Rommel's difficulties after he had to assemble his scattered troops behind the British lines. But, while Rommel was weak and had no supplies, no counterattack was launched. Rommel was given four days to prepare against the counterattack.

The counterattack finally was launched against a fully prepared adversary with an operational plan that played in his hands.

"During the interval the Enigma made it plain that the enemy expected the attack."⁵⁷ Corelli Barnett concludes: "Thus the incompetence of the Eighth Army Command in the "Cauldron" battle was actually greater.... triumphing even over accurate top-secret intelligence about the enemy's plans and his expectations of British attack."⁵⁸

From early June there was a dramatic improvement of the British intelligence. ... "beginning during the battle of Gazala and ending only with the expulsion of the Axis forces a year later, the British forces in North Africa were supplied with more information about more aspects of the enemy's operations than any forces enjoyed during any important campaign of the Second World War - and, probably, of any earlier war."⁵⁹ All kinds of Enigma used by the German forces including the Army Enigma and the Enigma between the German field units were broken and could be read with a delay of only 24 hours. From the middle of June onwards GHQ Middle East was receiving Rommel's daily report to the German High Command.

Intelligence gave evidence about Rommel's plans after the battle of Gazala. It proved useless because of the British confusion in command. But, in the first battle of El Alamein, after Auchinleck had taken command far better use of the intelligence was made.

The British commander had, at every time, a clear picture of Rommel's operational intentions, the strength and disposition of his forces, his deception plans, his supply difficulties.

Auchinleck could base his decisions on reliable intelligence and won the battle.

Rommel's intelligence situation, on the other hand, deteriorated considerably at the beginning of July 1942. His radio intercept company which had given him valuable tactical information was captured; irreplaceable personnel was lost, together with the collection of code books and enemy orders of battle. At the same time, the only valuable source for intelligence of strategic importance could no longer be used. For more than a year German intelligence had intercepted messages from the American military attache in Cairo. The Allies had realized that there was a leak and the attache was recalled to Washington. The files of the German Intelligence Staff (Foreign Armies West) concluded: "We will not be able to count on these intercepts for a long time to come, which is unfortunate as they told us all what we needed to know, immediately, about virtually every enemy action."⁶⁰

Hinsley is right: "In time, the intelligence helped them to turn the tide in the north African campaign."⁶¹

The Culmination Point of the Attack

Rommel in the first stage of the battle applied the concept

of CPA. Having taken the Western Cyreneica and having reached Gazala, Rommel ended his attack and occupied defensive positions. This surely was also due to the fact that he had run out of supplies. Nevertheless, we must give him credit that he, in this case, exploited his initial success to the maximum extent without "overshooting". By his continued attack to Gazala against many concerns of the Italian High Command, Rommel had gained several advantages. He had a position favourable for defense, as well as, favourable for a later continuation of his attack to Tobruk. With Bengazi, he had an additional harbor for his supplies. Rommel, in his estimation of the British confusion, proved right. The second part of the attack is by more difficult to judge. Surprisingly Rommel succeeded very early to seize Tobruk. I think it must be considered as a mistake that the agreed sequence of events now was changed. Malta was not attacked and Rommel continued his advance. He saw a great chance to seize Egypt and Hitler agreed to change the planning. Rommel tried to force the decision and failed. He could destroy most of the British armor, but at El Alamein his offensive finally was repulsed. The stop at El Alamein was not an application of the concept of the CPA, but a stop forced by a successful defense as well as attrition and exhaustion of the Axis forces. El Alamein really was beyond the CPA because the prospects for a successful defense were dubious. Sir David Hunt compares the German and the British situation at El Alamein: "We [the British forces] were now right up against our ports of supply, with the full resources of the Middle East base a

comfortable distance behind our lines. They were at the fullest stretch to which their communications were ever extended in the whole course of the desert wars.....The whole length of these communications was under constant hammering from the air, in which element we had complete superiority. All this was the result of Rommel's over-rashness in pressing his advance."62

In looking for the reasons of the final defeat of the Axis forces in the desert, we have to examine the strategic aspects and to look for the Culmination Point of Victory in the desert war.

The Culmination Point of Victory

In looking for the Culmination Point of Victory of either side we must first determine the strategic objectives.

The British strategic objectives were unchanged during the whole campaign. They were to defeat the Axis forces decisively and drive them out of North Africa. The North African theater of war, at that time their main theater, is where they confronted the Germans directly, here they wanted to beat them for the first time. Success in the desert was supposed to be the first step to a final victory. Also in the hours of defeat, the strategic objectives were pursued with great determination. Losses were replaced, supplies were provided. Again and again, a superiority in numbers could be achieved which, at last, was sufficient for the final victory. On the other hand, successful attacks on the Axis' lines of supply prevented timely arrival of forces and supplies for the Axis forces.

The British authorities were looking for a strategic decision and finally, with American help, they achieved their strategic aims.

The decision was inevitable long before the surrender of the Axis forces in Tunisia. The strategic and final Culmination Point of Defense for the British forces in the desert campaign was El Alamein. Here was the place, where they prevented a final defeat. Here was the place, where they exploited the exhaustion of the Axis forces. Here was the place, where they were able to reinforce to such an extent that the outcome of the campaign after El Alamein could only be delayed, but not be prevented. The British forces could use the (strategic) Culmination Point of Defense since the Axis forces had overstretched their limited resources.

Evaluating the British side from a strategic point of view, we have to look at the relations between Churchill, the political leader and the commander in the theater of war, Auchinleck during most of the time, covered by the case studies. A main point of discussion between the Prime Minister and the CINC in different stages of the campaign was when to launch an attack. Again and again, the CINC was pressed to launch a premature attack for political reasons. Again and again, the commander had to defend his timing because he didn't want a premature attack with poorly trained and inexperienced troops. The pressing for an early attack proved to be disastrous for the outcome of the offensive "Battleaxe".

The lesson is clear: Strategy must guide the operations but the military instrument must be used with skill and knowledge of its specific rules.

The strategy of the Axis forces was well defined in the first stage of the campaign after the German intervention. The objective was to prevent a defeat and to hold a base in North Africa. The forces to reach this aim were adequate. The initial success on the operational level, often gained against the plans of the Italian and German national command authorities caused a change of the strategic objectives. A concept of operations was agreed upon with the strategic objective to conquer the Nile Delta and to drive the British forces out of Egypt.

A sequence of the operations was decided upon that included the conquest of Malta, the British base in the Mediterranean, which would enable them to successfully interrupt the Axis lines of supply. The sequence of the operations, however, was changed after Rommel had seized Tobruk. The offensive was continued in order to reach Alexandria and the Nile Delta.

The military means were not adjusted to these strategic objectives. The Germans, in the beginning of 1942, basically had two possibilities that are very well pointed out by van Crefeld: "One was to adopt the Italian proposal - Rommel should stay where he was and the Italians should capture Malta in their own time. Assuming that oil for the Italian navy could have been found, and given some extension of the port of Benghazi, this would have enabled Rommel to hold indefinitely and to prepare a large-scale attack on Egypt at some later date. Alternatively, enough reinforcements - another two to four German armor divisions - should have been brought up, and sufficient stores accumulated, to enable Rommel to take Alexandria in one swoop."⁶³ Neither the one

nor the other course of action was chosen. The third possibility to extend the strategic objectives without adjusting the military means proved to be wrong.

Not the strategy determined the operations but the operations determined the strategy. This is not wrong in every case. The strategic prize was high. But, since the military means were not adequate to reach the objectives, the Culmination Point of Victory finally was crossed. The offensive to El Alamein, while a brilliant operation, crossed not only the Culmination Point of the Attack but also the Culmination Point of Victory, leaving all advantages to the British forces and giving them the possibility to reach their strategic objectives. It is dangerous to cross the Culmination Point of Victory, in North Africa it was the cause for the final defeat in Tunisia.

The desert campaign was like a mirror of the whole war. It contained a number of brilliant operations which finally consumed and overstretched the resources, leading to a defeat.

Who is to blame for the strategic failure? There is no doubt that Hitler agreed to change the strategic objectives and the sequence of the operations. But it would be wrong to blame only Hitler for the disaster. Hitler followed Rommel's advise. Finally, both must be blamed. Both could have recognized that it was wrong to try to conquer Egypt with less than three German divisions.

The lessons are twofold: Strategy must determine the operations, once the strategic objectives are changed the military means to reach the objectives have to be carefully adjusted.

A NOTE ON MANSTEIN'S COUNTERSTROKE AND THE CULMINATION POINT OF DEFENSE

Before coming to some general conclusions, we leave the desert, because I want to show at least by one example, how the concept of the Culmination Point of Defense was consciously applied with great success.

Therefore, I will discuss Fieldmarshall Manstein's leadership in the counterstroke operations of the German Army Group Don against the Soviet offensive between Donetz and Dnieper. The battle of Kharkov (fig 18, p. 48a) is one of the most brilliant operations of the war. It is the last victory of the German forces in Russia nearly forgotten between the defeats of Stalingrad and the battle of Kursk.

In the early months of 1943, after Stalingrad had fallen and the 6th Army had been destroyed, Manstein had to prevent a decisive defeat of the whole army group, a defeat that could have decided the war as early as 1943. Despite being outnumbered in forces and especially in tanks, being faced with a Russian break-through of about 100 miles in width and 100 miles in depth, Manstein won the operation by applying the concept of the Culmination Point of Defense.

He pulled back to shorten the front, leap-frogged his reserves from his right to his left flank where he saw the decision. Deliberately and patiently he waited for the best time to counterattack. When the Russian lines were overstretched and the spearheading forces had run out of essential supplies Manstein

The Battle between Donetz and Dnieper
Manstein's Counterstroke

Source: Erich von Manstein, Lost Victories
 Novato, California 1982

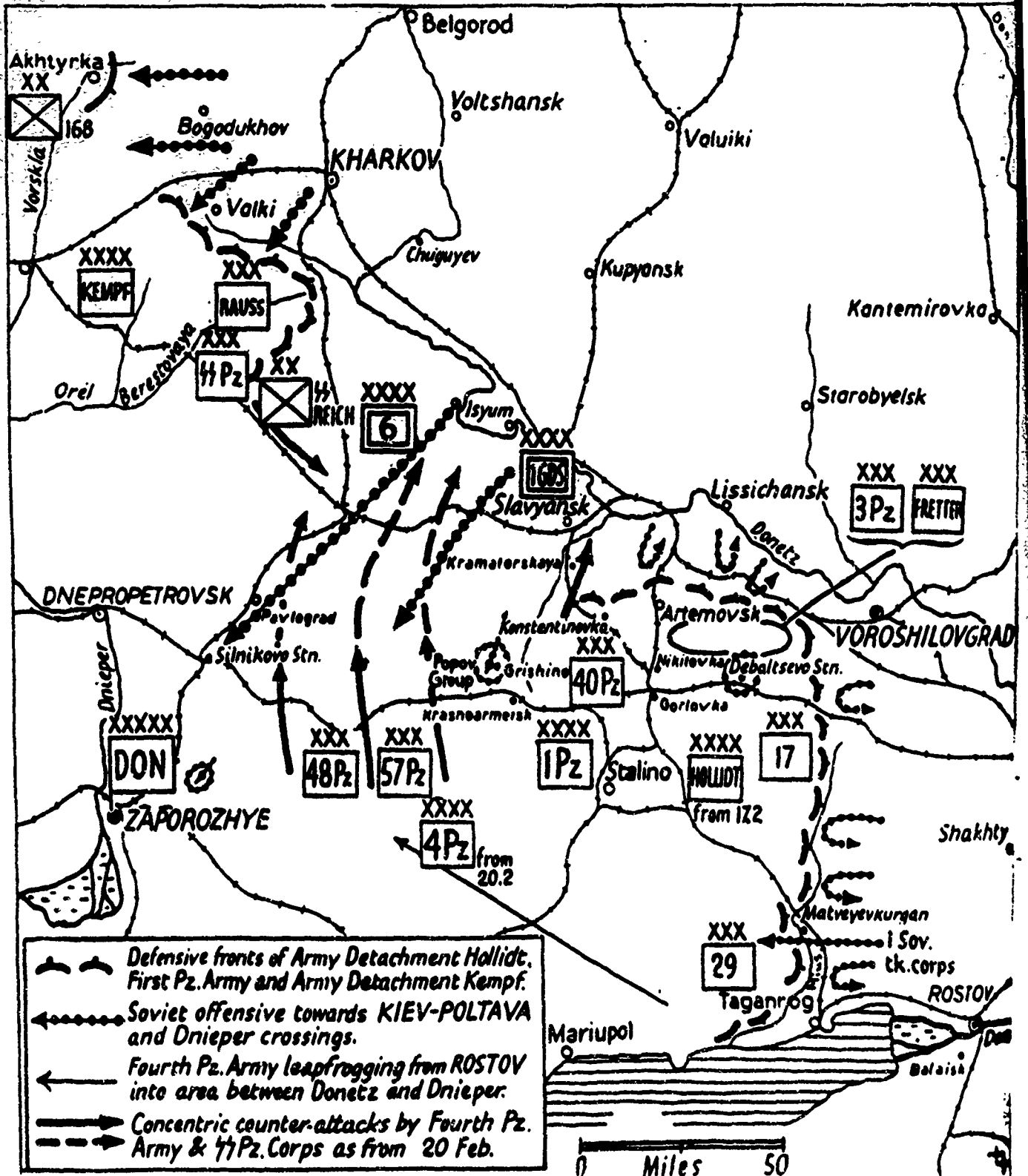


Figure 18

conducted his counterstroke. Tactical intelligence provided the information that he needed to launch his counterstroke at the right moment. Wireless messages intercepted at the beginning of February 1943 by the German intelligence provided information about the Russian shortage of supplies.

Manstein recognized the turning point of the battle, the Culmination Point of Defense. He employed all his reserves in the climax of the battle, destroyed the Russian armies and regained the lost territory. He was forced to act out of a position of strategic defense but he regained the initiative. He had to fight outnumbered, but he was strong enough where the battle was decided.

Manstein applied the concept of the CPD deliberately. He gave up ground in order to weaken the enemy and to gain reserves out of the front. In the enemy's advance and in the crisis he recognized the chance to turn the tide. Manstein wrote about the situation of his army group in the middle of February 1943: "And so, around the middle of February 1943, the acute crisis in the area of Southern Army Group reached a new climax. With it the danger that the entire southern wing would be encircled by an extensive flanking movement from the neighbouring sector in the north threatened to take shape sooner or later. And yet, paradoxically it was in this very culmination of the crisis that the germs of a counterstroke lay."⁶⁴ Evaluating the Russian intentions he wrote: "Should the enemy by any chance be aspiring to reach Kiev (and the many signs that he was were making Hitler increasingly apprehensive), we could only wish him a pleasant trip."⁶⁵

Manstein succeeded in a situation which is not so different from NATO's mission in the case of war. We must fight outnumbered, regain the initiative out of the strategic defensive and force a favourable outcome. He proved, that this is possible and that the concept of the CPD can be a help.

CHAPTER V

GENERAL CONCLUSIONS

FACTORS FOR SUPERIORITY AT THE OPERATIONAL LEVEL

- The numerical Strength of Forces

The strength of forces has to be adequate for the mission. This doesn't necessarily mean that a superiority of forces is necessary to achieve success. We could see that Rommel, in most of his successful attacks, didn't have a superiority in numbers of tanks or personnel. The case studies, nevertheless, show that the available forces, if not superior, at least have to be adequate. An attempt, for instance, to conduct a large scale offensive over a great distance with insufficient means must fail. During the desert campaign two attempts were made to estimate the number of tanks which were considered to be necessary for a reasonable chance of success. Before the "Crusader" offensive, Auchinleck had told Churchill that he would require for the battle 50% reserves in tank strength: "twenty-five per cent to cover those in work shops, and twenty-five per cent to replace battle casualties."66

During the "lull in the desert" in the first months of 1942 the

British Chiefs of Staff stated as a principle "that to have a reasonable chance of beating the enemy on ground of his choosing we required a numerical superiority over the German tanks of 3 to 2 'owing to our inferiority in tank performance'."67

An attempt to estimate the strength of forces, necessary for a successful attack is difficult to make. The German Field Manual demands an adequate superiority and states that "surprise and deception, skillful exploitation of enemy weaknesses and a headstart in combat readiness can also result in local superiority and bring quick success in the attack."68 We see in these few examples that the strength which is necessary for success depends on the situation.

One rule however can be stated: The more forces that are available, the higher the chances of success. The third battle of El Alamein, which is not a part of the case studies shows that quality and operational skills are not enough to achieve success when the enemy's superiority is too great. Numbers are not the only often not even the most important factor but they count also in modern warfare.69

- Technology

Superiority in numbers can at least partly be matched by better technology. The German tanks Mark III and especially Mark IV with their mechanical reliability, good protection, mobility and adequate gun were superior to the British tanks. The Cruiser tanks were mechanically very unreliable and didn't have an adequate gun. The tank Mark V Matilda had a weak engine and

could only be employed for the support of the infantry. The situation changed later when the British forces were equipped with the American tanks Grant and Sherman which were suitable for desert warfare. With his superior equipment Rommel was, at least in the beginning and at least partly, able to match the British superiority in numbers. Superior technology proved to be a force multiplier. The lesson is obvious. We are not able to match with our adversaries in numbers. We can, however, use superior technology. This will only work, if we make the best use of our technological possibilities for the purpose of defense.

- Command and Control

Command and control was an important factor in every stage of the campaign. The intuition of the military genius, operational skills, but also the qualified work of the staffs, harmonious thinking and the ability to improvise contribute to a large degree to the outcome of an operation. Knowing this, we have to provide sound and professional leader education and training. Many abilities can be learned. Qualified work of staffs is not a coincidence. Another task is to select leaders with respect to their mission in the case of a war. It is doubtful that in a future war we will have enough time to correct initial mistakes in the selection of our military leaders.

- Training and Doctrine

The German forces applied a doctrine which made adequate use of the modern means of warfare. They were able to conduct combined operations. The forces were trained in mechanized warfare. There is an important lesson for today. The modern

technology gives us new means to improve our defense capabilities. We have to develop our doctrine steadily to make the best use of the modern means.

- Surprise

Surprise on the tactical and operational level is a force multiplier. The campaign shows, in every phase, the importance of surprise. Rommel owed many of his successes to his ability to achieve operational surprise either by his timing, his speed or by attacking in unexpected directions. The initial success of the British offensive "Crusader" is another good example for the importance of surprise. The possibilities to achieve surprise are not limited to the conduct of operations. We find also some good examples of technological surprise, such as the first German Mark IV tanks, or the first employment of the American Grant tanks on the British side. Surprise was also achieved by the employment of the 88 mm gun in an anti tank role. Handel concludes: "Given the rate of technological change since the end of the Second World War and evidence from recent wars, there is little doubt that technological surprise and deception will play a much more critical role in future wars."⁷⁰

- Deception

Deception and surprise belong together. The objective of deception is to influence the enemy to make false decisions in order to achieve surprise. On the German, as well as on the British side, successful deception measures contributed to achieve surprise and to influence the outcome of the battle.

The importance of deception is often underestimated. The German Field Manual mentions the importance of deception in two short sentences.⁷¹ But we should learn from the experiences. In our operational planning we should always consider if we can improve our chances of success by intelligent deception.

- Intelligence

The importance of intelligence has been proven throughout the campaign. We have seen that intelligence cannot replace leadership and intuition. On the other hand, however, successful leadership without intelligence is also impossible. The importance of intelligence since Clausewitz's times has steadily increased. Good intelligence does not guarantee success, but success without good intelligence is difficult if not impossible to achieve. Intelligence especially on the strategic level helped to turn the tide in the desert campaigns. We must invest in our intelligence capabilities. This is especially true since we have neither the first initiative nor the quantitative superiority in NATO today.

- Logistics and Supply

Logistics is a very critical factor on the operational level of warfare. Without adequate logistics there is no chance for a successful operation. The supply situation may limit the objectives of an operation in the very beginning. The longer the lines of supply are, the easier they are to interrupt. It is a dangerous gamble to rely on captured supplies in the planning of a military operation. Sometimes a battle or a campaign can be decided in advance by the better logistics. The logistics

situation therefore must be a main concern of the military leader. Today and despite our experiences, we often make the mistake in our exercises and in our operational planning to take a favourable logistics situation for granted.

CONCLUSIONS CONCERNING THE CULMINATION POINT OF THE ATTACK AND THE CULMINATION POINT OF DEFENSE

The case studies demonstrate the importance of Clausewitz's concept of the Culmination Point of the Attack or the operational level of modern warfare. It can and must be applied. There are no "recipes" for the application of the concept. We found that it is necessary to evaluate the limits of an attack in the planning stage, considering all the criteria for superiority that we have developed. Especially the strength of the forces and the logistics situation may limit the objectives of an offensive operation. It is no contradiction that we also saw that the CPA cannot in every case be identified in advance. We might be able to have a relative superiority for a longer time or a greater distance due to mistakes in the enemy's conduct of the operations or by achieving surprise. In this case, the success should be exploited. On the other hand, we cannot ignore the possibility that unfavourable developments might prevent us from reaching the intended CPA. In this case, there should be no hesitation to adapt the objectives to the new situation. Clausewitz was right not to give any recipes, but to offer a way of thinking. The way of thinking demands carefully evaluation of all the available information and criteria, we have developed.

The relative importance of the criteria may differ according to the situation. There may be additional criteria in a future war. Based on the evaluation of all the available information and considering all the criteria, the military leader makes his decisions. Based on a thorough estimation of the situation he can and must use his intuition also.

Clausewitz's basic theory has again proved to be true.

Nevertheless, there are some differences. The criteria that need to be considered have changed or their relative importance has changed. Leadership has another character. Intuition is still important, but it must be strengthened by thorough work of qualified staffs, good intelligence, and correct evaluation of a large amount of information.

While relative importance of intuition may have decreased, the relative importance of all the other factors has increased. The examples show, however, that the intuition of a military genius is still important and can still decide battles and campaigns.

The case studies also reveal something about the use of the concept of the Culmination Point of Defense. The chances to launch a successful counterattack increase considerably if the attacker crosses his own Culmination Point of Attack. The more his forces are weakened, the faster he will reach this point. The defender, therefore, has to identify this point in advance or during the course of the campaign and to use all available possibilities to weaken the attacking forces. Modern technology gives us the chance to weaken the attacking forces even before the

attack has started. We can and should:

- strike deep in the attacker's territory,
- delay the advance with mines and obstacles,
- interrupt, at least temporarily, his lines of supply,
- fight delaying operations forward the FEBA,
- attack with surprise and use the air assault forces.

The introduction of smart munitions will further increase our possibilities.

It is not easy to recognize the Culmination Point of Defense. It is a vital prerequisite to have good intelligence and to be able to draw the right conclusions. Modern technology provides us with superb means to achieve good results in tactical intelligence. We must practice to use these means and steadily improve the ability of our leaders to evaluate the enemy situation.

The counterattack should not be conducted too early. The chances of the counterattack improve the more the enemy has overestimated his possibilities.

The case studies showed that the conditions necessary for the CPD can be reached either if the enemy's attack crosses his Culmination Point or if we reach the same attrition of his forces by a successful defense. Both methods should be applied, each when appropriate. Our difficulties are twofold. We are inferior in numbers and we are bound to the concept of forward defense. Both difficulties are unavoidable and we must make the best of them.

Since we cannot achieve a superiority in numbers we must take care that we apply all the other possibilities that we have to

compensate for inferior numbers. Since we are committed to forward defense we have to weaken an attacker during his advance. This might create the chance to fight the defense against an enemy already weakened and to win the first battle.

We must, however, take into consideration that the attack may have some initial success at least in one or the other sector, since the attacker has the initiative, can concentrate his forces and might achieve some operational surprise or even an initial breakthrough.

In this case, we should try to tempt him to "overshoot" and drive his attack too far. Since we have only a limited depth we will have to seek our chance by imposing high losses on the enemy to achieve that he will reach his Culmination Point at an early stage of his attack. We should, nevertheless, be prepared to give up ground in order to maintain or restore the cohesion of our forces and to improve our chances for a successful counterattack. If we have to choose between a battle of attrition and the loss of terrain we should prefer the second. With fewer forces we will loose a war of attrition while intelligent leadership applied in mobile operations might provide opportunities to achieve operational success despite inferiority in numbers. The use of the concept of the Culmination Point of Defense might give us some help.

GENERAL CONCLUSIONS ON THE STRATEGIC LEVEL

Examining the strategic level, we must broaden our view.

From the command posts in the desert we have to look into the headquarters in London, Rome and Berlin. From the supply trucks on dusty roads, we have to look on the lines of communication across the Mediterranean. Our considerations must include not only the positions of Gazala or El Alamein but also the battlefields of Russia and the submarine warfare in the Atlantic. Considering the same criteria as on the operational level, we have to evaluate them in quite another perspective. Superiority at the operational level is important for the CPA, to consider and apply the criteria for superiority at the strategic level might help to prevent war.

Criteria for Strategic Success

- Material Strength

While at the operational level the military leader concentrates his thoughts on the immediately available forces and reserves, the strategist has to have another view. Looking beyond the current situation, he has to concentrate on forces and material which can be made available in the future in order to achieve the strategic aims of the campaign or the war. He must consider not only the tanks in the theater of war but also the tank production rate, he must consider not only the manpower at the front but also the replacements available in the future and their training. He is responsible that the resources which are available are mobilized timely to support the conduct of the war in order to achieve the strategic objectives.

- Technology

The military commander has to fight the campaign with the

available equipment. The most important decisions concerning the development of weapon systems, command and control systems, means for intelligence are made before a war. Only in a long war mistakes can be corrected. Since in our time a long war between the alliances can hardly be imagined, timely decisions in peacetime are even more important than in the Second World War. The equipment of an army has to be modernized on a regular basis. The more expensive the modern weapon systems are, the more important it is to produce systems which can be further improved during their lifetime. This must be considered in advance. Nevertheless, sufficient numbers must be produced. Sometimes it is more useful to renounce the last technological possibilities in order to be able to procure greater numbers. Since the resources for research are limited, we should concentrate our research on weapon systems which can shift the balance between attack and defense in favour of the defender.

- Intelligence

From a strategic point of view, it is important to know as much as possible about intentions and capabilities of the adversary. This is important even in peacetime in order to prevent a strategic surprise. It is vital for an alliance with a defensive strategy to gain enough warning time which must be used for the mobilization of the forces. Strategic intelligence very often provides a very good picture of the enemy's capabilities, but it is by far more difficult to estimate his intentions. A thorough evaluation of all available intelligence is essential.

It is dangerous to base decisions only on one source. History not seldom shows that the necessary information is available. Often, however, insufficient organization prevents the timely use of information. We must always have reliable intelligence and provide a good organization to gain a comprehensive picture. We must train our leaders to draw the right conclusions. The national leaders also have to be prepared to react in a timely manner.

- Surprise and Deception

We must be aware that any attacker will try to achieve surprise. He will use deception measures to conceal his intentions. Big field exercises might be conducted while at the same time, on the political level, declarations of peaceful intentions might be made. The indications might be ambiguous. The national authorities must be prepared to act in ambiguous situations. Timely reaction may even prevent an attack if the attacker recognizes that he will not be able to achieve surprise. Strategic surprise is by far more dangerous than operational surprise. It can mean that the war is lost in its very first stage.

Since we cannot be sure that we will be able to finish the mobilization before the attack is launched, we cannot rely only on mobilization. We still must have forces which are available immediately in a combat ready status. Combat readiness is vital for the air defense system. It should be seriously considered to improve our air defense systems with an anti missile capability.

- Supply, Logistics

The supply routes for the Axis forces ran across the Mediterranean. From a strategic point of view, it was the most important contribution for the final victory that the British forces had long but reliable lines of supply, while at the same time succeeding in interrupting the Axis lines of supply. Concerning supply, the second important contribution to the final victory was the British ability to replace losses. Preventing a decisive defeat in the first stage of the desert campaign, they were able to replace their losses quickly and finally to gain a superiority in numbers which couldn't be matched neither by quality nor by superior leadership. The supply routes for reinforcements to NATO cross the Atlantic. The situation is not so different from the situation in the desert. NATO must succeed in keeping the supply routes open. NATO has a far greater economic base than the Warsaw Pact, but this alone does not count. Two difficulties have to be overcome. The stocks of equipment are small and the routes across the Atlantic are long and time consuming. The stocks in place should last at least till the supply across the ocean begins to flow. The stocks should be increased in a coordinated effort. The second difficulty is the lack of strategic transport, especially air transport. Also in this field, a coordinated effort can help to improve the chances of the Alliance in the case of war. This will be even more important if American troops will be withdrawn from Europe. Strong efforts in this field could help to increase

the number of options for NATO, to increase at the same time the uncertainty for the attacker, and through this to improve the prospects of peace.

The Culmination Point of Victory

We have already found that our strategy must determine the operations and that the military means have to be adjusted if the strategic objectives are extended. Even in peace we have to consider and use all the criteria that we have developed. Our decisions today determine if, in the case of a war, we will be able to reach our CPV and to prevent the attacker's success either by denying him initial success or by applying the concept of the Culmination Point of Defense.

Some of the factors such as the initial availability of forces, the ability to replace losses of personnel or weapon systems, the storage of essential supplies can be calculated in advance. Other factors such as the result of strategic surprise, technological surprise, deception, leadership are by far more difficult to estimate. All these factors are of influence in war and if a decisive victory or the CPV can be achieved. Once a war has begun, the conduct and military success of operations, the CPAs of either side have great influence if and when a CPV can be achieved. Careful evaluation of the capabilities of either side is essential to come to a clear picture of the strategic situation.

Since the objective of a defensive strategy is to prevent war, it is not only important to have warfighting capabilities which are sufficient for a successful defense, it is also important to

achieve the adversary's perception that he will not be able to reach his strategic aims nor his Culmination Point of Victory. Once again Clausewitz is true. Although we find no "recipes" on the level of military strategy, we have shown that his way of thinking in general terms is timeless.

CHAPTER VI

CLAUSEWITZ'S CONCEPTS AND THE DEFENSE OF NATO'S CENTRAL REGION.

In the general conclusions we have already referred to NATO. Nevertheless, it is useful to summarize some comprehensive conclusions concerning Clausewitz's concepts and the NATO Alliance.

THE TEACHING OF CLAUSEWITZ'S CONCEPTS

We have demonstrated that Clausewitz's concepts of the Culmination Point of the Attack and the Culmination Point of Victory are of current interest. They should be taught and learned. It is, however, not possible to learn or teach the concepts like a mathematics formula. The only way to apply the concepts successfully is to learn and to teach Clausewitz's way of thinking. The ability to think in general terms and to take all circumstances and criteria into account is essential for military leaders on the operational, as well as, on the strategic level. Military leaders, who are able to evaluate the entire situation and apply and even develop the criteria which are important in the current situation will have military success. They will not only

be able to conduct military operations successfully but also to consider the strategic implications of their decisions.

RESEARCH IS NECESSARY

It has been shown that the historical, as well as the, conceptual research has to be intensified. The concepts of CPA and CPV offer important applications not only in modern warfare but also in our strategic thinking. They belong to the timeless elements of Clausewitz's work. The criteria, however, have to be steadily adapted to the changing conditions of strategy and warfare.

NATO AND THE CRITERIA FOR SUCCESS

In the case of war NATO has limited strategic objectives. They are to maintain or if necessary to restore the integrity of the alliance territory. Even with limited strategic objectives, it will be difficult to reach these goals. The attacker has to be prevented not only to achieve a decisive success, but also to gain his CPV and negotiate peace on the basis of his initial success. Thus, NATO has to apply the concept of the CPD. Since NATO doesn't have and cannot achieve a superiority in numbers, all the other factors which contribute to superiority have to be used. It is essential to reach at least a relative superiority when and where the decision is to be expected. These criteria are especially:

- Training and Doctrine

The doctrine has to be examined and improved constantly to

make the best possible use of modern weapon systems. The training and choice of military leaders is as important as the training of the forces. The technical skills of our younger generation offer new possibilities. They can and should be exploited for the purpose of defense.

- Command and Control

Superior leadership is still important. A democratic society demands decisions and initiative from its citizens in daily life. The chances of a democratic society to educate military leaders with operational skills, preparedness to take risks, and initiative are by far better than those of a system which normally leaves all important decisions on the highest level of leadership. We must, however, resist all temptations to centralize our decision making process and leave subordinate leaders the possibilities to take initiatives and to run risks. This in the case of war will be to our very advantage. Command and control must be tight, but initiatives on all levels of command should be promoted.

- Intelligence

The importance of intelligence has steadily increased. Our means to collect and evaluate strategic as well as operational intelligence have to be improved. Collection and evaluation of intelligence has to be carefully organized. Intelligence in the alliance has to be exchanged in order to make available all sources to come to correct and timely decisions. The military leaders must know the importance of intelligence and train for its

use.

- Surprise

Strategic surprise has to be prevented. This demands investments in strategic intelligence and preparedness to make crucial decisions in ambiguous situations.

Operational surprise has to be achieved. For this purpose our defense plans have to be changed from time to time. Far reaching weapon systems and highly mobile forces have to be used to achieve operational surprise.

- Deception

Deception has proved to be a force multiplier. Deception measures should always be considered in our operational planning. Successful deception helps to achieve surprise, surprise helps to withstand even superior forces. Deception can also be applied in the defensive. It can be useful and should always be considered to mislead the attacker about one's own capabilities or to hide reserves in order to tempt him to cross his CPA or even CPV and as a result be able to exploit his weakness.

- Technology

Concentrated efforts are necessary to use the superior Western technology for defense. Since the costs of modern weapon systems are high, research and development of weapon systems have to be far more coordinated. Research should be concentrated on weapon systems which favour the defense.

- Logistics, Supply

NATO must be able to keep open its lines of supply. Stocks

of essential supply and weapon systems have to be increased. NATO must be able to replace losses at least for a limited time. It has to be examined if the timely availability of resources for defense is adequate.

THE CULMINATION POINT OF THE ATTACK AND NATO'S OPERATIONAL CONCEPT

Forward defense is an integral part of NATO's operational concept. It cannot be changed for political reasons. NATO should be prepared to apply the concept of the Culmination Point of Defense. This can be achieved by a successful defense which imposes a high degree of attrition on the attacker. A counterattack to exploit the success of the defense has to be conducted at the appropriate moment; that is when the attack has already lost its momentum.

Since it is not probable that every success of a Warsaw Pact offensive can be prevented, NATO must be prepared to give up ground. Cohesion of the defense has to be assured, the attacker must be weakened in mobile conduct of operations. It must be carefully considered when the offensive has crossed its Culmination Point. This is the best moment to employ the reserves. This concept of operations should especially, but not exclusively, be applied against the Warsaw Pact's "operational manoeuvre groups".

The Warsaw Pact will employ his forces in echelons. If we succeed in preventing the timely employment of his "follow on forces" we might be able to improve our chances of operational success

considerably.

THE CULMINATION POINT OF VICTORY AND NATO'S STRATEGY OF DETERRENCE

The objective of NATO's strategy of deterrence is to prevent war. As we have pointed out, a defensive strategy with this objective must confront the attacker with the probability that a quick decisive victory cannot be achieved. The NATO strategy fulfills this condition by providing combat ready forces and by implementation of forward defense. There is, however, a danger. The conventional forces are hardly adequate. There is no chance to increase them considerably. The dependence upon other elements of the strategy could be reduced if a more balanced ratio of forces could be achieved. The latest developments in the Soviet Union might offer a chance to reach this aim, at least partly, by negotiations and disproportional force reductions. This at least should be the aim of the negotiations.

The strategy must assure that there will be no peace on the basis of initial gains of the attacker and that he will be confronted with all the resources the alliance can make available.

Provisions are made to bring the full weight of the United States to bear. The presence of U.S. forces in Europe underlines the unity of the NATO territory. While the level of forces surely is negotiable, a complete withdrawal would weaken if not destroy the alliance and could lead to the conclusion of the Warsaw Pact that the will of the United States to defend her own territory in Europe has diminished. In another political situation, the Warsaw

Pact could come to the decision to wage a limited war in Europe and look for a Culmination Point of Victory , a point where he could offer peace on the basis of initial gains. That means that the presence of a strong contingent of U.S. forces in Europe is a prerequisite for the success of deterrence and simultaneously a prerequisite for peace.

A defensive strategy must point out the attacker's risk and show that possible gains will not compensate for his losses.

The NATO strategy, therefore, must maintain the uncertainty about the kind of response. The NATO strategy leaves an attacker in doubt if and when nuclear weapons will be employed. The independent postures of France and the United Kingdom as well as the special role of France in the alliance increase the uncertainty for an attacker and support the strategy.

The uncertainty about NATO's response contributes to the perception of an attacker that he hardly would be able to conduct a limited war and hardly could prevent a nuclear escalation. His risk and his probable damage are supposed to be unacceptable.

This element of uncertainty is vital for peace. It must be maintained despite all popular demands to abolish nuclear weapons.

The Warsaw Pact is confronted with the concept of the Culmination Point of Defense at the strategic level. This, together with other factors has been a remarkable key to success. The way that has proved to be successful must be continued. Prerequisite is that the alliance will continuously provide the military means. In this case, we should be able to enforce that the competition

between the different systems and ideologies will be carried out without war in a stage of peace.

Bibliography

1. Carl von Clausewitz, On War, Princetown, University Press, 1976, p. 566
2. Michael I. Handel, "Clausewitz in the Age of Technology," The Journal of Strategic Studies, Volume 9, June/September 1986, p.58
3. Clausewitz, p.528
4. Ibid., pp.566-573
5. Ibid., Book Four Chapter 4, The Engagement in General-Continued,
Book Six Chapter 25, Retreat to the Interior of the Country,
Book Seven Chapter 2, The Nature of the Strategic Attack,
Book Eight Chapter 5, Closer Definition of the Military Objective,
Book Eight Chapter 7, The Limited Aim: Offensive War.
6. Ibid., p.177
7. Ibid., p.177
8. U.S. Department of Defense, Dictionary of Military and Associated Terms. Joint Chiefs of Staff, JSC Pub.1, June 1987, p.244
9. Ibid., p.232
10. U.S.Army War College, Lecture Operational Art, comprehensive definition deducted from FM 100-5, 1982, p.10
11. Clausewitz, p.527
12. Ibid., p.567
13. Ibid., p.566
14. Ibid., p.366
15. Ibid., p.528
16. Ibid., p.528
17. Ibid., p.570
18. Ibid., p.528
19. Ibid., p.370
20. Ibid., p.570

21. Ibid., p.571
22. Ibid., p.528
23. Ibid., p.572
24. Ibid., p.119
25. Corelli Barnett, The Desert Generals, Bloomington, Indiana University Press, 1982, p.23
26. J.R.M. Butler, ed., History of the Second World War. The Mediterranean and the Middle East, Volume II, London, United Kingdom Military Series, 1958, p.3
27. Barnett, p.68
28. Ibid., p.68
29. David Irving, The Trail of the Fox, New York: Avon Books, 1978, p.82
30. Ibid., p.82
31. History of the Second World War, Volume III, pp.2,3
32. Ibid., p.3
33. Ibid., p.171
34. Barnett, p.76
35. F.H. Hinsley, British Intelligence in the Second World War, Volume Two. New York, Cambridge University Press, 1981, pp.280,281
36. Barnett, p.73
37. Ibid., pp.87,88
38. Ibid., 115
39. History of the Second World War, Volume III, p.98
40. Hinsley, p.319
41. Barnett, p.126
42. Hinsley, p.309
43. Barnett, p.116
44. Sir David Hunt, A Don at War, London, William Kimber and Co. limited, 1966, p.80

45. Barnett, p.128
46. Hinsley, p.220
47. Barnett, p. 152
48. Ibid., p.156
49. Ibid., p.133
50. Alfred Toppe, German Experiences in Desert Warfare during World War II, Historical Division European Command, 18th of June 1952, p.68
51. Barnett, p.194
52. Hinsley, p.319
53. Toppe, p.66
54. Barnett, p.200
55. Hinsley, p.338
56. Ibid., p.365
57. Ibid., p.373
58. Barnett, p.175
59. Hinsley, p.380
60. Irving, p.234
61. Hinsley, p.380
62. Hunt, pp.121,122
63. Martin van Crefeld, Supplying War, Cambridge, University Press, 1977, p.195
64. Erich von Manstein, Lost Victories, (Translation of: Verlorene Siege, 1982 edition Bernhard and Graeve Verlag Munich), Novato, Carlifornia, reprinted by Presidio Press, 1982, p.420
65. Ibid., p.431
66. Barnett, p.91
67. History of the Second World War, Volume III, p.198
68. HDV 100/100, Fuehrung im Gefecht (TF/G), Bonn, September 1973, (German Army Field Manual), n.3004

69. Michael I. Handel, "Numbers Over Quality: The Question of Quality Versus Quantity," The Journal of Strategic Studies, September 1981.

70. Michael I. Handel, "Intelligence and the Problem of Strategic Surprise," The Journal of Strategic Studies, September 1984, p.233

71. HDV 100/100, n.3053

BIBLIOGRAPHY

Books and Articles

1. Barnett, Corelli. The Desert Generals. Bloomington: Indiana University Press, 1982.
2. Benett, Ralph. Ultra and Mediterranean Strategy. New York, 1989.
3. Butler, J.R.M., ed. History of the Second World War. The Mediterranean and the Middle East, Volume II and III. London: United Kingdom Military Series, 1958.
4. von Clausewitz, Carl. On War. Princetown: Princetown University Press, 1976.
5. von Clausewitz, Carl. Vom Kriege. Bonn: 19. Auflage-Jubilaumsausgabe mit historisch kritischer Wuerdigung von Dr. Phil Hahlweg, Ferd. Duemmlers Verlag, 1980.
6. Coggins, Jack. The Campaign for North Africa. New York: Doubleday and Co. Inc, 1980.
7. van Crefeld, Martin. Supplying War. Cambridge: University Press, 1977.
8. von der Golz, Freiherr Colmar. The Conduct of War. London: Kegan Trench and Co. Ltd, 1917.
9. Handel, Michael I. "Clausewitz in the Age of Technology." The Journal of Strategic Studies, Volume 9. June/September 1986.
10. Handel, Michael I. "Intelligence and the Problem of Strategic Surprise." The Journal of Strategic Studies, September 1984.
11. Handel, Michael I. "Numbers Do Count: The Question of Quality Versus Quantity." The Journal of Strategic Studies, September 1981.
12. Handel, Michael I. War Termination, A Critical Survey". Jerusalem Papers on Peace Problems 24, 1978.
13. HDV 100/100. Fuehrung im Gefecht (TF/G). Bonn, September 1973 (German Army Field Manual).
14. Hinsley, F.H. British Intelligence in the Second World War, Volume Two. New York: Cambridge Univers. Press, 1981.

15. Hunt, Sir David. A Day at War. London: William Kimber and Co. Limited, 1966.

16. Irving, David. The Trail of the Fox. New York: Avon Books, 1973.

17. von Manstein, Erich. Lost Victories. (Translation of: Verlorene Siege, 1982 edition Bernhard and Graeve Verlag Munich). Novato, California: reprinted by Presidio Press, 1982.

18. Ose, Dieter, ed. Ausbildung im Operativen Denken unter Heranziehung von Kriegserfahrungen dargestellt an Manstein's Gegenangriff Fruehjahr 1943. Bonn, Maerz 1987.

19. Toppe, Alfred. German Experiences in Desert Warfare during World War II. Historical Division European Command, 18th of June 1952.

20. U.S. Department of Defense. Dictionary of Military and Associated Terms. Joint Chiefs of Staff, JSC Pub.1,1, June 1987.

21. U.S. Department of the Army. FM 100-5. Washington D.C., 1986.