



The Battle Of
CHERBURG
The Vital Harbor

BATTLE OF CHERBOURG

General Rules

1.0 – INTRODUCTION:

When the Allies began planning for the invasion of France, they initially decided that it would be necessary to conquer a major port. Thus, Operation "Overlord", the Normandy landing, was primarily intended to conquer a port: Cherbourg.

Cherbourg lies at the tip of the Cotentin peninsula in northwestern France. After D-Day, American forces found themselves engaged, first, in ensuring the safety of the beachhead and then isolating the Cotentin peninsula, to prevent the Germans from sending reinforcements to Cherbourg. After intense fighting, the Americans reached the west coast of the peninsula on 6/18/44. Thus, the stage was set for the beginning of the onslaught against the vital port.

The important mission oversaw the 7th Army Corps, General Joseph Lawton Collins, better known as "Lightning Joe," Collins. It aligned its three divisions from West to East: 9th, 79th and 4th Infantry Divisions. To support them, he would have tank battalions, engineering, artillery, and later naval support.

The Germans facing Collins formed a heterogeneous group of remnants of two divisions already worn out in two weeks of fighting (243rd and 709th), training units, former Soviet prisoners of war, naval and service troops. This force was under the command of General Karl-Wilhelm von Schlieben, who had the mission of denying the port to the Allies for as long as possible. Contradictory orders emanating from the upper HQs (and Hitler) made the situation of the defenders complicated from the start, as there were not even organized lines of defense.

The offensive began on 6/19/44, and within two days the Americans approached Cherbourg's foreign defenses. The city was finally liberated on 6/26/44. The last German defenders, at the Cabo de la Hague, were defeated until 30/06/44.

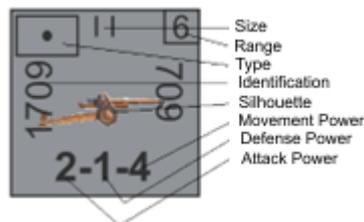
In this way, the Americans had eliminated all opposition on the Cotentin peninsula. As for the port, the Germans had destroyed it in such a way that it could only be used from mid-August. However, the new Allied controlled region would now be used to concentrate the forces that were landing to begin the liberation of Europe.

2.0 – MATERIAL:

2.1- Map - Represents the region of the Cotentin peninsula where the battle took place, for a total of 400 hexagons.

2.2- Counters - A total of 108 pieces (except markers), being 57 American (represented in yellow), 37 German (gray), 4 Russian pro-Axis (green with a gray stripe) and 1 Norwegian American (yellow with a red stripe).

2.2.1 – Characteristics of the Parts:



Unit Size: All wargames, in general, must have an equivalence between the pieces of both contenders as to their "size" or "level". Wargames can be Company (I), Battalion (II), Regiment (III)/Brigade (X), Division (XX) or Corps (XXX) level. This simulation is battalion-level.

OBSERVATION:

Unit Identification: This is the identification of the part. In this simulation, these numbers represent the regiment (left) and the division to which it belongs (right).

OBSERVATIONS:

+ The American units identified as "4CAV" make up the 4th Mechanized Cavalry Group.

+ The German unit identified as "STURM" is the Assault Battalion ("Sturm") of the German 7th Army (also known as the Messerschmitt Battalion, named after its commander).

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

 - Infantry	 - Motorized Infantry	 - Paratroopers	 - Naval Infantry
 - Armour	 - Motorized Cavalry	 - Tank Destroyers	 - Machine Guns
 - Artillery	 - Anti Air Artillery	 - Anti Tank Artillery	 - Coastal Artillery
 - Enginners	 - Rangers	 - Rocket Launch	 - Mortars

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

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

Moving Power: This is the displacement value of the unit during the start (V.4.0).

The example unit is a battalion of the 1709th Artillery Regiment of the German 709th Infantry Division (gray color) – its attack power is 2, its defense power is 1, its movement power is 4, and its range is 6.

2.3 – Tables (See last page) - This simulation has four tables: "Table of Effects of Combat", "Table of Effects of the Terrain in Movement and Combat", "Bombing Table" and "Table of Vulnerability". Their jobs are explained below.

2.4 – Auxiliary Markers

2.4.1 – Turn Marker: These are the boxes numbered from 19 to 30 at the bottom right of the board, each shift representing 1 day of the actual period (representing the period from 06/19/44 to 06/30/44).

2.4.2 – Air Power Marker: These are the boxes numbered from 1 to 10 at the top right of the board. In this simulation, only the American player possesses air power. His use is explained below.

2.4.3 – Dices: This simulation uses two dices for the resolution of combat. The data is **NOT** used in the movement of the parts.

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"; next comes the American "Combat Phase", when the American player executes the attacks against the German units he engaged in his "Movement Phase". After 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 shift is changed, restarting the sequence.

4.0 – MOVEMENT:

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

EXAMPLE: An American infantry unit (4-4-6) leaves Carteret, moves north, passes through an open-ground hexagon (1 point) and reaches the bocage hexagon to the northeast (2 points); then heads north, crossing the river (1 point) and enters the forest hexagon (2 points), totaling $1 + 2 + 1 + 2 = 6$. 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 all their Movement Power and may spend fewer points than the total allowed by

"Movement Phase".

- + Movement Points not spent by one unit can **NOT** be accumulated for other shifts.
- + Movement Points not spent by one unit can **NOT** be transferred to other parts.
- + When two or more units move together, their power of movement is **NOT** summed.
- + In Turn 19, the 22nd, 47th, and 314th U.S. regiments (marked "RES" (Reserve) on the board) have only half their power of movement.

4.1 – Restrictions on Movement @→

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

4.1.2 – From Enemy Units: To every unit belongs 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 forced to stop (it is said to have "engaged").

When starting your "Movement Phase", if a unit of yours is engaged with an enemy unit and the player does not want to enter combat, the enemy will have to remove his piece from the enemy "Engagement Zone", if spending 1 more movement point to "break contact".

If, on the other hand, unity is on "Dominant Ground" in relation to the enemy piece(s) that are engaging it, it is exempt from disengagement. "Dominant Terrain" means the terrain that has the greatest advantage, in combat, in number of columns.

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

If a unit, for whatever reason, cannot disengage nor is it on dominant ground, it will have to attack. Two enemy units can **NEVER** occupy the same hexagon at the same time.

OBSERVATION:

+ German and Russian pro-Axis units in fortification hexagons is on dominant ground always, even if there are American units in an adjacent fortification hexagon.

4.2 – Input and Output of the Board @→

4.2.1 – Entry: Only the Americans receive reinforcements during the campaign, always from the southern edge. Upon entering the board, they must pay, for the first hexagon they occupy, the cost of the same in points of movement. If, upon entering, the first hexagon is adjacent to an enemy unit, the unit can engage.

4.2.2 – Output: Only one American unit is expected to withdraw in this simulation, a 3-1-4 (independent) artillery battalion, which must be withdrawn in turn 25. No other unit can voluntarily leave the board. American units that are forced to retreat across the southern edge are not considered destroyed but cannot return to the board. German units retreating along the southern edge are considered destroyed. Any units forced to retreat to the sea (all other edges) are also considered destroyed.

5.0 - COMBAT:

At the end of the "Movement Phase", when enemy units are occupying adjacent hexagons, they are considered to have "engaged", being the last to move considered the attacker.

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

5.1.1- Relation of Forces:

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

2° - Added the powers of DEFENSE of the units that are being attacked.

3rd - The value obtained in the 1st step is divided by the value obtained in the 2nd step, disregarding the non-complete part of the result (Example: $11/4 = 2.75$ disregarding 0.75, the power ratio will be 2-1 (two to one))

OBSERVATIONS:

+ The attacker can **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 himself, there can be **NO** further changes from either party.

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

OBSERVATIONS:

+ When, in the defender's hexagon, there are two or more types of terrain influencing the combat, it is always considered the terrain that provides the largest number of columns on the left.

+ If the defender is in a bocage hexagon, he gains two more columns (left) if the attacker includes armored and/or mechanized cavalry.

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

5.1.4 - Command Unit: Every time a regiment participates in a combat (attacking or defending) with all its elements, it "wins" a column (on the right when attacking and on the left when defending). If the three regiments of the same division are participating in the same attack, it gains one more column on the right, per "divisional" unit.

OBSERVATION:

+ Artillery officers are not entitled to this bonus.

5.1.5 - Determination of the Row: After completing the previous steps, the column was determined; now, the line is determined through the data. The data is intended to represent all the imponderables of combat. 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 - Combat Results:

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 a hexagon (except for special rules) and only one of them suffers casualties (at the discretion of the defending player).

DRI - Defense retreats intact. All defending units retreat a hexagon (except for special rules).

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

DVI - Defense wins intact. All the attackers retreat a hexagon.

AVI - Attack Wins Intact. All defending units retreat a hexagon (if the result is not DE) and the attacking player may or may not occupy the hexagon abandoned by the defenders.

AVB - Attack Wins with Casualties. 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 a hexagon.

ARB - Attack Retreats with Casualties. All attacking units retreat a hexagon and one of them suffers casualties (at the

discretion of the attacking player).

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

EMP - Tie. The defending player eliminates one or more pieces of his choice; the defense power of the eliminated units is added, and the attack loses at least an equal number in attack power points in eliminated units (at the discretion of the attacking player). The remaining defensive pieces are forced to retreat.

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

5.2 - Advance after Combat - When the attacker wins a fight, he can occupy the hexagon abandoned by the defender or advance an extra hexagon, depending on the type of the attacking unit; armored, motorized infantry, and mechanized cavalry units can advance two hexagons (from the hexagon abandoned by the defender) and non-motorized units (infantry, engineering, etc.) only one (artillery does not advance after victory in combat). Motorized units advance two hexagons only if the first hexagon is of open ground (with or without road) and if the second is of open ground or city, without river or fortification between them. The attacker does not necessarily need to advance, nor advance all the hexagons he could; it is up to you to decide.

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

5.3.1 - Chain Retreat: 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 above rule) and cause any 4 pieces to remain in that hexagon.

5.3.2 - Retreat Through River: In this simulation, when an armored unit retreats through a river, 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.

5.3.3 - Retreat Under Siege: When a unit (or more) is surrounded and is forced to retreat, it will go to a hexagon fatally within an enemy "Engagement Zone". Since one can never end an engaged retreat, she(s) will be forced to retreat to another hexagon and in this 2nd movement she will have to receive casualties (all pieces). If this new hexagon is again from enemy "Engagement Zone", then all units that retreat are eliminated.

OBSERVATION:

+ If a unit under siege that retreats has suffered casualties as a result of combat, it is automatically eliminated unless it can retreat through a hexagon occupied by friendly units. In this case, she does not suffer casualties in the 2nd movement.

6.0 - AIR POWER:

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, following the following table:

TURN	AMERICANS
19 to 21	0
22	30
23 to 30	10

6.1 – Employment of Air Power - The American player has an Air Power marker on the board and a little piece marked "X10" and another marked "X1". At the beginning of the turn, the American player puts the little pieces in the numbers related to his air power. When the player wants to support a match, he simply discounts the points he wants on the marker. Thus, he can use his power points both by attacking (his Combat Phase) and defending (Enemy Combat Phase). The air power marker is manipulated in such a way as to always show how many points are left to the player.

6.2 – Air Attack - In this simulation, it is allowed to carry out attacks only with air power, using the →"Bombing Table". In simple bombing (without the involvement of other types of units), the air power committed is multiplied by

the sum of the vulnerability indexes of the units on target, according to the "Vulnerability Table". Once the final value is found, the corresponding column is verified in the "Bombing Table" (also considering the effects of the terrain) and the two dice are released. The meaning of the results is next to the table.

EXAMPLE: Three German infantry units and one armored vehicle units concentrate on a hexagon. The allied player decides to launch an air attack with 6 points. The vulnerability index on the target will be 5 ($3 \times 1 + 2$). Therefore, the attack will have a value of 30 (6×5). In the table, this corresponds to column 25-48. If the defenders are in a forest hexagon, they "get" a column on the left and therefore the column used will be 1-24.

OBSERVATIONS:

- + Unused air power points in one shift are **NOT** accumulated for the following shifts.
- + When announcing the value of an attack, it must include air power. Likewise for defense.
- + In this simulation, a minimum of 3 points and a maximum of 10 must be used to carry out air attacks.

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, keeping the back up. If so, it will be left with its combat powers halved (rounding up for all nationalities). If it suffers new casualties, it is eliminated. Casualties do not affect the power of movement.

In this simulation, neither side recovers casualties.

8.0 – ARTILLERY:

There are several types of artillery in this simulation: common (campaign), anti-tank, anti-aircraft, mortar, rocket launcher and coast.

Common artillery, anti-tank, anti-aircraft, mortar, and rocket-launcher units move like common infantry units (those on the coast do not move). In addition, the common artillery, mortar, rocket launcher and coast units have the special feature of being able to attack enemy units without engaging them. The number in the upper right corner indicates the number of limit hexagons at which the unit can attack the enemy unit (interpreted as the range of the cannons). If it engages, it suffers the effects of terrain and combat normally. To support units under attack, the hexagon to be considered will always be that of the defender.

In simple bombing (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 indexes of the units on target, according to the "Vulnerability Table". Once the final value is found, the corresponding column is verified in the "Bombardment Table" (also considering the effects of the terrain – except river) and the two dice are cast. The meaning of the results is next to the table.

EXAMPLE: Two American 3-1-4 artillery units focus on bombing a hexagon that contains three German units, one armored and two infantries. The attack power will be 6 (2×3) and the vulnerability index will be 5 ($1 + 4$). Therefore, the attack will have a value of 30 (6×5). In the table, this corresponds to column 25-48.

You can concentrate more than one artillery unit in the same combat or bombardment, but one artillery unit cannot be used in more than one combat per phase.

OBSERVATIONS:

- + Coast artillery units do not move and, if forced to retreat for whatever reason, are considered destroyed.
- + Artillery-only attacks cannot receive air support.
- + It is not allowed to attack the same target hexagon twice in the same turn, even if from two different types of attacks.
- + The Hamburg Battery can only fire at the American naval support piece. Their cannons could not be directed to land.

9.0 – NAVAL SUPPORT:

As of turn 25, the Americans rely on a piece of naval support (illustrated on the side) that functions as an ordinary artillery piece, except that it can only move through sea hexagons (obviously) and cannot be used in the German Combat Phase. It enters from the north edge. The number that would be your Defense Power (4) is your vulnerability index.



EXAMPLE: Two German artillery units 3-1-0(15) and 2-1-4(6) focus on bombing the American naval unit. The attack power will be 5 (3+2) and the vulnerability index will be 4. Therefore, the attack will have a value of 20 (5x4). In the table, this corresponds to column 13-24. There are no modifiers in this case.

10.0 – PREPARATION:

On 19/06/44, the Americans had carried out a rapid reorganization in their line after two weeks of fighting to consolidate their position and isolate the Cotentin peninsula. Now General "Lightning Joe" Collins' 7th Army Corps had lined up its divisions to begin the advance to the great goal: Cherbourg. The 9th Infantry Division (General Manton S. Eddy) was a veteran Grand Unit of North Africa and Sicily, the 4th (General Raymond O. "Tubby" Barton) had her baptism of fire on D-Day and the 79th (General Ira T. Wyche) was a newcomer. The Americans could still count on their air supremacy, superiority in men, cannons and tanks, and naval artillery. However, during the first days of the battle, the storm occurred in the English Channel, making air support impossible. Still, everyone knew the strategic importance of the port and the urgency of capturing it.

On the German side, General von Schlieben (originally commander of the 709th Division), found himself isolated in the Cotentin without the troops needed to fulfill his mission. By dawn on 6/19/44, the entire west side of his line had disappeared, for the division that would be responsible for the sector, the 77th, had slipped south, breaking the American siege. In this way, the forces before Montebourg would be forced to retreat so as not to be surrounded. Von Schlieben then reorganized his forces around the fortress of Cherbourg, organizing *kampfgruppen* (battle groups): from West to East, they were as follows: Kampfgruppe Muller (Oberstleutnant Franz Mueller, with the remnants of the 243rd Division); Kampfgruppe Keil (Oberstleutnant Guenther Keil, with the 919th Regiment, 17th Machine Gun Battalion and the 7th Army Assault Battalion); Kampfgruppe Köhn (Oberst Walter Köhn, with the 739th Regiment) and the Kampfgruppe Rohrbach (Oberst Helmuth Rohrbach, with the 729th Regiment). All these groups were precariously reinforced with Navy personnel, service troops, former Soviet prisoners, and training units. The Germans could also count on coast artillery, which could also be used against targets on land. The rugged terrain and mouthpieces, interspersed with several rivers, favored defense, and hindered the advance of the enemy. However, everyone was aware that the battle was lost, and they only had to gain time.

This was the situation on 6/19/44.

10.1 – Placement of Units ® Both contenders start the game with the initial placement of their units marked on the board or according to the relationships below. The abbreviations used are as follows: DI – Infantry Division; RArt – Artillery Regiment; RI – Infantry Regiment; BAC – Coast Artillery Battalion; BArt – Artillery Battalion; BAT – Anti-Tank Battalion; BB – Armored Battalion; BEng – Engineering Battalion; BI – Infantry Battalion; BPQD – Parachute Battalion; BRanger – Rangers Battalion; BTD – Battalion of Tank Destroyers.→

10.1.1 – German Initial Placement: There are three main bivouacs of initial placement of the German units: the 243rd Division, the 709th Division and the Cherbourg Division. The following are the units posted, in a place of the choice of the German player, inside the respective bivouacs:

1. Bivouac of the 243rd DI ® throughout the 922nd RI; 1 BI of the 920th RI; 1 BArt of the 243rd DI; BEng of the 243rd DI.→
2. Bivouac of the 709th DI ® 1 BI of the 921st RI; 1 BI of the 729th RI (German); 1 BI of the 919th RI; 1 BArt →1-1-4(5) of the 1709th RArt; BAT of the 709th DI; BEng of the 709th DI; Battalion "Sturm"; 1 Battalion of Nebelwerfers (Rocket Launcher); 1 BB.
3. Bivouac of Cherbourg (in any hexagon of the city or in adjacent hexagons) ® the entire 739th RI; 1 BArt → 2-1-4(6) of the 1709th RArt; Machine Gun Battalion; 1 Battalion of Nebelwerfers (Rocket Launcher); 1 Anti-Aircraft Artillery Battalion; 1 BPQD; 3 Naval Infantry Battalions.

Also, some Axis units start the game in cities. Still others have their initial positions marked on the board, in gray. They are:

- 1 BI of the 729th RI – St.Pierre-Eglise (Hexagon 2004);
- 1 BI of the 729th RI – Barfleur (Hexagon 2404).
- 1 BI of the 729th RI – St.Vaast la Hague (Hexagon 2408);
- 2 BI of the 919th RI and 1 Anti-Aircraft Artillery Battalion – Valognes (Hexagon 1711).
- 1 BArt 2-1-4(4) of the 1709th RArt; 1 Battalion of Nebelwerfers (Rocket Launcher) – Quettehou (Hexagon 2307).
- 1 Russian pro-German BI (independent) – St.Croix-Hague (Hexagon 0805);
- 1 BAC 1-1-0(10) – Position "A" (Hexagon 2209).
- 1 BAC 1-1-0(8) – Position "B" (Hexagon 2109).
- 1 BAC 1-1-0(10) – Position "C" (Hexagon 2110).
- 1 BAC 3-1-0(*) – Position "Battery Hamburg" (Hexagon 1803).
- 1 BAC 3-1-0(14) – Auderville (Hexágono 0201).

10.1.2 – American Initial Placement: The American divisions have their bivouacs marked on the board and all regiments have their initial placements equally marked on the board (the two regiments of the 4th Mechanized Cavalry Group begin the game separately, one along the East Coast and the other between the 9th and 79th Divisions). The other units that start the game should be posted in the following bivaque areas, without touching the yellow dotted line:

- 4th DI bivouac all 4th DI ® artillery; BEng of the 4th DI; 1 BB; 1 BTD; 1 Mortar Battalion; 1 independent BArt 3-1-4(6).
- Bivaque of the 79th DI - all the artillery of the 79th DI ®; BEng of the 79th DI.→
- Bivaque of the 9th DI - all the artillery of the 9th DI; BEng of the 9th DI; 1 BB; 1 BTD; 1 independent BArt 2-1-4(9) and 1 independent BArt 3-1-4(6).
- In any bivouac, at the choice of the American player - 2 independent BArt 3-1-4(6).

10.1.3 – American Reinforcements: The following units enter the board in the following game turns, through any road hexagon on the southern edge:

- Shift 20 – 1 BI of the 359th RI.
- Round 27 – BRanger.
- Shift 28 – 1BI Norwegian-American.

10.2 – Objectives:

The goal of the allies is obvious: Cherbourg. But in addition, they need to eradicate German forces throughout the Cotentin peninsula, thus liberating the 7th Corps and allowing the region to be used for the concentration of forces that will be needed to liberate Europe. The aim of the Germans, of course, is to prevent this. Therefore, at the end of the game, if there is no Axis piece left on the board, the allied player wins. Otherwise, the German wins.

COMBAT EFFECTS TABLE:

DICES	1-4	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	EMP	EMP	EMP	EMP	EMP
3-11	DVI ARI	DVB ARB	DVB ARI	IMP	DRI AVB	DRB AVB	DRI AVI	DRB AVI	DE AVB	DE AVB	DE AVI	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	DE AVI
5-9	DVB AE	DVI ARB	DVI ARI	DVB ARB	DVB ARI	IMP	DRI AVB	DRB AVB	DRI AVI	DRB AVI	DE AVB	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	DE AVB
7	DVI AE	DVI AE	DVB AE	DVI ARB	DVI ARI	DVB ARB	DVB ARI	IMP	DRI AVB	DRB AVB	DRI AVI	DRB AVI

TABLE OF EFFECTS OF TERRAIN IN MOVEMENT AND COMBAT:

TERRAIN	MOVEMENT		COMBAT
	NO MTZ	MTZ	
Clean	1	1	---
Grove	2	3	1 Column
Rough	2	2	2 Columns
Road	1	0,5	---
Trail	1	1	---
Bocage	2	3	2 Columns*
Fortification	---	---	3 Columns
River	1	2	2 Columns
City	1	1	2 Columns
Village	1	1	1 Column
Airfield	1	1	1 Column
Swamp	2	FORBIDDEN	1 Column
Sea	FORBIDDEN	FORBIDDEN	---

* - If the attacker includes armored and/or mechanized cavalry, it becomes worth 4 columns.

BOMBING TABLE:

	1 - 24	25 - 48	49 - 72	73 - 96	96 - ∞
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

VULNERABILITY TABLE

TYPE OF UNIT	VULNERABILITY INDEX	
	AIR STRIKE	ARTILLERY
General Infantry and Engineering.	1	2
Armored, Mechanized Cavalry and Tank Destroyers.	2	1
Motorized Infantry	1	2
General Artillery, Mortars and Rocket Launchers.	2	2
Mechanized Artillery	2	1