DEFENSE IN CLAUSEWITZ'S ON WAR
AND IN FM 100-5 AND HDW 100/100

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE

by

GERTMANN SUDE, Major i.G.
Diplomingenieur, German Army

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ABSTRACT

Defense in Clausewitz's *On War* and in FM 100-5 and HDv 100/100 by Major Gertmann Sude, GE Army, 149 pages.

This study examines the validity of Clausewitz’s conclusions about the defense on the future battlefield. It discusses the correctness of the adoption of Clausewitz’s ideas in the operational manuals of the American and German Army (Field Manual 100-5, Operations; Army Regulation 100/100 (HDv 100/100), Command and Control in Battle) and the application of NATO’s doctrine in the light of *On War*. The study deals with the purpose and conduct of defensive operations and examines specific criteria, which make defense a stronger form of operation than offense. Levels of war and principles of war are touched on as well as the relationship of defense and offense.

The study concludes that Clausewitz has great significance for the training and education of modern officers. Most of his ideas on defense are correctly recognized in the manuals. However, political and area restrictions in Central Europe do not support Clausewitz’s considerations. Quotations of *On War* should be made with reservation because the criteria for some of Clausewitz’s conclusions have changed. The impact of human and moral factors, which Clausewitz discusses in parts of his writing, is found to be well reflected in FM 100-5 and HDv 100/100.
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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)
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Chapter 1

INTRODUCTION

The quotable Clausewitz

"War is merely the continuation of policy by other means."\(^1\)

According to historian Michael Howard, this is the statement from the often quoted and misquoted Carl von Clausewitz that in the past led British and American liberals to think of Clausewitz as a military cynic.\(^2\) Actually, it is one of the most significant conclusions in Clausewitz's great treatise about war, but its meaning can be fully understood only when the author's thoughts are studied or regarded as a whole and not separately. Hence, it is dangerous to quote Clausewitz even in advanced training programs such as those at the U.S. Army Command and General Staff College (USACGSC) and at the "Führungsakademie der Bundeswehr," as is often done to stress or prove a military point, without seeing the complete Clausewitzian background. Furthermore, it is surprising that Clausewitz is so widely quoted in basic field manuals of the most modern armies of the world,\(^3\) especially since his thinking was directed only toward an army in land-locked Prussia more than 150 years ago and since he had no understanding of sea power, air forces and nuclear weapons.\(^4\)

Considering Clausewitz's popularity in present armies, three major questions naturally arise:

1. Are Clausewitz's ideas, especially on defense, valid on the modern battlefield?
2. Are Clausewitz's thoughts accurately represented in Field Manual 100-5, Operations, and in Army Regulation 100/100, Command and Control in Battle?

3. Is NATO doctrine of a forward defense supported by Clausewitzian theory?

The purpose of this paper is to study these issues and to reach conclusions about them. In order to examine specific subjects of Clausewitz's writings and the manuals deeply enough, we will concentrate on defensive operations. The following parts of Chapter 1 will show major events in Clausewitz's life and introduce FM 100-5 and HDv 100/100; the differences from the manuals' predecessors will illustrate progress and development. Before we demonstrate the art, purpose, and the conduct of defense including its relation to offense in Chapter 3, we will examine the various levels of war, on which defensive operations are conducted (Chapter 2).

Because principles of war play a major role in Clausewitz's thoughts and FM 100-5 contains a specific list of principles, it seems worthwhile to compare the modern armies' manuals with Clausewitz's considerations—especially in the light of defense (Chapter 4). Clausewitz dedicated major parts of his writings to the question of how to achieve the superiority of defense. Therefore, Chapter 5 will show those significant factors for successful defensive operations. Thus, before we draw conclusions in Chapter 6, this paper will cover defense in Clausewitz and selected armies' manuals in a broad spectrum. To facilitate the reader's progress,
Appendixes A, B, and C contain the tables of contents of *On War*, FM 100-5 and HDv 100/100.

Clausewitz's life

Carl von Clausewitz was born in Burg near Magdeburg/Elbe on June 1, 1780, and joined the Prussian Army, which provided his basic education, at the age of twelve. He got his first impressions about war at the age of thirteen when the French Army attacked the city of Mainz and he as Fähnrich von Clausewitz was serving in the defending Regiment. Very ambitious and active by nature, he studied military theory, arts, and political and social matters on his own from an early age. He especially dedicated much time to studying military history in order to learn from the past and draw conclusions for the future. Serving as aide-de-camp of Prince August of Prussia beginning in the spring of 1803, Clausewitz had access to the highest circles of the Prussian Kingdom, and he met influential politicians like Freiherr vom Stein and distinguished officers like Scharnhorst, Gneisenau, or Blücher.

In October 1806, Clausewitz witnessed the rapid defeat and dissolution of the formerly proud Prussian Army by Napoleonic forces. As a result of this war, Clausewitz and Prince August were taken to France as prisoners for one year, a time which Clausewitz used for further studies of the French language and society. It was this Napoleonic experience that inspired Clausewitz's life and writings and from which he derived many of his ideas, for example the value of
moral forces, popular support, or a deep hinterland for the defender, which the Russians had.\textsuperscript{9}

In the year 1810, Major von Clausewitz got an assignment as instructor of tactics at the Kriegsschule in Berlin and simultaneously became the military teacher of the young Prussian Crown Prince.\textsuperscript{10} For the Crown Prince he wrote his first treatise about "Principles of War" of which he said, however, that they had been drawn up hastily.\textsuperscript{11} Therefore, they should be used with reservation.

In December 1810, Clausewitz married Countess Marie von Brühl, to whom he was engaged for more than six years and who played a significant role in publishing Clausewitz's work after his death.\textsuperscript{12}

In May 1812, while Napoleon was forcing Prussia more and more to support French preparation for the upcoming assault against Russia, Clausewitz left Prussia and joined the Russian Army to fight against the French conqueror.\textsuperscript{13} Thus, under Russian colors, Clausewitz gained his comprehensive experience about a long distance campaign and the advantage of a large territory for a defender, when Napoleon marched against the Tsar's forces on 22 June 1812. Also, he was witness of the Convention of Tauroggen which was the political beginning of the European independence wars (Befreiungskriege).\textsuperscript{14}

Smaller engagements between Prussian and French forces during 1813 offered good opportunities for Clausewitz to study the impact of tactical maneuvers, initiative, communications, and reinforcement of terrain.\textsuperscript{15} Although he could not take part in the Battle of Waterloo personally because the King ordered him to the General Staff, he was
well informed about the course of Napoleon’s final defeat and able to
draw useful conclusions from this historical event. He got for
instance, good ideas about the commitment of last reserves, of the
flanking attack, of the conduct of pursuit, and of the frictions in
war. First and foremost, it is this personal experience during the
years that qualifies Clausewitz as a military and political writer.

In 1815, Clausewitz became Chief of Staff of the Prussian
General Commando in Koblenz and in May 1818, he was appointed as the
Director of the "Allgemeine Kriegsschule" in Berlin, but his duties
took up a few hours only and his influence on tactics was very
little. In the following twelve years, he spent most of his time
in writing his comprehensive work, On War. His major issues were the
interdependence of politics and military, the relationship between
means and ends in war, the delimitation of strategy and tactics, and
the dominance of defense and its relationship to offense.

On 6 March 1831, Clausewitz got an assignment as the Chief of
General Staff of the Prussian Army Command, which had the mission to
prevent a Polish rebellion on Prussia’s eastern border. Although a
military success could be achieved, there was no measure against an
awful disease. On 16 November 1831, he died of cholera and left an
unfinished work; he had reviewed only the first chapter of the first
book and regarded the majority of his writings as drafts. However,
his widow published his entire works and founded the worldwide
reputation of Clausewitz (see Appendix A).

As shown above, Clausewitz had firsthand experience in
practice and theory, in politics as well as on the battlefield, in
the narrow area of Prussia and in the large Russian territory, in watching Napoleon's warfare and in studying military history. Nothing can better underline the serious and proven background of On War; Clausewitz knew about what he wrote.

Clausewitz against Clausewitz

Where Clausewitz was born and has been buried, in Burg approximately 50 kms east of the inner German border, and where he spent most of his life, between Koblenz and Berlin, there are the strongest forces in the world today. And in both camps, in the NATO and in the Warsaw Pact, strong efforts are made to adopt Clausewitz's ideas. As ironic as it seems, it is reality: The next war, should it break out in Central Europe, will be fought over his grave under his principles by both sides.18

Soviet Field Marshall Sokolowski mentions in his classic work Militär-Strategie, that Lenin studied Clausewitz's On War and fully agreed with the idea that politics should dominate over the military.19 Sokolowski confirms the validity of this statement expressly and, by doing this, he demonstrates the continuation of a long traditional learning and application of Clausewitz's thoughts including the World War II period in the Russian Army.20

The 200th birthday of Clausewitz in 1980 was celebrated both in the East and West. The Bundeswehr honored him with a special ceremony at the Führungsakademie, and numerous publications in the Federal Republic of Germany (FRG) and the USA demonstrated Clausewitz's significance.21 Also, the German Democratic Republic
renewed in various publications its remembrance of Clausewitz's performance and the validity of his work. Several articles cited Clausewitz's theories as justification for the class struggle because Karl Marx and Friedrich Engels appreciated his book, On War. Statements like, "... we honor Clausewitz by revolutionary vigilance of class ..." indicate a higher emotional relationship than can sometimes be seen in the western hemisphere. Indeed, in the East the Clausewitzian heritage is more widely used to justify the "socialistic country defense" (Sozialistische Landesverteidigung) and strengthen the morale of the people than it is used to support military tactics and strategy.

FM 100-5

"Winning campaigns and battles is the focus of this manual." FM 100-5, Operations, issued 20 August 1982, by Headquarters Department of the Army, is currently the valid basic document for the training of American Army officers. In the preface, it is called "the Army - Keystone How to Fight manual;" it is used as the guidance for commanders and trainers at all echelons.

The manual explains in four major parts how the Army must fight in order to win (see Appendix B). Thus, part one, "The Army and How it Fights" covers subjects like "Challenges for the US Army" (Chapter 1), "Combat Fundamentals" (Chapter 2), "Weather and Terrain" (Chapter 3), "Conduct of Operations" (Chapter 7), and others. Chapters 2 and 7 deal especially with two new elements, the operational level of war and the AirLand Battle doctrine.
The spirit of this manual is mainly characterized by the frequent use of one of the AirLand Battle’s four basic tenets—initiative.27 Initiative becomes a key word and is, according to the manual, the prerequisite for success on the battlefield. Consequently, part two deals with "Offensive Operations," demonstrating by this order in the table of contents the relative importance of offensive actions over the "Defensive Operations" treated in part three. Both defense and its relationship to offense will be examined thoroughly in this paper, for the stated main purpose "of all defensive operations is to create the opportunity to change to the offensive."28 This makes a strong link between these two types of operations. All other possible types of military actions like exploitation or delay, for instance, are subordinated either to offense or defense.29

Part four ("Joint, Contingency, and Combined Operations") stresses—as a result of the worldwide American policy—the need for cooperation with other US services (Chapter 15), development of principles for contingency forces (Chapter 16), and the planning and conduct of operations together with allied forces in NATO and Pacific Command (Chapter 17). A list including detailed explanations of the nine principles of war concludes FM 100-5.

Although the 1982 issue differs significantly from its predecessor, issued on 1 July 1976, it has undergone an evolutionary rather than a revolutionary development. The new American Army doctrine (AirLand Battle) resulted mainly from an analysis of the Soviet echelonment of forces and the outnumbered situation for US and
NATO allied forces in a European scenario. The differences between the FMs of 1976 and 1982, show and prove the road of development the American Army has taken.

First, the new FM 100-5 is written in more general terms than its predecessor, although John J. Alger claims that the 1976 issue already was "the most general manual in the army's library of hundreds of manuals since 1939...". One has to see a close connection between a general guidance for training and command on one side and the desired application of mission-type orders on the other. If mission-type orders are required in order to develop more flexibility on the battlefield, then a FM has to cover operational subjects only generally and must not dictate specific details. Second, the newer manual makes stronger and more obvious reference to Clausewitz. Not only does it contain three quotations of Clausewitz's On War, but it also contains additional statements that seem to be derived from his book and that demonstrate the adoption of his historical thoughts. For example, the idea that "defeating enemy forces in battle will not always insure victory" or the stated relationship of offense to defense with regard to their combining purpose to gain the initiative, remind strongly of Clausewitz.

A third difference in the two FMs is the newer manual's explanation of "levels of war." FM 100-5 (1976) entails no specific consideration of strategic or tactical levels of operations in war. Although the words tactical and strategic are used a few times in connection with airmobility (airmobile, airlift), purpose of defense
(to retain tactical, strategic, or political objectives), counterintelligence, and nuclear operations, there is no further definition or delimitation of levels on which defense or offense are fought.\(^{34}\) In contrast, the new FM 100-5 distinguishes between three different levels of war (strategic, operational, tactical) and explains each of them in detail.\(^ {35}\)

The fourth major difference is in the way the manuals present conduct of defense. While FM 100-5 (1976) emphasized more of an active defense, especially in Central Europe with its limited terrain in the forward defense scenario, the new version stresses the fighting of a deep battle on an extended battlefield.\(^ {36}\) One will see in the following chapters if this new element of military operations has changed the relationship between defense and offense or the character of defense itself.

The last clear and remarkable difference between the two manuals is that the newer version treats the principles of war comprehensively and in detail - a renaissance of military rules.\(^ {37}\) Although the principles have played an important role in American Army's training since 1921, the 1976 version did not mention them expressly. That the U.S. Army today proclaims the basic principles of war as indispensable milestones of military thinking, planning, and acting seems to be a result of a publication of the U.S. Army War College about Clausewitzian principles; thus this well-known Army institution stresses not only the application of principles themselves, but also a direct linkage to Clausewitz.\(^ {38}\)
The NATO doctrine is the link between FM 100-5 and HDv 100/100. Both manuals state in their prefatory remarks their consistence with the commitment to the Alliance.39

Before studying HDv 100/100 deeper and reviewing its essence, one should take a brief look at its predecessor, the HDv 100/1, Truppenführung (issued Oct 1962), to show details of development.40 The HDv 100/1 was the first basic and comprehensive manual of the Bundeswehr (Armed Forces of the Federal Republic of Germany) upon having built up fully mobile and mechanized units in division size.41 Some essential ideas in this manual were these:

1. The condition of a nuclear environment and the effects of nuclear fire became important factors of battlefield considerations and defensive planning.42

2. Command and control is seen as an art: "Command and control is an art, a free and creative action based on character, skill, and mental power." Unmistakably this had a direct relationship to Clausewitz, who prefers more individual mind and flexible, situational judgment than methodism or stubborn automatism.43

3. HDv 100/1 distinguished—depending on the purpose—between three different types of military operations: attack, defense, and delay.44

4. The manual did not contain a list of enumeration of principles, but the word "principles" was used very often in connection with Principles of Command and Control, Principles of Reconnaissance, Principles of Attack, and Principles of Defense. No.
shows the significance and purpose of principles clearly: "... no formulas exist for the battlefield. However, precise principles must guide any Commander."#5

5. At the first glance a strong reference to Clausewitz is obvious from three quotations from, On War. The chapters about Reconnaissance (D), March (F), and Meeting Engagement (G) begin with a conclusion of Clausewitz, which makes the reader sensitive to the subject.#6

The development and application of the "Flexible Response" as NATO doctrine required the issue of the HDv 100/100 in 1973, which is still, together with the German Government's White Paper 1983, the fundamental training source of German Army Officers. "It creates uniform conditions for the training of all Army commanders" and "the principles of this regulation apply to the command and control of units from Corps level on down."#7 Appendix C illustrates the wide ranging content of HDv 100/100; it covers issues from politics to an alert system, from leadership to logistics, from general tasks in battle such as scouting to rear area protection, from defense to attack, delay, and special types of combat operations. It is still as comprehensive in volume and detail as its predecessor. Major points--some are changes to HDv 100/1--are as follows:

1. Although one has to anticipate war under nuclear conditions, the focus on nuclear fire is not as strong as in HDv 100/1; there is no longer a specific chapter about nuclear warfare.

2. A precise definition of command and control has been omitted; HDv 100/200, Führungssystem des Heeres,--another manual of
the German Army—contains a definition ("Command and Control is guiding and operating influence on the behavior of people to accomplish a given mission, it includes also the employment of material means.") , but that is far from the prior manual’s regard of command and control as an art; command and control has become a completely commercial or managerial attitude, which regards persons as figures and sees efficiency as the center of all efforts. The specific chapter on leadership in the newer manual cannot replace the spirit of the former one describing command and control as an art. 48

3. The sequence of the different types of operations has changed: first comes defense— which thereby gets more emphasis—then attack, and delay. In German the designation of defense has changed from "Abwehr" to "Verteidigung," because "Abwehr" indicates by the word itself a passive or reacting behavior.

4. As was true with HDv 100/1, the current German Army manual does not contain a list of Principles of War. Specifically broader explained principles are always designated as "General Principles" and four times dealing with major issues: In Chapters 6-14 as "General Principles of Command and Control of Army Forces" and as paragraph 1 in the chapters on defense, attack, and delay. This will be studied in a following chapter. 49

5. There are no quotations from Clausewitz in HDv 100/100, but that does not mean that the German Army has given up its reference to Clausewitz; the opposite is the case. Clausewitz is deeply integrated into the training of officers at the German Command and General Staff College (Führungsakademie) and the former Chief of
the German Army, GenLt. Glanz, emphasized Clausewitz's importance in a lecture for a class of officers. He recommended the use of Clausewitz and HDv 100/100 as a good source for arguments when discussing with the so-called "peace movement." Thus, Clausewitz is, in addition to the NATO membership, the second external link between FM 100-5 and HDv 100/100.
Chapter 1

NOTES


3Headquarters Department of the Army, Field Manual No 100-5 (FM 100-5) (Washington: Government Printing Office, 1982) and Der Bundesminister der Verteidigung Führungsstab des Heeres IV 4, Heeresdienstvorschrift (HDv) 100/1 Truppenführung (Bonn, 1962). (HDv 100/1 was the predecessor of HDv 100/100).

4Clausewitz, On War, p. 36.


6Ibid., p. 73.


8von Schramm, Clausewitz Leben und Werk, pp. 77-81.


10von Schramm, Clausewitz Leben und Werk, pp. 287-289. (The Crown Prince was the later King Friedrich Wilhelm IV., 1795-1861).


12von Schramm, Clausewitz Leben und Werk, p. 298.

13Ibid., p. 343.

14Ibid., pp. 411-412.
15bid., pp. 442-443.
16bid., p. 460.
21See for example:

24 Brühl, p. 392, 401.

25 FM 100-5, p. 1-1.

26 Ibid., p. 203, 7-1 (Although FM 100-5 (1976) dealt in Chapter 8 with AirLand Battle, it was not yet a doctrine).

27 Ibid., (Initiative is mentioned 11 times on pp. 2-1, 2-2, 7-2).

28 Ibid., p. 10-3.

29 Ibid., p. 9-1, 10-4.


31 FM 100-5, p. 1.

32 FM 100-5, p. 1-4, 8-4, 11-1 (3 Clausewitz quotations).

33 FM 100-5, p. 1-1, 10-3.

34 FM 100-5 (1976), p. 2-30, 5-1, 7-11, 10-1.

35 FM 100-5, p. 2-3.

36 Hanne, "Doctrine not Dogma," p. 47.

FM 100-5, p. 11-5.

Starry, p. 49. (The extended battlefield concept is the keystone of force modernization).


39FM 100-5, p. i, ("It is consistent with NATO doctrine and strategy").

HDv 100/100, p. 1 and 11 (No 4 and 7), ("cooperation with the Allies are mentioned where necessary").


42HDv 100/4, No. 19-27, 131-159, 454-455.

43Ibid., No. 64 (author’s translation).

44HDv 100/1, No. 19-27, 131-159, 454-455.

45HDv 100/1, No. 64 (author’s translation).

46Ibid., no. 99, 119, 139.

47HDv 100/100, p. 1.


48HDv 100/200, No. 101 (author’s translation).

HDv 100/100, Chap. 7.1. (leadership and education).

49HDv 100/100, Chap. 6-14, 27, 30, 33.

50Meinhardt Glanz, "Ansprache des Inspektors des Heeres vor Offizieranwärtern." (Dokzent-Bw Nr. Ha4206), lecture at German Army Officers School, 12 Jan 1982, p. 5.
Chapter 2
DEFENSE ON VARIOUS LEVELS OF WAR

General

The Constitution of the Federal Republic of Germany outlaws wars of aggression. "Unless for defense, the armed forces are only permitted to be employed as far as this basic law does agree expressly." Every German officer swears to act in accordance with this law. However, he is taught and trained to plan and conduct offensive operations in case of war. Is this a violation of law and therefore a punishable action? The answer is "no," for the level on which the offensive action occurs is the decisive point. After the German Government's decision in 1983 to approve the deployment of Pershing II and Cruise Missiles on Federal Republic territory, the Green Party demonstrated and protested against these weapons. The Party and its adherents believed that these weapons are suitable for offensive operations. Did the government violate the Constitution? The answer is "no" again. The Federal Court denied the Green Party's petition to prohibit those weapons systems and rejected its suit.2

The foundation for both these answers reveals two significant factors that relate directly to Clausewitz: First, the level of war on which actions are conducted or weapons are employed; and second, the relationship of "ends" and "means," in which military actions and weapons are "means" to achieve a given "end."
The American Army has also in the past neglected a clear application of levels and attached goals. The importance of a reasonable definition of levels of war and a precise distinction between "ends and means" is made clear by Colonel Harry G. Summers, Jr., in his assessment of the Vietnam War; according to him, the United States did not accurately define the strategic and political goals of the Vietnam engagement.

This situation of poorly defined goals in Vietnam is similar in some respects to the one Clausewitz had seen in Prussia after the defeat of Napoleon. The Prussian Army was faced with poor weapons, poor leadership, poor organization and above all, a lack of definition of strategy and tactics — especially their levels of application — which altogether facilitated Napoleon's victory.

Colonel Summers' complaint that the United States won in Vietnam tactically but lost strategically ("On the battlefield itself, the Army was unbeatable.") sounds like "lost victories," caused by a lack of a reasonable and logical hierarchy and relation of "ends and means."

Definition of levels and their interdependence

The recognition of different levels of war allows the assignment of various responsibilities, missions, or forces and facilitates the understanding of actions on all defined levels of command and control. With regard to the operational and tactical levels, the military literature in general defines these concepts directly and narrowly in military terms only. The strategic level, however, is
explained in several ways: From a purely military Clausewitzian definition of strategy—which was identical with the United States' strategy from the beginning of their history until the Korean War—to a strategy comprising other areas also. So, Helmut Schmidt, former Chancellor of the Federal Republic of Germany, states that strategy is something on a higher level, something more than the employment of armed forces, and is therefore "not a matter for generals (though it can assign tasks to generals), but for governments." This means that political, economic, social and other factors also contribute to the range and objective of a country's strategy; a modern officer, therefore, has to understand something about issues like technology, economics, politics, and society; this study, however, will focus mainly on the military strategic level.

Clausewitz mentions one political and two military levels of war. In Book One, Chapter 1, he states his famous conclusion about the political level: "War is merely the continuation of policy by other means." Thus he puts the responsibility for war itself on the political stage; he defines it expressly as an instrument of policy, as an act of force "to compel our enemy to do our will," hence it becomes the "mean" of the political level.

In Book Two, Chapter 1, Clausewitz explains his ideas about the classification of the art of war by distinguishing between two military levels of war - the strategic and tactical: "Tactics teaches the use of armed forces in the engagement; strategy, the use of engagements for the object of the war." The conduct of war - as Clausewitz says - is not a single act, but a "greater or lesser
number of single acts, each complete in itself," which he calls "engagements." These types of military actions happen on the tactical level; fighting forces trained for combat are the "means" and victory is the desired "end." On the strategic level, the "end" of the tactical level ("victories") becomes the "mean." The "end" on this level, Clausewitz believes, is concerned with the war itself and - in a final stage - the "ends" may be those objectives, which should lead directly to peace.

It is especially significant to understand Clausewitz's idea about the relationship of the levels of war. Because in war one must see the overall picture and the connection of its parts, he concludes that every mean "must influence even the ultimate purpose," what he considers to be "peace." He also claims that on every stage of this chain of "means and ends" (see figure 1) a new judgement only related to that specific level has to be conducted; for the standpoint is different, because the "means" and "ends" are not the same. Thus, as one victory on the tactical level does not ensure peace, the strategic level must not use the forces themselves, but engagements in conduct of the war. As shown in figure 1, Clausewitz does not apply "victory of war" as the end to the strategic level. He denies expressly that victory is the end on this level; he believes the strategic success is a series of victories on the tactical level and finally the whole exploitation of the military operations on the political level.
The French philosopher, Raymond Aron, a great supporter of Clausewitz's ideas, writes that Clausewitz's considerations on "means" in tactics and strategy can easily be understood, but that it is difficult to determine exactly the "ends" of both levels. Although he agrees that Clausewitz has clearly separated the political stage from the military strategic level, Aron concludes that on this level in strategy "peace" also becomes an "end." 15 This, however, seems not only to be an inaccurate analysis of Clausewitz's subparagraph about "Ends and Means in Strategy," but also slightly illogical; for if "peace" would be the "end" of the strategic, military level, then a cease-fire or refusal to fight will be the achieved result. 16 In the sense of Clausewitz, "peace" is more likely to be an issue of the political level rather than the strategic one.

Clausewitz has more problems with the delimitations of the strategic and tactical levels. There are several statements which

<table>
<thead>
<tr>
<th>Level</th>
<th>Mean</th>
<th>End</th>
<th>Unit</th>
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<tbody>
<tr>
<td>Tactical</td>
<td>Forces</td>
<td>Victory in Engagement</td>
<td>Battalion</td>
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<td>Regiment</td>
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<td>Division</td>
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<tr>
<td>Strategic</td>
<td>Engagements</td>
<td>Conduct of War</td>
<td>Corps, Army</td>
</tr>
<tr>
<td>Political</td>
<td>War</td>
<td>Impose our will on the enemy; peace</td>
<td></td>
</tr>
</tbody>
</table>
show Clausewitz's difficulties in exactly limiting issues to one level or the other, for example -

(1) In Book Two, Chapter 1, he considers individual acts, which because of space and time can belong both to strategy and tactics.

(2) In Book Three, Chapter 13, he expresses the difficulty of determining whether a Corps in the reserve is a force on the strategic or the tactical level.

(3) In Book Five, Chapter 13, he cannot precisely delineate if the preparation and provision of quarters is a matter of strategy or tactics.

(4) In Book Six, Chapter 1, Clausewitz introduces the term "campaign" on the strategic level, because he needs a military operation between "engagement" and "war," since the distance in time, space, and force is too great between these two.

One can justifiably argue that Clausewitz had sometimes reached the conclusion that there should be a third military level, since some issues do not fit completely on the strategic or tactical level, but he did not define a new one expressly.17

FM 100-5 (issue 1982) contains—in contrast to its predecessor (issued in 1976)—a clear definition and description of levels of war. A short definition of war itself ("war is a national undertaking which must be coordinated from the highest levels of policymaking to the basic levels of execution") is followed by a separate explanation of three military levels on which war is prepared and conducted.18 Both the acceptance of a higher political
level and the definition of the military levels by "means" and "ends" are in accordance with Clausewitz's On War; however, between the strategic and tactical level the manual describes an operational level, which one does not find in Clausewitz's writings.

The application of this additional level is broadly supported by US officers. Colonel W. P. Franz, for instance, in an article written at Army War College, recommends a new military level between strategy and tactics, which he called "grand tactical;" also, several authors writing in Military Review after having analyzed the threat, new technology, the Vietnam and World War II experiences, and the need for initiative demand the consistent and immediate application of the operational level. The idea is "to fill the gap between strategy and tactics" in order to achieve a better definition of the complex relationship between doctrine, forces, levels of operations, and aims.19

The "means" on the tactical, operational, and strategic levels are of the same type, and differ only in size; thus FM 100-5 states that the application of force or its threat in general is the "mean" on the strategic level, while the size of the units involved determines the level below. That is, larger units operate on the operational level, smaller units on the tactical.

Where a separation or an overlapping of both levels is concerned, the manual cannot be easily understood. In Chapter Two it says that "At Corps and division, operational and tactical levels are not clearly separable." In Chapter Seven the AirLand Battle doctrine is introduced, which "distinguishes the operational level of war--
the conduct of campaigns and large-unit actions—from the tactical level" and provides "an innovative approach to fighting at both the tactical and operational levels." Several pages later the manual continues: "at the tactical level, forces maneuver to attack the enemy's flanks, rear, or supporting formations" and "at the operational level, corps and divisions maneuver to envelop, to turn, to penetrate, or to block enemy forces." The manual's authors seemed to have difficulty in applying AirLand Battle doctrine and maintaining simultaneously a clear distinction of three military levels. Field Circular 100-5 gives a more consistent explanation; it classifies corps and division on both the operational and tactical levels and states — as a major difference — the application of maneuver on the higher and of firepower on the lower level.

The "ends" of the military levels range from victories in engagements or battles to objectives of national policy (for better understanding the levels, means, and ends of FM 100-5 are shown together in figure 2). The idea that successfully conducted battles do not automatically insure the victory of the campaign or the war is a lesson well learned from Clausewitz.
<table>
<thead>
<tr>
<th>Level</th>
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<th>End</th>
<th>Unit</th>
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</thead>
<tbody>
<tr>
<td>Tactical</td>
<td>Smaller Units</td>
<td>Victory of Battles &amp; Engagements</td>
<td>Battalion, Brigade, Division</td>
</tr>
<tr>
<td>Operational</td>
<td>Larger Units</td>
<td>Strategic Goals</td>
<td>Division, Corps, Army Group</td>
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<tr>
<td>Strategic</td>
<td>Force/Threat of Force</td>
<td>National Objectives</td>
<td>Army/Services</td>
</tr>
<tr>
<td>Political</td>
<td>War</td>
<td>National Interest</td>
<td></td>
</tr>
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</table>

Figure 2

Author's interpretation of the "mean-end" relationship in FM 100-5

The German Army manual HDv 100/100 contains neither a definition of levels of war nor an explanation of levels on which military actions of a specific type can be conducted. For unexplained reasons, the German Army no longer recognizes the four well defined levels of the former manual HDv 100/1; it had distinguished between one political level ("oberste Führung") and three military levels with a direct link to a unit-level: "obere Führung" on corps level and higher, "mittlere Führung" on division and brigade level, "untere Führung" on regiment level and below. HDv 100/100 uses the term tactics ("Taktik") not as a level, but only in the sense of a military science which is applicable at all levels of command. In a few places, the manual addresses the hierarchy of levels of command, but this refers only to the command structure and not to a "mean-end" relation as in On War or in FM 100-5.
The application of levels

Clausewitz distinguishes clearly between two military levels (strategic and tactical) by using the "mean-end" relationship.

While HDv 100/100 does not identify military levels of war, FM 100-5 identifies three of them, adding the operational level between strategy and tactics. Although FM 100-5 also uses the "mean-end" relation, all references to Clausewitz should be made with reservation when issues on the operational level are concerned.

Defense on strategic, operational, and tactical levels

At the beginning of Book Six, which deals with "Defense" and is the most comprehensive of all eight books, Clausewitz explains the concept and the major characteristic of defense in general: "The parrying of a blow" is its concept and "awaiting the blow" is its characteristic.26 This "awaiting the blow" is the only way one can distinguish between offense and defense in war, for the act of "awaiting the blow" itself is a very defensive one. Clausewitz claims that "pure defense" (he means on all levels and in all actions) does not exist in real war, "since it would mean that only one side was waging it."27 In Clausewitz's opinion it is inconceivable that one would not react against the offensive employment of hostile forces; he continues "but if we are really waging war, we must return the enemy's blows." This does not change the overall defensive character; for defense in war must be regarded relatively to a specific level, which allows offensive actions under the heading of a higher-level defense.28 Clausewitz explains this
connection by contrasting types of military operations and an anticipated enemy's action: "A partial engagement is defensive . . . if we await the advance, the charge of the enemy."

"A battle is defensive . . . if we await the attack . . . the appearance of the enemy in front of our lines . . .". "A campaign is defensive . . . if we wait for our theater of operations to be invaded." Upon acknowledging this sequence he concludes that "a defensive campaign can be fought with offensive battles, and in defensive battle, we can employ our divisions offensively. Even in a defensive position . . . our bullets take the offensive."29

Thus, Clausewitz's conclusion stresses the significance of the "mean-end" relationship. Its application would provide a great utility for understanding the complexity of defense and its absolutely necessary reference to specific levels. Many critics, for instance, who believe that because the tank, and other similar weapons, are offensive systems and because of this do not fit into a defensive doctrine, demonstrate a lack of basic military knowledge. Thus, the Green Party, members of the Social Democratic Party (SDP), and authors of the so-called peace movement do not differentiate between several levels on which defense and offense can be conducted when condemning structure and equipment of NATO countries and the AirLand Battle doctrine; they simply attach tactical weapons to the strategic level or aim their political view directly to tactics instead of military strategy.30 A short study of the FM 100-5 for example, would show that one cannot mix up levels and means without destroying basics of politics and military.
How do the field manuals reflect the Clausewitzian idea of an echelonment of defense? FM 100-5 provides—shown above—by clear distinction and application of levels, the prerequisite for attaching defensive and offensive operations to specific levels. Some statements such as "war . . . must be coordinated from the highest levels of policymaking to the basic levels of execution," "a successful defense consists of reactive and offensive elements. . . .", or "offensive combat is as much a part of defense operations as strongpoint defenses . . ." indicate some harmony with Clausewitz.31 Also, the introduction of the AirLand Battle doctrine on the operational level and its application are in accordance with Clausewitz's distinction of different levels, for instance when the manual states: "Defensive operations—seize the tactical initiative locally and then generally as the active force shifts from defense to attack."32

HDv 100/100 does not include a precise hierarchy of levels, but reveals a clear understanding of Clausewitz's ideas of an overall defense and inherent counterattacks. On No. 2712, the manual states "counterattacks are expedient if in the course of the battle favorable opportunities arise to neutralize elements of enemy forces by this means. All commanders must resolutely exploit and bring about such opportunities. . . ." On Nos. 2761-2763, the purpose of those counterattacks is explained in more detail at the brigade, division, and corps levels.33 Thus, the characteristic of the Clausewitzian defense ("awaiting the blow") is not given up at any level in spite of an offensive action.
When Clausewitz did weigh the importance of levels, he concluded that tactical success is the most significant one.\textsuperscript{34} Although this is basically still true today, because operational or strategic advantage can only be achieved by tactical victories—which also indicates that large-scale operations are always based on well trained men and crews—the superior position of tactics is only valid under the condition of conventional warfare. The employment of nuclear weapons in defensive doctrine constantly has been—by definition—a strategic issue; the political impact and the effect of the tremendous firepower no longer allow a smooth application of the "mean-end" relationship, because levels of war might not be regarded.\textsuperscript{35} Thus, a nuclear exchange between the superpowers (the United states and the Soviet Union) is as much a matter of politics and military strategy as the employment of anti-ballistic missile systems would be.\textsuperscript{36} In connection with the so-called strategic triad, which includes land-based intercontinental ballistic missiles, strategic bombers, and sea-based ballistic missiles, the word "strategic" defines those weapon systems which provide an overall defensive umbrella on the highest possible level of war in using the intercontinental range capability.\textsuperscript{37}

\textbf{Defense in NATO doctrine}

Both \textit{FM 100-5} and \textit{HDv 100/100} provide the guidance for their respective army to be ready and able to fight in a European scenario under the NATO doctrine of "Flexible Response" if deterrence fails. But while Clausewitz refers his ideas almost exclusively to the stage...
of an actual war, the general emphasis today lies on deterrence, in particular that means in a pre-war period. The White Paper 1983 of the German Government states that "the paramount objective of NATO's strategy is to prevent war through deterrence." In full accordance with this peacetime mission, HDv 100/100 explains briefly the strategy of deterrence and claims that the German Army makes a great contribution to this task. Also, FM 100-5 has a very positive attitude to deterrence, which is proved by the first sentence of the manual: "The fundamental mission of the United States Army is to deter war." This form of defensive commitment of forces—deterrence in a pre-war period—was not an idea of Clausewitz, although he made some rational political considerations about value and cost factors.

Other dissimilarities between Clausewitz's and NATO's defense are the political and space restrictions in the Federal Republic of Germany, which can become a burden for military planners when striving for more flexibility. While Clausewitz's aim on the highest level of war is to defeat the enemy—and if necessary by trading off space for time—NATO's strategy is completely defensive in aim: to restore the integrity of territory. Also, the forward defense itself must be conducted without an implied intent to give up terrain, for 30 percent of the Federal Republic of Germany's population and 25 percent of her industry are living and located in a 100 km zone west of the border with the Warsaw Pact countries. Clausewitz's opinion about such a terrain criteria in defense which could limit the freedom of military operations is very clear; he says: "It cannot be
the object of defense to protect the country from losses; the object must be a favorable peace.\textsuperscript{43} But when he continues he does not neglect the effect of lost terrain; he compares the positive effect of an increasing strength of the friendly force by their withdrawal with the negative result of a lost valuable area; he then concludes that the greatest disadvantage would occur if the area is lost and forces and war material too.\textsuperscript{43} This indicates that Clausewitz would not be very fond of a military operation like NATO's forward defense; because "if engagements of this type become too frequent, it obviously indicates an unfavorable strategic situation."\textsuperscript{44}

There should be no doubt that NATO is and must be politically a defensive alliance; this was pointed out again by the Heads of State and Government in June 1982 ("None of our weapons will ever be used except in response to attack").\textsuperscript{45} But maintaining a defensive behavior on all levels of war in connection with the above described limited space would hardly be defined as flexible or in accordance with Clausewitz’s defense. Rather it would result in an inefficient employment of forces, a renunciation of exploiting mobility, firepower, and command and control and would, finally, not lead to tactical or operational victories, which are declared as prerequisites or means for a strategic success. Thus, Raymond Aron has serious doubts that the advantages of a Clausewitzian defense can be achieved in NATO Germany because of doctrinal and area restrictions; neither a mobile defense on levels above the tactical one, nor the opportunity seem to be possible.\textsuperscript{46}
Samuel P. Huntington, a professor at Harvard University and Director of the Center for International Affairs, points out an interesting idea about NATO strategy with regard to the levels and conduct of defense. He says no logical argument exists that requires a defensive strategy in defensive alliance (that is, at the political level); he favors a prompt NATO offense into Eastern Europe on the highest possible level. Such a change of doctrine, however, would not only exceed the political aim of NATO (to restore the integrity of the territory), but would also not meet Clausewitz's thoughts; on the highest military level Clausewitz regarded the application of an early offense by the defender as a less favorable option.

Conclusions

(1) It has to be seen as a great merit of Clausewitz to distinguish between levels of war, to define them, to develop the "mean-end" relationship, and to consider offensive actions within a defense on higher level. He expressly denied a constant and complete defensive scenario, because otherwise victories in engagements or battles cannot be achieved to support the strategic or political interest. One could easily compare this view with a soccer or a football game in which one side (in Clausewitz's terms "we, the defender") would not be allowed to score; we had to play with a high chance of losing, a slight chance of drawing, but with no chance of winning!

(2) Both Clausewitz's levels of war and his defense refer to the actual state of war; while FM 100-5 and HDv 100/100 stress the
significance of deterrence in a pre-war period, Clausewitz does not consider such a defensive mission for forces.

(3) Clausewitz's distinction between one political and two military levels of war has not been included in the Armies' manuals. HDv 100/100 neither distinguishes between nor defines specific levels, and FM 100–5 has added a new operational level between tactics and strategy. For a better understanding of the significance of military operations on the battlefield and for a precise tasking of commanders on all levels the German Army should provide its officers an explanation of this subject similar to the one in On War or in FM 100–5. This explanation would also facilitate the classification of defensive operations and the discussion with critics of strategy.

(4) Both manuals acknowledge the supremacy of political to military issues; this is fully in accordance with Clausewitz's view that "war is merely the continuation of policy by other means" and that the politicians set the goals for military forces. But this must not automatically lead to the idea that a defensive political alliance requires defense throughout all levels down to riflemen in positions. The more restrictions a political defensive doctrine puts on all military levels—by area, doctrine, structure, equipment, etc.—the less flexible and more difficult it becomes to conduct an effective and efficient defense at all, especially in the sense of Clausewitz. The creation of the operational level and the AirLand Battle doctrine in FM 100–5 can therefore be assumed to be a successful attempt to achieve offensive actions within a political
and strategic defense. Clausewitz highlights the point this way:

"The ultimate aim of a defensive war, ..., can never be an absolute negation. Even the weakest party must possess some way of making the enemy conscious of its presence, some means of threatening him."49
Chapter 2

NOTES


5Summers, p. 1.


(Helmut Schmidt refers to Clausewitz concerning the military definition of strategy). Often in literature this level, which we will call the "political" one, is designated as "grand strategy" in contrast to the purely "military strategy." See e.g.,


a. When Howard/Paret translate from German into English they change the word "blosse" (= mere) from an adjective to an adverb, which leads to a slightly different meaning; see p. 210 in:


b. Clausewitz talks about "Mittel" and "Zweck;" while the translation of "Mittel" to "means" is absolutely correct, the term "Zweck" has been translated variously. Howard & Paret use very often "end" (e.g., p. 142-143), but also "object" (e.g., p. 128) or "purpose" (e.g., p. 87, p. 90). If there should be a different meaning of "end," "object," or "purpose" in English, in German "Zweck" has only one meaning: it answers the questions with "why" or "for what." Within this thesis the term "end" is preferred.

c. It is not correct, when a CIA member and former Naval Warfare College student concludes that Clausewitz made a "lip service" when acknowledging the primacy of political over military goals. By using secondary literature instead of a basic issue of On War he proves his incompetence of evaluating Clausewitz's ideas, see:


9Carl von Clausewitz, On War, p. 128.
10Ibid., p. 142.
11Ibid., p. 143, p. 177.

Again, there are three translations which do not completely reflect Clausewitz's ideas in English:

On War (Engl) uses on p. 143, "original" as an adjective, but in Vom Kriege (German) "ursprünglich" is used as an adverb; thus, in English it should be read as: "originally the means . . ."

In the same paragraph on p. 143, in On War, we find the term "... in the final analysis;" that is not the same as Clausewitz meant, he said "... in letzter Instanz," which could be translated as "... in the final stage" (see Vom Kriege, p. 293).
A significant point, which could lead to a basic misunderstanding of a Clausewitzian idea is the translation of "Die Strategie ist der Gebrauch des Gefechts zum Zweck des Krieges" (Vom Kriege, p. 345); when Howard & Paret translate "strategy is the use of the engagement for the purpose of the war" (On War, p. 177) they do not meet Clausewitz's intention; the use of the English genitive is misleading. It should be translated as follows: "strategy is the use of the engagement for war as its purpose."

12Ibid., p. 158.
13Ibid., p. 159.
14Ibid., p. 363.


(Vad, a German Army Officer, distinguishes also between three different levels in analyzing Clausewitz's On War - political, strategic, tactical; see p. 50).

16Carl von Clausewitz, On War, p. 143.

17Ibid., p. 128, 210, 329, 358 in this order. The military analyst, Edward N. Luttwak apparently draws an inaccurate conclusion when he believes that Clausewitz focused on the operational level.


18Headquarters, Department of the Army, Field Manual No. 100-5 (FM 100-5) (Washington, D.C., 20 August 1982), p. 2-3. (In chapter 16, p. 16-1, the manual states, that "military operations are subordinate to national objectives.")


John S. Doerfel, "The Operational Art of the AirLand Battle." War and Doctrine, P612, Academic Year 1984-85, U.S. Army


20 FM 100-5, p. 2-3, 7-1, 7-4.

21 U.S. Army Command and General Staff College Field Circular No. 100-15, Corps Operations, (Fort Leavenworth, KS, 6 Mar 84 (FC 100-15), p. 4-2, 4-3, 4-5.

22 FM 100-5, p. 1-1.


23 Der Bundeminister der Verteidigung, Führungsstab des Heeres IV 4, Heeresdienstvorschrift (HDv) 100/1 Truppenführung (Bonn, 25 Oktober 1962), Nr. 53-55.

24 The Federal Minister of Defense, Army Staff - III 6. Army Regulation 100/100 (Restricted) (HDv 100/100 VS-NfD), Command and Control in Battle, (Führung im Gefecht (TFG) (Bonn, September 1973), no. 1004.

25 Ibid., No. 403-410, No. 2761-2763.

26 Carl von Clausewitz, On War, p. 357.

27 Ibid., p. 357.

28 Ibid., p. 357.

29 Ibid., p. 357; one can see again that Clausewitz has the tendency to distinguish between three military levels; the operational level of the U.S. Army is more similar to the Clausewitzian strategic than the tactical level; see also:


Löser's arguments do not become better by citing Clausewitz; it shows only that he did not study *On War* thoroughly enough, see p. 7.

Dr. Andreas von Bulow, "Gedanken zur Fortentwicklung der Verteidigungsstrategien in West und Ost." *Dokzent-Bw Nr. BG 1473*, p. 2.


FM 100-5, p. 2-3, p. 10-1.

Ibid., p. 10-4.

HDv 100/100, No. 2712, 2761, 2762, 2763.


(On p. 2-3 the manual states that on strategic level not only forces, but also the threat of force can be used).

Carl von Clausewitz, *On War*, p. 92. (On p. 82 Clausewitz talks about prepared forces, which are waiting for military action; but this is not meant in the sense of deterrence, rather waiting as reserve forces for a better moment to act; also see p. 386; Clausewitz talks about the enemy's fear of defeat; but that does not mean the form of deterrence we understand.)


Ibid., p. 237 (he means operations, which do not lead to enemy's forces destruction, but to a defense of a locality only).

White Paper 1983, No. 254; see also No. 258 (There is no logistic system capable of supporting NATO's forces for an operation into enemy's territory).


(French philosopher Raymond Aron contributes to this book by an article on "Zum Begriff einer politischen Strategie bei Clausewitz").

See also criticism of NATO's doctrine in:


Ralph H. Peters, Jr., "Forward Defence: Time to Break the Concrete?" Army, March 1983, p. 31, p. 35. (Peters compares NATO’s forward defense concept with the French MAGINOT-Line; he concludes that the only possibility to overcome the restrictions by area is to extend the battlefield on enemy territory; but this border crossing operation is not in accordance with NATO’s aim of restoring territory only).


48 Carl von Clausewitz, On War, p. 87; on p. 602 Clausewitz confirms that the nature of the political aim must influence the conduct of war.

49 Ibid., p. 613.
Chapter 3

THE RELATION OF DEFENSE AND OFFENSE

General

Two years ago, the German Bundeswehr distributed stickers with the picture of a hedgehog, which should demonstrate the basic defensive character of the armed forces. At the first glance it looks very impressive to use this peace-loving animal as a symbol for defense. In particular people without military operational knowledge will become convinced that a country's defense must be similar to the behavior of a hedgehog: when an enemy threatens, it develops its thorny armour and waits for things to happen. But, can an attacked country afford to react so passively? Is the purpose of defense only preservation without any chance to move or to accomplish offensive countermeasures? No, successful resistance requires more than pure defense and periods of passivity, which are determined by the threat.

The intent of this chapter is to show the purposes and the way of conduct of defense in On War and in the Army manuals; emphasis will lie on the relation of the defense to the offense.

The Clausewitzian view to defense and its relationship to offense

The reader of On War might, on first impression, get the idea that Clausewitz favored the defense over the offense; after all, the author addresses the defense first (Book Six deals with the defense and Book Seven the offense) and devotes 163 pages to defense and only 52 to the attack. However, this view is misleading, for Book Six
(Defense) deals also, in many chapters, with "the attack," (see Annex A). This indicates that Clausewitz did not regard defense or offense in isolation, but that he tried to point out facts of transition and delimitations between these two forms of combat, and that offense can be a part of defense.

Nevertheless, the reader will notice, without deep analysis, that Clausewitz gives the defense a subjective preference by using the "we" form; "we"--on the one defending side--in contrast to the "invader." 1

In Book One, which Clausewitz himself saw as revised, he distinguishes between attack and defense as the only two forms of action in war, which have different characteristics and unequal strength. 2 However, both types of military operations have in common, the overall purpose of a struggle against an opponent: "The destruction of the enemy’s forces;" a purpose, which is often repeated in his writings. 3 But this main purpose may be replaced for awhile by supporting purposes which may predominate in a specific type of operation. Thus, in defensive engagements the purpose could be to defend a locality or an object, and in the offense it could be the conquest of a locality or an object. 4 While in Book Four Clausewitz explains these purposes in a detailed specific form, he develops his picture of defense in Book Six more generally. The concept of defense, he says, is "the parrying of a blow;" its characteristics are "awaiting the blow," and its purpose is "preservation." 5 Continuing and drawing the decisive conclusion that "it is easier to hold ground than take it," he does not only confirm
the purposes and the spirit of offense (conquest), but he expressly demonstrates that it is easier to defend than to attack. Two factors, he believes, facilitate defensive actions in contrast to offensive ones: time and the support of people and terrain in the area. Clausewitz means that any time, which passes unused by the attacker, favors the power of the defender.6

Seeing the main purpose of defense in Book Four ("destruction of the enemy's forces") and the general purpose of defense in Book Six ("preservation") it is hard to understand how to achieve the first one by striving for the latter one, too. Clausewitz has probably seen this contradiction also and therefore he introduces types of purpose; thus--although still regarding the advantage of an easy conduct of defense—he defines the purpose of defense ("preservation") as "negative." Hence, he concludes, defense should only be conducted so long as one's own inferior strength requires. When the defender feels strong enough, he has to apply the offense with its positive purpose which can still be seen as a part of the intended defense, since a pure defense does not exist in Clausewitz's opinion, but it must contain an offensive counterreaction.7 The reason for an earlier defense with the negative purpose is Clausewitz's idea, that there is a higher chance of success with inferior strength in a "preservation" operation.8

Although Clausewitz evaluates defense as the easier and stronger form of military operation, its passivity is only of temporary value for him. A successful retaliation, he has in mind, can only be achieved by the offense.9
error," he says, "to imagine that a negative aim implies a preference for a bloodless decision over the destruction of the enemy."¹⁰

How does Clausewitz justify his idea of defense as a stronger form of operations by typical military criteria? Using his important distinction between levels of war, he examines the different effect of defense and offense in strategy. If a final and total victory could be achieved by offensive actions on lower levels only within an overall defense, no difference between offense and defense would exist in strategy, Clausewitz believes.¹¹ Having analyzed historical battles, he concludes that the major difference between a strategic defense and offense is the direction and the aim for which each offensive action is conducted. While the invader employs his forces in a way to envelope all defending forces and advance to their center—a "convergent" or "concentric" form—the defender launches his attack (actually a counterattack) from an inner central base to the edge of the theater—a "divergent" or "eccentric" form.¹²

Clausewitz believes that the invader has won when he succeeds in reaching the defender's main body of forces and can hit the defender effectively. Since there is more room and depth in strategy than in tactics to maneuver with the forces, Clausewitz gives the defender strategically a great opportunity to avoid such an unfavorable situation by withdrawing, using depth of the theater, and splitting the attacking force. The offender will therefore hardly be able to proceed to the defender's vital center. Thus, Clausewitz reveals a useful general guidance for a pattern of distribution of forces on
the entire battlefield and he provides some ideas on strength and location of strategic reserve forces.

Another rather complex but detailed argument for the superiority of defense is made by Clausewitz in defining specific, level-of-war related criteria, which supports the two types of operations more or less effectively (see Figure 3). While numerical superiority, courage, and training are of the same value in defense and offense on the tactical level, the benefit of terrain, partly surprise, and attack from several directions favor a defense both in tactics and strategy. Clausewitz believes that the attacker has the advantage of surprise only initially and for a very short moment, but that the defender can achieve surprise by an unexpected array of forces. Even an attack from several directions favors the defender, for Clausewitz applies lessons learned from history on the defending side that allows a proper and suitable reaction against such an attacking force.

Three more criteria—support by the theater, popular support, and exploitation of moral factors—heavily support a defense on the strategic level. Because of the significance of these factors in Clausewitz’s thinking on defense, they will be explained in more detail in Chapter 5.
### Figure 3

The Effect of Battlefield Criteria on Defense and Offense in Strategy and Tactics

(Key: + positive, (+) partly positive, - negative)

Concerning the conduct of defense, Clausewitz visualized four possible types of resistance:

1. Friendly army attacks the enemy the moment he invades the theater.
2. Friendly army moves into position close to the frontier, waits until the enemy appears, and attacks him first.

3. Friendly army moves into position close to the frontier, waits until the enemy appears, and attacks him after he has launched his attack.

4. Friendly army waits for the enemy, withdraws into the interior of its country, constantly weakens the advancing enemy, waits until he is exhausted, and finally resists him.¹⁷

The most surprising aspect seems to be that Clausewitz is explaining defense but attacking in three forms of its conduct. He defines the attack of the friendly army, which is in case one and two actually a pre-emptive attack and in case three a counterattack, as the "sword of the defender" for destroying the enemy. Only in case four Clausewitz, inspired by the Napoleonic experience, anticipates an enemy's defeat by his own exertions and a final blow of the defender; this idea demands that one has to count the final counteroffensive of the defender as belonging to defense.¹⁸

Even in the choice of the word "resistance" (in German "Widerstand") Clausewitz indicates an active process and condemns passivity, which does not achieve success.¹⁹ In Clausewitz's opinion the development of tactical doctrine and weapon systems has delivered advantages for the defense. When in former times the forces had been deployed on the static battlefield, which took nearly half a day, the defender had no opportunity to change his order of battle; but by the combined employment of infantry, cavalry, and artillery as well as by a variable commitment of reserve forces, the defender has gained
flexibility, Clausewitz believes. He regards the fourth type of resistance as the most effective form of defense, because of the weakening effect on the enemy by the defender's withdrawal. Clausewitz prefers this type of defensive action, however, only if physical and psychological strength of the army and the population and the condition of the country would allow this option and if gaining time is the main objective.

At this stage of analysis of defense in On War one can already draw three conclusions:

1. The Clausewitzian defense contains both offensive and withdrawing actions.

2. The factors of space, time, and forces are very significant parameters of defense.

3. As shown in Chapter 2, the political and area restrictions on defense in Central Europe do not allow the application of concept one, two and four of Clausewitz's types of resistance; only type three, which he regards as not the best possibility, seems to be applicable.

When Clausewitz writes, "A sudden powerful transition to the offense—the flashing sword of vengeance—is the greatest moment for the defense," he applies one of the four basic tenets of the AirLand Battle doctrine—initiative. But the deep battle idea is also a realistic consideration of Clausewitz. In three different parts of On War, he encourages the defender to "operate against the enemy's lines of communication" and to conduct "raids and diversions into enemy territory." Clausewitz makes it very clear in Book Five
about Military Forces, that the defender enjoys a great logistical advantage over the attacker, who is saddled with longer lines of communication.26

The culminating point. When the defender is able to withdraw and to cause the invader to extend the distance to his natural bases more and more, his strategic offense will reach a state Clausewitz called the "culminating point." That is the point in time at which the enemy's advance has weakened the attacker and strengthened the defender in such a way that the power of the invader "is just enough to maintain a defense and wait for peace."27 Clausewitz explains that the attack has no growth of intensity comparable to that of the four types of defense, but instead suffers a constant decrease of force raised by the necessary great effort to occupy the defender's country, by the need to secure the rear area and the lines of logistics and communications, and by losses through actions and sickness.28 The Napoleonic attack into Russia showed to Clausewitz very clearly the strength of the defender upon his withdrawal back into his country and after the enemy's offensive power was exhausted.29 The defender has to try from the very first moment of hostilities on, Clausewitz says, to strive for the "culminating point." This includes a requirement to use all active defense measures and an ability to conduct balanced withdrawal: not too early and not without hitting the enemy, but also not too late to avoid a forced retrograde operation with loss of valuable forces.30 It is important to emphasize two facts in this context:
(1) The enemy's losses or his exhaustion were for Clausewitz not a particular purpose of defense, but the way to achieve an early "culminating point." 

(2) Clausewitz discusses in Book Five, Chapter Twelve, the effect of difficult marches on soldiers. He calculates that Napoleon and his 301,000-man army lost in a 52-day period 95,000 soldiers by sickness and only 10,000 soldiers by combat. These high losses by non-combat causes obviously influenced Napoleon's defeat. Therefore, it does not seem realistic or adequate to transfer the Clausewitzian experience of 1813 into a Warsaw Pact - NATO scenario. The British Royal Air Force Group Captain R. A. Mason hits the point exactly in wondering whether NATO could 'choose to wait for a 'culminating point' in a Warsaw Pact offense.'

The "offensive" defense in FM 100-5. FM 100-5 develops in four major parts, each consisting of several chapters, how to conduct military operations (See Annex B). The structure is clear and logical: Part One ("The Army and How it Fights") explains the future battlefield scenario and focuses mainly on AirLand Battle, the new US Army doctrine, which will allow a friendly force to succeed in battles even if outnumbered. While Part Four ("Joint, Contingency, and Combined Operations") is of specific interest with regard to the worldwide US commitment, Part Two ("Offensive Operations") and Part Three ("Defensive Operations") show that the U.S. Army acknowledges and applies only two major types of military operations: offense and defense. This is in accordance with Clausewitz, who also believed that retrograde operations, delay, withdrawal and even rear area
operations are a part of an overall defense (see Annex B, Part Three). As in On War the part on defense is more comprehensive than the part on offense, but FM 100-5 deals first with offense and then with defense; surely this is a result of evaluation about the significance of the different purposes of both types of operations.

FM 100-5 defines many purposes for defense, but makes it difficult for the reader to understand the complex subject. While the manual explains at the beginning of Chapter 2 about "Combat Fundamentals" that "the object of all operations is to destroy the opposing force," it limits the effective range of defense in the introduction of Chapter 10 about "Fundamentals of the Defense": "The defense denies success to an attacking enemy.** Only by an offense, which the manual declares as the decisive form of war, army commander can achieve the complete destruction of the enemy's force.*** This contrasts with the idea of Clausewitz, who saw this primary purpose both in defense and offense. The reason for this disharmony, however, is more a matter of definition or delimitation than of content. While Clausewitz still counts the strategic counteroffensive upon one's invasion as defensive, the manual clearly separates the offense from defense, possibly for instructional reasons. Further explanations in FM 100-5 show again a strong link to Clausewitz, e.g., when it states the "underlying purpose of all defensive operations is to create the opportunity to change to the offensive;" this is a clear indication of the demand for an offensive spirit.****
Defining the "immediate purpose" of defensive operations as "to cause the enemy attack to fail" and adding more purposes of defense, which exceed the initial defined object, the manual deals very quickly with the transition phase to the offense. All listed purposes provide significant prerequisites for a following offense. FM 100-5 lists these:

1. Cause an enemy attack to fail
2. Gain time
3. Concentrate forces elsewhere
4. Control essential terrain
5. Wear down enemy forces as a prelude to offensive operations
6. Retain tactical, strategic, and political objectives.

Compared with Clausewitz's most favored type of defense, the similarity is great; gaining time, marshalling forces for counterattack, and wearing down the enemy are identical ideas. By demanding that a force controls terrain instead of holding terrain as a purpose of defense, FM 100-5 maintains the option to withdraw and avoids operational restrictions due to the area. The above mentioned list and the following discussion in the manual show that defense comprises more than purely defensive operations: Backwards directed operations are included as well as counterattacks or spoiling attacks; in particular the retrograde operations meet some Clausewitzian criteria of a successful defense again: "Such operations gain time, avoid combat under unfavorable operations, or draw the enemy into an unfavorable position."
Although FM 100-5 deals with offense and defense in different parts, it sees, as Clausewitz did, a close relation between these two main forms of military operations, "... the distinction between defensive and offensive operations are made primarily on their intended purposes rather than on the types of combat actions they undertake." This means that one will find on the battlefield a constant mixture of defensive and offensive military operations on all levels of war; and only the specific purpose on the addressed level provides the criteria for defining the action as defense or offense.

The introduction and application of the AirLand Battle doctrine opens a wide spectrum of considerations, planning, and execution in fighting the defense. The name "AirLand" itself indicates that ground maneuver and air forces must combine or coordinate their efforts to achieve a synergetic effect on the battlefield. The development of attack helicopters and the creation of the Aviation Branch demonstrate the US Army's will and capability to extend the battlefield deep into the enemy's area even in defense.

The manual states that corps and divisions should fight "a unified air-land defense" on the operational level, and this defense consists of five elements:

1. A continuous deep battle operation in the area of influence forward of own troops.
2. A covering force operation to support the main effort.
3. A main effort in the main battle area.
Rear area protection (RAP) operations.

Reserve operations in support of the main effort.

These elements reveal the need for fighting three different battles simultaneously within one defense: The deep battle, the main battle, and the rear area battle. The former commander of the 2d Armored Division, Major General Woodmansee, concludes in analyzing FM 100-5 that it is no longer sufficient at division and corps level to "fight the traditional battle along the front lines" only, but that it is necessary to conduct operations also in friendly and enemy rear areas, which are of the same importance; only an "offensive-minded warfare" in the sense of striking the attacking enemy deep and seizing the initiative will achieve future success.

FM 100-5 states that a successful defense requires full application of all four key tenets of the AirLand Battle doctrine—initiative, depth, agility, synchronisation. In particular, initiative and depth contribute to the new spirit in U.S. Army thinking; they are subjects often discussed in military publications. The article of General Starry, at that time Commander, US Army Training and Doctrine Command, in Military Review in March 1981 ("Extending the Battlefield") can be regarded as the official doctrinal onset of striving for initiative and striking deep in the defense. He demanded a defensive strategy which should not only deny "victory to the other side," but should "postulate a definable . . . victory for the defender." The defense must, therefore," he continues, "begin well forward and proceed aggressively from there to destroy enemy assault echelons and at the same time to slow . . .
follow-on echelons in order to quickly seize the initiative and go on the offense. It seems to be worthwhile to deal with the latter issue and analyze the intent of the manual with regard to this aspect: the military operational idea is to anticipate the enemy and fight him at the beginning in a defense. The manual explains: "Defensive operations—seize the tactical initiative locally and then generally as the entire force shifts from defense to attack."48

The way to accomplish this mission on the tactical level is to apply all defensive techniques such as strongpoints, counterattacks, or maneuver of combined arms elements; this is identical with Clausewitz's and the earlier FM 100-5's concept of an "active defense."49 One must see the deep battle element on the operational level of war more as an evolutionary progress or continuation than as in contrast to active defense; it extends the battlefield into the enemy's area, but it is still defense.50

Some authors often reveal their misunderstanding of a difference between an aggressive deep battle in defense and an entire offense; more specifically they try to launch the offense, actually a counteroffense, too early. Terms like "soldiers fighting AirLand Battle must always be offensive" or "an early attack would... tend to protect our LOCs" in order to force the enemy quickly into the defense not only miss Clausewitz's conclusions, but they also give up the advantage of defense.51 A long enough defense is assumably better suited to take out the momentum of the enemy's attack than a prompt counteroffensive on the operational level or higher, which could result in a new frontal commitment against enemy forces; the
Clausewitzian lesson is to go to the offense when superiority is achieved and not earlier, which does not preclude, however, to strive for initiative by all kinds of active measures on lower levels. FM 100-5 indicates that a real defense is actually fought, but the view is directed to a following offense; the already cited sentence, "An underlying purpose of all defensive operations is to create the opportunity to change to the offensive," makes this clear. Consistently, the defender must first of all yield the initiative at the onset of an invasion, but the manual obliges commanders on all levels to strive for gaining and retaining it.

To make the step from active defense to defense under AirLand Battle doctrine the "Army of Excellence" must have the proper structure and suitable equipment to achieve the various tasks in the defense. Army Structure 1986, the mixture of heavy and light divisions, and the new equipment—main battle tank M1, infantry fighting vehicle M2, artillery systems, attack helicopters for example—provide commanders the ability to fight the defense actively and deep and seize the initiative as early as possible.

The dominance of defense in HDv 100/100. HDv 100/100 does not apply the Clausewitzian distinction of two major forms of operations only, but defines three of them: defense, attack and delay (see Annex C). Right at the beginning of the part about each military operation the manual explains precisely their specific purposes and delimits defense, attack, and delay. An analysis of those purposes (see Figure 4) shows that the manual's defense and delay, taken together, are identical with Clausewitz's defense; hence regarding defense in
On War and comparing it with HDv 100/100 means to examine both defense and delay.

<table>
<thead>
<tr>
<th>Form of Operation</th>
<th>Delay</th>
<th>Defense</th>
<th>Attack</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Purpose:</td>
<td>To gain time, to weaken the enemy</td>
<td>To hold an area</td>
<td>To destroy the enemy, to gain ground</td>
</tr>
</tbody>
</table>

Figure 4

Main Purposes of Military Operations in HDv 100/100

Because NATO's strategy requires the conduct of the Forward Defense in Central Europe, the only theater and mission the German Army is committed to, HDv 100/100 emphasizes holding terrain in particular.57 Vital German interests due to the dense population and location of industry close to the Warsaw Pact border are considered, when the manual explains the reason for holding terrain as the most significant purpose of defense: To prevent "the enemy from advancing into a region to be protected."58 The Clausewitzian idea of destroying the invading force by defense has become only a secondary purpose; destruction should be achieved only if "possible." However, the comparison must consider that Clausewitz counted the final strategic resistance, which is a form of counteroffensive, still as belonging to the defense, while HDv 100/100 delimits defense clearly from the offense by indicating that "Defense thus is an element in bringing about the decision;" this means the decisive offensive operation has to follow.59
If Clausewitz could see the content of HDv 100/100, he would appreciate the manual's delay more than its defense. The purposes of the German Army's delay are nearly completely identical with his considerations on defense: gaining time, slowing down enemy's advance, or wearing down the attacking forces are elements on the battlefield, which lead finally to the "culminating point," from where the defender, or in case of HDv 100/100, the delayer succeeds completely over the attacker.  

The close connection of delay and defense in the manual also becomes obvious, when one examines the final desired result of all forms of operations. The manual explains that the delay does not strive for a decision and that even the defense is an operation "bringing about the decision;" only the offense is "normally" able to achieve "the decision in the battle."  

The greatest similarity between delay and defense and simultaneously a strong demarcation to offense is the possibility of conducting different forms of operations on lower levels. While during an offense, generally all forces belonging to that attacking level are actually in the offense, the characteristics of defense and delay are the conduct of delaying, defensive, and offensive operations of parts of subordinated forces. One can regard this as the doctrinal basis for an active defense and delay.  

Hence, the question naturally arises on to how an active defense, which is often expressly demanded in HDv 100/100, can be conducted in spite of the mandatory request for steadfastness and holding of terrain. Hauptmann Peter Rzeczewski claims in a thesis
at the German General Staff College that HDv 100/100 provides sufficient elements to operate actively, although the strategy of forward defense and the defense's main purpose put restrictions on German Army Commanders; he believes the secret of a successful defense lies in the optimal use of terrain concerning both depth and width and in the application of initiative; by this the command and control levels of companies, battalions, and brigades have high significance in the defense.

Initiative, which is inherent in German doctrine on all levels, becomes the very factor to overcome battlefield restrictions and achieve the weakening effect on the attacker; a defensive system is only immobile and inflexible if it is accompanied by a lack of initiative.

Besides discussing the tactical use of terrain and initiative, HDv 100/100 applies other techniques to achieve or maintain activity in defense. Those elements comprise the constant use of a main effort, tolerating gaps, forming reserves, conduct of counterattacks, and fighting the deep battle.

Both the creation of a main effort, which is required in every operation, and the possible toleration of gaps enable the Commander to fight outnumbered and concentrate his forces at the decisive point. Clausewitz favors the same idea.

HDv 100/100 demands the employment of reserve forces as a decisive means to execute initiative and flexibility. Counterattacks on all levels from Corps down are conducted to function as the
instrument which Clausewitz called the "flashing sword of vengeance."\(^6\)

Although the manual was issued in 1973, the authors already had a clear imagination about the value of deep battle for a defense; for example, the idea of an employment of long-range air force and artillery assets or of electronic warfare reveal a guidance of thinking and striking deep.\(^6\) Thus, requirements for adopting the AirLand Battle doctrine of the FM 100-5 by the German Army should be seen in the light that HDv 100/100 has already considered such a way of fighting for years without having it particularly designated.\(^6\)

HDv 100/100 has seen the problem of a Forward Defense without strategic depth, which bears the high risk of an early enemy breakthrough. The only possible substitution is to extend the battlefield into the enemy's zone which means fighting a deep battle in defense.\(^7\)

Regarding defense in On War, HDv 100/100 does not answer one question: When and how should a force launch the final counterattack in the sense of a final resistance after the "culminating point" has been reached? It seems to be the manual's idea to maintain a strategic Forward Defense until the end of war and count on a series of local and tactical victories. HDv 100/100 avoids revealing options for a strategic offense to restore NATO's integrity of territory; probably because the trust in the defense upon a preceding delay is so high that this form of operation will not fail.
Conclusions

Clausewitz regards defense as the strongest form of military operations, because time and the support of the area assist the defender while the attacker becomes weaker the more he advances.

Destruction of the enemy’s force is the primary purpose both in defense and offense in *On War*. Clausewitz requests an active conduct of defense and constant attempts to hit the attacker on the tactical level.

He determines as the most effective type of defense that form of operation which begins with the anticipation of the invader, continues with the planned withdrawal, and finishes, after having reached the culminating point, with the final resistance in the form of a strategic counteroffensive. Clausewitz reveals an understanding of the deep battle idea by evaluating the enemy’s lines of logistics and communications as valuable targets.

While FM 100-5, in accordance with Clausewitz, distinguishes between two major forms of operations, HDv 100/100 also defines delay; the purpose of this type of operation is identical to parts of Clausewitz’s defense.

Both FM 100-5 and HDv 100/100 declare the offense as the decisive form of war and deny therefore the enemy’s destruction as the main purpose of defense; the manuals also do not count the final offensive resistance at the culminating point as belonging to defense.
Active defense on the tactical level is well explained in FM 100-5 and HDv 100/100; both manuals are also in accordance with Clausewitz regarding the value and conduct of deep battle; FM 100-5 stresses this subject strongly and in great detail.

The application of initiative in both manuals as a very important factor for success in defense is an exact adoption of Clausewitz's considerations. While FM 100-5 exudes such an offensive spirit that doubts arise if one will wait long enough for the final counteroffensive (the Clausewitzian culminating point), HDv 100/100 misses two criteria of defense in *On War*: It stresses "holding terrain" too much and indicates no idea about a final strategic counteroffensive. To declare "holding terrain" as the main purpose indicates that not all lessons from history are well learned; the French Maginot line is a good example of a failed defensive measure by being too strongly tied to an area.\(^7\) In order "to place the burden of escalation on the attacker" military commanders on all levels should have the Clausewitzian freedom of action; that is, to fight the defense and withdraw or attack as the situation requires.\(^7\) Finally, one can well conclude that the Clausewitzian defense focuses on an active (variety of operations), deep (extended battlefield), aggressive (behavior and mind), and enterprising (initiative) conduct; this is sufficiently reflected in the armies' manuals.

**Recommendation.**

Having analyzed Clausewitz's imagination about defense in particular and its relation to offense and seeing the frequent public
criticism of military issues which would look offensively, a proper structure for a future manual is obvious. It should determine and explain defense as the only possible main form of operations, which comprises the phases of expectation, withdrawal, active defensive operations, and the final counteroffensive resistance on the highest level of war. A discussion of forms of military operations like counterattack, delay, etc. should follow but should be interpreted as part of an overall defense.
Chapter 3

NOTES


2Ibid., p. 84; see also Book Four, p. 236.

3Ibid., p. 228, 230, 236, 286.

4Ibid., p. 236.

5Ibid., p. 356.

6Ibid., p. 357, 358; Howard/Paret translate "Beistand der ortalichen Lage" with "advantage of position;" closer to Clausewitz's thought is the term "support of the area," in which one part is the "advantage of position."

7Ibid., p. 358 (Howard & Paret translate the German words "negativ" and "positiv" as "passive" and "active" and stress, by doing this, more the way of conduct of defense than its impacetr.) Although Clausewitz declared in a personal note only Chapter 1 of Book One as revised and finished, he proves in that writing the correctness of an important conclusion of the unrevised Book Six: the theory of "defense as the stronger form with the negative purpose and attack as the weaker form with the positive purpose." See p. 70, 71.

8Ibid., p. 94.

9Ibid., p. 99 ("...If the time arrives, when further waiting would bring excessive disadvantages...").

10Ibid., p. 98.

11Ibid., p. 390.

12Ibid., p. 392; see also p. 363 (Howard/Paret use both "convergent" and "concentric" for Clausewitz's German word "konzentrisch.")

13Ibid., p. 360, 362.
The criteria 1-5 and 8-9 are translations of Howard & Paret; criteria 6 ("Anfall von mehreren Seiten") is better translated as "attack from several directions" and criteria 7 ("Beistand des Kriegstheaters") as "support by the theater."

"surprise" a specific chapter (Book Three, Chapter Nine), but he claims a greater advantage of surprise on the tactical rather than the strategic level.

Clausewitz makes clear that he has no intent of conducting a so-called "social defense," a type of defense without any military response to the threat.

Although one could imagine that the "culminating point" functions like a turnover or a change, Clausewitz denies expressly the existence of a "polarity" between defense and offense, because the two types of operations are "different in kind and unequal in strength." Clausewitz believes the polarity lies in the "decision"
only defense and offense seek to achieve at the same time rather than in the types of operations themselves.


29 Ibid., p. 220.


30 Ibid., p. 393-394.


32 Ibid., p. 323.


34 FM 100-5, p. 7-1.

35 Ibid., p. 2-1, 10-1.

36 Ibid., p. 8-1.

37 Ibid., p. 10-3. If the expression "underlying purpose" would be replaced by "overall intent" the classification of primary and secondary purposes becomes easier.

See also: Peter Berger, "Air/Land Battle And Europe's Strategic Environment," *Journal of Defense & Diplomacy*, Aug 1983, p. 20 (FM 100-5 "calls for a more offensive approach to defeating an enemy attack by engaging the enemy to the full depth of his formations.").

38 Ibid., p. 10-3. For better identification, figures (91) to (6) are used; the manual lists only with bullets. The term "essential terrain" is inconsistent with Chapter 3, because the
manual distinguishes only between "key terrain" and "decisive terrain;" see p. 3-4. The sequence in the 6th listed purpose is incomplete, because the operational level is omitted; see p. 2-3.

39Ibid., p. 10-3. Thus, when the manual uses terms like "to hold a specific area" (p. 12-1) or "to retain terrain" (p. 11-9, static defense on tactical level) it is either in contrast to the listed purpose of defense or must count as "retain tactical, strategic, or political objectives" (see p. 10-3).

40Ibid., p. 12-1.

41Ibid., p. 10-1.


Weigley mentions Lieutenant General James M. Gavin, who already in 1947 proposed the creation of a "sky cavalry" equipped with helicopters.

43FM 100-5, p. 11-2.


General Woodmansee believes an "offensive-minded concept" could solve NATO's problems of a limited area in defense.

Colonel Tate and Lieutenant Colonel Holder discuss a new defensive concept with the following four key elements: initiative, violence, integration, and depth. Order and terms reveal a good background information about the development of operational considerations until the issue of FM 100-5 in 1982.


In 1976, Major R. S. Evans had already published an article in which he demanded a more aggressive defense, the increased exploitation of helicopters, and the use of initiative by commanders on all levels; see: Major R. S. Evans, "The Need for Offensive Operations on Land." Journal of the Royal United Services Institute for Defence Studies, September 1976, vol. 121, no. 3, pp. 30-33.


LOCs = Lines of Communications; Clausewitz assessed the extended LOCs of the attacker as a disadvantage.


James M. Dubik, "FM 100-5 Comparing the Operational Concept and the Defense." Military Review, December 1982, p. 15. Dubik concludes with regard to initiative in Chapter 2 and Chapter 11, an inconsistency of the manual; however, if one refers initiative in Chapter 11 to defense and in Chapter 2 to general principles, the manual maintains logic.


Federal Minister of Defence on behalf of the Federal Government, p. 270.


HDv 100/100, No. 2702, 2708, 2755.

65 Ibid., No. 1007.


Dr. Andreas von Bülow, "Gedanken zur Fortentwicklung der Verteidigungsstrategien in West und Ost." Dokzent-Bw Nr. B6 1473, p. 2.

66 HDv 100/100, No. 2702, 2743, 2759.

67 Ibid., No. 2107, 2712, 2761, 2763.

Carl von Clausewitz, On War, p. 370.

68 HDv 100/100, No. 1906, 2756; see also no. 1505 ("Reconnaissance... into the depth of the enemy's area). The use of antitank helicopters is not covered in the manual, because their introduction occurred upon the manual's publication, see prefatory remarks no. 5.


Chapter 4

PRINCIPLES OF DEFENSIVE OPERATIONS

"Clausewitz offered no principles or rational laws."

"Clausewitz had four principles . . ."

General

Nothing better demonstrates the opposing opinions readers hold about whether Clausewitz has established principles for military matters or not than these two statements from the syllabus of CGSC's course P612 (War and Doctrine) in the academic year 1984-85. Before attempting to reach the correct conclusion by studying details of Clausewitz's ideas, it will be useful to consider some general ideas and assumptions.

(1) Our view should not focus on principles of defense only; basically we should regard principles of war and then, in a second step, examine which of them supports or is especially applicable to defensive operations.

(2) Principles can exist in various forms. Bernard Brodie's idea of two conceptions of principles seems to be very helpful; principles of war, he states, are formulated either broadly "as a general body of knowledge" or "as a particular list of maxims." In accepting this view we are justified in examining Clausewitz's writings not only for a listed sequence of principles, but also for
conclusions or statements within the framework of a broader and circumscribing explanation. This view also explains how Clausewitz could title a short treatise, written around 1811 for his student, the Prussian Crown Prince, "The Most Important Principles of War for the Conduct of War," and yet, in his far more comprehensive work, *On War*, written between 1815 and 1831, dedicate neither a book nor a chapter especially to these principles. This could certainly account for the differing opinions about Clausewitz's principles: on the one hand a complete booklet on "principles," on the other his major work without any clear list of those rules.

(3) The true importance of any principle's definition, lies as much with its purpose as with its content and form. Although John I. Alger states unequivocally that Clausewitz has not presented a list of principles of war (we do not agree with Alger's opinion and will discuss it later), we can use some of Alger's ideas. He mentions purposes which principles serve: they act

(a) as "guides for the effective conduct of war,"
(b) to "facilitate the study of military history," and
(c) to "provide a simple . . . expression of many intricacies and complexities of war."4

While Alger's first purpose seems valid, the second and third do not reflect Clausewitz's ideas; his approach is nearly opposite. Clausewitz says, "... the study of the history of war . . . has given us these principles" and therefore they are a result of a learning process and not its purpose.5

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The "many intricacies and complexities of war" lead to problems, which Clausewitz was to designate as "frictions." His idea is to overcome these difficulties by well trained leaders, who are able to master the problems of the battlefield by judgement based on the requirements of the single situation only and not on a principle-based method; the key, then, is always to avoid the same pattern of solution. However, this does not indicate a change in Clausewitz's thinking between 1811 and 1831, or even in itself, a contradiction. In concluding his writing about principles of war with a paragraph on "frictions" he demonstrates the advantage of principles for the training and education process. The purpose of his "principles" treatise was to teach the Crown Prince to make him familiar with basic military terms. In On War, Clausewitz concludes that "principle thus becomes essentially a support ..., to the man responsible for the action." This intention does not preclude the great Clausewitzian desire for an advanced training level, on which principles are unnecessary because of a well trained military brain able to make military judgement thoroughly enough by its own experience and intuition.

In addition to the three purposes above, Alger mentions the advantage of principles for study and understanding of complex disciplines of science, but he denies this process for principles of war; he says they cannot be expressed as algebraic rules or philosophic truths. Concerning the idea of forming military principles in algebraic rules Alger is right, but with regard to philosophic truths he apparently neglects Clausewitz's intent. He
has searched expressly for theories of war which can explain the art of war and can be expressed as simple rules. Thus, two major purposes of principles are clear and therefore applicable in general:

(1) to support the training of soldiers
(2) to facilitate the conduct of military operations.

Without any doubt, the principles in FM 100-5 and HDv 100/100 should fulfill these purposes as criteria; for training of officers and conduct of military operations is definitely the purpose of those manuals.

**Principles in Clausewitz's On War**

We can find six remarks or conclusions in *On War* having the character of principles if we regard content, form, and purpose.

(1) **Superiority of Defense**

When Clausewitz had examined the art of defense and offense and their relationship on tactical and strategic levels, he concluded clearly, that "defense is a stronger form of war than attack." As shown in Chapter 3, Clausewitz places such a high value on defense that commanders should always consider the advantage of defensive actions to reach the military objective. In his book on principles, Clausewitz does not mention this rule, but he indicates its specific importance by the sequence of his writing: first he discusses the principles of defense, then those of offense. Two possible reasons for his omitting this principle in the earlier work could be that first, he believed the Crown Prince not yet mature enough for this conclusion, and second, that he regarded the
superiority of defense not as a principle per se, but as a
central law of war. The latter seems to be logical, for within
the scenario of defensive operations Clausewitz also demands
eXpressly the execution of principles, which necessarily are
prerequisites for a successful defense: "sound preparation,
composure, confidence, unity, and simplicity. . ."12

(2) Simplicity

Simplicity as a requirement for planning and conducting
actions on the battlefield is a matter of Clausewitz's own
experience. In connection with frictions he states, "everything in
war is very simple, but the simplest thing is difficult." Since "War
is the realm of uncertainty" and Clausewitz believes, that "three
quarters of the factors on which action in war is based are wrapped
in a fog of greater or lesser uncertainty," all plans for operations
must be very simple. Difficulties and complexity arise with and by
the conduct itself.13

(3) Active Defense

Both in On War and in the "principles" booklet,
Clausewitz visualizes an active defense.14 Without this active
element--more in tactics than in strategy--defense cannot achieve its
advantages; to stay strictly defensive would mean to remain utterly
passive, and that would be absurd. The defender has to watch for
opportunities to launch counterattacks to overcome and weaken the
enemy wherever possible; the "preservation" phase must make optimal
use of active actions.15
Clausewitz combines this principle very closely to another idea. He requires an attack conducted always in an outflanking or enveloping manner.\textsuperscript{16} Although this seems offensive in nature, Clausewitz believes that at the tactical level these actions belong within a defensive scenario.

(4) \textbf{Main Effort}

On various occasions, Clausewitz mentions the need for and the location of a main effort or a strength at the decisive point. Analyzing Napoleon's defeat in 1814, Clausewitz claims that the conqueror did not see the "center of gravity" laying with Prussia's Field Marshal Blücher.\textsuperscript{17} Also, when Clausewitz explains the advantage of the superiority of numbers of soldiers, he concludes that "as many troops as possible should be brought into the engagement at the decisive point."\textsuperscript{18} When Clausewitz writes about the main effort for terrain reinforcements, he refers entirely to defense: "the points in immediate danger of attack are the ones that have to be fortified."\textsuperscript{19} This rule, until recently, has been the classic idea for the main effort in defense. The last Clausewitz quotation also demands close cooperation between G2 and G3 sections and shows the basic dependence of defensive measures on the threat.

(5) \textbf{Reserves}

Keeping forces in reserve and employing them play a major role in Clausewitz's considerations. He taught the Crown Prince--as the second principle for defense--"Not to bring all our troops into combat immediately" and continued this subject in the fifth principle, explaining where these forces should be held: not
directly behind the front lines, but far enough back to avoid an enemy's envelopment of our total force. The significance of reserves becomes even more obvious in On War. The commander will not give up the battle, Clausewitz believes, as long as he has sufficient reserves. Their employment determines the defense and thereby the result of the battle.

(6) **Surprise**

Clausewitz saw the result of surprise during an engagement of his Infantry Battalion; riflemen ambushed attacking cavalry and succeeded in spite of less mobility and a fewer number of fighters.

By historic examples, Clausewitz tries to instruct the Crown Prince about the advantage of surprise, e.g., when Frederick II attacked the enemy at "an unexpected moment."

In On War, Clausewitz discusses the element of surprise as an independent principle both in tactics and in strategy; he dedicates an entire chapter to this principle. Also, in the book on defense (Book VI) Clausewitz explains the significant part that surprise contributes to qualitative combat power.

Clausewitz's major reference to defense is contained in his chapter about defensive positions in On War. Here he indicates that surprising courses of action, which meet a disconcerted enemy, provide mainly the advantage of defense. Surprise can be achieved best, he says, with a "rapid use of our forces." Although Clausewitz mentions it separately, this idea should not be regarded as an additional principle; the author is talking here about surprise.
Conclusions

This discussion illustrates that Clausewitz did understand principles and he wrote about them. He mentions principles expressly and explains them both in *On War* and in the "principles" booklet. Superiority of defense, simplicity, active defense, main effort, reserves, and surprise can surely be derived as principles and have a great impact when applied in defense. Therefore, we cannot agree with Alger's interpretation of Clausewitz and his relationship to principles. For example, Alger states that Clausewitz "has been spuriously labeled a prime contributor to the modern concept of principles of war;" even he fails to mention Clausewitz in his comprehensive list of sources showing the chronological development of principles. This is, however, understandable, because Clausewitz himself—as Alger confirms—often denied the usefulness of principles or rules for application in war and, in fact, started his treatise on principles by saying they had been "drawn up hastily" and that "they [principles] will not give as much complete instruction ... as they will stimulate and serve as a guide...." In fact, many statements in *On War* illustrate Clausewitz's firm idea that fixed principles for actions in war are never useful, but that in war one can only solve problems by judgement based on experience and perfect training. Many other authors have accepted this Clausewitz conclusion, because it supports very well the idea of a creative and mentally flexible officer in a mission-type-order environment. However, it would be incorrect to derive from this the idea that Clausewitz considered principles insignificant or was ignorant of
them. For principles are very useful, he writes, in case of insufficient experience and military knowledge or to educate and train the soldier's capability for judgement. Therefore, when Clausewitz is quoted in relation to a broad explanation of principles—as is done in a pamphlet on strategy distributed to students of CGSC in 1984/85—it is well in accordance with his writings. But, we should not forget Clausewitz's intent with principles: They are probably more for training and support of unexperienced officers than for use as a checklist for planned military actions.

Principles in FM 100-5

Appendix B of FM 100-5 (issued 1982) lists nine principles of war. They "have essentially stood the tests of analysis, experimentation, and practice," as the introduction says. The principles are named and supported by a description of a military action in imperative form; a following paragraph then explains each of the principles in more detail. The nine principles and their imperative statements are as follows:

(1) OBJECTIVE. Direct every military operation towards a clearly defined, decisive, and attainable objective.

(2) OFFENSIVE. Secure, retain, and exploit the initiative.

(3) MASS. Concentrate combat power at the decisive place and time.

(4) ECONOMY OF FORCE. Allocate minimum essential combat power to secondary efforts.
(5) MANEUVER. Place the enemy in a position of disadvantage through the flexible application of combat power.

(6) UNITY OF COMMAND. For every objective, insure unity of effort under one responsible commander.

(7) SECURITY. Never permit the enemy to acquire an unexpected advantage.

(8) SURPRISE. Strike the enemy at a time and/or place and in a manner for which he is unprepared.

(9) SIMPLICITY. Prepare clear, uncomplicated plans and clear, concise orders to insure thorough understanding.

Some facts are notable with regard to the evolution of these U.S. Army principles.

1. The tradition of the U.S. Army's principles of war in the form of a list can be traced back to December 1921, when nine principles were published in the "War Department Training Regulation No. 10-5." These principles were as follows:

a. The Principle of Objective
b. The Principle of Offensive
c. The Principle of Mass
d. The Principle of Economy of Force
e. The Principle of Movement
f. The Principle of Surprise
g. The Principle of Security
h. The Principle of Simplicity
i. The Principle of Cooperation
The consistency between the 1921 and the 1982 lists is remarkable; "movement" has changed to "maneuver," "cooperation" to "unity of command"—both changes are certainly the result of the U.S. Army's experience during the past years.

2. The order of the principles, which indicates an order of significance, has also changed during the past decades; for example, the principles f. through i. However, the "objective" has always been No. 1.35

3. While FM 100-5 (1976) appeared with neither a definitive list of principles nor explanations in the narrative portion, its 1982 successor stresses their significance clearly.36

The principles of different levels of war

Colonel Harry G. Summers points out in On Strategy: The Vietnam War in Context that Regulation No. 10-5 (1921) distinguished between the application of the principle of "objective" in strategy or in tactics.37 Similarly, all the principles of war are explained in FM 100-5 (1982) both on the strategic and on tactical levels, e.g., the principle of "mass": "In the strategic context, this principle suggests that the nation should commit, . . ., a predominance of national power to those regions . . . where the threat to vital security interests is greatest." . . . "In the tactical dimension, this principle suggests that the superior combat power must be concentrated at the decisive place and time in order to achieve decisive results."38 In making this distinction, however, FM 100-5 seems inconsistent. While the principles of war in the Annex
of FM 100-5 are deeply and broadly explained on the strategic and tactical levels only, the main body of the manual differentiates between three levels of war: strategic, operational and tactical.39 Two separate statements address this apparent contradiction in the following two sentences, neither of which seem convincing. "At corps and division, operational and tactical levels are not clearly separable. They are guided by the same principles, and this manual applies to both." . . . "... While the principles of war are appropriate to all levels, applying them involves a different perspective for each." This point needs clarification in the manual; either it has to describe the purpose and content of the principles on an operational level additionally, or it should extend the explanation of the tactical dimension to an operational level also. A comparison of the principles listed in FM 100-5 and those derived directly from Clausewitz shows remarkable similarity. Simplicity and surprise are identical principles in each source. Offensive in FM 100-5 is closely related to the active defense in Clausewitz—initiative is the key purpose.

Mass, and to some extent, economy of force in FM 100-5 have much in common with Clausewitz's main effort; each of these requires what Clausewitz called the "judgement" of the commander.

Forces in reserve, which for Clausewitz is the key to success, is not one of the principles listed in FM 100-5; however, the U.S. Army's manual does not neglect the idea; it simply sees this "principle" as a means to achieve others such as offensive or surprise, and this seems entirely reasonable.40 The only principle
DEFENSE IN CLAUSEWITZ'S 'ON WAR' AND IN FM (FIELD MANUAL) 100-5 AND HDY 100/100(U) ARMY COMMAND AND GENERAL STAFF COLL FORT LEAVENWORTH KS & SUDE

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that one can derive from On War that is not strongly reflected in FM 100-5 is the superiority of defense. The reason could be the different interpretation of purposes of defense as shown in Chapter 3.

**Purpose of principles in FM 100-5**

The purpose of the U.S. Army's manual, to which principles of war make a major contribution, is very clearly stated in its introduction: "FM 100-5 provides operational guidance for use by commanders and trainers at all echelons." These intentions are fully consistent with the purposes of principles earlier developed: Supporting training and facilitating conduct of warfare. In practice, these principles serve U.S. Army officers "as checkpoints" for planning and acting as operations officers; within the war gaming method for each course of action as a step in the decision-making process, the principles play a key role. They belong to the so-called significant factors which have to be considered for each of the possible courses of action. But because of this form of application we have to conclude that Clausewitz's intention concerning the use of principles is not completely reflected in FM 100-5 and in U.S. Army's training; for in the manual the principles are obligations and cannot be omitted or substituted by judgement referred to the situation. When General William Richardson talked on four principles of tactical thoughts during a lecture at CGSC and expressly mentioned "intuitive feeling," he was closer to Clausewitz's ideas than to FM 100-5.
Principles in HDv 100/100

HDv 100/100 does not contain a specific list of principles, which is in accordance with traditional German doctrine since the Helmuth von Moltke era in the nineteenth century. A basic agreement with Clausewitz is well stated in No. 1004; because the following quotation expresses German military thinking completely, it is worthy of careful study:

Because of the variedness of combat, tactics — except for general principles and rules — cannot provide any rigid formulas or instructions as how individual operations should be conducted. Success is ensured only by free action of commanders within the scope of their missions. Creative, precise, and critical thinking during exercises of all kinds will result in uniform basic tactical concepts and principles which constitute a decisive prerequisite for the necessary cooperation of all forces even when the exercise of coordinating command by a superior headquarters is temporarily impossible.

Three facts are especially notable.

(1) The application of principles occurs in the form of "general" principles only. This is a change from the former manual, which used principles without a generic adjective. We find the designation of "general principles" four times, in the heading of Part B, which deals in Chapters 6 through 14 with command and control issues mainly, and as the first paragraph in the chapters about defense, attack, and delay. Thus some general principles cover all
courses of operation, e.g., simplicity (1009), surprise (1012), or deception (1013), and some cover defense only. If we pick out the key words in each paragraph and enumerate them, we get a brief list of military measures regarded as general principles of defense: Active defense (2702/2712), fire and movement (2703), reserves (2707), use of terrain (2705). We find principles—simplicity, surprise, active defense, movement, and reserves—which Clausewitz stated also.

(2) "Creative, precise, and critical thinking" comes directly from On War. To prevent friendly military operations from becoming predictable, decisions should not be provided by formulas or methods, but by clear judgement.

(3) General principles are the framework for peacetime exercises and training. They provide a common understanding of tactical concepts and ideas for all officers and offer thereby the soil for the application of mission-type-orders. The content of No. 1004 on general principles seems to be a mirror of Clausewitz's thoughts as far as purpose of principles and mental training of officers is concerned.

Conclusions on principles

(1) Principles exist in the form of a list or of a broader explanation; Clausewitz used both concepts, FM 100-5 prefers a listed form, and HDv 100/100 a more general description. Both manuals are partly in accordance with Clausewitz. However, when one quotes principles, one should mention the deviation.
(2) The manuals do not apply the principles exactly as Clausewitz intended. While HDv 100/100 uses the principles as a framework, FM 100-5 makes use of them as a guideline. Clausewitz taught the use of both methods.

(3) Certain principles such as surprise, simplicity, and active defense exist in FM 100-5, HDv 100/100, and in Clausewitz's writings. Especially the striving for initiative by making use of "windows of opportunities" for counterattacks on the tactical level is a fundamental Clausewitz idea; it is truly reflected in both manuals.

(4) Clausewitz has separated principles for defense and offense in his writings. In FM 100-5, all types of operations are covered by all principles; in HDv 100/100, some principles—in general form—deal with all types of operations, while some deal only with defense, offense, or delay.

Final remark

Having studied Alger's chronological compendium of the evolution of principles, we can see that they were originally formulated in times when waging war was an accepted political act; war was the tool of politics. Since the "Kellogg-Briand Pact" and the Charter of the United Nations outlawed war, no new principle has been added to those formerly created. The question naturally arises why there is no "principle of deterrence," for deterrence has become the substitution for warfare. The main missions of today's armies are to contribute to the prevention of war. Surely, this is
accomplished by a high state of readiness for combat and training, by the ability and the willingness to fight the war, and this seems to lead again to the principles of or better for war.

HDo 100/100, No. 106 touches slightly on an idea of a principle of deterrence: "In times of crisis, the importance of the armed forces increases as an instrument of the political leadership. ... Appropriate political and military measures as a means of crisis management are designed to deter an enemy from aggression."

This statement meets exactly the Clausewitzian relationship between ends and means and uses the Army as an instrument in times of crisis before the outbreak of war.
Chapter 4

NOTES


2 Bernard Brodie, "The Principles of War." War and Doctrine, P612, Academic Year 1984-85, U.S. Army Command and General Staff College, (Reproduction of a presentation on 7 March 1957), p. 24. B. Brodie was a Professor of Political Science at the University of California, Los Angeles, from 1966 through 1978 and one of America's greatest strategic leaders.


6 Ibid., pp. 61-67.


7 Ibid., p. 154.


8 Clausewitz, The Most Important Principles of War, pp. 61-67 and p. 10 (Introduction by Clausewitz).

10Ibid., p. 11, 152; see also p. 578 "Theory cannot equip the mind with formulas for solving problems, ..."

11Ibid., p. 358, 366.

12Ibid., p. 151, 493.


14Ibid., p. 361.


16Ibid., p. 214, 360, 492, 530.

Clausewitz, *The Most Important Principles of War,* p. 16 (No. 4).

17Clausewitz, *On War*, p. 163.

18Ibid., p. 195.

19Ibid., p. 401.


21Clausewitz, *On War*, p. 211, 251.


25Ibid., p. 360, 407.

26Ibid., p. 624.


28Ibid., p. 29.


Paret, *Clausewitz and the State*, p. 359.


Campbell, "Evolution of a Doctrine," p. 34.


36Ibid., p. 167 (The U.S. Army FM 100-1, The Army, with a list of nine principles of war cannot be regarded as a substitution because it was published in Sept 1978).


38FM 100-5, p. B-2.

39Ibid., p. 2-3.


41Ibid., p. i.

42U.S. Army Command and General Staff College Field Circular 100-9, Fort Leavenworth, KS, p. 4-19.

Campbell, "Evolution of a Doctrine," p. 35.
General Richardson, Commander TRADOC, at CGSC on 24 Sep 84
(Personal notes of the author: General Richardson among other
things, spoke about "mission-type-orders," "decisive points,"
"intuitive feeling," and "tactical judgement;" many ideas were
completely in accordance with Clausewitz's.)

44 Alger, The Quest for Victory, p. 155.

45 The Federal Minister of Defense, Army Staff - III 6, Army
Regulation 100/100 (Restricted) (HDv 100/100 VS-NfD). Command and
Control in Battle (Führung im Gefecht (TFG). Bonn, September 1973,
No. 1004.

46 Der Bundesminister der Verteidigung, Führungsstab des Heeres
IV 4. Heeresdienstvorschrift (HDv) 100/1 Truppenführung. Bonn, 25
October 1962, No. 149, 193.

47 Alger, The Quest for Victory, pp. 195-270.

48 HDv 100/100, No. 104.
Chapter 5

THE IMPACT OF TERRAIN, POPULAR SUPPORT, LEADERSHIP, AND NUCLEAR WARFARE

General

An analysis of the defense would be incomplete without a review of other elements that contribute most significantly to making this the strongest form of operations. Clausewitz discusses these factors as the "advantage of terrain," and "popular support," and "the exploitation of moral factors" expressly in his discussion about the advantages of defense; he also describes and emphasizes the necessity of qualified commanders to overcome frictions on the battlefield.¹

The intent of this chapter is to show how these factors influence a successful defense, why they are so important, and how each element is reflected in FM 100-5 and HDv 100/100. Because the introduction of nuclear weapons has increased the firepower capability tremendously and their employment will completely change future battlefield conditions, it is necessary to determine whether some of Clausewitz's ideas are also applicable for the defense in the nuclear environment.

The importance of terrain

"Beati sunt possidentes"

Clausewitz uses this Latin proverb to start his explanation of the advantageous support an area can provide for the defender.² The
value of the terrain is a subject Clausewitz himself had experienced
during his whole career, from his first impression of the defense of
a fortified city in 1793, the defense of Austria against Napoleon,
military studies about the favorable terrain of Silesia, and finally
his observation of the vastness of Russia in supporting that
country's fight against the French invaders. 3

Although the best commanders of defense operations since
Hannibal’s times had always tried "to fit their forces to the
ground," it is Clausewitz who deserves credit for defining the
precise value of terrain. 4 The advantage of terrain, according to
Clausewitz, comes from well prepared positions, by the possibility it
affords to conceal forces, and in the flexible and supporting use of
forces in a well-known area, but not in the terrain per se; the
optional use only leads to the support of the defense. 5

When Clausewitz discusses the four types of resistance
mentioned earlier, he saw in all four cases the defender supported to
some extent by the terrain, from minimum assistance in type one (the
defender begins with a preemptive attack) to maximum support in case
four (his most favored form of defense with withdrawal and final
resistance). The prerequisite for sufficient support by terrain,
Clausewitz believes, is that the soldiers who have to fight on it
know the terrain intimately. Although Clausewitz basically has a
negative attitude toward night engagements, he particularly favors
them in certain situations, as when the committed soldiers have good
experience on the terrain. 6 In relation to General Defense Planning
in Central Europe, this illustrates the problem of weighing
restrictions on NATO forces between two opposing needs: the need to restrict access because of classification, and the need to become familiar with the terrain preplanned for warfare.

Clausewitz, who understood terrain in terms of "commanding positions, mountains, rivers, woods, and roads," said that it affects the battle constantly to some extent. \(^7\) Terrain, he determined, is characterized by "the contours of the countryside, such as its hills and valleys," its "natural phenomena such as forests, swamp and lakes," and factors of culture, which comprise ditches, hedges, houses, etc. \(^8\) The interesting conclusion Clausewitz draws is that the more diversified the terrain and the more the forces are divided, the less a commander can personally control and the more he must rely on giving mission-type orders. \(^9\)

With regard to NATO's European defense and its lack of depth, Clausewitz concludes—with current validity—that the principal effect of terrain lies more on the tactical than on the strategic level; also, he suggests, the "smaller the country, and the less room for evasive movements," the more importance fortified and entrenched positions have. The significance of those terrain reinforcements has not changed today. \(^10\) In Clausewitz's opinion, the tactical value of terrain is provided by three advantages: "as an obstacle to the approach, as an impediment to visibility, and as cover from fire." \(^11\)

The tactical aspect becomes especially significant and advantageous when the terrain enables the defender to make use of higher ground to observe the enemy and "to fling himself upon him." \(^12\) Also, commanders on the tactical level should include rivers, swamps,
and unaccessible areas in their defensive framework. Although rivers might have sometimes strategic meaning in *On War*, a defense behind it cannot achieve the decisive victory, Clausewitz believes.\(^1\)

As the final remarkable aspect of Clausewitz's observations on terrain one has to mention the idea of a "key area". The planning process for the defense, he maintains, has to consider essential areas of the theater that have decisive impact on the attacker's advance and must, therefore, be reinforced or secured in particular. However, such a definition as key area must be seen in the light of the desired result of the whole operation: If the purpose of a defensive operation is to retain certain terrain, the loss of it is naturally a defeat.\(^1\!4\) Therefore, one must see the close connection between the designation of a "key area" and the objective of the operation.

FM 100-5 contains a specific subchapter about terrain in general and deals in Chapter 11 ("The Defense") with terrain aspects referred only to defense.\(^1\!5\) The manual stresses the need for a thorough analysis of terrain, and the limitations and possibilities the terrain provides become clear. This systematic analysis is required as part of the military decisionmaking process and enables the commander to determine key or decisive terrain, to show defensible areas and to advise the optimal use of it; all these ideas are fully in accordance with Clausewitz.\(^1\!6\) His idea that the significance of terrain is greater in tactics than on the strategic level is mirrored in a similar statement in the manual: "Terrain itself is seldom decisive in division or corps defense," but is on lower levels.\(^1\!7\)
FM 100-5 defines the advantage of terrain in the same terms as Clausewitz does: it offers "cover and concealment," "involvement and obstacles," and "observation and fire." The manual insists that "The proper use and appropriate reinforcement of terrain must be an integral part of the commander's concept" and it concludes that "once the defense has occupied a strong position and improved it, successful attack becomes far more difficult."18

One can draw the conclusion that FM 100-5, where the analysis and use of terrain is concerned, completely reflects the ideas written in On War. Terrain walks to make officers familiar with the land are periodically conducted today in U.S. Army units as part of officers' professional development.19

HDo 100/100 deals in Chapter 9 ("Influence of Terrain and Weather") with the typical terrain situation in the Federal Republic of Germany and discusses its effect on military operations; it explains, for instance, that a wide and gently rolling landscape more favors armored forces and their mobile operations, and that these forces and operations are impeded in mountainous areas or in woods.20

Additional detailed information about an advantageous use of terrain is contained in Part D ("Defense") of HDo 100/100. It emphasizes the direct link between the ground and the type of operation on it. "The strength of the defense depends on the selection and utilization of the terrain," the manual says, and it notes that the knowledge of the terrain is especially an advantage in the defense.21 Terrain, which favors defense best, should provide an
impediment of enemy's observation and movement, and should facilitate the fire fight, cover, and erection of obstacles of the defender.22

Because holding terrain and defending successfully is hardly achieved without terrain reinforcements, HDv 100/100 encourages the establishment of field fortifications and barriers that are designated as significant parts of the overall defense. The coronation and characteristics of a well prepared defense is the Barrier Plan, in which fire, movement, fortifications, and barriers are optimally employed.23

Specific types of terrain like forest areas, built-up areas and conurbations, uplands, bodies of water, or defiles are addressed in Chapter 29.24 The manual's intent is to show how and where in those areas defense is best possible. For instance, defensive operations in forest areas require the application of mission-type orders to achieve quick reaction and to enable immediate local operations according to the development of the situation or, in another instance, the defender should generally make use of a body of water in defense if possible.25 The defense is easier, the manual claims, if the Forward Edge of the Battle Area (FEBA) lies at the body of the water.26

As a last element of German Army defense worth mentioning is the key to victory: the selection of "key terrain." In the meaning identical with the U.S. Army manual's "decisive terrain" rather than its "key terrain," the HDv100/100 believes that the constant possession or control of a defined "key terrain" is "decisive for the success of the defense."27
This review of the support and use of terrain in HDv100/100 demonstrates a completely identical recognition of Clausewitz’s considerations.

The importance of popular support and moral factors

Clausewitz’s explanation of military operations in On War is not limited to purely physical matters like strength of forces or equipment; for instance, he very often mentions the significance of the support of the population and of moral factors. "Moral values cannot be ignored in war," he says, and explains that it would be an error to ignore the contribution of emotions and feelings to the outcome of a battle.28

The "support of the population," which Clausewitz understands primarily as the employment of the militia and the effect of arming the population, especially strengthens the defense if the battle is fought on the defending country’s ground.29 Although Clausewitz does not suggest employing militia and bands of armed civilians against the enemy’s main force, he values the resistance accomplished by non-regular soldiers. "Like smoldering embers, it (resistance is meant) consumes the basic foundations of the enemy forces."30 Because war is not a "single short blow," Clausewitz believes the effect of the population’s effort becomes even stronger the longer the war takes.31 The reason Clausewitz favors the establishment of a militia is derived from Napoleon’s successful warfare; Clausewitz saw that the French Army was highly motivated and that the spirit of the people (levée en masse) encouraged the soldiers. Therefore,
Clausewitz tried to link the Prussian population closer to its army through the militia to make the defense a subject of the country as a whole and not of a standing force only. Clausewitz had learned that it was no longer the voice of the commanding officer that pushed the soldiers forward, but instead the revolutionary spirit and the emotional feelings of the people. Although Clausewitz believes that the withdrawal of defending troops into the interior of the country might cause some demoralizing effects in the population, and would, therefore, be a disadvantage in his most favored form of resistance, he hopes that this result will not occur if soldiers and people know sufficiently the military plans and the intended purposes of defensive operations.

Clausewitz writes that theory and art of war must also take into account the moral factors; these cannot be calculated, but they are decisive in their contribution to the defender's resistance. Clausewitz dedicates two separate chapters in Book Three to the moral factors and stresses three "principal moral elements" in particular: "the skill of the commander, the experience and courage of the troops, and their patriotic spirit." Clausewitz says that in the case of a balanced force ratio between offender and defender, merely the stronger moral force determines the outcome of the battle or the war; even an outnumbered force can succeed through higher "inner tension and vigor." Thus, Clausewitz regards military operations in general and a successful defense in particular not only as a matter of purely physical, quantifiable factors, but also a matter concerning the human element and its moral influence.
becomes therefore less predictable, less calculable, and to a high degree more difficult. Wargames by computers, a training method often used by modern armies, leave out decisive elements of the battlefield if they do not include moral elements in the Clausewitzian sense.

The American engagement in Vietnam showed that a successful fight is hard to achieve if the majority of the people do not support the soldiers' actions. Colonel Harry B. Summers, U.S. Army, in an article on the Vietnam War in Naval War College Review in 1983, reminds his readers of Clausewitz's ideas in saying that American warfare requires the trinity of "people, their government, and their army." FM 100-5 proves that this historical lesson about Vietnam is well learned; the manual states that "Wars cannot be won, however, without a national will..." and thus the support of the population becomes a prerequisite of successful military operations.

The moral factors and their impact on the battlefield are also mentioned in the U.S. Army manual, not specifically with regard to defense, but with a view to all types of operations. Superior combat power, the manual says, is mainly based on "soldiers with character" and the will to win. The AirLand Battle doctrine particularly "emphasizes the human element: courageous, well-trained soldiers and skillful, effective leaders." The key element which provides and sustains those moral factors is the application of leadership by all leaders. "The primary function of leadership," the manual concludes, "is to inspire and to motivate soldiers to do difficult things in trying circumstances."
"The soldier's readiness to serve and, in wartime, even to risk his life is closely interrelated with the will of the people as a whole to defend the integrity of its State and of its free and democratic constitutional order." HDv 100/100 admits no doubt that the will of the population is of great significance for soldiers to accomplish their missions. In particular in Chapter 13 about "psychological defense" the manual deals with the relationship between the people's mood and the soldiers' motivation. "The mood of the population influences the spirit of the forces and its behavior can be important for the course of operations," HDv 100/100 says and it continues "the enemy will try to drive a wedge between the forces and the population. . .". Thus, one can see that HDv 100/100 recognizes Clausewitz's idea about popular support; because the German Army still applies the conscription system, it has a strong natural link to the population and mirrors its opinions. Above all, the civil defense, as part of an overall defense, can only work if the majority of the people agree to military measures.

The Clausewitzian moral forces, which are a product of character and education, are also discussed in HDv 100/100. The manual points out that a soldier must have high psychic, mental, moral, and physical abilities and that the "character traits often weigh more heavily than intellectual faculties." The instrument that provides and maintains high standards of moral forces is leadership; it has to "convince the soldier of the necessity of his service and encourage him to perform his duties faithfully."
Both FM 100-5 and HDv 100/100 recognize the existence of a national will and its contribution to military operations. Also, the impact of moral factors is stressed; the key instrument to achieve them is leadership. Good leadership has to stimulate the growth of moral factors and to provide sufficient motivation to resist even in unfavorable situations. One can conclude that the manuals incorporate Clausewitz’s ideas about popular support and moral factors; the only deviation is that they do not mention these ideas specifically as having to do with the defense. In On War these elements have a direct reference to defense even if mentioned in other books than that one on defense; in the manuals, however, the facts about people’s support and moral factors are explained with regard to all types of operations.

The optimum leader

The Clausewitzian conclusion that defense is a stronger form of operation than offense is not only based on pure military actions on the battlefield, but also on other influencing criteria such as leadership, as shown in the previous paragraph. Effective leadership needs leaders who know about war, understand its difficulties of conduct, and are able to overcome the problems better and faster than the enemy can. One can, by reading On War, feel the personal experience of war which Clausewitz had. He says that war is heavily influenced by possibilities, probabilities, good luck or bad luck, and that its climate is determined by danger, exertion, uncertainty, and chance.47 Danger and exertion are especially seen as the
predominating sources of what he calls friction in war. "Friction is the only concept that more or less corresponds to the factors that distinguish real war from war on paper," Clausewitz says, and he dedicates a whole chapter in Book One to this subject. This friction causes that the expectations one has in battle, do not happen and that war does not go forward as originally planned. It seems clear that to Clausewitz victory becomes more likely if one surmounts his own friction in war easier and faster than his enemy does and, in addition, is able to exploit that of the enemy. Clausewitz has no doubts that the key element for overcoming the friction is the leader. On various occasions he emphasizes characteristics of a leader which make him successful: "Iron will-power can overcome this friction," and a leader must demonstrate energy in action, staunchness, endurance, strength of mind, and also perseverance and steadfastness. All these values have their specific impact in defense. But above all Clausewitz demands that a leader must have superior intellect and strength of character to act on instinct or by intuitive judgement when making a military decision. Since there are no recipes for war, Clausewitz believes that the sound intuitive judgement of the commander can have more effect than a result by scientific, theoretical formulas can. Intuitive judgement of a commander requires sufficient practical experience and high intelligence, Clausewitz concludes. Although peacetime training is no substitute for combat experience, there is no other chance to become accustomed to the difficulties of war; this statement is true more than ever for NATO armies in Central Europe,
only few soldiers there have combat experience.\textsuperscript{5} The required high intelligence of commanders should be achieved in Clausewitz's opinion by the new war college ("Kriegsschule") which opened simultaneously with the University of Berlin in 1810; thus, the future Prussian commanders could learn the proper method of judgement, which is the prerequisite for judging at all.\textsuperscript{56}

When Clausewitz demands initiative and great activity in the conduct of defense, he visualizes the ideal commander who has strong nerves (because he must wait for good moments to hit), who is precise in timing (not too early in withdrawing and not too risky in staying), who has the presence of mind to react quickly in uncertain situations, and, in particular, who is very enterprising.\textsuperscript{57} For in a mission-type order environment, Clausewitz believes, the most enterprising commanders have the greatest success, since every leader must act on his own decision, as he must often do in defense.

Assuming that on the modern battlefield friction still exists as Clausewitz saw it, it is important that operational manuals address the significance of strong leaders, not only in stimulating the moral forces of the army, but also in making right and timely decisions through sound judgement.\textsuperscript{58} General and detailed information on how to be a good leader is contained in specific leadership manuals of both the U.S. and German Armies, but the basic connection between successful operations and good military leaders is also addressed in the operational manuals FM 100-5 and HDv100/100.

When FM 100-5 claims that "leadership is the crucial element of combat power" the leader automatically becomes an important...
factor. Good leadership, part of the command and control activity of the commander, requires effective leaders in the AirLand Battle scenario. Agility, one of the four AirLand Battle tenets, refers directly to the desired skills of a leader; it requires "quick-minded, flexible leaders who can act faster than the enemy" and who know about friction in war. In particular, the manual makes a close link to Clausewitz in mentioning the need for "mental flexibility" and the ability "to think on their feet," which reminds one obviously of the sound military judging and intelligent officers Clausewitz had in mind.

HDv 100/100 includes a complete chapter on what a commander should be, know, and do. The manual illustrates the role of the leader clearly: "The commander's personality eminently shapes the unit under his command by his attitude, ability, and performance. He is at once the leader, educator, and instructor of his men." And, a few pages later, practically reinforcing, the German Army's manual explains that the qualification of the commander may often be a decisive factor in the mission the unit gets; that is, the better the leader, the more difficult the mission. In the chapter on defense, HDv 100/100 recognizes that holding terrain, which is a major purpose of German Army's defense, demands in particular besides the steadfastness of the troops, the resolute will of commanders to fight until a decision is reached.

Although FM 100-5 and HDv 100/100 do not explain the need and role of a good leader as comprehensively and in as much detail as Clausewitz does in On War, both manuals recognize the significant
impact on military operations an effective leader has. Leaders who have an especially strong will and sufficient mental capacity are seen as mandatory prerequisites for success.

Clausewitz and nuclear warfare

FM 100-5 and HDv 100/100 dictate that the armies must be capable of fighting any type of military operation under nuclear conditions. Each manual deals expressly with the nuclear environment in a specific paragraph or chapter, and HDv 100/100 even explains how to integrate nuclear weapons into defensive operations.

A question naturally arises as to whether Clausewitz's thoughts can be applied in nuclear warfare or whether his considerations on defense are valid only under non-nuclear conditions. The development and existence of nuclear weapons have a tremendous impact on military affairs; their effect in politics and on the battlefield influences strategy, doctrine, and concepts of operations on all levels of war. If one regards nuclear weapons simply as a logical result of constantly developing and proceeding technology, Clausewitz would not condemn them; he strongly admired new ideas and supported the idea that the army must traditionally always be first in progress, which comprises doctrine as well as equipment.

Concerning the great effect of fire and destruction of modern nuclear weapons, Clausewitz makes an interesting statement about the amount of force in his revised Chapter One of Book One: "War is an act of force and there is no logical limit to the application of
force," he says. But Clausewitz, who regards war as a rational event and does not consider warfare caused by irrationalism, tempers this statement a bit when discussing one's own cost and risk in launching war. No one starts war, in Clausewitz's opinion, without having in mind what to achieve and how to achieve it; however, it would be too speculative to conclude that Clausewitz would favor at once a theory of nuclear deterrence today, since he does not elaborate on this deterrence idea deeply enough.

Another Clausewitz idea reveals his thoughts about the duration of war. "War does not consist of a single short blow," he claims. Thus, a first and second strike scenario of strategic nuclear weapons, which would occur within hours of each other, does not fit the Clausewitzian view that a fight with the enemy takes a long time to develop. It needs time to involve all elements contributing to war like forces, population area, allies, fortifications, etc. Thus, only the use of tactical nuclear weapons in the sense of increased artillery fire would fit into Clausewitz's considerations.

The distinction between limited and unlimited warfare that Clausewitz makes is not applicable with regard to nuclear weapons, for the difference between these two types of war is not discussed in terms of the armament used but by the objective of the war.

Although the employment of nuclear weapons can devastate the earth completely and extinguish mankind, the main Clausewitz conclusion still remains valid: War is the continuation of politics and that it is an event on the political stage; that war is no
practicable political instrument is a result of reasonable considerations about its effects.\textsuperscript{74}

This discussion of a possible relationship between Clausewitz and nuclear warfare reveals that \textit{On War} delivers little evidence having validity under nuclear conditions. Four considerations are worth mentioning:

1. War remains a political act even if nuclear weapons are used.

2. A theory of "nuclear deterrence" cannot clearly be drawn from \textit{On War}.

3. Employment of strategic nuclear weapons, even in defense, does not meet Clausewitz's thoughts where time, forces, and area during a military engagement are concerned.

4. Only the use of tactical nuclear weapons in the sense of an enhanced firepower fits into Clausewitzian considerations about military operations, since he sees no limit on employing the maximum possible force.

Conclusions

Clausewitz states clearly that military operations are influenced by factors such as terrain, popular support, and leadership. Defense is only a stronger form of military operation than offense, if the commander and his forces can expect the most effective use of terrain, the motivating support of the people, and the encouraging leadership provide the prerequisite for a successful defense. FM 100-5 and HDv 100/100 recognize this as well.
Chapter 5

NOTES


2Ibid., p. 358. The Latin proverb means: They are happy who own.

3Wilhelm von Schramm, Clausewitz Leben und Werk, 3.Auflage 1981, 1976 by Bechtle Verlag, Esslingen am Neckar, p. 163, pp. 308-311, 352, 290. (The traditional terrain walks of German Army General Staff Officer classes have their origin in the era of Clausewitz, Scharnhorst, and Gneisenau; the idea is to make the officers familiar with specific terrain and practice the capability of evaluating it.)


5Carl von Clausewitz, On War, p. 361, 535 ("it is a risky business to attack an able opponent in a good position").


7Carl von Clausewitz, On War, p. 183. (Today one would have to add also cities).
8Ibid., pp. 348-349. (It is not clear, why Howard & Paret translate the German word "Kultur" with "agriculture" instead of "culture;" since Clausewitz lists also "house," the word "agriculture" does not meet his idea.)

9Ibid., p. 349.

10Ibid., p. 348, 413.


11Carl von Clausewitz, On War, p. 348.

See also: Carl von Clausewitz, The Most Important Principles of War for the Conduct of War, pp. 34-36; in this writing Clausewitz mentions only the first and third advantage.

12Carl von Clausewitz, On War, p. 352, 406.


Erich Vad, Carl von Clausewitz, p. 97.


16Ibid., p. 3-4, 11-2, 11-3.


18FM 100-5, p. 3-7, 7-20 ("In the defense, engineers reinforce the terrain to anchor the defense in critical areas, . . .").


20The Federal Minister of Defense, Army Staff - III 6. Army Regulation 100/100 (Restricted) (HDv 100/100 VS-Nfd). Command and Control in Battle, (Führung im Gefecht (TF16), Bonn, September 1973, p. 904, 907, 908.

21Ibid., No. 2703.

22Ibid., No. 2705.
the emphasis of terrain reinforcements is very well demonstrated by a particular Chapter 23 on "Terrain Reinforcement and Improvement of Terrain Trafficability."

See Annex C; all three parts of the manual about the different types of military operations (defense, attack, delay) finish with a special chapter with the same heading; see chapters 29, 32, and 34.

HDv 100/100, No. 2904.

Ibid., No. 2946.

Ibid.


Carl von Clausewitz, On War, p. 365.

Wilhelm von Schramm, Clausewitz Leben und Werk, p. 515. (Clausewitz regarded the militia as the decisive weight in a country's defense).

Ibid., On War, p. 480.

Ibid., p. 79.

Ibid., p. 59.

Ibid., p. 59.

Carl von Clausewitz, On War, p. 471.

Ibid., p. 77. (The effort to overcome the enemy "can be expressed as the product of two inseparable factors, viz. the total means at his disposal and the strength of his will.")


36Carl von Clausewitz, On War, p. 186.

37Ibid., p. 231, 263.


39FM 100-5, p. 1-1.

40Ibid., p. 1-5, 7-1, 2-6.


J. L. Romjue writes that the former U.S. Army 33. Corps Commander, Lt. Gen Richard E. Cavazos influenced mainly that FM 100-5 has to address the human and moral dimensions of war. (The author received J. L. Romjue's publication upon completion of the thesis draft. An analysis showed, that the same basic publications, which were used by Romjue as significant sources, have already been used in this study, too).

41FM 100-5, p. 2-5.

42HDv 100/100, No. 701.

See also No. 102 ("An effective deterrence presumes the political determination. . .")

43Ibid., No. 1303, 1404.

See also No. 2510 ("good relations with the population facilitate rear area protection").


The German Army has the concept of the "Innere Fuhrung;" it comprises more than pure leadership. In the heading of Chapter 7 the term "leadership and civic education" is used as translation of "Innere Fuhrung."

Carl von Clausewitz, On War, p. 85, 86, 104.

Ibid., p. 115, 119.


Carl von Clausewitz, The Most Important Principles of War for the Conduct of War, pp. 61-67. (Clausewitz lists eight causes of friction; uncertainty about friendly situation and enemy strength is very stressed).


Carl von Clausewitz, On War, p. 104, 105, 119, 193. (See also p. 178: "It takes more strength of will to make an important decision in strategy than in tactics.").

Erich Vad, Carl von Clausewitz, p. 46.

Carl von Clausewitz, On War, p. 112, 389. (See also p. 107; Clausewitz says having character means to be stable and constant in his opinion).


Erich Vad, Carl von Clausewitz, p. 34, 46.


Carl von Clausewitz, On War, p. 585.
54 Ibid., p. 103, 120.

55 Ibid., p. 122.


Carl von Clausewitz, On War, p. 103, 251, 632.


58 Peter J. Moody, Jr., "Clausewitz and the Fading Dialectic of War." World Politics, A Quarterly Journal of International Relations, vol. xxxi, no. 3, April 1979, p. 424. (Moody claims that since Clausewitz's times there is less friction, because moral, social, and technical limitations of warfare are gone. This view is highly hypothetical; FM 100-5, p. 1-3, explains more realistically: "The conditions of combat on the next battlefield will be less forgiving of mistakes and more demanding of leader skill, imagination, and flexibility than any in history.")

59 FM 100-5, p. 2-5.

60 Ibid., p. 7-7, 7-3.

61 Ibid., p. 2-2.

62 HDv 100/100, no. 601-608.

63 Ibid., no. 712.

64 Ibid., no. 2703.

65 FM 100-5, p. 1, p. 4-1. (FM 100-5, p. 4-1 refers expressly to Clausewitz when discussing battlefield problems caused by nuclear and chemical weapons, electronic warfare, and smoke).

HDv 100/100, no. 109, 305, 1003.

66 FM 100-5, p. 4-1.

HDv 100/100, Chapter 11, no. 2767, 2768.
Carl von Clausewitz, *On War*, p. 77. (See also p. 75: who makes "maximum use of force," gains superiority. See also p. 76: "To introduce the principle of moderation into the theory of war itself would always lead to logical obscurity." "The invention of gunpowder and constant improvement of firearms are enough in themselves to show that the advance of civilization has done nothing practical to alter or deflect the impulse to destroy the enemy, which is central to the very idea of war.


Carl von Clausewitz, *On War*, p. 595, 601. (Objective of unlimited war: to defeat the enemy; objective of limited war: to seize or hold a piece of territory.)


Clausewitz is relevant and valid today.

"On War is a work in which one easily loses the forest for the trees. Its very length, stretched by innumerable qualifications to its propositions, contributes to this quality, and it is certainly not on the same high level throughout."¹ Actually, On War is a comprehensive work, hard to read and sometimes difficult to understand. However, this should not be a reason or an excuse to disregard it; for the knowledge of Clausewitz's ideas in On War must be seen as a fundamental prerequisite for all considerations military planners and strategists make today. Moreover, as U.S. Army Colonel Thomas B. Vaughn explains in Military Review in December 1982, the "conversance with Clausewitz is a valuable aspect of the total education and preparation required for true military professionalism."² The historian Michael Howard concludes his discussion about "The Influence of Clausewitz" with the following statement:

Too much should not be read in Clausewitz, nor should more be expected of him than he intended to give. It remains the measure of his genius that, although the age for which he wrote is long since past, he can still provide so many insights relevant to a generation, the nature of whose problems he could not possibly have foreseen.³

The fact that Clausewitz was an expert in politics, strategy, tactics, moral forces, etc. is what makes him so valuable and
relevant for modern warfare. The significance of *On War* lies in its comprehensive analysis of military incidents of the time before Clausewitz and during his life; based on military history Clausewitz draws fundamental conclusions with great influence even today.\(^4\) Not only are those issues interesting and of great utility today, which one can call permanent or timeless thoughts, e.g., the use of terrain in defense; even his temporary ideas, which have become obsolete by the time, e.g., losses by disease, can have positive impact even by lessons learned.

Clausewitz states for all times the prevalence of politics in war and with regard to war; he defines war as a political act. This idea has become one of common basic recognition both in FM 100-5 and HDv 100/100. This means that all operations, defensive as well as offensive, must be seen in the light of an overall political goal. The operations themselves contribute to this goal by the "mean-end" relationship clearly shown in *On War* and FM 100-5.\(^5\)

Clausewitz concludes that defense is a stronger form of military operation than offense, since terrain, support of population, time, and the more effective use of forces favors the defender. How significant his view of defense is today becomes clear when he says "there can be no war if both parties seek to defend themselves".\(^6\) Hopefully, the politicians and military thinkers of the Warsaw Pact will read the Clausewitzian chapter on defense very thoroughly and apply the ideas of *On War*; if they do, they may never attack, and thus, peace in Europe and elsewhere may be maintained.
Concerning defense as more advantageous than offense, one has to see all the criteria which makes defense so strong in Clausewitz's opinion. There are the positive effects of withdrawing and attacking operations, the advantage of trading off time for space, the moral forces of the soldiers, the popular support, and the skill of leaders. Only if all criteria are met it is likely that defense will have a successful outcome. In particular, the terrain situation for the NATO forces in Central Europe is different from Clausewitz's strongest form of defense; in On War the defending army has the advantage of a large and deep land area, but in Central Europe the Warsaw Pact, a potential attacker has this considerable advantage.

Most of Clausewitz's ideas of On War are well adopted.

FM 100-5 and HDv 100/100 recognize well most of Clausewitz's ideas on defense and demand their application in future war. There are, however, some facts about which the manuals hold different views. In those cases the manuals should omit quotations of On War, or should use them only with additional explanation.  

Points in accordance with On War:

(1) FM 100-5 distinguishes between different levels of war and can therefore logically explain the conduct of offensive operations on lower levels within an overall defense. One has to see, however, that Clausewitz discussed only the strategic and tactical levels, while FM 100-5 adds a third military level of war between them - the operational level.
(2) FM 100-5 explains two major types of operations, the defense and offense. As Clausewitz does, the manual counts withdrawal and retrograde operations as part of the defense.

(3) Both FM 100-5 and HDv 100/100 recognize the need for a deep battle and enormous activity on the tactical level to achieve successful defense.

(4) The impact of friction in war is mentioned in both manuals. They both also stress the great influence of moral factors, support of the population, and leadership. FM 100-5 and HDv 100/100 clearly state that without sufficiently motivated soldiers and without the support of the people a country's defense will not lead to victory. 8

(5) A key element in Clausewitz's thoughts about the defense being stronger than the offense is the intelligent and enterprising leader. This ideal of an officer, capable of sound and intuitive judgement and able to gain and retain initiative in defensive operations, is stressed both in FM 100-5 and HDv 100/100. 9

(6) HDv 100/100 contains no specific list of principles of war or principles of defense, but explains some of them in general form. Their application is required in the sense of On War where principles build a framework in which leaders with sound judgement have to make decisions dependent upon the specific situation.

Points not in accordance with On War:

(1) HDv 100/100 does not distinguish between different levels of war; therefore a systematic "mean-end" relationship is not
explained. Thus, it seems to be difficult to understand the connection of different missions, objectives, and operations on several levels of command and control and their interdependence.

(2) HDv 100/100 explains three major types of military operations; in addition to the defense and offense of On War, it also discusses delay. Delay and defense together, however, are nearly identical to Clausewitz's defense where conduct and secondary purposes are concerned.

(3) The main purpose of the defense in On War ("destruction of the enemy") is the same as for the offense. FM 100-5 and HDv 100/100 claim that the final decision can only be made by the offense; therefore, they define the main purpose of defense as creating the prerequisite for the offense or, in the case of HDv 100/100, to hold terrain. One has to see in this context, however, that Clausewitz counts the final resistance of the defender as belonging to the defense; this resistance is a counterattack which achieves the final destruction of the enemy's forces.

(4) As Clausewitz did in his booklet on principles, FM 100-5 lists principles of war and designates their application as mandatory. Since On War does not contain a list of principles of war and does expressly deny such a ruling guidance for commanders, FM 100-5 is not completely in accordance with On War concerning this issue.
On War neither considers deterrence nor favors a forward defense.

FM 100-5 and HDv 100/100 indicate expressly that the army's main mission today is deterrence. In On War, Clausewitz does not consider such a defensive mission. Very significant with regard to defense is the fact that Clausewitz supported the idea of giving up terrain to preserve friendly forces from losses and exhaust the advancing enemy. While FM 100-5 does not make much emphasis on retaining a specific area, HDv 100/100 stresses "holding terrain" heavily. Thus, the political and area restrictions of NATO's doctrine of forward defense are well taken into account in HDv 100/100, but the defense above the tactical level is not completely in accordance with On War, where Clausewitz favored the advantageous use of the depth of the defender's country.

Recommendation

This thesis tries to show how deep Clausewitz's thoughts are in On War and what impact his ideas still have today, but also how cautious one must be in adopting those ideas. Teaching fundamental doctrinal ideas is necessary to make students attune to the ideas of Carl von Clausewitz and other military thinkers. Professional military training and education must include the study of On War and its relationship to the future battlefield.10
Chapter 6

NOTES


5 Ibid., p. 44.

6 Bernard Brodie, “The Continuing Relevance of On War,” pp. 52-53. (Brodie says that Clausewitz “was striving always . . . , to get to the fundamentals of each issue he examined.”)


10 Huba Wass de Czege and L. D. Holder, “The New FM 100-5,” Military Review, July 1982, p. 63. (Therefore the statement “The new FM 100-5 has adopted Carl von Clausewitz’s philosophy for the defense” should be used with reservation concerning a Central European scenario.)


14 Thomas B. Vaughn, “Clausewitz and Contemporary American Professionalism,” p. 44. (“. . . it is our enlightened self-interest
APPENDIX A

Carl von Clausewitz

ON WAR

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Headquarters Department of the Army

FM 100-5 - Operations

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BIBLIOGRAPHY

Books


Government Documents


U.S. Army Command and General Staff College Field Circular No. 100-15, Corps Operations, Fort Leavenworth, KS from 6 Mar 84. (FC 100-15).


Without Author, Development of the Principles of War, War and Doctrine, Academic Year 1984-85, U.S. Army Command and General Staff College.

Periodicals and Articles


Franz, Wallace P. "The Character of Modern War: Theory-Doctrine-Practice at the Operational Level." Strategic


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