

# BATTLE OF THE BULGE

## Smithsonian



Avalon Hill Game Company  
Compiled by Christian Holm Christensen

## Original credits

Design, development, & rules	Samuel Craig Taylor, Jr.
Cover art	George Parrish
Graphics & typesetting	Charles Kibler
Packaging	Monarch Services & Eastern Box
Playtesters	Robert Coggins, Mike Craighead, Donald Greenwood, Ronald LaPorte, Robert Liebel, Rex Martin, William Meyers, George Petronis, & Edward Phillips

## Game mechanics

Period	WWII
Level	operational
Hex scale	3.5 km (2.2 miles)
Unit scale	division ( $\infty$ )
Turn scale	1 day
# turns	16
Unit density	high
Complexity	1 of 10
Solitaire	8 of 10

This version all text, illustrations, graphics, and layout by Christian Holm Christensen.



Typeset in L<sup>A</sup>T<sub>E</sub>X by Christian Holm Christensen using the package [wargame](#). The sources of this document and supporting material is available from [Gitlab](#).

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# Preface

This is a revamp of the Avalon Hill Game Company 1991 game *Battle of the Bulge* (Smithsonian edition). All text and graphics is new in this edition. The rules have been rewritten to hopefully be more accessible than the original rules. For example, the optional rules have been integrated into the main text so that it is easier to find them at the relevant time in the flow of the game.

The original game used large counters for divisions (∞) and smaller counters for regiments (III), which is hard to deal with in a Print'n'Play version. Hence, all counters have the same size.

Some illustrations have been added to hopefully clear up the rules, and inconsistencies in the original rules have been resolved, including common questions. The rules are cross-referenced. As rules have been restructured, including the optional rules, the text is more verbose and with some repetitions here and there, but the relevant information should be easier to find.

NATO App6 symbology is used consistently throughout. For example, the original game used a infantry (☒) symbol for motorised infantry, which is *not* the same thing<sup>1</sup>, and fuel depots have been marked fuel supply installations.

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<sup>1</sup>*Mechanised infantry* (☒) generally use Armoured Personnel and Infantry Fighting Vehicles (APV and IFV), which is *not* what the Allied had in 1944. The infantry units used lorries for transportation and was thus *motorised* (☒).

# Rules

## Introduction

This game, *Battle of the Bulge*, simulates the German Ardennes offensive in 1944. This was an effort by the Germans to turn the tides of the war on the western front by capturing Antwerp and cut off more than half the Allied divisions on the continent. One player (faction) controls the German (Heer, or Army, and Waffen Schutzstaffel, or Armed Protection Squadron) forces, while the other faction controls the Allied (British and United States of America) forces.

The game can be played via three scenarios: One scenario simulates the initial surprise attack of the Germans up to the 22<sup>nd</sup> of December, another scenario that simulates the Allied counter-offensive from the 22<sup>nd</sup> of December until the end of the year, or a simulation that covers the whole battle.

Initially, the objective of the German faction is to gain as much ground as possible, and then later on, when facing the Allied counter offensive to lose as little ground and units as possible. For the Allied faction, losses should be avoided at the start of the battle, and later on as much ground and enemy casualties as possible should be accomplished.

The game is played in *turns* which are further subdivided into *phases*. Once all phases of a turn has been completed, then the game moves on to the next turn until the end of the game as stipulated in the scenario notes.

## §1 Components

The game consists of

- A board with a map of parts of Belgium and Germany.
- 42 and 68 counters representing the German and Allied units, respectively, involved in the conflict.
- Three common markers for game dynamics.
- Two sets of each two *Orders of Battle* (OOB) charts. These record the starting units and later reinforcements.
- Spreadsheets for recording detachments of regiments.
- These rules.





In addition, each player should have a 10-sided dice to resolve die-rolls.


### §1.1 The board

The map on the board shows the conflict area, a part of Belgium and Germany. Superimposed on the map are hexagon fields (*hexes*) meant to capture movement of troops. Each hex is labelled with grid coordinates.




Each hex has an associated *terrain*, as summarised in Ta-

ble 1. Natural terrain are

-  **Clear** Mostly open terrain (fields, roads, small forests).
-  **Woods** Dense vegetation, such as forests. Manoeuvring in these areas is limited, and therefore provides some cover for defending troops.
-  **Rough** Regions hills or higher elevation and limited manoeuvrability. These provide defensive advantages.
-  **Rivers** Another natural feature of the map are the river hex-*sides*. These represent major in-land waterways which limits manoeuvrability. Establishing a *bridge-head* by an attacking force is a major undertaking, and rivers therefore provide additional defensive advantages.


Note that the Meuse river is a little thicker than the other rivers. This has no additional meaning in the game, other than if the  *Limited actions* is in effect.

Non-natural features of the map are

-  **Towns** These are marked with a circle and the name of the town printed next to it. Attacking a town is a complicated manoeuvre and cities therefore provide a defensive advantage.
-  **Objective towns** These are marked with a circle with a number in it. These are like regular towns, except they provide victory points to the German faction if captured by that faction. Note that hex A9 is *not* a city but a German objective.
-  **Fortifications** These hexes represent the Siegfried Line (or “west wall”) built by the Germans. These fortified positions provide the *German* (and *only* the German) units with a strong defensive stance.

The edges of the map are marked either with a dark-blue or green-grey border. These denote where each faction may trace lines-of-supply to (§15). The German faction tracks to the east side of the board (green-grey), while the Allies tracks to the north, west, and south edges of the board (dark-blue).

Also on the board is the *turn track*. This, together with the *game turn* counter keeps track of time throughout the game. Above it are a *weather track* to record the current turns weather, should that optional rule be in use.

Finally, if the  *Air missions* rule (§9) is in use, then there are places to allocate air missions at, one set for each faction.

### §1.2 The units

The vast majority of counters in the game represent various units, and most of these are *ground units*, identified by a rectangular frame on the counters. Other counters

Terrain	MF*		DF		AF	
Clear	1		—		—	
Woods	1	2	+1		—	-1
Rough	1	2	+1		—	
River	+1 <sup>†</sup>		—		-1	
Road	½ <sup>‡</sup>	—	—		—	
Town	—		—		—	-1
Fortified	—		+3 <sup>§</sup>		—	
Enemy ZOC	+1 <sup>¶</sup>		—		—	
Detachment	1		—		—	
Out-of-supply	n/a		-1		n/a	

Table 1: Movement and Combat Effects Chart. Defence (DF) and Attack (AF) combat factor modifiers depend on hex occupied by *defender*. Modifiers are *per unit* and are cumulative.

\* An entry of ‘—’ for MF means MF cost is as for other terrain in the hex. <sup>†</sup> River crossing +1 MF in *addition* to other terrain cost. Note that a road crossing nullifies this additional cost. <sup>‡</sup> The reduced cost of moving along a road only applies if the hex-side moved over is perforated by the road. During , road movement is not possible, and the cost to enter a hex is determined by the other terrain of the hex. <sup>§</sup> DF modifier for German defenders *only*. Entering *or* leaving an enemy ZOC costs +1 MF in addition to the terrain cost. To detach or reattach one or more regiments, a division *must* spend 1 MF.

represent aerial units, identified by a curved frame, and supply depots with a rectangular frame and box on top. The counters are colour coded according to the nationality or command structure to which they belong. The Allied colours are

Combined Allied. These are units that are utilised by all Allied nations.

British. Units from Great Britain and the Commonwealth.

Units from the United States of America (US).

The German unit colours are

German Heer (army) and attached Luftwaffe (air force) units.

German Waffen Schutzstaffel (armed protective corps).

### §1.2.1 Ground units

Figure 1 shows the elements of ground units. These are

**Turn** : The turn from which the unit is available. If no turn is printed on the counter, it means that the unit

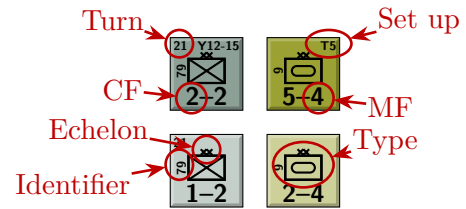


Figure 1: Elements of ground units. The top row shows the full-strength (face-up) side of some counters, while the bottom shows the reduced-strength (face-down) side. The different parts of the unit are highlighted.

is part of the initial set-up on the 16<sup>th</sup> of December.

**Set up** : This field specifies where on the map the unit appears. This can be a specific hex coordinate (like ‘A14’ as shown to the top right), or a range of columns or rows. For example ‘Y6-15’ means hex column Y and any row between 6 and 15 (both inclusive). A range like ‘E-M1’ means hex row 1 and any column between E and M (both inclusive). Finally, the range ‘A1-E1’ means *either* column A and rows 1 through 6, *or* hex row 1 and columns A through E.

**CF** : Combat factor. This represents the units fighting ability, both *offensive* and *defensive*. The higher the number the stronger the unit. Generally, there is a difference in CF between the full- and reduced-strength sides of a unit. This unit is denoted  $\Delta CF$ , and matters for victory point calculations and for detaching regimental units, if the *Detachments* optional rule is in use. For example, the United States of America 10<sup>th</sup> armoured division has 4 CF on its front side, and 2 CF on its back. Thus its  $\Delta CF$  is 2.

**MF** : Movement factor. The manoeuvrability of the unit. The larger the number, the more mobility of the unit.

**Echelon** : The size of the unit. There are four different sizes of units in the game, representing the hierarchy of the factions.

∞ Division.

× Brigade. Either a detachment from a larger unit or an independent formation. These are *not* detachments in the sense of the game mechanics, although the Peiper armoured brigade has *some* of those characteristics (§6). Rather, these are units that, on their own, had significant consequences for the conflict. provisional arrangement of lower echelon units into a higher command structure.

⋮ Regiment. A detachment from a division. Regiments can be detached to form their own formation and thus increase the manoeuvrability of the larger formation.

•• Platoon. Only the 150 commando troops that operated independently to cause confusion among

the Allied ranks.

**Identifier** : The historical identifier of the unit. This has no impact on the game, other than to give a historical reference.

**Type** : The kind of unit. The unit types are

- ☒ Infantry. Soldiers mainly travelling by foot and equip with small arms.
- ☒ Motorised infantry. Similar to infantry, except the personnel are transported in vehicles, typically lorries. Note that some of the Allied units were initially airborne units, but has since the invasion become motorised (☒).
- ☒ Airborne infantry. Specialised infantry deployed, typically behind enemy lines, by parachutes or gliders. In this game, only the German Heydte airborne regiment may perform actual drops, and only on the 17<sup>th</sup> of December. Note that the Allied
- ☒ Mechanised infantry (*panzergrenadier*). Infantry units with armoured personnel vehicles (APV) or infantry fighting vehicles (IFV).
- ☒ Armoured reconnaissance units. These units typically has fast moving, armoured vehicles that travel relatively far quickly.
- ☒ Armoured units (*panzer* or *tanks*). Units consisting of armoured fighting vehicles, typically tracked, with heavy firepower.

The face-up side of a unit shows its *full-strength* status, while the face-down side shows its *reduced-strength* status. The reduced-strength side is identified by a lighter background. A unit is flipped to its reduced-strength side as a consequence of a *step losses* (§14.4). If a unit is blank on its back-side then it is considered eliminated and is removed from the map.

*In the following we will often use a short hand notation to designate units. This short hand consist of the command of the unit (US for United States of America, BR for British, DE for German, and H for Waffen Schutzstaffel), the unit identifier, and the unit type (I: infantry, A: armoured, M: motorised, AB airborne, and combinations thereof) and echelon (D: division, BDE: brigade, REGT: Regiment, and PLT: Platoon). For example, the United States of America R regiment, 9<sup>th</sup> motorised infantry division may be written US R/9 MID.*

### §1.2.2 Air units

These units are *only* used if the  $\hat{\mathcal{A}}$  *Air missions* optional rule is in effect.

Figure 2 shows the elements of air units. These are mostly the same as those of ground units explained above and shown in Figure 1, except they have a single CF of +1 and no MF. Air units do not move across the map but are placed either in mission boxes or on top of units to which they provide support.



Figure 2: Elements of air units. The top row shows the face-up side of some counters, while the bottom shows the face-down side. The different parts of the unit are highlighted.

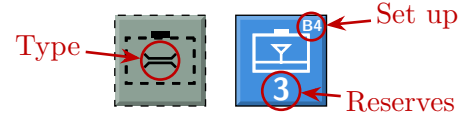


Figure 3: Installation markers. Left a German bridge marker. Right: An Allied Fuel depot.

## §1.3 Installations

Figure 3 shows the two kinds of installation markers available.

$\nabla$  *River crossings* If this optional rule is in force, then the left, bridge, marker is used to indicate that river hex side is passable without rolling for an opposed crossing. These markers are transient and are removed at the end of a factions turn.

$\nabla$   $\clubsuit$  *Fuel* The right marker, an Allied fuel depot, is only used if the  $\nabla$   $\clubsuit$  *Fuel* optional rule is in effect.

Note the ‘Reserves’ factor. This is the number of fuel reserve points the German faction may gain by capturing the fuel depot.

## §1.4 Markers

There are seven markers in the game, as shown in Figure 4. These are

**Game turn** : Use this marker on the turn track on the board to keep track of the time in the game. Flip the counter to the faction which is in turn at any given point (§4).

**Initiative** (optional): Use this marker to keep track of who has the initiative, by flipping it to the appropriate side. Place the marker, if the optional rule is used, on the OOB of the faction that currently holds the initiative.

**Weather** (optional): A marker to indicate the current weather conditions in the weather track on the board.

**Step loss** : These markers are used to indicate step losses as a consequence of combat (§14.4). Place this marker *below* units that suffered a step loss, as described in §14.4.

**German fuel** : Used on the German OOB (§1.5) to keep track of the German fuel reserves.

**German activation** : Markers placed on German ground units that have been *activated* (§11) this turn.

**Out-of-supply** (OOS): This is used to mark units as *out-of-supply* (§15). Place the marker on top of units that



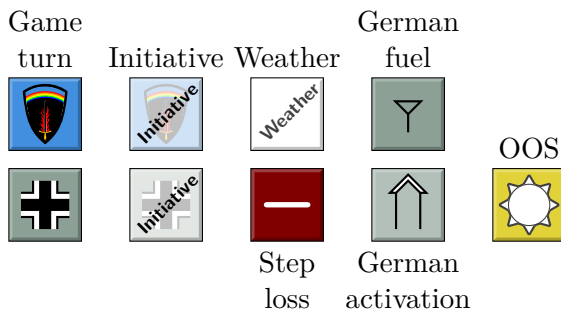


Figure 4: Markers, from left to right: Game turn. One face shows the Allied SHAEF (Supreme Headquarters Allied Expeditionary Force) and other Wehrmacht cross. Initiative marker (optional). One face indicates the Allied faction has the initiative, while the other that the German faction has it. Weather (optional) marker. German fuel and activation counters (optional). The last marker is the *out-of-supply* (OOS) marker §15.

are OOS.

### §1.5 Orders of Battle

There are two sets of *Order of Battle* (OOB), one for each of the starting times of the three scenarios. Each set consist of an OOB for the Allied and German faction. One set, marked “Dec 16” is used when starting the game on the 16<sup>th</sup> of December, while the other set marked “Dec 22” is used when starting the game on the 22<sup>nd</sup> of December.

On the OOBs are printed the all the units used in a scenario ordered by turn and location of appearance of each unit. The ‘At Start’ units start the game on the board, while other units become available at later stages. There are also slots available for prepared positions, air units, detachments, and the initiative marker. Note, only the faction that starts with the initiative marker has a slot for that counter on the OOB.

For the scenario that start on the 22<sup>nd</sup> of December, there are also slots for previously eliminated units. This is important when calculating the final victory points of the game.

Finally, the German OOBs has a fuel reserve track. This is used for the German faction to keep track of its available fuel reserves.

### §1.6 Dice

In addition to the materials provided, at least one, preferably two, 10-sided<sup>2</sup> dice are needed. These are used to resolve various situations in the game, such as battles and if the optional weather rule is used, to determine the weather in a given turn.

Many available 10-sided dice are numbered from 0 to 9. In that case, a roll of ‘0’ must be read as a ‘10’. That is, random rolls of a dice takes values from 1 to 10.

<sup>2</sup>Often referred to as ‘d10’, or ‘2d10’ for two such dice.

## §2 Optional rules

There are 12 optional rules that the factions may agree to use. The optional rules are, sorted according to main effect,

- ☑ **Initiative** Allows the faction that holds the initiative to re-roll one combat, after which the initiative passes on to the other faction.
- ☑ **commandos** The German faction may deploy special **commandos** (or special forces) units to try to disrupt the enemy ranks.
- ☑ **paratroops** The German faction may attempt a single airborne assault behind enemy lines.
- ☑ **150<sup>th</sup> Skorzeny’s unit**, the German 150<sup>th</sup> armoured brigade, disguised as Allied troops which may more easily perform *contested river crossings*.
- ☑ **Weather** Variable weather. The weather of a turn is randomly determined and will effect movement and air operations.
- ☑ **Air missions** Air operations. The factions may try to gain air superiority and provide close air support (CAS) to its ground units. Additionally, the Allied faction may try to suppress enemy units or supply units in need.
- ☑ **Supply** Out-of-supply (OOS) units are more vulnerable to attacks.
- ☑ **Fuel** The German faction *must* spend fuel resources to move or attack with its units.
- ☑ **Detachments** A face-up division (∞) unit may detach, and later reattach, regimental units (|||).
- ☑ **River crossings** Crossing a river into enemy zone of control, or attacking across a river is not always possible. River hex sides that have been crossed are considered to be temporarily bridged and friendly units may move across these.
- ☑ **Prepared positions** Both faction may created prepared positions (dig-ins or entrenchments) by a unit performing no other action for a full turn.
- ☑ **Limited actions** British units cannot easily operate south and east of the Meuse river.

There are some inter-dependencies between these optional rules, as show in Table 2.

## §3 Setting up

The two factions should decide the scenario (§17), and on the optional rules (§2) to be used, if any. This may effect how the set-up is done.

Both factions then place all units on their respective OOB, including possibly eliminated units.

- ☑ **Fuel** If this optional rule is in force then the German faction must place its fuel reserve marker in the slot marked with a circle.

	<i>commandos</i>	<i>150<sup>th</sup></i>	<i>Weather</i>	<i>Air missions</i>	<i>Supply</i>	<i>Fuel</i>	<i>River crossings</i>
<i>commandos</i>					R	R	R
<i>150<sup>th</sup></i>							N
<i>Weather</i>				R			
<i>Air missions</i>			N				
<i>Supply</i>						R	
<i>Fuel</i>	R				N		
<i>River crossings</i>	R	R					

Table 2: Inter-dependencies of optional rules. Only optional rules that have relations to other optional rules are shown. The rows indicate the chosen optional rule, while the columns show other optional rules relation to the that. ‘R’ means recommended, while ‘N’ means necessary. For example, the *Fuel* rule *needs* *Supply*, but only recommends *commandos*. Also note that relations are not necessarily reciprocal.

- Air missions* If this optional rule is used, each faction should place its air units in the designated slot.
- Detachments* If used, then place all detachment regimental units in their slots.
- Prepared positions* If this is in effect, place prepared position markers in their slots.
- commandos* If this optional rule is in force, place the German special forces platoons in their slots. If not, then remove them from the game.

- Initiative* If the Initiative optional rule is in force, place the initiative marker on the OOB that has a slot for it, depending on the selected scenario (§17).

The German and Allied faction then places the ‘At-start’ units on the map according to hex printed on the OOB. Finally, place the ‘game turn’ marker on the first slot in the turn track on the board, and the ‘weather’ marker in the ‘Wet box on the weather track. Once this is done, the game starts in earnest.

## §4 Turn sequence

The game runs over 6, 10, or 16 turns, depending on the scenario chosen. Each turn corresponds to a day, and is sub-divided into an Allied and German turn. Since the German faction is the aggressor in this conflict, the German faction goes first.

Each faction’s turn is further sub-divided into *phases*, as shown in Table 3. Some of the phases depends on the optional rules used.

The following section, after a few definitions, expands upon these phases in detail.

* Roll for weather
* Air unit allocation
*  air drops
*  activation
*  interdicts
move
combat
* Supply
*  air drops
move
combat
Supply

Table 3: Turn sequence. The German faction goes first and goes through each of the German phases in the given order. Then the Allied faction goes through the Allied phases. Once both faction has completed their turn, the turn is over and the game progress to the next turn. Note that the first two, optional, phases are common, and that the Allied faction may have phases during the German turn, depending on the optional rules chosen.

\* Optional rules.

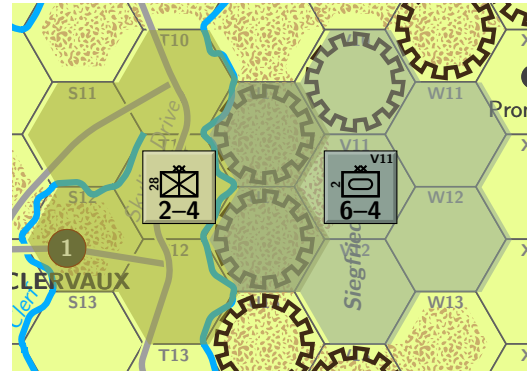


Figure 5: Zone of Control. US 28 MID and DE 2 AD ZOCs are shown as green and grey, respectively. Note that hexes U11 and U12 are in *both* units’ ZOC, and that ZOC extends into (and out of) a fortified hex, as well as over river hex sides.

## §5 Zone of Control

An important concept is *Zone of Control* (ZOC). All supplied (§15) *ground* units, *except* special forces (), except a zone of control in the six hexes surrounding the unit. ZOC *does* extend over river hex sides and into or out of fortifications. This is illustrated in Figure 5.

This zone reflects a units ability to scout and fire into its surroundings. ZOC effects how units may manoeuvre in the board (§13.1.1) and which enemy units may be attacked (§14). Enemy ZOC is sometimes abbreviated EZOC.

- Special forces units *does not* excerpt ZOC into neighbouring hexes, but only in the hex it occupies.

Air units *does not* excerpt ZOC into neighbouring



hexes.

A unit in an enemy units ZOC is said to be *engaged* with the enemy. To *disengage* the enemy a unit *must* spend 1 MF (see also §13).

## §6 Stacking

At the end of the *movement* (§13) and *combat* (§14) combat phases at most *one* divisional (⌘) or regimental (⌚) unit may occupy a hex.

☐ *Detachments* Detached regiments (⌚) *may* end movement or combat with its parent division, but *not* with other friendly divisions.

Friendly units may *temporarily* violate stacking limitations during the movement and combat phases when moving through a friendly stack of units.

Units of opposing sides may *never* occupy the same hex, even temporarily.

☐ 44 *commandos* An Allied unit *may* occupy the same hex as a German 44 special forces unit.

☐ *Detachments* The Peiper 44 armoured brigade was really a part of the 144 armoured division. These two units, or any regiments detach from either of these units, may therefore stack with each other.

That is, the Peiper 44 armoured brigade and the 144 armoured division *may* end movement or combat in the same hex. If one or more regiments was detached from either the Peiper 44 armoured brigade or the 144 armoured division, then those regiments may also end movement or combat with either of the two.

Air units (A) and fuel depots (E) *do not* count toward stacking limitations, neither does any step loss (R), prepared position (B), nor activation (H) markers.

If, at the end of *any* movement or combat phases, including opponents movement or combat phases, the stacking limitations are not observed, the controlling faction *must* eliminate (§14.5) units until the requirements are met. The controlling faction may freely choose which units to eliminate.

## §7 Control

A hex, of any terrain, is *controlled* by the faction that last had a unit in or passing through it. Control of hexes, in particular objective towns (T) for victory points (§16).

## ☒ §8 Weather phase

This section only applies if the ☒ *Weather* optional rule is in effect. If the optional is *not* used, then the weather is considered ‘Wet for *all* turns.

The Allied faction rolls a dice at the start of the turn and cross indexes the die roll result with the turn number in the weather chart (Table 4). Move the weather counter on the board to the appropriate slot on the weather

Die roll	Dec 16	Dec 17–18	Dec 19–22	Dec 23–27	Dec 28–31
1	☒ -9 -9	☒ -2 -6	☒ +1 -6	☒ +2 -6	☒ +2 -6
2	☒ -9 -9	☒ -3 -6	☒ 0 -6	☒ +2 -6	☒ +1 -7
3	☒ -9 -9	☒ -9 -9	☒ -9 -9	☒ +2 -6	☒ -9 -9
4	☒ -9 -9	☒ -9 -9	☒ -9 -9	☒ +2 -6	☒ -8 -8
5	☒ -9 -9	☒ -9 -9	☒ -8 -8	☒ +1 -7	☒ -3 -8
6	☒ -9 -9	☒ -5 -7	☒ -4 -7	☒ +1 -7	☒ -4 -6
7	☒ -9 -9	☒ -4 -7	☒ -3 -6	☒ -9 -9	☒ -5 -7
8	☒ -9 -9	☒ -3 -6	☒ -3 -6	☒ -8 -8	☒ -6 -7
9	☒ -8 -8	☒ -3 -6	☒ -2 -6	☒ -4 -7	☒ -9 -9
10	☒ -8 -8	☒ -5 -6	☒ -4 -6	☒ -3 -6	☒ -9 -9

Table 4: Weather chart. The weather has effects on movement and number of air units available to the factions. For a given turn, there are three columns. The first is the weather, the second and third, the die roll modifier for the Allied (☒) and German (☒) factions, respectively, when determining the number of air units available.

track. Then each faction should take note of the air unit die-roll modifier, if the A *Air missions* optional rule is in use.

The weather effects movement and air operations.

☒ Sunny : Moving into a woods (W) or rough (R) only costs 1 MF. All air operations are possible.

☒ Gloomy : Moving into a woods (W) or rough (R) only costs 1 MF. All air operations, except close air support (CAS), are possible.

☒ Snowy : Moving into a woods (W) hex only costs 1 MF. All air operations, except close air support (CAS), are possible.

☒ Stormy : No reduced cost for moving along roads. Only combat area patrol (CAP) and interdiction air missions are possible.

☒ Wet : All air operations are possible.

## A §9 Air unit allocation phase

This section is only relevant if the A *Air missions* optional rule is in use. Note that the ☒ *Weather* optional rule *must* also be used.

Both factions rolls a dice and adds the modifier from Table 4. Each factions total is the number of the number of air units available to that faction, up to the maximum available number of air unit counters.

Air units *cannot* be saved for later turns.

*Note that different weather rolls may result in the same weather type but different modifiers.*

Next, the factions compare the number of air units available to them. The faction with the larger number of air units has gained air superiority for the turn, and thus








Mission	Use	Effect	When
	2/A	Remove A	Air allocation
	1/□	+1 AF/DF	Combat
	x/■	Add 	After  activation
	2/■	Remove 	Start faction turn


Table 5: Air missions.


\*CAP missions are only available to the faction with air superiority. †Interdictions are resolved by both factions rolling a die. The Allied faction then adds 2 per air unit participating in the interdiction. If the Allied total is *at least* twice as large as the German die roll, then the interdiction was a success. ‡These types of missions are only available to the Allied faction


the possibility to fly *combat area patrol* (CAP) missions. If the number of air units is equal, then *no* CAP is possible for *either* faction.


Next, each faction, possibly in secret, allocates its air units to air missions. The German faction may allocate to *combat area patrol* (CAP) or *combat aerial support* (CAS) missions. In addition to CAP and CAS, the Allied faction may *also* allocate air units to *interdict* or *supply drop* missions. Note that the weather can influence which types of mission may be flown.

The air missions are summarised in Table 5, and are as follows.

 **Combat Area Patrol** : Only available to the faction with air superiority. For every *two* air units allocated to this type of mission, the faction may remove *one* air unit from its opponents air missions. Fractional removal of the opponents air units is *not* possible. That is, allocating an odd number of units to this type of mission will waste one air unit.

 **Combat Aerial Support** Air units allocated here may in any combat phase of this turn (own or opposing factions) be used to support ground units in combat. The support can be used when attacking *or* defending against any ground units. A unit allocated to CAS can only be used *once* per turn. Air units allocated to CAS *cannot* attack other air units or ground units on its own.

 **Interdiction** Air units placed here by the Allied faction can be use to interdict *one* German units (§12). If the interdiction is successful, then the German unit is considered out-of-supply (OOS) for the rest of the turn. Interdiction missions are flown *after* the German activation phase.

 **Supply drop** For every *two* air units placed here by the Allied faction, *one* friendly unit that are out-of-supply (OOS), can be supplied (§10). The supplied unit is not considered OOS up until the next *Supply*

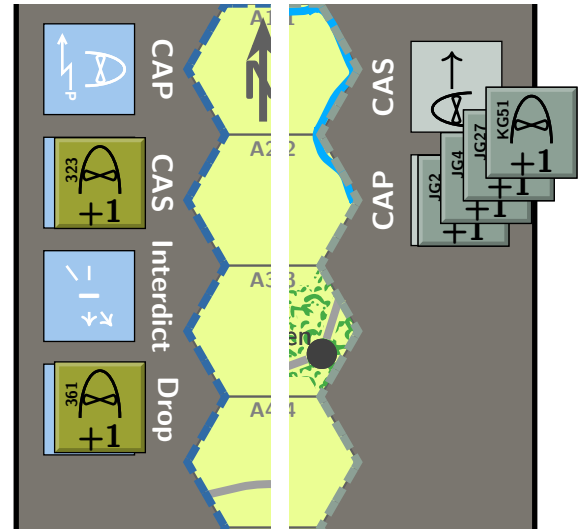


Figure 6: CAP. It is Dec 23, and the weather roll was 4, resulting in sunny weather. The German and Allied faction rolls 10 and 1, respectively on its air unit roll. Thus the German faction has  $10 - 6 = 4$  air units and the Allied has  $1 + 2 = 3$  air units. The German faction has air superiority. The German faction allocates all its four air units to CAP, while the Allied faction allocates its two to CAS and Supply drop. When resolving CAP, the German faction can now remove *both* Allied air units from their missions. The skies are quiet this turn.

phase (§15). Supply missions may be flown before the German activation phase *or* before the Allied move phase. An air unit can only fly *one* supply drop mission per *turn*.


Once the factions have allocated their air units to the air missions, they reveal them to each other. If the faction that had air superiority have allocated air units to CAP, then that is resolved *immediately*.

### §9.1 Resolve CAP

For every *two* air units allocated to CAP, the faction may remove *one* air unit from its opponents air mission allocation. The faction doing CAP is free to chose between its opponents missions.

Once the opponents air unit is removed, then the CAP air units are removed to. All of these units are then placed back on their respective OOB, and can do no more this entire turn. See also Figure 6.

## §10 Air supply drop phase

This section only applies if the  *Air missions* optional rule is in effect.

If the Allied faction has air units allocated to air supply drops, then it may pick *any* of its ground units that are currently out-of-supply (OOS — §15), and replenish that unit.

For every *two* air units performing an air supply drop, *one* friendly ground unit may be supplied. Remove the

Hex Column	Units/⚡	
	⊠	⊞
A–M	3	1
N–Y	5	2

Table 6: Activation cost

OOS marker (⊠) from the ground and *two* air units from the drop supply mission box. The air units are returned to the OOB and cannot fly any more missions for the remainder of this *turn*.

*A ground unit may be OOS at the start of a turn, and then supplied by an Allied air supply drop before the German activation phase. In the following supply phase (§15) after the German combat phase, it may be determined that the ground unit is still or again OOS and a new OOS marker is placed with it. If the Allied faction still has air units allocated to air supply drops it may then resupply that unit for a second time that turn in the following air drops phase.*

## ⚡ §11 German activation phase

This section only applies if the ⚡ Fuel optional rule is enforced.

At the start of this phase, including in the first turn of the scenario, the German faction receives 5 fuel reserve points. The German faction must adjust its fuel marker on its OOB to reflect this.

Additionally, if a German ground unit occupies the same hex as an Allied fuel depot marker, then that fuel depot is captured. The Allied fuel depot is removed from the map, and the fuel value (the number printed on the unit) is added to the available German fuel reserves in the the German OOB. The fuel depot is considered *captured*.

*This means that the German unit must have moved in to the hex with the fuel depot marker in the previous turn and managed to stay there through the Allied combat turn i.e., it has not been forced to retreat.*

⚡ **commandos** A German **commandos** special forces unit *cannot* capture an Allied fuel depot. It will, however, by occupying the same hex as the fuel depot, make it harder for the Allied faction to destroy the depot (§13.5).

⚡ **paratroops** If this optional rule is in effect, then the German Heydte airborne infantry regiment *must* be deployed at the start of this phase (see §13.2.2 for deployment rules), *before* any activation of any German units.

Dec 23 turn Note the ⚡ units have special conditions for appearing (§13.2.1), which can require the die rolls. In that case, it *must* be done before activation of any German units.

For *any* German ground unit, except special forces units (⊠<sup>sf</sup>), to move *or* attack this turn, it *must* be activated. To be activated a German ground unit *must not* be out-of-supply (OOS — §15), and the German faction *must* spend enough fuel resources for the activation.

The cost in terms of fuel depends on

1. which type of units to activate, and
2. how far west the units are.

The costs are summarised in Table 6. Thus, for *one* fuel reserve the German faction may activate *either*

- 3 ⊠ units (any size) in hex columns A through M,
- 1 ⊞ or ⊠ unit (any size) in hex columns A through M,
- 5 ⊠ units (any size) in hex columns N through Y, or
- 2 ⊞ or ⊠ units (any size) in hex columns N through Y.

*Note that these costs can not be mixed and matched. The German faction may not activate 1 ⊞ and 2 ⊠ units in hex columns N through Y by expending only one fuel reserve. In that case, the German faction would have to expend two fuel points. Likewise, the German faction cannot activate 1 ⊠ in hex columns A through M and 1 or more ⊠ units in hex columns N through Y by the same fuel reserve point. Again, two fuel reserves would need to be expended.*

If the German faction do not have enough fuel reserves to expend, then it *may not* activate units.

The German faction should expend one fuel reserve point at a time and then place activation markers (⊠) on the activated units.

⊠ **Detachments** If this optional rule is used, then detached units, who are *not* OOS, are automatically activated if their parent unit (brigade or division) is activated. Note that the detached regiments *cannot* be activated if out-of-supply (OOS).

If the parent unit (division or regiments) of detached regiments are out-of-supply, but one or more of the detached regiments are not, then those regiments *can* be activated as a whole as if they were one larger unit.

If two or more detached regiments are in different fuel zones (A through M and N through Y), then the most prohibitive cost must be used.

*The A and B mechanised infantry regiments have been detached from the Lehr armoured brigade. If the Lehr armoured brigade is not OOS and is activated, then A and B mechanised infantry regiments are also activated if and only if they are not OOS. If the Lehr armoured brigade is out-of-supply, but the A and B mechanised infantry regiments are not, then those two regiments may be activated as if they were a single unit.*

The Peiper **armoured brigade** and the **armoured**

division are *always* considered separate units with respect to fuel expenditure.

☒ **§11 commandos** German **§11** special forces units do *not* need to be activated.

German units *need not* be activated to defend against attacks. Once the German faction has completed its activation of units, it may be time for the Allied faction to try to interdict German units.

## ☒ **§12 Allied interdiction**

This section only applies if the **§12** *Air missions* optional rule is in effect.

If the Allied faction has air units allocated to interdiction missions, then it may pick *any* German ground unit, whether activated or not, and try to interdict that unit. The Allied faction places however many air units allocated to interdiction missions as it desires on a German ground unit. Then both factions rolls a dice. For every air unit performing the interdiction on the German ground unit, the Allied faction adds 2 to its die roll. If the Allied total is *at least* twice as large as the German die roll, then the interdiction is a success.

If the interdiction was a success, then an out-of-supply marker is placed with the German unit and any activation mark with the German unit is removed. This means that the German unit *cannot* move nor attack in this turn. Note, however, that the OOS marker may be removed in the next supply phase (§15).

☐ **Detachments** Allied interdiction is always against a specific unit. Detached regiments are *not* affected by interdiction against their parent unit, nor are parent units affected by the interdiction of detached units.

The interdiction air units are in all cases returned to the Allied OOB and cannot fly any more mission this *turn*. If the Allied faction has allocated multiple air units to interdiction mission, then it may split them over as many interdiction attempts as it desires. However, only *one* interdiction attempt per turn against a German unit may be made, and *all* interdiction missions *must* be declared before they are resolved. The Allied faction chooses which order to resolve the attempts in.

*The Allied faction has allocated 4 air units to interdiction. It chooses to do 2 attempts, each using 2 air units. It can make one attempt two distinct German ground units, but not 2 attempts against the same ground unit — at least not this turn.*

## §13 Movement phase

In a faction movement phase a number of operations may take place, some of them depending on the use of optional rules. The faction may move its units around (§13.1) and receive reinforcements (§13.2), and, if the

Operation	☒	☒ ☐
		☒ ☐ SF
Move <i>and</i> attack	MF	MF
Move but <i>no</i> attack	MF+1	2×MF
Move, <i>no</i> enemy ☐	2×MF	3×MF
Exploitation	—	MF

Table 7: Available movement factors. A units available movement factors depend on the kind of movement and operations it will perform this turn. A unit that does not *engage* (start in or enter enemy ZOC, see §5) may move further, while an unit that does engage and does attack can move the least.

relevant optional rules are used, build prepared positions (§13.3), detach or reattach regiments to brigades of divisions (§13.4), destroy fuel depots (§13.5), or eliminate German **§11** special forces (§13.6).

### §13.1 Movement

In a faction's movement phase, the faction may move as many or as few units, in any order, as it pleases. A unit is moved from hex to adjacent hex, in any direction, within the limitations described below.

☒ If this optional rule is in effect then the *German* faction may only move units that current have an activation marker with it (§11).

Units of opposing sides may *never* occupy the same hex, not even temporarily.

☒ **§11 commandos** If this optional rule is used, then an Allied unit *may* enter a hex that contain a German **§11** special forces unit, but *not* if there any other regular German ground units in the hex.

The German **§11** special forces unit *may not* move into a hex occupied by Allied ground units.

Stacking limitations (§6) *must* be observed by the *end* of the movement phase. *During* the movement phase, however, they may be violated. If the stacking limitations are violated at the end of the movement phase, then the controlling faction *must* eliminate units (§14.5) until the limitations are observed.

*Out-of-supply* (OOS) units (§15) cannot be moved. The following therefore only applies to units that are *in-supply*

#### §13.1.1 Movement allowance

Each unit has a *movement factor* (MF, §1.2.1). This is its base movement. How many MFs it will have available for operations depends on what kind of movement and operations the unit will perform this turn. This is summarised in Table 7.

**Strategic movement** A unit that does not engage enemy units (§5) during its turn can move the farthest. An



infantry (☒) unit may spend up to twice its MF, while motorised units (☒, ☒, ☒, ☒, & ☒) may spend three times its MF.

**Move but no attack** A unit that *does* engage enemy units, at *any* point during its movement, but does not attack, can move a little further than its base MF. An infantry (☒) unit may spend up to its MF plus one, while motorised units (☒, ☒, ☒, ☒, ☒) may spend twice its MF.

**Move and attack** A unit that not only engages enemy units but also will attack in the following combat phase (§14) can spend up to its base MF.

**Exploitation** Motorised units may perform exploitation *only* after a successful combat (§14.6.1) and not during the movement phase.

A unit may spend up to and including this number of movement factors during a single turn. Movement factors *cannot* be transferred between units *nor* can they be saved for later turns. If a unit does not have enough MF to enter a hex, it *cannot* enter that hex.

A unit can *never* be moved more than its available MF (Table 7) allows. Units with 0 MF *cannot* move on its own volition nor advance after combat (§14.6), but *can* attack adjacent enemy units and *can* be forced to retreat (§14.3).

The cost of moving a *ground* unit from one hex to another depends on the terrain of the entered hexes, and is summarised in Table 1.

🟢 **Clear** It costs 1 MF for a ground unit to enter a clear hex.

🟢 **Woods** It costs 2 MF to enter a woods hex.

☒ **Weather:** If the optional rule on weather is in effect, and the weather is sunny (☀), gloomy (☁), or snowy (❄) then it costs 1 MF to enter a woods.

🟢 **Rough** It costs 2 MF to enter a rough hex.

☒ **Weather:** If the optional rule on weather is in effect, and the weather is sunny (☀), or gloomy (☁) then it costs 1 MF to enter a rough hex.

🟢 **River crossing** To cross a river *hex-side* costs an *additional* 1 MF to the regular cost of the entered hex.

🟢 **River crossings:** If this optional rule is in effect, then crossing a river is not always possible. This will be expanded upon below.

🟢 **Road** If a unit moves *along* a road, that is moves from hex to hex over hex sides perforated by a road, then the movement cost is ½ MF. That is, to move 2 hexes cost 1 MF, 3 hexes 2 MF, 4 hexes 2 MF, and so on. The underlying terrain (woods or rough) has no effect, and there is no additional cost to crossing a river as long as the movement is via a road.

☒ **Weather:** If this optional rule is in effect, the reduced cost of moving along a road is nullified during stormy weather (☁) turns. The unit *must* pay the

Die roll for success		
Opposed 🟢*	9–10	
☒ destruction†	4–10	
☒ elimination	1–4	

Table 8: Various tests. An opposed river crossing succeeds on a roll of 9 or 10. \*If it is a ☒ ☒ unit or the German 150<sup>th</sup> armoured division that attempts the crossing, then the die roll is modified by +1. Destruction of a fuel depot succeeds on roll of 4 to 10. \*If a ☒ ☒ unit occupies the same hex, then the die roll is modified by −1. ☒ ☒ units are destroyed on a roll of 1 through 4 (one roll per ☒ unit).

price of the underlying terrain (e.g., 2 MF when moving into a woods hex), including the *additional* cost of +1 MF for a river crossing.

🟢 **Town & 🟢 city** The price is determined by the underlying terrain, or possibly road movement.

☒ **Enemy ZOC** To move *into* or *out of* enemy ZOC (§5) costs an *additional* 1 MF, and road movement cannot be used.

*To move a unit into a woods hex in wet weather, which is in enemy ZOC, will cost 3 MF, irrespective of whether there is a road leading into that hex.*

*This means that a unit can move from enemy ZOC to enemy ZOC as long as it has the MF to do so.*

☒ ☒ **commandos:** For an Allied unit to enter a hex with a German special forces unit costs an *additional* 1 MF, as per other enemy ZOC. However, to leave the hex does *not* cost more than regular movement.

☒ **Supply:** An unit *does not* pay an additional +1 MF for entering or leaving an enemy OOS ZOC.

An example illustrating this is shown in Figure 7 and 8.

### §13.1.2 Exiting the board

A unit may be moved off-map by expending 1 MF from an edge hex to off the map. A unit moved off-map *may not* enter the map again.

If the unit moves off-map over its own factions edges (dark-blue and grey-green for the Allied and German factions, respectively), it is considered withdrawn from the battle and *does not* count toward the opponents victory points (§16). On the other hand, if the unit is moved off-map over the opponents edges, then it is considered eliminated and *does* count toward the opponents victory points (§16).

### 🟢 §13.1.3 Opposed river crossing

This section describes the optional 🟢 *River crossings* rule, and is only relevant if that optional rule is in use.

A unit can cross a river according to the normal rules (§13.1.1) *if and only if*,





Figure 7: Example of movement. US 1 MID is moving but not attacking enemy units, and can thus move twice its MF for a total of 8 MF. Two possible routes are shown above. The route to Q6 costs a total of 8 MF: 2 MF to move into the woods, then 2 MF to move into both rough R4 and Q5, and then another 2 MF (one for clear and one for enemy ZOC) to move to Q6. The move to T6 costs 7 MF. First, 2 MF to enter the woods in S3, then south for two hexes along the road for a total cost of 1 MF (road movement), then move into T5 at the cost of 2 MF (one for the clear, and one additional for the river hex side crossed, and then finally 2 MF to enter the woods. Note, had the US 1 MID decided to engage the 44 PEIPER AB in S6 rather than T6, then the final hex move would cost 3 MF: One for the clear terrain, one additional for the river crossing, and finally one for entering enemy ZOC, since the US 1 MID cannot use road movement when entering enemy ZOC.

- it spends the required MFs,
- the first hex moved into across the river is *not* in enemy ZOC (§5), or
- it starts its movement phase adjacent to river hex side it moves over as the first step in its movement.

If these conditions are *not* met, or the unit is about to attack an enemy across a river hex side, then there is a chance that the movement or attack will not succeed.

*The rule only applies in specific circumstances. Either a unit that moves up to river hex side and then across the river into enemy ZOC, or the unit moves up to a river hex side and then attacks across the river.*

The faction in control a dice. On a result of 9 or 10, the attempt succeeds and the unit can move or attack across the river. On a result of 1 to 8, then the attempt

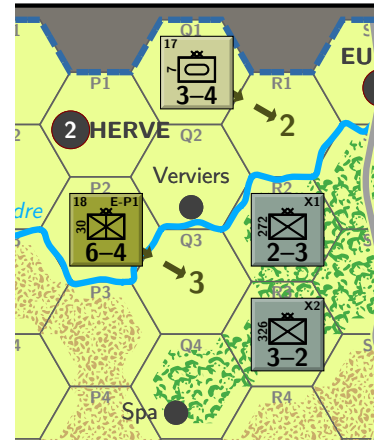


Figure 8: Move to attack. US 7 AD moves to R1 (2 MF, clear and enter enemy ZOC), and US 30 MID moves to Q3 (3 MF, clear, across river, and enemy ZOC), both preparing to attack DE 272 ID.

⬡ River crossings: with this optional rule, the US 30 MID would first have to overcome a opposed river crossing die roll (success on a 9 or 10).

fail and the unit *may not* move *nor* attack across the river hex side. See also Table 8 and Figure 8.

- ⬡ 44 commandos The 44 special forces units get a +1 die roll modifier, so that it succeeds on 8, 9, or 10.
- ⬡ 150<sup>th</sup> ⬡ The DE 150 AB gets a +1 die roll modifier, so that it succeeds on a roll of 8, 9, or 10.

Once a unit has successfully crossed a river hex side, then it may be crossed via normal river side crossing (no die roll necessary) by other friendly units. To mark this, the factions may choose to use the provided bridge counters (⬡). If the bridge counters are used then they *must* be removed from the board at the end of the factions combat phase.

If a unit *starts* its movement phase next to a river hex side, and moves across the river normally, even into enemy ZOC, then that river hex side should likewise be considered breach and marked with a bridge counter.

⬡ 44 commandos: A 44 special forces unit are moving up to a river hex side. The 44 special forces unit then makes a opposed river crossing attempt. Should it succeed, then other German units may cross the river into enemy ZOC without rolling a dice.

Likewise, a unit that started its turn next to a river hex and then crosses it into enemy ZOC, without a die roll, can be followed other units, again without a die roll.

### §13.2 Reinforcements

New troops arrive on the board as detailed in each factions OOB. A unit may arrive, *at the earliest*, on the turn indicated there, and arrive in the movement phase of the faction.

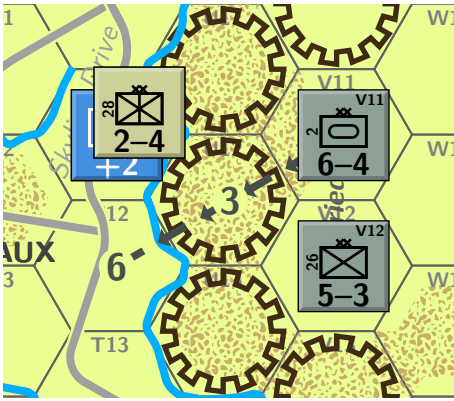


Figure 9: Opposed river crossing. The DE 2 AD wish to move as indicated, (move and engage, but no attack). The move into U12 is costs 3MF (rough and enemy ZOC), and the move to T12 likewise 3MF (clear, river, and enemy ZOC). However, since the crossing is opposed (T12 in enemy ZOC), then the German faction *must* roll a dice, and will succeed on a 9 or 10. Should it succeed, then the German faction should place a temporary bridge counter on the T12–U12 edge, and DE 26 ID *could* then use that bridge to do an *unopposed* river crossing *this turn* (it does not have the MF to actually do so, but in principle). The DE 2 AD could also have stopped in U12 and then attacked US 28 MID from there, in which case it would *also* need to check for an opposed river crossing. Finally, had DE 2 AD *started* the turn in U12, then it could have moved to T12 *or* attacked US 28 MID *without* checking for opposed river crossing.

Printed under the units is a hex range of allowable entry points. The ranges are given either as a column, row, or combination thereof, range.

For example, the range “Y6-15” means that the unit, or units, may arrive in hex column Y and hex rows 6 through 15 (both inclusive), corresponding to part of the east edge. The range “C-U17” indicates that the unit, or units, may arrive in hex columns C through U (both inclusive) in hex row 17, or part of the south edge. The range “A6-E1” is a little special. Units may either arrive in hex column A, rows 1 through 6, or in columns A through E in row 1 — essentially the north-west corner of the board.

A unit *may not arrive* in a hex occupied by an enemy unit nor in a hex in enemy ZOC (§5). A unit *may* arrive in a hex occupied by friendly units as long as it does not violate the stacking limitations (§6) at the end of the movement phase.

If a unit cannot arrive in any of the designated hexes due to enemy units or ZOC, then the unit *may* arrive in the hex *closest* to the range, *and* with a border matching its faction (dark-blue and grey-green for the Allied and German factions, respectively). Alternatively, a units entry can be delayed voluntarily to a later turn.

A reinforcement unit *must* pay the movement cost (§13.1.1)

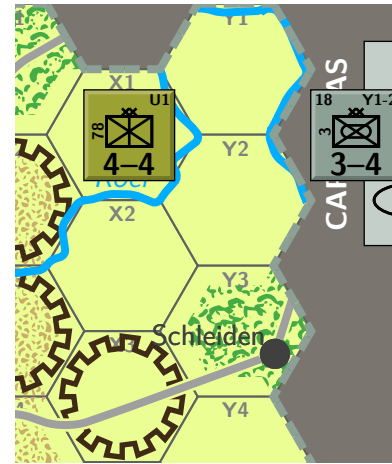


Figure 10: Reinforcements. DE 3 AID is scheduled to arrive in Y1-2, but since these hexes are in enemy ZOC, from X1, then that unit cannot arrive in either hex. It *must* then arrive in Y3 since it is the closest hex along the German entry border (dashed grey), or, at the German factions discretion, held back to arrive at a later turn. If the unit arrives in Y3 it must pay the MF cost to enter that hex. However, since the road leads off-board, then the DE 3 AID may use road movement to enter the board and the cost of ½ MF.

of the first hex entered. If a road exists the board in the hex entered, then the arriving unit *may* use road movement, if the weather permits. The newly arrived unit may keep moving after the initial hex assuming it has the MFs to do so.

See also Figure 10 for an example.


☛ **Fuel** German reinforcement units *must* be activated like any other German unit to be able to move into the game board.




☛ **commandos** By the end of the 21<sup>st</sup> December turn (turn number 15), any German special forces units are removed (withdrawn) from the map. These units are *not* considered eliminated.

Reinforcement units are considered in-supply in the movement phase that they arrive, but may be determined to be out-of-supply (OOS) in the following Supply phase (§15).

### §13.2.1 Special reinforcements

On the 16<sup>th</sup> December OOB a number of units have special conditions for appearance.

Dec 20:  10 AD *only* appears if *at least* 2 Allied fuel depots (§13.5) *or* *at least* 10 VP worth of objectives (☛) have been captured.

Dec 23:  9 AD and DE 15 AID *only* appears if the  10 AD did *not* arrive, *or* on a die roll, one per unit, of 10. Thus, if the  10 AD did *not* arrive, then the German faction should roll the dice






Die roll		
1–3	4–6	7–10
		—

Table 9: Heydte drop chart. On a roll of 1,2, or 3, the Heydte unit arrive at full strength. On rolls of 4, 5, or 6, the deployment is scatter and the Heydte unit arrives with its reverse side up (reduced strength). On rolls of 7, 8, 9, and 10 the unit does not arrive and is considered eliminated.


twice — once for DE 9 AD, and once for DE 16 AID.

☙ **Fuel:** These rolls *must* be done in the German activation phase if the activation optional rule is in effect.

Dec 24:  The DE 11 AD unit *only* arrives if *no* reinforcements arrived in the Dec 23 turn. Thus,  10 AD *did* arrive in the Dec 20 turn, then the DE 11 AD *will arrive*. It will also arrive if the two die rolls on turn Dec 23 *both* failed.

On the 22<sup>nd</sup> December OOB, the  10 AD never arrived, and therefore both of DE 9 AD and DE 15 AID *do* arrive, which also means that DE 11 AD does *not* enter the battle.

### ☒ §13.2.2 German Heydte airborne infantry

This section only applies if the  **paratroops** optional rule is in use.

The German Heydte airborne infantry regiment may *only* arrive on the 17<sup>th</sup> of December (turn 2). To deploy this unit, the German faction places the unit in a hex that

- is in hex columns Q through Y (both inclusive),
- not occupied by an Allied unit, nor in Allied ZOC, and
- not adjacent to an Allied fuel depot.


The German faction then rolls a dice and consults the Heydte drop chart, Table 9. On a roll of 1 through 3, the drop was perfect and the unit arrives at full strength. On rolls of 4 through 6 the unit is scattered and therefore arrives with its reverse side up (reduced strength). On higher results (7 through 10), the unit does not arrive at all and is removed from the map. For victory points considerations the unit is considered eliminated. The unit *may not* be deployed at a later stage.

The Heydte regiment *does not* pay MFs for the hex dropped into, but must be activated (if the ☙ **Fuel** optional rule is in use) like any other German ground unit.


Note that the Heydte regiment only has *one* step (even though it is double sided). That means even if the unit arrives face-up (full-strength), and it suffers a step loss

(§14.4), then it is eliminated.

### ☒ §13.3 Prepared positions

This section is only relevant if the  *Prepared positions* optional rule is used.

A unit that *does not* move *nor* attack in a factions turn, *and* is not out-of-supply (§15), *may* built a *prepared position* in the hex it occupies. The faction in control places a prepared position marker of its faction in the hex with the +1 side up (dug-in).

Prepared position *can* be constructed in fortified hexes ().

A unit in a hex with friendly prepared position may further expand the prepared position in a *subsequent* turn, by staying in that hex and not conducting any attacks that turn. The factions prepared position marker is then flipped to the +2 side (entrenchment).

During a factions turn it may voluntarily remove any prepared position on the board. A prepared position *must* be completely removed i.e., a faction *cannot* downgrade a +2 to a +1 prepared position. Removed prepared position markers are placed back on the OOB.

A removed prepared position marker is *immediately* available to the faction. No more than the supplied number of prepared positions (9 per faction) may be built on the map by a given faction.

If, at the end of a factions combat phase, any of it prepared position are left vacant i.e., not occupied by any ground units, then those position *must* be removed. Likewise, if a faction is forced to vacate a prepared position, for example due to a retreat, then the prepared position is *immediately* removed.

An enemy prepared position *cannot* be captured. Instead, it is immediately removed.

During a factions movement phase, a friendly unit *may* vacate a prepared position, which is then reoccupied by another friendly unit in the same movement phase, *without* removing the position. Thus, one unit may take-over a prepared position from another unit.

### ☐ §13.4 Detach and reattach regiments

This section is only relevant if the ☐ *Detachments* optional rule is used.

A division (∞) or brigade (×) sized unit, that

- has *not* performed any movement this movement phase, or possibly motorised exploitation,
  - has its full-strength side up, but *may* have suffered a single step loss (§14.4), i.e., has step loss marker with it,
  - has MFs to spend, *and*
  - enough regiments, of the appropriate type, is available on the factions OOB,
- may detach regimental units (||).



☞ *Fuel* If this optional rule is used, then German divisions or brigades must *also* have been activated this turn.

The kind of regimental units a division or brigade may detach depends on the faction.

- United States of America (US) divisions and brigades (olive drab) may *only* detach US armoured (☐) or motorised infantry (☒) regiments.
- British divisions or brigades (khaki) may *only* detach British motorised infantry (☒) regiments.
- German divisions or brigades, whether Heer (green-grey) or 44 (black) can detach German regiments. The kind of regiment detached depends on the type of the parent unit.
  - ☐ Infantry units (airborne or not) may *only* detach infantry regiments.
  - ☐ & ☒ Armoured and armoured infantry units may *only* detach armoured infantry (☒) regiments.

If not enough regiment units of the appropriate type or nationality are available on the factions OOB, then detachment of regimental units is *not* possible.

To detach regimental units, the controlling factor then follows the below procedure.

- Flip over the division or brigade unit to show its reduced side. If the unit had suffered a step loss (§14.4), then it will still have a step loss after it is flipped over. That is, any step loss marker *stays* with the division or brigade unit.
- Calculate the difference in combat factors ( $\Delta CF$ ) between the full- and reduced-strength sides of the unit (§1.2.1).
- Place as many regimental units as the CF difference ( $\Delta CF$ ) between the front and back side of the parent unit, in the same hex as parent unit.
- Record the parent and the *exact* regiments detached, either on a separate sheet of paper or prepared spreadsheets.

Both the parent division or brigade unit *and* the detached regiment units spend 1 MF on this operation. If the parent unit or the detached units have MFs available, then they may perform normal movement after this (see also Figure 11).

*Note that regiments may stack with their parent unit (§6), which means the units can stay put in the hex. Also note, that since the parent and detached units have performed operations this turn, they cannot construct prepared positions this turn.*

*Since a reinforcement unit must spend MFs to enter board, it cannot first enter the board, and then detach regiments. It can, however, detach regiments off-board, and then enter the board. In this case, all detached regiments must also enter the board, and ini-*

*tially through the same or neighbouring hexes as the parent unit. That is, a faction cannot detach regiments off board and then move them on board from disconnected edge hexes. The parent and detach units of course all spend 1 MF on the detachment operation.*

Detached regiments may be reattached to their parent unit, and *only* their parent unit, at some later turn. To reattach the regiments to the parent division or brigade, the following conditions *must* be observed

- *None* of the originally detached regiments can have been eliminated.
- Regiments may *only* recombine with the parent unit from which they were detached. This *also* applies to the 44 PEIPER AB and 44 1 AD. A regiment detached from the Peiper unit may *only* reattach to the Peiper brigade, regiments detached 1<sup>st</sup> division may *only* reattach with that division.
- The parent division or brigade *and* all detached regiments *must* end their movement in the same hex.
- All units (parent and detached regiments) *must* all have at least 1 MF left.
- *None* of the units may be out-of-supply (OOS)

☞ *Fuel* : Since a German unit must have been activated to move, it follows that the parent division or brigade, as well all regiments *must* have been activated in the turn it wished to reabsorb its detached regiments. However, since activating a parent division or brigade *automatically* activates its detached regiments, this is easily accomplished by activating the parent unit (see also §11).

If the above conditions are met, then the parent division or brigade *may* recombine with the detached regiments. To do so, the controlling faction follows the below procedure.

- The detached regiments are removed from the board and placed on the factions OOB in their designated slots. These regiments are then *immediately* available for another division or brigade to attach to.
- The parent division or brigade unit is flipped to its full-strength side. If the parent unit had suffered a step loss (§14.4), then it will still have a step loss after it is flipped over. That is, any step loss marker *stays* with the division or brigade unit.
- The regiments are recorded as *no longer detached* on the factions log of detachments (either a separate piece of paper or the provided spread sheet)..

*Since eliminated units are removed from the game entirely i.e., not placed on the OOB, it means that eliminated regiments cannot be used to create detachments.*

*Note that the set of regiments reattached must be the same as those detached, and set must be complete. Once any regiment detached from a division or brigade is eliminated, then it is not possible to restore the par-*

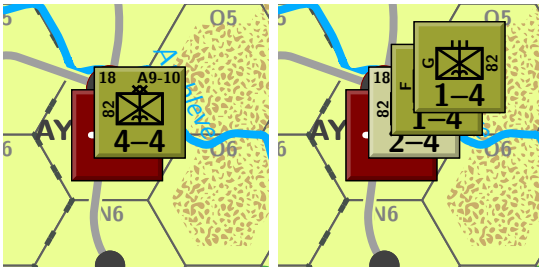


Figure 11: The US 82 ABMID is in N5 (Aywaille) at the start of the Allied turn (left). It has already taken a single step loss as indicated by the marker. It detaches the US F 82 ABMIR and US G ABMIR (right), all three units spending 1 MF, and the division is flipped to it's reduced side. Since the division already had taken a step loss, it keeps that step loss after the detachment. The three units now have 3 MF to spend on further movement this turn if they plan to attack an enemy unit, 7 MF if they plan to engage but not attack, or 11 MF if they only do strategic movement (§13.1.1).

To reattach US F 82 ABMIR and US G ABMIR to US 82 ABMID, the inverse operation would need to be performed. That is, starting from the right, possibly after movement, the units reattach and the situation is as on the left. The *minimum* MFs of the combined units is now available to the division.


*ent unit.*

After this, the parent division or brigade is now alone in the hex. The parent unit *may* continue movement, but only up to the *least* available MFs of it self and the newly absorbed regiments (see also Figure 11).

*If, before reattaching the the German Lehr A and B armoured infantry regiments into the Lehr division, the units had 2 MF, 3 MF, and 4 MF left, then they all spend 1 MF on the recombination. The least available number of MFs available is therefore 2-1=1 MF.*

The provided detachment sheets can be used to record detachments. There is a separate sheet for each starting turn, and in so far as some regiments have already been detached it is shown on these sheets. For the 22<sup>nd</sup> of December starting turn some units are already eliminated, and the corresponding rows are crossed out.

### §13.5 Destroy fuel depots

This section is only relevant if the  *Fuel* optional rule is used.

In the Allied movement phase, the Allied faction may try to destroy *one*, and only one, eligible fuel depot presently on the map. By successfully destroying a fuel depot, the Allied faction can deny the German faction the opportunity to gain more of the valuable fuel it so desperately needs.

To be eligible for destruction,

- there *must* be a German ground unit (not  unit if

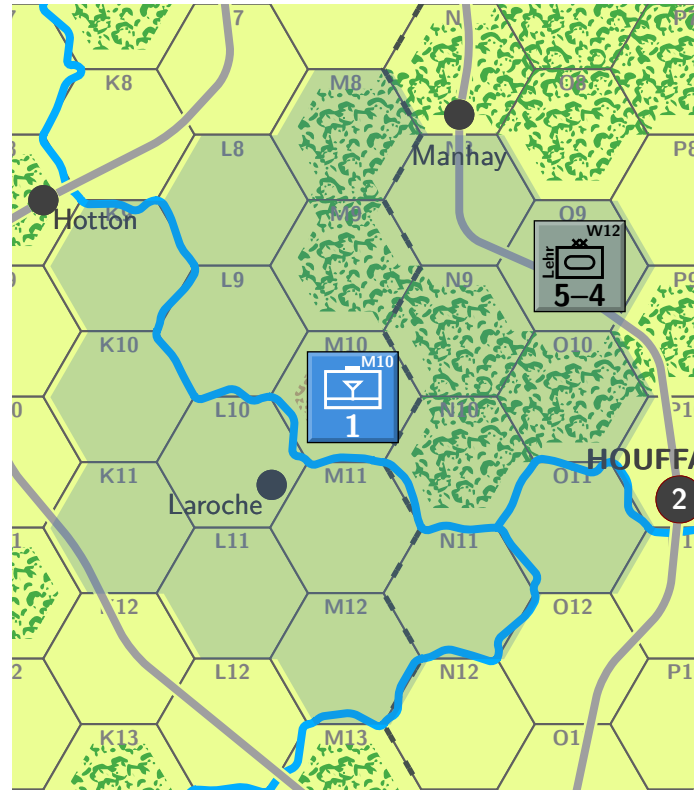





Figure 12: Destruction of fuel depot. The Allied fuel depot in M10 is eligible for destruction because the DE LEHR AD, in O9 is within a 2 hex distance to it.


the  *commandos* optional rule is in effect), within 2 hexes (one intervening hex)


- there can be *no* German ground unit (but can there can be a  unit if the  *commandos* optional rule is in effect) in the same hex as the fuel depot.

If there are more than one fuel depot that meets the criteria, then the Allied faction *must* choose *one* fuel depot to try to destroy.

The Allied faction then rolls a dice and adds any applicable modifiers (see also Table 8). On a result of 4 through 10 (both inclusive), then the fuel depot is destroyed and the marker removed from the map. The fuel depot is *not* considered captured.

### §13.6 Eliminate special forces

This section is only relevant if the  *commandos* optional rule is used.

If *any* Allied ground unit enters a hex occupied by a German special forces units () , however transient, then the Allied unit *must* attempt to eliminate the German special forces unit. The Allied faction rolls a dice and on results of 1 through 4 (both inclusive), the German special forces unit is eliminated. See also Table 8.

If there are more than one German special forces unit in the hex, then the Allied unit will roll the dice for *each* German special forces unit. If *another* Allied unit enters the hex, however transient, then the Allied faction must perform another elimination attempt.



By the end of the 21<sup>st</sup> December turn (turn number 15), any German special forces units are removed (withdrawn) from the map. These units are *not* considered eliminated.

### §13.7 Declare combats

At the end of the movement, *at the latest*, the current faction *must* declare combats, for example by turning the attacking units toward the attacked hex, or half-ways over the hex edge.

☞ *Air missions* Declaration of combats *must* include declaration of CAP. The defending faction *does not* need to declare CAP until the combat is to be resolved.

## §14 Combat phase

Combat between units of opposing sides *can* take place between units that are in *adjacent* hexes. Another way to say that is that combat *can* happen when defending units, i.e., units belonging to the faction not in turn, are in the ZOC of attacking units. Units of the faction in turn are *never* forced to conduct combat. That is, a unit which is adjacent to one or more enemy units (or *engaged*) need not attack the enemy. Likewise, the attacking faction may cancel combat as long as no die rolls have been made to resolve the combat.

However, if the faction in turn *does* decide to attack into a hex containing enemy units, then *all* enemy units *must* be attacked. This, however, is only relevant if the ☐ *Detachments* optional rule is in use.

The faction in turn is free to allocate units to attacks as long as

- Each unit may only attack *once* per turn, though motorised exploitation may mean the unit may attack the *same* defenders *twice* in a turn (§14.6.1).
- Multiple units from multiple *adjacent* hexes may attack the same hex, but *all* units *must* be adjacent to the attacked hex.
- Each attack is into *one* and *only one* hex, and *all* defending units *must* be attacked.
- If *any* unit in a hex attacks, then *all* units in that hex *must* attack the same hex. This is only relevant if the ☐ *Detachments* optional rule is in effect. Essentially, if the detached regiments are in the same hex as their parent division or brigade, then all units must attack as a whole.
- Defending units may only be attacked *once* per turn, except as a consequence of motorised exploitation, in which case the unit may be attack *twice* by the *same* attacking units.
- Out-of-supply units may *not* attack.

☞ *Fuel* If this optional rule is in effect, then a German unit *must* have been activated (§11) this turn to be able to attack.

The faction in turn then resolves all combats in any desired order.

*In some cases the outcome of one battle may affect how another battle is resolved. For example if a defending unit is forced to retreat, but cannot because the attacker has occupied all possible retreat routes as a result of previous battles. It is therefore a good idea to access the situation and come up with a strategic plan for resolving combat.*

Each combat is resolved based on the combat factors (CF, see §1.2) of the units involved in the combat and the terrain occupied by the *defending* units.

☞ *commandos* German special forces units have no CF and can therefore not attack nor defend on its own or with other special forces units. German ☞ units must however retreat (§14.3) with other German units.

### §14.1 Combat factors and modifiers

When resolving the a combat, the current up-ward facing unit's CF (§1.2) values are used. The attacking faction adds up all attacking units CF and the defending faction adds up the CF of *all* the defending units CF. These are the base offensive (AF) and defensive (DF) CFs.

☞ *Air missions* If this optional rule is in effect then *both* the attacking *and* defending factions may allocate combat air support (CAS) units to a combat. The faction *must* have available air units allocated to CAS this turn (§9).

Air support units providing (offensive or defensive) CAS to a combat are placed on the *defending* hex. *At most* one air support unit may be placed per ground unit (of any size) for the given faction.

Each air unit allocated by the attacker adds 1 CF to the offensive CF (AF). Each air unit allocated by the defender adds 1 CF to the defensive CF (DF).

CAS allocation *must* be done *before* the factions die roll in the combat. A faction cannot prevent its opponent from allocating CAS by rolling its own die, but will possibly have forfeited its own possibility to allocate CAS.

*Two German ground units are attacking a single Allied unit. The German faction may allocate up to two CAS air support units to this combat, while the Allied faction may only allocate one.*

☞ *commandos*: German special forces units *does not* count as ground units.

☞ *Fuel*: German air units *does not* require activation.

Then, the terrain of the *defending* units is inspected and relevant modifiers, as given in the Terrain Effect Chart (Table 1), are applied.

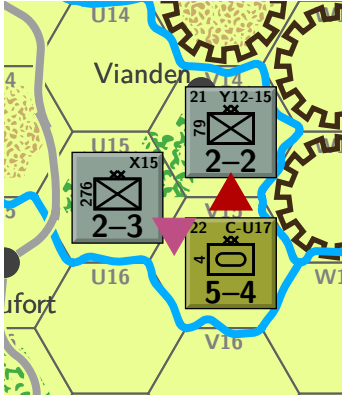











Figure 13: Combat factors. US 4 AD may attack *either* DE 79 ID (red) *or* DE 276 ID (magenta).


In the first attack the AF is 5 (CF) minus 1 (motorised attacking into ) minus 1 (motorised attacking into ) , for a total of 3 AF. The DF comes to 2 (CF) plus 1 () , for a total of 3 DF.






In the second attack the AF is  $5(\text{CF}) - 1(\text{woods}) = 4 \text{ AF}$ , and DF is  $2(\text{CF}) + 1(\text{woods}) = 3 \text{ DF}$ .


In the inverse attack, it would be  $2(\text{DE 79 ID CF}) + 2(\text{DE 276 ID CF}) = 4 \text{ AF}$  versus 5 DF (US 3 AD CF), if both German units attacked.

 **Clear** No modifiers.


 **Woods** *Defending* ground units receive a +1 DF modifier, and *attacking* motorised infantry () , armoured () , armoured infantry () , and armoured reconnaissance () units have a -1 AF modifier.

 **Mountains** *Defending* ground units receive a +1 DF modifier.


 **Town** *Attacking* motorised infantry () , armoured () , armoured infantry () , and armoured reconnaissance () units have a -1 AF modifier.


 **Fortified** *Defending German*, and only *German*, ground units are modified by +3 DF.

 **River** Any *attacking* ground unit that attacks across a river hex side are modified by -1 AF.

 **Prepared position** (optional) *Defending* units in a prepared position receives a +1 DF or +2 DF bonus depending on the state of the prepared position.

Note that these modifiers are *per* either defending or attacking units, and are cumulative. Thus, if 2 motorised infantry or armoured units attack into a woods hex, then *both* units are modified by -1 AF for a total of -2 AF. Conversely, if 3 ground units are defending a woods hex, then *all* three are modified by +1 DF for a total of +3 DF. See also Figure 13 and 14.

 **Fuel** : German units, including air units, *does not* require activation to *defend*.

 **Supply** If this optional rule is used, then any defending unit that is out-of-supply (OOS, see §15) has a -1 DF.

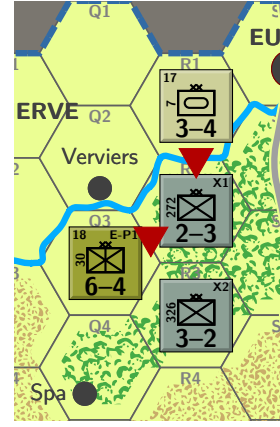


Figure 14: Attack after movement. Continuing the example in Figure 8, the US 7 AD and US 30 MID both attack DE 272 ID.

US 7 AD attacks with  $3(\text{CF}) - 1(\text{woods}) - 1(\text{mountain}) = 1 \text{ AF}$ , while US 30 MID contributes  $6(\text{CF}) - 1(\text{woods}) = 5 \text{ AF}$ , for a total 6 AF. DE 272 ID counters with  $2(\text{CF}) + 1(\text{woods}) = 3 \text{ DF}$ , thus the attack has a base  $\Delta \text{CF}$  of 3. Each side then rolls a dice, and the difference between the die rolls is added to the base  $\Delta \text{CF}$ .

The terrain modifiers are added to the respective base AF and DF to obtain the total AF and DF. Any AF or DF larger than 10 is then capped to 10, and any AF or DF smaller than 0 is treated as 0.

Mathematically, this can be written

$$\text{AF}' = \sum_{\text{units}} \left( \text{CF} + \begin{cases} -1 & \text{woods or mountain and motorised infantry or armoured or armoured infantry or armoured reconnaissance} \\ -1 & \text{clear} \end{cases} \right)$$


$$\text{AF} = \min(\max[\text{AF}', 0], 10)$$

$$\text{DF}' = \sum_{\text{units}} \left( \text{CF} + \begin{cases} +1 & \text{woods or mountain} \\ +3 & \text{fortified and fuel} \\ -1 & \text{river} \\ +1 & \text{prepared position} \\ +2 & \text{supply} \end{cases} \right)$$

$$\text{DF} = \min(\max[\text{DF}', 0], 10)$$

Each side then rolls a 10-sided dice (d10) and adds the die roll to their respective total AF and DF. This is then the *final* die roll modified AF and DF which ranges between 1 and 20.

After a faction has rolled its dice it may no longer change the participants in the combat, including allocating CAS air units.

 **Initiative** If this optional rule is in effect, *and* then the faction that holds the initiative marker *may* decide to play the initiative.

If the initiative marker is played, then *both* die rolls are immediately discarded and *both* factions re-roll their

CF difference ( $\Delta CF$ )					
$\leq -7$	-6	-3	+1	+4	$\geq +7$
	-5	-2	+2	+5	
	-4	-1	+3	+6	
	0				
A2	A1	—	DR	D1	D2
A2: Attacker two step loss					
A1: Attacker one step loss					
—: Defender wins					
DR: Defender retreat					
D1: Defender one step loss <i>and</i> DR					
D2: Defender two step loss <i>and</i> DR					

Table 10: Combat resolution table. CF difference of 0 or less is a defender *win*, while CF difference larger than 0 is an attacker *win*.

combat rolls. These new rolls are then binding and are used for the combat resolution (§14.2).

The initiative marker is then handed over to the *other* faction which may then use it in any *later* combat, including other combats this turn.

The initiative marker can be played during *any* combat, including motorised exploitation (§14.6.1), but *at most* once per combat (combat as a result of motorised exploitation is considered a *separate* combat). A faction is *never* required to play the initiative marker.

## §14.2 Combat resolution

To resolve the combat, the attacking faction subtracts the final die-roll modified DF from the final die-roll modified AF to get the combat factor difference  $\Delta CF$ . Mathematically this can be written

$$\Delta CF = AF + d10 - DF - d10 \quad .$$

The combat difference takes values between  $-19$  and  $+19^3$ . The result is then looked up in the Combat Resolution Table (CRT, Table 10) to get the result of the combat.

If the CF difference is

- zero or less ( $\Delta CF \leq 0$ ), then the defending units wins the combat.
- smaller or equal to -4 ( $\Delta CF \leq -4$ ), then the attacking units take one step loss (A1, §14.4).
- smaller or equal to -7 ( $\Delta CF \leq -7$ ), then the attacking units take an *additional* step loss (A2, §14.4).
- 1 or greater ( $\Delta CF \geq 1$ ), then the attacking units wins the battle, and defending units *must* retreat (DR, §14.3).

<sup>3</sup>For the statistically inclined, the difference between two d10 rolls is triangular distributed with a mean of 0 and standard deviation of 4. This means that more then two thirds of combat rolls fall between  $-4$  and  $+4$ .

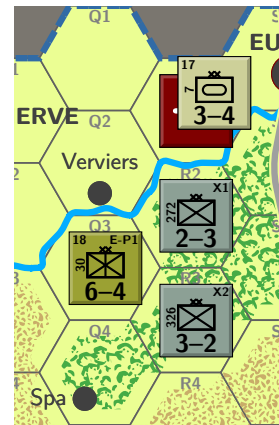


Figure 15: Attacker loss. Continuing the example in Figure 14 with a base  $\Delta CF$ . If the difference in die rolls between the Allied and German factions is  $-7$ , then the final combat difference is  $\Delta CF = -4$ , and the result is A1. The attacker takes one step loss. A step loss marker must be attach to either of the attacking units. The Allied faction chooses the less exposed US 7 AD

- 4 or greater ( $\Delta CF \geq 4$ ) then the defender takes one step loss (D1, §14.4), and *must* retreat (DR, §14.3).
- 7 or greater ( $\Delta CF \geq 7$ ) then the defender takes an *additional* step loss (§14.4) for a total of *two* step losses (D2), and *must* retreat remaining units (DR, §14.3).

See also Figure 15, 16, 17, and 18. The combat result *must* be applied *immediately* before moving on to the next battle or the supply phase.

## §14.3 Retreat

If the defender suffered a DR, D1, or D2 result, then *all* defending units *must* be retreated by the defending faction, following the procedure below.

- Retreating units *must* retreat to a hex *not* in enemy ZOC (§5). Only if this is not possible may the retreating units retreat into an hex in enemy ZOC.
- Units *cannot* retreat into a hex occupied by enemy units.
- Units *can* retreat through enemy ZOC, but *only* if there are no other viable retreat routes.
- *All* retreating unit *must* retreat to the *same* hex.
- If retreating units cannot retreat to hex because it would violate stacking limitations (§6) then the retreating units *must* be retreated further until stacking limitations are observed.
- If there is no viable retreat route except off the board, for example because the units are surrounded by enemy units, then the units *must either* stay in the hex and take a further step loss (§14.4) , *or* retreat off-map. If the units are retreated off the factions own edge (dark-blue and green-grey for the Allied and German factions, respectively), then they are considered *withdrawn*. If the units retreat over the enemy edge,

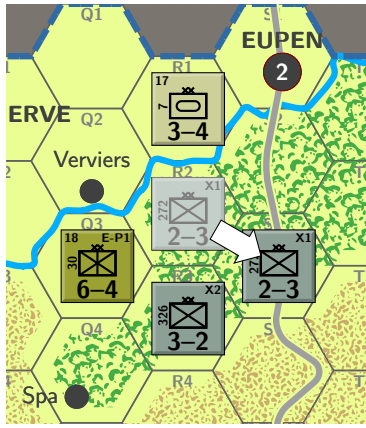


Figure 16: Defender retreat. Continuing the example in Figure 14 with a base  $\Delta CF$ . If the difference in die rolls between the Allied and German factions is  $-2$  or larger, then the final combat difference is  $\Delta CF=1$  or larger, and the result includes a DR. The defender DE 272 ID *must* retreat one hex. Since Q2 and S2 are both in enemy ZOC, and the German units may not stack in R3, the only retreat option is S3.

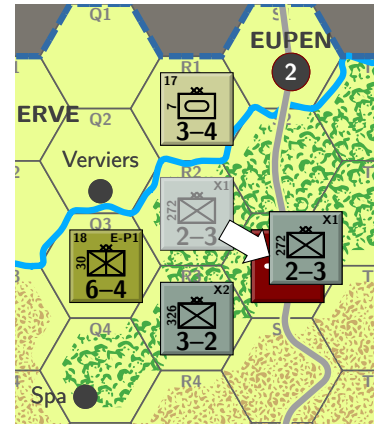


Figure 17: Defender retreat. Continuing the example in Figure 16 with a base  $\Delta CF$ . If the difference in die rolls between the Allied and German factions is 1 or larger, then the final combat difference is  $\Delta CF=4$  or larger, and the result includes a D1. The defender DE 272 ID is retreated to S3, *and* takes a step loss.

then the unit is considered *eliminated* and counts towards the opposing factions victory points (§16).

- If there is no viable retreat route, for example because the defending units are surrounded by enemy units, then the retreating units stay in their original hex but takes an *additional* step loss (§14.4) to any other step loss incurred in the battle.

See also Figure 16.

**☞** **commandos** If German special forces units take part in a defence, i.e., in a hex attacked by Allied units, and combat result involves a retreat, then the special forces units *must* be retreated with the rest of the German units.

If a German special forces unit is the *only* unit left in the hex after step losses and eliminations, then that special forces unit *must* retreat.

**☐** **Detachments** Regiments *cannot* be detached or reattach during retreats.

**☑** **Prepared positions** Prepared positions *cannot* be constructed during retreats.

## §14.4 Losses

When a combat result (or some other rule) calls for a step loss, the controlling faction *must* decide which unit will absorb that reduction (casualties in case of combat).

*In D1 and D2 combat results, the defending faction chooses how to distribute the casualties, while the attacking faction chooses in case of A1 and A2 combat results.*

The controlling faction is free to choose among the affected units *as long as* the choice does not cause stacking limitations (§6 to be violated). The controlling faction

may chose to let one or more units absorb multiple step losses, e.g., A2 or D2 combat results.

*For the defending faction all defending units in hex are affected by the combat. But for the attacking faction only units that actually partook in the combat are affected.*

Units absorb step losses different, depending on their size.

∞, × Divisions and brigades absorb step losses by placing a step loss marker (■) with the unit.

If the unit *already* had a step loss marker, and the unit is at *full-strength* (§1.2.1), then the unit is flipped to its reduced-strength side and the step loss marker removed.

If the division or brigade *already* had a step loss marker, and the unit is at *reduced-strength* (§1.2.1), then the unit is *eliminated* (§14.5).

||| A regiment that suffers a step loss is immediately *eliminated* (§14.5).

*Another way to think about this, is that a division or brigade may suffer four step losses before it is eliminated, but once it has suffered two it is at reduced-strength. A regiment, on the other hand can only suffer one step loss.*

See also Figure 16.

**☞** **commandos** Step losses (§14.4) *cannot* be allocated to special forces units. German special forces units are eliminated differently (§13.6).

☙ **Fuel** Fuel depots *cannot* absorb step losses. Fuel depots are either captured by the German faction, or voluntarily destroyed by the Allied faction.

**☑** **paratroops** The German Heydte airborne regiment has only *one* step, even though it has a full- and



reduced-strength sides. A single step loss *will* eliminate this unit regardless of its strength status.

### §14.5 Elimination

When a unit has no more steps to lose, it is automatically eliminated when absorbing another step loss. A regiment (III) has one step, and is therefore eliminated on a single step loss. Divisions (X) and brigades (X) Units with has *four* steps, and is therefore eliminated when it absorbs a *fourth* step loss.

*Step losses accumulate over turns. That is, to eliminate a four-step unit, all four step losses does not need to occur in the same turn. Such a unit could have suffered three step loss in a previous turns, and then be eliminated by a fourth step loss in a subsequent turn.*

When a unit is eliminated, through step losses or other means, it is

- *immediately* removed from the map, and
- placed off to the side in an eliminated unit pile. Since these units count towards the opponents victory points, the faction may decide that it is the opponent that keeps track of eliminated units.

❑ **Detachments** Eliminated regiments are removed from the battle *for good*, and can thus *not* be used to create new detachments (§13.4). Thus, eliminated regiments should be kept with the other eliminated units and *not* be returned to the OOB.

### §14.6 Advance after combat

If the defending units are retreated (§14.3), then any attacking units that partook in the combat, may *immediately* advance into the hex attacked and left vacant by the retreated defending units.

📦 🇩🇪 **commandos** A German special forces unit in the same hex or hexes as the advancing ground units *may* advance into the vacated hex.

It is up to the attacking faction which and how many of the eligible units that are moved into the vacant hex, *as long as* the stacking limitations (§6 are not violated. Note, however, that the stacking limitations can be *temporarily* broken in an advance, as long as they are observed at the *end* of the combat phase.

Attacking units can advance after combat *even if* that would mean passing through enemy ZOC (§5). It costs no MFs to advance after combat.

⚡ **Fuel** A German unit *must* have been activated to perform an attack, if this optional rule is in use, and there are therefore no requirements that the advancing units need additional activation.

Defending units *may not* advance after combat, even if an A1 or A2 result would vacate a hex from whence the attack came.

Infantry (⊠) units can *only* advance after combat, but

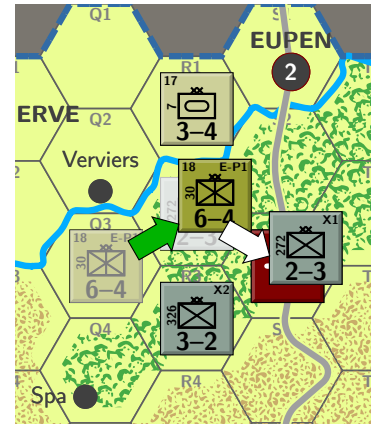


Figure 18: Advance after combat. Continuing the example in Figure 17. The defender DE 272 ID is retreated to S3, and takes a step loss. Since the defended hex is left vacant, then the Allied units may advance into R2, as shown above. This is the *only* option available if the attackers are infantry (airborne or not) units. However, since the Allied units are motorised they may also *exploit* (§14.6.1).

motorised units (⊠, ⊠, ⊠, ⊠, & ⊠) may *instead* perform motorised exploitation as described in §14.6.1. If both infantry and motorised units attack, then the infantry units may advance and the motorised units perform exploitation.

❑ **Detachments** Regiments *cannot* be detached or reattach during advances.

📦 **Prepared positions** Prepared positions *cannot* be constructed during advances.

#### ➡ §14.6.1 Motorised exploitation

Regular infantry (⊠) units can *only* perform a normal *advance after combat*, at no additional MF cost, as described in §14.6, .

Motorised infantry (⊠), armoured (⊠), armoured infantry (⊠), and armoured reconnaissance (⊠) units *may* advance after combat, at no additional MF cost, as described in §14.6.

Alternatively, these units can be used for *exploitation* instead of regular advance after combat. This exploitation *must* be done *immediately* after resolving the combat that caused the defenders to retreat. Other combats cannot be resolved before the full exploitation movement, and possible combat, has been resolved.

The attacking units may perform regular movement (§13), with its *printed* MF. The exploiting units *must* pass through the vacated hex, paying the MFs to do so before it can move on, again paying the MF cost to do so (§13.1.1).

Exploiting units may *engage* enemy units while exploiting. They may also move to engage the *same* enemy units just attacked *and* attack them again as described above. However, exploiting units *may not* attack units



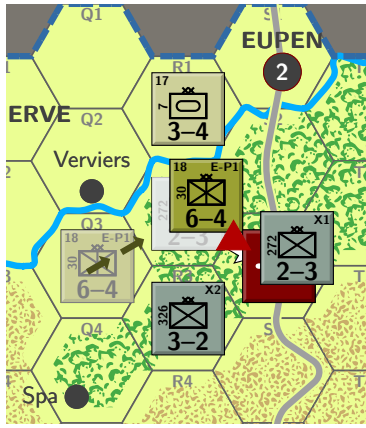


Figure 19: Motorised exploitation. Continuing the example in Figure 17, as an alternative to Figure 18. US 7 AD would enter R2 at a cost of 4 MF (⬢, ⬢, and enter ⬢), leaving it with no more MFs. Likewise, for US 30 MID it would cost 4 MF to enter R2 (⬢, and enter and leave ⬢), also leaving it without more MFs. Thus only one of the units may move into R2 and re-attack DE 272 ID, as stacking limits would otherwise be violated. US 30 MID moves to R2 and attacks DE 272 ID at 6 AF versus 3 DF. Should this attack result in a DR, then US 30 MID could only *advance after combat*, not do any further exploitation.

that they did not attack in the combat that enabled the exploitation.

Should the second combat result in the defending units retreating from the hex they retreated to, the exploiting units may *advance after combat* (§14.6) but *not* do any further exploitation. See also Figure 19.

*Note that normal enemy ZOC restrictions on movement applies (§13.1.1). That is, pursuing units must spend 1 MF to entering enemy ZOC, and cannot use road movement to do so.*

👤 **commandos** German special forces units *may* participate in exploitation, but need not follow the same path as the exploiting units — except for entering the vacated hex.

☐ **Detachments** Exploiting divisions or brigades *may* detach or reattach regiments during exploitation, as described in §13.4.

📌 **Initiative** The initiative marker *may* be used in a combat at the end of an exploitation.

✈ **Air missions** Air units *cannot* be used for CAS during exploitation combat.

🌊 **River crossings** An exploiting unit that *starts* its exploitation next to a river hex side may cross that river hex side normally (no die roll) as described in §13.1.1. If the river hex side has previously been crossed, then likewise, the exploiting unit can cross the river normally.

📍 **Prepared positions** Prepared positions *cannot* be con-

structed during exploitation.

## §14.7 Limited British attacks

This section is only relevant if the  *Limited actions* optional rule is used.

British units may *not* participate in attacks when south or east of the Meuse river (thicker line than other rivers), *unless* they are surrounded by enemy units. British units north and west of the Meuse river may attack as normal. The British units defends as normal.

*This rule reflects that the British units were operating in a US operational area with logistics and supply problems as a consequence.*

## §15 Supply phase

📍 **Supply** with this optional rule, there are *two* supply phases — one after the German combat phase and one after the Allied combat phase.

*Without* this optional rule, there is only *one* supply phase after the Allied combat phase.

A *supply line* is an unbroken line of hexes, of any length and in any direction, that

- starts at the hex occupied by the unit in question,
- *does not* pass through enemy occupied hexes,
- *does not* pass through enemy ZOC, *unless* the hex is occupied by a friendly unit,
- *does not* exit the map
- and terminates in a on a factions edge of the board.

The German factions edge is marked by a green-grey dashed line (---), while the Allied edge is marked with a dark-blue dashed line (---).

A unit that *can* trace a supply route is said to be *in-supply*. A unit that *cannot* trace a valid supply route is *out-of-supply* (OOS).

👤 **commandos** German special forces units are *always* in-supply.

In the supply phase after the Allied combat phase, *all* German ground units are checked for supply.

📍 **Supply** This replaces the above paragraph if this optional rule is used.

In *both* the Allied *and* German faction supply phases, *both* faction checks *all* of its units for supply.

*Note that both factions must check its units for supply, not just the active faction. E.g., in the Allied supply phase, both the Allied and the German faction must check all of their units for supply.*

An out-of-supply marker (§1.4) *must* be placed on any unit that is deemed OOS. Any unit deemed to be in-supply but currently with an OOS marker, has this marker removed.

Enemy units	VP
Eliminated	2×CF
Flipped	ΔCF
Step loss	1
Detachment	-1
Objective	$x^*$
$\# < 3$	10 <sup>†</sup>

\* Only

† Only

Table 11: Victory points.

**Air missions** If this optional rule is in use, then Allied units may have their OOS marker removed after an Allied air supply drop (§10).

Any unit that is OOS may *not* move *nor* attack, but it may defend normally. An OOS unit *must* retreat if combat results (§14) calls for it.

**Supply** If this optional rule is in effect, then a OOS unit suffers a -1 DF modifier when defending.

Also, although it still excerpts ZOC, enemy units *do not* incur a +1 MF cost for entering the units ZOC.

**Fuel** German OOS units *cannot* be activated.

**Prepared positions** An OOS unit *cannot* build prepared positions.

**Detachments** An OOS unit *cannot* detach or reattach regiments.

The supply status of units is *only* determined during the supply phases, and persists until the following factions supply phase.

**Supply:** *With this optional rule, supply is determined twice a turn, and the supply status of a unit persists between these two phases.*

*Thus, a unit may be OOS at the start of a factions turn, but during that turn come back into supply. However, since the supply status persists until the next supply turn, it cannot attack, move, create prepared positions, and detach or reattach regiments.*

See also Figure 20.

## §16 Victory points

After the last turn of the chosen scenario (§17), the total number of victory points (VP) for either faction is calculated. For a given faction, the number of VPs are determined from the casualties of the *opposing* side, the number of detached regiments the opposing side has on the map, and for the German faction, the number of objectives controlled (§7). The different sources of VPs are summarised in Table 11.

The victory points from enemy casualties are awarded as follows.

- For every opposing unit eliminated, of *any* size, is

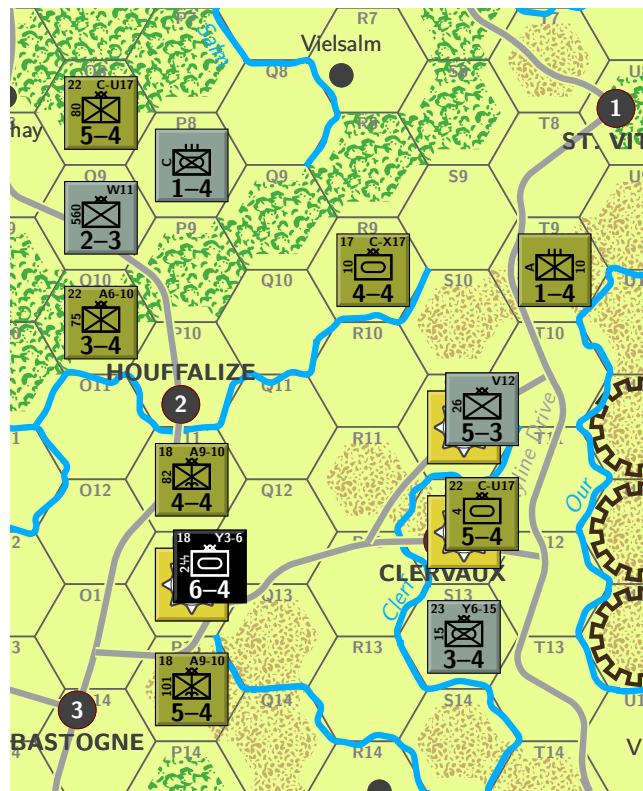


Figure 20: Supply. DE 560 ID is *not* OOS, since it may trace a route through P8 occupied by DE C AIR. 44 2 AD *is* OOS as it is surrounded by the two airborne divisions. DE 26 ID is likewise OOS.

**Supply:** Allied units may *also* be OOS with this optional rule, and indeed the US 4 AD *is* OOS because it is surrounded by DE 26 ID and DE 15 AID.

worth *twice* its full-strength combat factor (2× CF, see §1.2.1) in VPs.

- Every opposing *reduced* strength ground unit still on the map counts as its combat factor difference (Δ CF, see §1.2.1) in VPs.
- Every loss () with an enemy unit is worth 1 VP.
- If the optional rule *Detachments* is in use, then *any* detached enemy regiment on the board removes one VP. That is, *detached* regiments (and only those that have been detached from a division or brigade, see §13.4) counts as -1 VP.

*An example of casualty VP calculations for the German faction*

Allied Casualties

Eliminated US 28 MID	5 CF	10 VP
Eliminated US 9/R MIR	1 CF	2 VP
Reduced US 2 AD	3Δ CF	3 VP
3×		3 VP
2× on board		-2 VP
Total		17 VP

The German faction *only* also earns VPs from controlled (§7) objectives. Each objective is worth the number of VPs printed in the red circle. Note that hex A9 is an

⚡ VP / 🛡 VP	Dec 21*	Dec 31
≥ 3		⚡
≥ 2	—	⚡
> 1	🛡	⚡
= 1	🛡	—
< 1		🛡

Table 12: Victory conditions. The scenarios end turn dictates the victory conditions of the scenario. To win the first scenario (§17.1), the German faction must have at least 3 times more victory points than the Allied faction. Conversely, the Allied faction wins if German faction has less than 2 times than Allied faction. If neither of these conditions are met, then the game is a draw. For the two other scenarios, the victor is the faction with the most victory points.

objective worth 2 VP even though it is *not* a city.

If the German faction does not control objectives worth 3 VP or more, then the Allied faction receives bonus 10 VP.

To determine victory, calculate the ratio of German VPs to the Allied VPs, and consult Table 12 using the column for the final turn.

## §17 Scenarios

Below are the three possible scenarios. It is recommended to start with the first scenario (§17.1), and if the players are inexperienced in playing historical wargames, probably without any optional rules. The scenarios generally increase in complexity. The scenarios have different victory conditions based on the end turn of the scenario. These victory conditions are summarised in Table 12.

Below the *Recommend optional rules* is the *least* set of optional rules recommended for a scenario. The factions should of course choose between themselves which optional rules to use.

Note the eliminated units in the scenarios. These *must* be considered when calculating victory points (§16).

### §17.1 Surprise attack

This scenario simulates the first part of the Ardennes offensive where the German faction had the advantage of surprise and tried to push through the Allied lines with the goal of reaching Antwerp in Holland.

**OOB** Dec 16

**Last turn** Dec 21

**Recommended optional rules** None

**Initiative** ⚡

**Detached regiments**

Parent	Detached
US 9 AD	US 9/R, 1/A, & 2/A MIREGT
US 28 MID	US 28/109 & 112 MIREGT

### §17.2 Counter offensive

This scenario simulates the later part of the battle where the Allied forces started to receive massive reinforcements and the German faction had to rethink its strategy.

**OOB** Dec 22

**Last turn** Dec 31

**Recommended optional rules**

☒ *Weather*

🛩 *Air missions*

🏠 *Prepared positions*

**Initiative** 🛡

**Detached regiments**

Parent	Detached
US 9 AD	US 9/1/A MIREGT
DE LEHR AD	DE LEHR/A & B AIREGT
DE 5 ABID	DE 5/K, L, & M IREGT
DE 277 ID	DE 277/J IREGT

**Eliminated units**

US 28 MID

US 106 MID

US 14 RECCEREGT

US 9/R MIREGT

US 9/A/2 MIREGT

US 28/109 MIREGT

Allied supply at v5

DE HEYDTE ABIREGT

👊 10 AD never arrives.

⚡ **held objectives** 5 objective VP

S12 Clervaux

Y17 Echternach

PIO Houffalize

U8 St. Vith

### §17.3 Ardennes offensive

This scenario simulates the full conflict from start to end, or at least up until the point where German victory seemed hopeless.

**OOB** Dec 16

**Last turn** Dec 31

**Recommended optional rules**


☒ *Weather*

🛩 *Air missions*


📦 *Supply*

🔥 *Fuel*

🏠 *Detachments*

 River crossings

 Prepared positions

Initiative 

Detached regiments

Parent	Detached
US 9 AD	US 9/R, 1/A, & 2/A MIREGT
US 28 MID	US 28/109 & 112 MIREGT

## Movement and Combat Effects Chart

Terrain	MF*	DF	AF
Clear	1	—	—
Woods	1 2	+1	— -1
Rough	1 2	+1	—
River	+1†	—	-1
Road	½‡	—	—
Town	—	—	— -1
Fortified	—	+3§	—
Enemy ZOC	+1¶	—	—
Detachment	1	—	—
Out-of-supply	n/a	-1	n/a

\*'—' means as other terrain

† Additional MF cost nullified by road

‡ Continued movement along road *not* in enemy ZOC

§ Only for defenders

¶ Enter and Exit

## Combat resolution

CF difference (ΔCF)					
≤ -7	-6 -5 -4	-3 -2 -1 0	+1 +2 +3	+4 +5 +6	≥ +7
A2	A1	—	DR	D1	D2
A2: Attacker two step loss					
A1: Attacker one step loss					
—: Defender wins					
DR: Defender retreat					
D1: Defender one step loss and DR					
D2: Defender two step loss and DR					

## Air missions

Mission	Use	Effect	When
*	2/	Remove	Air allocation
	1/	+1 AF/DF	Combat
	x/	Add	After  activation
	2/	Remove	Start faction turn

\* Only for faction with most air

† 1d10 +2/ twice or larger than 1d10

‡ Only

## Other

Die roll for success	
Opposed *	9-10
destruction†	4-10
elimination	1-4

\* +1 & 150th

† -1

## Heydte drop

Die roll		
1-3	4-6	7-10
		—

## Turn sequence

* Roll for weather
* Air unit allocation
*  air drops
*  activation
*  interdicts
*  move
*  combat
* Supply
*  air drops
*  move
*  combat
* Supply

\* Optional rules

## Victory condition

VP /  VP	Dec 21*	Dec 31
≥ 3		
≥ 2	—	
> 1		
= 1		—
< 1		

\* loses if less than 10

## Optional rules

Initiative
commandos
paratroops
150th
Weather
Air missions
Supply
Fuel
Detachments
River crossings
Prepared positions
Limited actions

## Victory points

Enemy units	VP
Eliminated	2×CF
Flipped	ΔCF
Step loss	1
Detachment	-1
Objective	x*
< 3	10†

\* Only

† Only

## Activation

Hex Column	Units/	
A-M	3	1
N-Y	5	2

## Available MF

Operation		
Move and attack	MF	MF
Move but no attack	MF+1	2×MF
Move, no enemy	2×MF	3×MF
Exploitation	—	MF

## Weather chart

Die roll	Dec 16	Dec 17-18	Dec 19-22	Dec 23-27	Dec 28-31
1	-9 -9	-2 -6	+1 -6	+2 -6	+2 -6
2	-9 -9	-3 -6	0 -6	+2 -6	+1 -7
3	-9 -9	-9 -9	-9 -9	+2 -6	-9 -9
4	-9 -9	-9 -9	-9 -9	+2 -6	-8 -8
5	-9 -9	-9 -9	-8 -8	+1 -7	-3 -8
6	-9 -9	-5 -7	-4 -7	+1 -7	-4 -6
7	-9 -9	-4 -7	-3 -6	-9 -9	-5 -7
8	-9 -9	-3 -6	-3 -6	-8 -8	-6 -7
9	-8 -8	-3 -6	-2 -6	-4 -7	-9 -9
10	-8 -8	-5 -6	-4 -6	-3 -6	-9 -9

# BATTLE OF THE BULGE