



A BATALHA DO RUHR

Ultimo ato na Europa



BATTLE OF THE RUHR

General Rules

1.0 – INTRODUCTION:

On 07/03/45, the Americans captured the Remagen Bridge, thus penetrating Germany's last natural barrier, the Rhine River. By the end of the month, the Allied armies had crossed this river and were spreading into the interior of the country. The American 1st and 9th Armies advanced, respectively, north and south of the Ruhr region, meeting at Lippstadt on 01/04/45. In doing so, they closed a huge pocket, encircling almost all of Marshal Walther Model's Army Group "B" with more than 20 divisions or about 430,000 men.

One of the great strategic objectives of the war was the industrial Ruhr region, the "workshop of Germany". Its conquest would eliminate Germany's ability to continue the war, and with it, victory would come more quickly. However, although this reasoning was valid in June 1944, by March 1945 it was no longer absolutely correct, as the great cities and steel mills of the Ruhr were in ruins thanks to strategic bombing. Many advocated that the Allies should then advance to Berlin, seizing the capital and thereby acquiring greater weight in post-war decisions vis-à-vis the Soviets. Among these was Marshal Bernard Montgomery, commander of the British 21st Army Group. But the supreme commander, General Dwight Eisenhower, thought differently. Aware that the war was won and that the territories east of the Elbe River were already destined to be handed over to the Soviets, he had no interest in fighting, with the consequent loss of life, for an objective that would later be surrendered. Thus, he chose to stop his armies on the Elbe and withdrew the 9th Army from Montgomery's command, handing it over to General Omar Bradley's 12th Army Group. He then ordered Bradley to eliminate the Ruhr pocket.

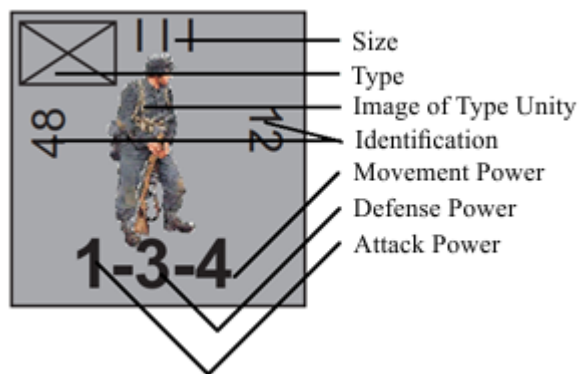
The attack began on 04/04/45, involving four Army Corps. Within two weeks, the pocket was extirpated, and more than 317,000 Germans became prisoners of war, more than in Stalingrad and Tunisia. While these figures may seem impressive, the truth is that conquering the Ruhr would eventually prove to be a futile victory.

2.0 – MATERIAL:

2.1- Map → It represents the Ruhr region of Germany, where the battle took place, in a total of 682 hexagons.

2.2- Counters → A total of 129 counters (excluding markers), 68 American (represented in yellow) and 61 German (60 represented in gray and one of the Waffen-SS in black).

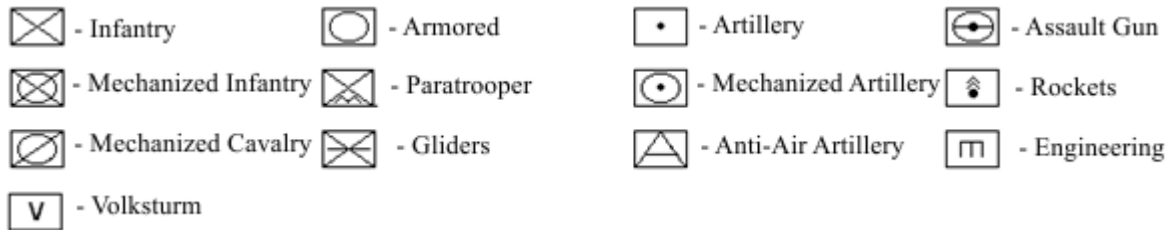
2.2.1 – Characteristics of the Counters:



Unit Size: All wargames, in general, should have an equivalence between the counters of both contenders regarding their "size" or "level". Wargames can be Company (I), Battalion (II), Regiment (III), Brigade (X), Division (XX) or Army Corps (XXX) level. This simulation is regiment/brigade level.

Unit Identification: It is the identification of the part. In this simulation, these numbers represent the regiment (left) and the division to which it belongs (right). Artillery units have the indication of the Army Corps (in Roman numerals) or Army (Arabic numerals) to which they belong.

Unit Type: It is the "emphasis" of elements that make up a unit. The types used in this simulation are as follows:



Attack Power: This is the combat value of this unit when it attacks.

Defense Power: This is the combat value of this unit when it is attacked.

Movement Power: This is the value of the unit's displacement during the game (V.4.0).

The unit in the example is the 48th (III) Infantry Regiment of the German 12th Division (gray color). Its attack power is 1, its defense power is 3, and its movement power is 4.

2.3 – Tables (See last page) → This simulation has 4 tables: "Combat Effects Table", "Terrain Effects on Movement and Combat Table", "Bombardment Table" and "Vulnerability Table". Their jobs are explained below.

2.4 – Auxiliary Markers →

2.4.1 – Turn Marker: These are the squares numbered from 4 to 17 in the upper left part of the board, each turn representing 1 day of the real period, encompassing the period from 04/04/45 to 17/04/45.

2.4.2 – Air Power Marker: These are the squares numbered from 1 to 10 in the upper right part of the board. In this simulation, only the American player has air power. Its use is explained below.

2.4.3 – Dice: This simulation uses two dice to solve the fights. The dice is **NOT** used in moving the counters.

3.0 – SEQUENCE:

In each turn, the first to move is the American player, who moves as many of his units as he wants, in the so-called American "Movement Phase"; then comes the American "Combat Phase", when the American player executes the attacks against the German units he has engaged in his "Movement Phase". Once this "Combat Phase" is over, comes the German "Movement Phase", when the German player moves as many of his units as he wants; then comes the German "Combat Phase", where the engagements of the German "Movement Phase" are resolved. Then, the turn is changed, restarting the sequence.

4.0 – HANDLING:

To move, units use their Movement Power. This is given in the form of movement points, which are spent when the unit moves from one hexagon to another, according to the type of terrain. The points spent, by terrain type, are given in the "Table of Effects of Terrain on Movement and Combat".

EXAMPLE: An American infantry unit (3-4-4) leaves Herne, enters Bochum (1 point), crosses the Ruhr River (1 point), and enters a wooded hexagon (2 points), totaling $1 + 1 + 2 = 4$. Your movement points are exhausted, and the unit will have to stop there.

OBSERVATIONS:

- A unit can **NEVER** exceed its Movement Power in its respective "Movement Phase".
- Units are **NOT** required to use their full movement power and may spend less points than the total allowed per "Move Phase".
- Unspent Movement Points by a unit can **NOT** be accumulated for other turns.

- Unspent Movement Points by one unit can **NOT** be transferred to other unit.
- When two or more units move together, their moving power is **NOT** added together.
- Armored units can NOT transit through crest hexes.

4.1 – Restrictions on the Movement →

4.1.1 – Friendly Units: Both Americans and Germans can concentrate a maximum of 4 (four) units in the same hexagon. However, even if the hex reaches the maximum number of units, other non-enemy units can pass through it without stopping at it.

4.1.2 – Enemy Units: Every unit has a "Zone of Engagement" referring to the 6 (six) hexagons that surround it. When an enemy unit moves into one of the hexagons of its "Engagement Zone", it is required to stop (it is said to have "engaged"). At the start of your "Movement Phase", if a unit of yours is engaged with an enemy unit and the player does not want to engage in combat, the player will have to remove his piece from the enemy "Engagement Zone", if he spends 1 extra movement point to "break contact". If, on the other hand, the unit is on "Dominant Ground" in relation to the enemy piece(s) that are engaging it, it is not obliged to disengage. "Dominant Terrain" is the terrain that has the greatest advantage, in combat, in number of columns.

EXAMPLE: A turn begins with an American unit occupying a city hexagon engaged with a German unit in open terrain. The American unit does not need to retreat nor is it obliged to attack, as it is on "dominant ground" (city) in relation to the German (open). However, if any other unit moves into the enemy "Engagement Zone", it will have to attack.

OBSERVATION:

1. This rule does not apply to *Volksturm* units. Even if it begins its Movement Phase engaged with an American unit on dominant ground, it is NOT obliged to retreat or attack.

If a unit, for whatever reason, cannot disengage or is on dominant ground, it will have to attack.
Two enemy units can **NEVER** occupy the same hex at the same time.

4.2 – Entering and Exiting the Board→

4.2.1 – Entry: Only the Americans receive reinforcements during the battle (they enter through the established edges – V.10.1.3). Upon entering the board, they must pay, for the first hexagon they occupy, the cost of the same in movement points. If, upon entering, the first hex is adjacent to an enemy unit, the unit can engage.

4.2.2 – Exit: Some American units are removed from the board as listed in item 10.1.4 (if they are not surrounded, in which case they are removed as soon as they are released). The other American units are not allowed to leave the board voluntarily, except only in the event of retreat after combat. The Germans, on the other hand, can remove units from the board, but only from the eastern edge. German units that retreat from the northern, southern, or western edges ARE CONSIDERED DESTROYED. Units that leave the board cannot return to the game.

5.0 - COMBATES:

At the end of the "Move Phase", when enemy units are occupying adjacent hexes, they are considered to have "engaged", with the last one to move being considered the attacker.

5.1 - Combat Resolution → To solve the combats, the "Combat Effects Table" is used, through the combat powers of the units. The sequence is as described below:

5.1.1- Relationship of Forces:

1st - The ATTACK powers of the attacking units are added.

2nd - The powers of DEFENSE of the units that are being attacked are added.

3rd - Divide the value obtained in the 1st step by the value obtained in the 2nd step, disregarding the non-integer part of the result (Example: $11 \div 4 = 2.75 \rightarrow$ disregarding the 0.75, the power ratio will be 2-1 (two to one)).

OBSERVATIONS:

- The attacker **may NOT** check the defense points of the units he will attack before declaring with how many points he will do so.
- Once the defender warns how many points he will defend with, there can **be NO** further changes from either party.

5.1.2 - Terrain Influence: Certain terrains favor defense, but none favor offense. The benefits of terrain for defense are given in the form of "columns" in the "Table of Terrain Effects on Movement and Combat". Once the balance of forces has been determined (V.5.1.1), the terrain where the defending unit is located is checked and, if it favors the defense, how many columns on the left!

OBSERVATIONS:

- When, in the defender's hexagon, there are two or more types of terrain influencing the combat, the terrain that provides the greatest number of columns on the left is always considered.
- Armored units can NOT engage enemy units in crest hexes.

5.1.3 - Encirclement: If a defending unit is engaged in such a way that it cannot retreat to a hexagon free of enemy "Engagement Zones", these defenders are considered to have been surrounded. This gives the attacker the advantage of a right-hand column in the "Terrain Effects on Movement and Combat Table".

5.1.4 - Unity of Command: Every time a division participates in a combat (attacking or defending) with all its elements, it "gains" one column (on the right when attacking and on the left when defending), per "divisional" unit.

OBSERVATIONS:

- The German 116th Panzer Division is NOT entitled to this bonus, as only part of it was surrounded within the Ruhr pocket.
- The German 22nd Anti-Aircraft Division is also NOT entitled to this bonus.
- Exceptionally in this simulation, the American divisions 29th, 101st and 82nd are also NOT entitled to this bonus – the first two because they were not complete in battle and the last as a device to discourage the American player from engaging them, as they should be spared.

5.1.5 - Determination of the Line: Once the previous steps have been completed, the column has been determined; Now, you determine the line from the data. The purpose of the data is to represent all the imponderables of the fight. The two dice are rolled, and the result is the sum of them (Example: 2 in one and 3 in the other gives 5 as a result).

5.1.6 - Results of Combats:

DE - Defense Eliminated. One defending unit is eliminated (at the discretion of the defending player) and the others, if any, are required to retreat UNDER ANY CIRCUMSTANCES.

DRB - Defense Retreats with Casualties. All defending units retreat one hex (barring special rules) and only one of them suffers kills (at the discretion of the defending player).

DRI - Defense retreats intact. All defending units retreat one hex (barring special rules).

DVB - Defense Wins with Kills. All attacking units retreat one hex and one of the defending units suffers a casualty (at the discretion of the defending player).

DVI - Defense Wins Intact. All attackers retreat one hex.

AVI - Attack Wins Intact. All defending units move back one hex (if the result is not DE) and the attacking player may or may not occupy the hex abandoned by the defenders.

AVB - Attack Wins with Kills. As above, but one of the attacking units suffers casualties (at the discretion of the attacking player).

ARI - Attack retreats intact. All attacking units retreat one hex.

ARB - Attack Retreats with Kills. All attacking units retreat one hex and one of them takes casualties (at the discretion of the attacking player).

AE - Attack Eliminated. All attacking units retreat one hex and one of them is eliminated (at the discretion of the attacking player).

IMP - Stalemate. All units, both defenders and attackers, remain where they are.

5.2 - Advancement after Combat → When the attacker wins a combat, he can occupy the hex abandoned by the defender or advance one more hex, depending on the type of the attacking unit; Armored and motorized infantry units can advance two hexes (from the hexagon abandoned by the defender) and non-motorized units (infantry) only one (artillery does not advance after victory in combat). Armored and motorized infantry units advance two hexagons only if the first hexagon is open ground (with or without road) and if the second is open ground or city, with no river between them. The attacker doesn't necessarily need to move forward, nor do they need to move forward as many hexes as they could; It's up to you to decide.

5.3 - Retreat Rules → When, after a fight, one or more units are forced to retreat, they may not stop at a hex occupied by enemy units or a hexagon belonging to the "Engagement Zone" of an enemy unit. If this is not possible, they will be deleted.

5.3.1 - Chain Recoil: When a unit retreats to a hexagon occupied by four friendly units, the player can retreat one of the surplus pieces to another hexagon (respecting the rule above) and make that 4 pieces remain in that hexagon.

5.3.2 - Retreat Through River: In this simulation, when an armored or AA artillery unit retreats across a river, it suffers casualties and, if in the combat that originated the retreat it suffers casualties, then it will be eliminated. Other types of units do not suffer any effects. However, if the river **is the Rhine**, the situation is more serious: armored and AA artillery units that retreat across it are eliminated, while other types of units suffer casualties.

5.3.3 - Retreat Under Siege: When a unit (or more) is surrounded and is forced to retreat, it will go into a hexagon fatally within an enemy "Engagement Zone". As one can never end an engaged recoil, she/she will be forced to retreat to another hex and, in this 2nd move, he/she must receive kills (all pieces). If this new hex is again from the enemy "Engagement Zone", then all units that retreat are eliminated.

OBSERVATION:

- If a retreating besieged unit has suffered casualties because of combat, it is automatically eliminated unless it can retreat through a hex occupied by friendly units. In this case, she doesn't suffer any casualties on the 2nd move.

6.0 - PODER AÉREO:

Air power points represent the relative influence of the respective air forces on ground combat. In this simulation, only the American player has air power, with 30 points for the entire match.

6.1 – Use of Air Power → The American player has an Air Power marker on the board and a piece marked "X10" and another marked "X1". When he starts his turn, he puts the pieces on the numbers related to his air power. When the player wants to support a fight, he simply deducts the points he wants from the scoreboard. Thus, he can use his power points both attacking (his Combat Phase) and defending (enemy Combat Phase). The air power marker is always manipulated in such a way that it always shows how many points the player has left.

6.2 – Air Attacks → In this simulation it is allowed to carry out attacks only with air power, using the "Bombardment Table". In simple bombing (without the involvement of other types of units), the air power committed is multiplied by the sum of the vulnerability indices of the units on the target, according to the "Table of Vulnerability" (V.). Once the final value has been found, the corresponding column is checked in the "Bombardment Table" and the two dice are rolled. The meaning of the results is attached to the table.

EXAMPLE: Two German infantry units and one artillery unit concentrate on a hexagon. The friendly player decides to launch an airstrike with 5 points. The vulnerability index on the target will be 4 ($2 \times 1 + 2$). Therefore, the attack will have a value of 20 (5×4). In the table, this corresponds to column 13-24. If the defenders are in a wooded hexagon, they "win" a column on the left, and therefore the column used will be 1-12.

- OBSERVATIONS:
- Pontos de poder aéreo não utilizados em um turno NÃO são acumulados para os turnos seguintes.
- Ao anunciar o valor de um ataque, ele deve incluir o poder aéreo. Da mesma forma para a defesa.

- Nesta simulação, deve-se utilizar no mínimo 3 pontos e no máximo 10 para realizar ataques aéreos.

7.0 – CASUALTIES:

These "casualties" are related to losses of material and men, combat "stress" and disorganization (temporary or not) of the units. When a unit suffers casualties in combat, it is flipped over, facing backwards. If so, you'll have your combat powers reduced. If it suffers new casualties, it is eliminated. Kills do not affect movement power. In this simulation, only the Americans recover casualties. To do this, it is enough for the unit to remain disengaged during its Movement Phase and to be able to draw a "line" free of "Engagement Zones" to the west edge of the board, to then be untapped.

OBSERVATION:

- Unusually in this simulation, the American 82nd and 101st Airborne Divisions do NOT recover casualties.

8.0 – ARTILLERY:

This unit moves like an ordinary infantry unit and has the special characteristic of being able to attack enemy units without engaging them. The number in the upper right corner indicates the number of limit hexes at which the unit can attack the enemy unit (interpreted as the range of the guns). If engaged, it suffers the effects of terrain and combat normally. To support units under attack, the hex to consider is that of the defender.

In simple bombardment (without the involvement of other types of units), the attack power of the committed artillery units is added and multiplied by the sum of the vulnerability indices of the units on the target, according to the "Table of Vulnerability" (V.). Once the final value is found, the corresponding column is checked in the "Bombardment Table" (also considering the effects of the terrain – except for the river) and the two dice are rolled. The meaning of the results is attached to the table.

EXAMPLE: Three U.S. 3-2-3 artillery units focus on bombarding a hexagon that contains three German units, one armored and two infantries. The attack power will be 9 (3x3) and the vulnerability index will be 5 (1 + 2x2). Therefore, the attack will have a value of 45 (9x5). In the table, this corresponds to column 37-48.

More than one artillery unit may be concentrated in the same combat or bombardment, but an artillery unit may not be used in more than one combat per phase.

OBSERVATION:

- It is not allowed to attack the same target hex twice in the same turn, even if from two different types of attacks.

9.0 – VOLKSTURM:

At the end of 1944, the Germans began to organize units of "people's troops" (Volksturm), made up of old men and teenagers, to defend their cities against the Allied invaders. Normally, these forces had no military value, but under the action of Nazi fanatics, they caused inconvenience and casualties to the Americans.

In this simulation, the Volksturm are represented by three pieces, posted in major German cities: Essen, Dortmund and Dusseldorf. They don't have any combat power and can't move either. They are only intended to force Americans to waste time "cleaning" the city. Whatever the striking power of the American units engaged with it, the combat ratio to be considered will always be 9-1 (obviously this will only be valid if the Volksturm unit is alone in the city). Moreover, it cannot retreat – if the result of the combat compels it to do so, it is considered destroyed. She also can't perform attacks. On the other hand, there is no dominant terrain in relation to a Volksturm unit in your city. Even if she begins her Movement Phase engaged with the American on dominant ground, she is NOT obliged to retreat or attack.

10.0 – PREPARATION:

The American forces involved in the elimination of the Ruhr Pocket belonged to two of the armies of General Omar N. Bradley's 12th Army Group. To the north, General William H. Simpson's 9th Army massed the 16th and 19th Army Corps against the pocket, while General Courtney H. Hodges' 1st Army was still organizing in the southern and eastern parts of the pocket. The 7th Army Corps, which had closed in on the Germans at Lippstadt, would soon be replaced by the 3rd Army Corps, which would take on the task of attacking the pocket, while the newly arrived 18th Airborne Corps would take over the Sieg River front. The dividing line between these armies was the Ruhr River itself. To allow the 1st and 9th Armies to concentrate east of the Rhine, General Leonard T. Gerow's new 15th Army would take over the defense of the west bank of the river. Attacks would begin as the necessary troops arrived. On 4/4/45, the 16th Corps

(79th, 35th, and 75th Infantry Divisions) went on the attack, soon to be followed by the others within days. Gradually, troops that could be released were sent east to meet Soviet forces in the heart of Germany.

On the German side, the situation was almost chaotic. The encircled German forces included the entire 5th Panzer Army (General Josef Harpe), most of the 15th Army, and part of the 1st Parachute Army (Army Group "H"). Marshal Walther Model, commander of Army Group "B", took command of all the forces within the pocket and, having failed attempts to escape the encirclement, he could only hold out as long as possible, despite the scarcity of everything: personnel, ammunition, food, and fuel. All his divisions were decimated, in many cases limited to battle groups (*kampfgruppen*) of 2,000 or 3,000 men. Their mechanized formations numbered only a few dozen armored vehicles. Moreover, troop morale was plummeting in the face of impending defeat. Everyone knew that the war in Europe was, in fact, decided. That was the situation on 04/04/45.

10.1 – Colocação das Unidades → Ambos os contendores iniciam o jogo com a colocação inicial de suas unidades marcadas no tabuleiro ou conforme as relações abaixo. As abreviaturas utilizadas são as seguintes: DAet – Divisão Aeroterrestre; DB – Divisão Blindada; DI – Divisão de Infantaria; DPzGr – Divisão Panzergrenadier; RI – Regimento de Infantaria; RFlak – Regimento Antiaéreo; Bgda - Brigada; StuG – Sturmgeschütz (Canhões de Assalto); VG – Volksgrenadier (“Granadeiros do Povo”, não confundir com Volksturm); sPzAbtl – schwere Panzer Abteilung (Batalhão de Tanques Pesados).

10.1.1 – German Initial Placement: The German player tidies up first, placing his units in any hexagon within the bivouac areas assigned to them, mandatorily in contact with the front line. Their starting positions are marked on the board, with the texts in grey or white italics. In addition, some units start the game in cities or in positions of the German player's choice (units noted as "FREE" can be placed in any hex within the pocket, whether or not in contact with the front line). They are:

- 3rd DPzGr – On the marked hexagon and/or on the six adjacent hexagons.
- 476th Division – At Solingen and/or the six adjacent hexagons.
- 67° RFlak – Bochum;
- 124th RFlak – Dortmund;
- 183° RFlak – The Garden;
- 106th Panzer Bgda – FREE;
- 244th StuG Bgda - FREE;
- 506° sPzAbtl – FREE;
- Volksturm Essen – Essen;
- Volksturm Dortmund – Dortmund;
- Volksturm Dusseldorf – Dusseldorf;
- Artillery Unit of the 5th Panzer Army (marked with Arabic numerals) – On any hexagon behind the German line.
- Army Corps Artillery Units (marked with Roman numerals) – On the marked hexagon and/or the six adjacent hexagons.
- 7th Nebelwerfer Brigade (rocket launcher) – On the marked hexagon of the 58th Panzer Corps and/or the six adjacent hexagons.

10.1.2 – American Initial Placement: The American player must place their units on any hexagon within the bivouac areas assigned to them, without touching the front line. Their starting positions are marked on the board, with the texts in yellow italics. The regiments of the 17th DAet are to be stationed in the hexagons assigned to them. In addition, some units start the game in positions of the American player's choice. They are:

- 1103rd Engineering Group – In the bivouac area of any division of the 16th Army Corps.
- 14th Mechanized Cavalry Group – In the bivouac area of any division of the 1st Army.
- Artillery Units of the 1st and 9th Armies (marked with Arabic numerals) – On any hexagon behind the units of the respective armies.
- Army Corps Artillery Units (marked with Roman numerals) – On the marked hexagon and/or the six adjacent hexagons.

10.1.3 – American Reinforcements: The following units enter the board as per the following scale and the respective edges of the board (in parentheses):

- Shift 4 – 82nd and 101st DAet (west); 99th ID (east) and Artillery of the 3rd Army Corps (south);
- Shift 7 – 2nd and 10th RI and 111th Engineering Group (south); 16th Mechanized Cavalry Group (west);
- Shift 9 – 15th Mechanized Cavalry Group (north);
- Shift 10 – 13th DB (south);

- Round 12 – 11th RI (on).

10.1.4 – American Retreats: The following units are removed from the board according to the following scale (as long as they are not surrounded, in which case they are removed as soon as they are released):

- Round 7 – 116th RI;
- Shift 9 – Artillery of the 19th Army Corps.
- Round 12 – 35th OF;
- Round 13 – 9th OF;
- Round 14 – 79th OF;
- Turn 15 – 8th DB.

10.2 – Objectives → The goal of the allies is to eliminate the "Ruhr Pocket". The German goal, of course, is to prevent this. Therefore, the American player wins if he eliminates ALL German units. Otherwise, the German player wins.

OBSERVATION:

- If any German unit manages to get off the board by any edge, the game is automatically stopped, with German victory.

COMBAT EFFECTS TABLE:

DICES	1-3	1-2	1-1	2-1	3-1	4-1	5-1	6-1	7-1	8-1	9-1
2-12	DVB ARB	DVB ARI	IMP	DRI AVB	DRB AVB	DRI AVI	DRB AVI	DE AVB	DE AVB	DE AVI	DE AVI
3-11	DVI ARI	DVB ARB	DVB ARI	IMP	DRI AVB	DRB AVB	DRI AVI	DRB AVI	DE AVB	DE AVB	DE AVI
4-10	DVI ARB	DVI ARI	DVB ARB	DVB ARI	IMP	DRI AVB	DRB AVB	DRI AVI	DRB AVI	DE AVB	DE AVB
5-9	DVB AE	DVI ARB	DVI ARI	DVB ARB	DVB ARI	IMP	DRI AVB	DRB AVB	DRI AVI	DRB AVI	DE AVB
6-8	DVI AE	DVB AE	DVI ARB	DVI ARI	DVB ARB	DVB ARI	IMP	DRI AVB	DRB AVB	DRI AVI	DRB AVI
7	DVI AE	DVI AE	DVB AE	DVI ARB	DVI ARI	DVB ARB	DVB ARI	IMP	DRI AVB	DRB AVB	DRI AVI

TERRAIN EFFECTS ON MOVEMENT AND COMBAT TABLE:

TERRAIN	MOVEMENT		COMBAT
	NO-MTZ	MTZ	
Clean	1	1	---
City	1	1	2 Columns
River	1	2	2 Columns
Reno River	3	6	3 Columns
Forest	2	3	1 Columns
Crest	3	3 (Mtz) - FORBIDEN (Bld)	3 Columns
Road	1	0,5	---
Front Line	---	---	---
Bivouac	---	---	---

BOMBARDMENT TABLE:

DICES	1 - 12	13- 24	25 - 36	37 - 48	49 - ∞
2-12	DB	DB	DB	DB	DB
3-11	DI	DB	DB	DB	DB
4-10	DI	DI	DB	DB	DB
5-9	DI	DI	DI	DB	DB
6-8	DI	DI	DI	DI	DB
7	DI	DI	DI	DI	DI

DI - Intact Defense

DB - Defense suffers Casualties (A defending unit, at your player's choice, suffers a casualty).

VULNERABILITY TABLE

UNIT TYPE	VULNERABILITY INDEX	
	AIR STRIKE	ARTILLERY
Infantry, Armored Infantry, Paratroopers, Airborne Infantry (Gliders), Engineering and Volksturm.	1	2
Armored Vehicles, Mechanized Cavalry, Assault Cannons, and Mechanized Artillery	2	1
Artillery, Anti-Aircraft Artillery and Rocket Launchers	2	2