

The Last Gamble

English Translation

No.125



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I. Introduction

[1.0] Background

In December of 1944, six months after the Allied invasion of France, the total defeat of Nazi Germany seemed inevitable. On both the Eastern and Western fronts the Allies were on German soil. It seemed only a matter of time before the final battle for the Third Reich would begin and the victor of that battle could not be in doubt. Adolf Hitler, the Nazi dictator, saw the situation differently. He prepared to launch an all-out offensive through the heavily forested Ardennes in Belgium to capture the port of Antwerp. This would smash the US 12th Army group and leave the British 2nd Army unsupplied. Hitler hoped that this would split the US-British alliance and buy time. With America out of the war Germany could turn its military attention to the east and the Soviet menace.

Carefully husbanding the panzer reserves, Hitler and his generals concentrated a powerful force in secrecy against the inexperienced and battle weary US forces thinly guarding the Ardennes. In these dense, misty forests fully 200,000 German troops, 1,300 pieces of heavy artillery and almost 700 tanks assault guns secretly moved into their assault positions.

Promptly at 5 AM, December 16, 1944 a 2,000-gun barrage signaled the beginning of Hitler's last desperate offensive. This epic battle would transform a quiet sector of the western front into one of the greatest battlefields in the history of World War II - the Battle of the Bulge. For the Allies it was to be a final crisis on the very eve of triumph. And for the Third Reich it was absolutely the final chance for victory in the war - the last gamble.

[2.0] About the Game

The Last Gamble is a regimental-battalion level wargame of the German Ardennes offensive of 1944-45, known as the Battle of the Bulge. This epic battle is explored in an introductory/basic game, an advanced game for experienced players, and a number of Optional Rules and scenarios. These elements address many of the important factors that influenced the progress of the battle. The game is based on a very careful analysis of the terrain, troops, weapons and leaders that were involved. Exhaustive research has unearthed a wealth of new detailed information on the battle that is included in this game for the first time. An historical study, designer's notes and a complete bibliography are provided to describe the rationale for the game rules presented here.

[3.0] Game Organization

The Last Gamble is presented in a number of components, all of which are important to playing the game:

[3.1] Map

The map is a detailed terrain analysis of the topographic features which made up the actual battlefield. Hexagons (hereafter known as hexes) regulate the positions and movement of the unit counters. To play the game, you must first connect the two map sheets. At this time, you should bend the folds backward so that the maps lie flat. You may fix the four corners on a table with masking tape.

[3.2] Pieces

There are two types of pieces in the game. The unit counters represent the various combat units and leaders that participated in the battle. Other counters are game markers which represent certain game functions to the players.

[3.3] Charts

The charts and tables are required to play the game. The Terrain Effects Chart, the Combat Results Table, the German Fuel Shortage Table, and the Combined Arms and Armor Superiority Tables (when using the advanced rules) are the most important. Minor charts include the German Airborne Drop Table, the Replacement Table, the Weather Table, etc. Each player has a aSetup and Reinforcement Chart that notes the positions of units present at the beginning of play and the turn and location at which other units enter play later. The Turn Record Track helps players keep track of the current turn, replacements received, tactical air support, ground conditions and other important events.

[3.4] Rules

The rules are a set of procedures that strictly govern game activities. The structure of the game rests upon the sequence of play which is the order in which all game activities are conducted. There are two major versions of the game - a basic version for the novice (using only the Basic Rules) and an advanced game for the more experienced player (using both the Basic and Advanced Rules). Optional Rules allow additional historical detail for those who desire it. A series of Variants that explore historical "what if?" situations are included for interest and further play. In addition, at the end of the book are Player's Notes that guide gamers and Designer's Notes that explain the basis of the game rules.

[3.5] Study Booklet

The Study Booklet is a special presentation of the historical events that the game depicts and the manner in which the game approaches these events. The booklet includes a historical summary of the battle, an analysis of the important elements that shaped its outcome, a complete order of battle for both sides, the literature used in making this game, and a bibliography of historical documents.

[4.0] Game Contents

- 1) Map (2 sheets)
- 2) Rule Book (1)

- 3) Study Booklet (1)
- 4) Counter sheets (3, with 600 total pieces)
- 5) Allied Setup Chart (2, 1 for each scenario)
- 6) German Setup Chart (2, 1 for each scenario)
- 7) Allied Reinforcements Schedule
- 8) German Reinforcements Schedule
- 9) Combat Results Table/Terrain Effects Chart (2)
- 10) Replacement Point Record Tracks (2)
- 11) Dice (2)
- 12) Hobby Japan counter trays (2)

[5.0] Game Scale

Each hexagon represents 2 miles (3.2 kilometers) of actual terrain from side to side. Each game turn represents 12 hours of real time. Most units in the game represent brigades, regiments, and battalions. Infantry battalions represent roughly 1,500 men and infantry regiments 3,000 to 6,000 men. Full strength armored battalions contain 20-60 vehicles. Armored brigades contain 50-100 vehicles. Armored infantry regiments contain 3,000-6,000 men with 50-200 halftracks.

[6.0] Units

The die cut counters (henceforth referred to as units) represent the military formations that participated in the battle. The Allied forces include US units (light green), British units (light tan), one French unit (light blue), and one Belgian unit (dark blue). The German forces include Wehrmacht (regular army) units (light blue-gray), Waffen SS units (white on black) units, and Luftwaffe ground units (blue). Also included are a variety of game markers whose functions are described in the rules. Some of these markers are neutral in color (used by both players) while others are intended for use by either the German or Allied Player. Allied game markers use the American color. For the symbols on the units and their meanings, see the explanation below.

[6.1] Unit Types

6.11 Combat units (usually just called units) are classified as either motorized or non-motorized types, each of which has specific limitations and uses. Armored and panzer type units have vehicle silhouettes printed as their unit type. Other types have the usual military symbols.

[6.12] **Aircraft Units:** Aircraft units appear only in the advanced game. Please note that they will be placed on the map (see Advanced Rules section 2.0 for details).

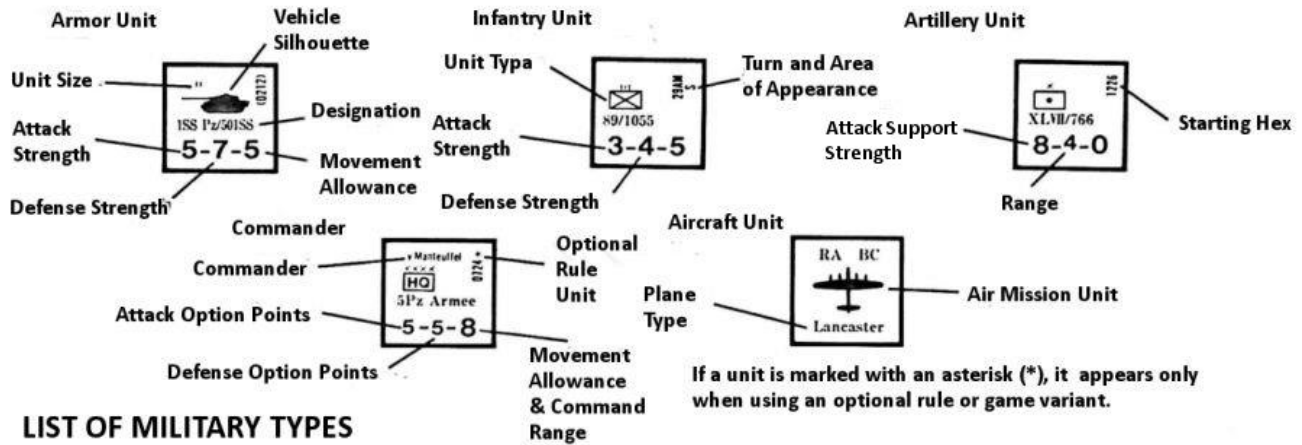
[6.13] **Commanders:** Commander units will appear when you use that Optional Rule. These are different from regular combat units, so read the rules carefully.

[6.14] **Game Markers:** As game play progresses, you will need to put various markers on top of the units to show what they are doing. Each marker is described in the relevant rules, so please refer to them.

[6.2] How to Read the Units

The following diagrams illustrate the symbols found on the units and how to interpret them.

UNIT EXAMPLES



LIST OF MILITARY TYPES

UNIT SIZE

I = Company II = Battalion III = Regiment X = Brigade or Artillery Group XX = Corps XXX = Army

VEHICLE TYPES

a) Armor (Panzer)

German Types

- 3 Sturmgeschütz
- 4 Mk IV Panzer
- 4 Jagdpanzer IV
- 5 Mk V "Panther"
- 5 Jagdpanzer V "Jagdpanther"
- 6 Mk VIa "Tiger"
- 6 Mk VIb "Königstiger"
- 6 Jagdpanzer VI "Jagdtiger"
- Jagdpanzer VI "Elefant"
- Jagdpanzer 38t "Hetzer"
- Panzerspahwagen "Puma"
- Mk II Panzer "Lynx"

- Brumbar
- Sturmtiger
- Half track
- Allied Types**
- M 4
- M 4 A 3
- M 5
- M 10
- M 18
- M 36
- Churchill III
- Cromwell
- M4 Sherman "Firefly"

b) Other Motorized Types

- Armored Infantry (Panzergrenadier)
- Rocket Launcher (Nebelwerfer)
- Artillery

Non-Motorized Types (German name in parentheses)

- Infantry (Volksgranadier)
- Flak (88mm guns)
- Airborne Infantry (Fallschirmjäger)
- Anti-tank (88mm guns)
- Glider Infantry
- Commando or Ranger
- Engineer

GAME MARKERS AND COMMANDERS

- Improved Positions
- Built Bridge
- Blown Bridge
- Out of Supply
- Isolated
- Infantry Replacement x10
- Infantry Replacement x1
- Allied Supply Dump
- Game Turn Marker
- Reserver Marker
- Strategic Movement
- Engaged Combat Marker
- Disorganized Marker
- Commander

[6.21] Information on Each Unit

Unit designation: Most of the units have two or more parts in their designation. The right side is the designation of the specific unit, and the left side is the name of the superior unit, that is, the division or higher unit. Generally, a division is composed of three regiments or three brigades. In addition, some units have only a single brigade, regiment, or battalion name. In general, a Roman numeral is the designation of a corps, "A" is for Army, "Arm" is armor, and "Pz" is panzer (for details, see the order of battle in the study booklet).

Attack Strength: A quantification of the unit's attack capabilities.

Defense Strength: A quantification of the unit's defense capabilities.

Movement Allowance: A quantification of the unit's movement capabilities. Each unit pays one movement point to enter a clear terrain hex and more for other types of terrain. This allowance may be modified by the presence of roads, a unit's tactical formation, and supply state.

Range: Distance in hexes over which an artillery unit can use its firepower.

Attack Support Strength: Strength used by an artillery unit when it is supporting friendly units. The usage is a little different from a normal unit, and it is also used for defense.

Reduced Strength: Most units in the game are back-printed with a reduced strength indicating the unit has lower effectiveness due to combat losses. Going from full strength to reduced strength is known as "losing a step." Units that have already lost a step or have no back-printed reduced strength and are called upon to lose a step are eliminated and placed in the owning player's Eliminated Units box.

[6.22] Special Markings

There are three types of special markings:

- 1) **Restricted Units:** All British and some American Units have certain restrictions pertaining to their use. They have a small "x" next to their reinforcement code. See section 5.6 of the Basic Rules.
- 2) **Improved Positions:** Units with their setup hex number in square brackets begin the game in an Improved Position.
- 3) **Reserves:** Some units are set up in Reserve. They have parentheses around their initial setup hex.

[6.3] Information on Initial Setup and Reinforcements

All units contain one of two pieces of information in the position shown on the sample counters. On units this can be either the initial setup hex (e.g., 0704 indicates that a unit starts the game in hex 0704) OR the game turn of entry and the appropriate Entry Area. For example: 22A X-Y indicates a unit which enters on the 12/22 AM turn on any entry hex between X and Y inclusive. Additionally, certain notes are included in the unit's reinforcement/setup information indicating how the unit is set up or how it

enters the game. Brackets around an initial setup hex indicate the unit starts the game in an Improved Position, parentheses around a unit's initial setup hex indicate that the unit starts the game with a Reserve marker.

[7.0] Preparation for Play

The game is intended for two players, although more players could be involved through distribution of forces. It is also possible to play the game solitaire. In two-or-more player games, one player or team assumes command of the Allied forces, the other controls the German forces. In solitaire play, a single player takes on both of these roles and the competitive element of the game is replaced by its use as a tool to study the historical event.

[7.1] Setting Up the Game

First, unfold the map and place it between the two players. The German Player should be seated on the eastern edge, the Allied Player on the western edge.

Players should select a game level and scenario they would like to play. There are two game levels – the Basic Game (using the Basic Rules) and the Advanced Game (using the Basic and Advanced Rules). The Basic Game is recommended for players unfamiliar with this type of game and the Advanced Game for experienced players. In the Basic Game, only the Basic Rules apply; in the Advanced Game, both sections of rules are used. Optional Rules are provided for experienced players desiring maximum detail and realism.

The game scenario chosen determines the length of the game. The full "Battle of the Bulge" campaign game is quite long (36 turns) and each turn may take 30 minutes or more for new players. The "Wacht am Rhein" scenario encompasses the major actions of the battle and is 20 turns long, covering the first 10 days. The scenario recommended for beginners is "Breakthrough" (8 turns), which covers the first crucial days of the battle and can be played to completion in an evening.

Players punch out the appropriate unit counters and place them on the board in their starting hexes or place them on the Reinforcements Charts which indicate when they enter the game. Players should note that all the information for the three scenarios described above is printed on the units themselves, so even if you do not put the units on the Setup Charts, you will know the deployment position and arrival information. To confirm that all of the units are present, it is recommended that you deploy them on the Setup Charts at least once. Also, there are various restrictions on reinforcements, so be sure to check the charts.

There are other scenarios in the Advanced Game with different starting positions (due to a later start turn). In this case, use the Setup Charts for that scenario and ignore the deployment hex/arrival turn printed on the units.

In order to speed up play, it is recommended that the game be set up before the players convene if possible. Units

should be placed on the board in their starting positions and reinforcements for both sides placed on the Setup Charts. Careful attention should be given that appropriate markers are placed on units that begin the game in Improved Positions or in Reserve status.

[8.0] Game Procedure

The game is played in game turns, each of which is divided into two Player Turns. The length of each scenario is indicated on the Turn Record Track. The German Player is always the first player; the Allied Player, the second. The player whose Player Turn is in progress is called the phasing player. At each game turn, both players move their units and attack enemy units. The progress of each game turn proceeds as follows. At the end of the final game turn of the scenario being played, the winner is determined according to the scenario victory conditions.

[8.1] Sequence of Play

First Player Turn (German Player)

1. German Supply Determination Phase.

The German Player (the phasing player) determines the supply status of all enemy (non-phasing) units, placing the appropriate markers, then he determines the supply status of all his own units, placing appropriate markers. Also, during each German Supply Determination Phase of all game turns after 12/20 AM, after the German Player has determined the supply status of his units, he must roll two dice and consult the German Fuel Shortage Table. The supply status determined during this phase lasts until the next Player Turn when the new phasing player re-determines the supply status of all the units on the board.

2. German Replacement Phase

The German Player (the phasing player) adds any replacement points received during the turn to his Accumulated Replacements Track. At this time he also expends replacement points to rebuild destroyed units or bring reduced units on the board up to strength.

3. German Reserve Designation Phase

The German Player may place Reserve markers on any of his supplied units that are not in enemy zones of control. Units so designated may not move during the Movement Phase, nor can they participate in combat (with the exception of armor, panzers, and Kampfgruppen, which may move up to half their movement allowance in the Movement Phase and participate in the subsequent Combat Phase). However, these units may move later in the Reserve Phase and participate in reserve combat if so desired. This is not mandatory. Some, all, or none of the units that are eligible may be placed in Reserve.

4. German Movement Phase

There are two types of movement: normal movement and Strategic Movement.

A. Strategic Movement: Determine which units are placed in or removed from Strategic Movement, paying appropriate movement point costs from their movement allowance. Units using Strategic Movement pay reduced movement point costs for moving along roads, but are restricted in terms of other game activities.

B. Normal Movement: The German Player now undertakes movement of his units within the limits of the game's rules, such as movement rules, stacking, zones of control, and terrain effects. He may move all, some, or none of his units. Each unit moves individually through the hexagonal grid (hereafter called hexes), paying appropriate costs for each hex entered or hexside crossed. A unit may never exceed its movement allowance. Units must cease movement upon entering an enemy zone of control. The phasing player checks the Turn Record Track to determine if any reinforcements are due to arrive that game turn. These units are brought onto the board by normal movement. The phasing player continues to move until he has moved all the units he wishes. Certain units' movement capabilities may be curtailed by their supply status. Note that units in Reserve may not move at this time.

5. Allied Reaction Phase

The Allied Player (non-phasing player) may move any of his units that are reserves up to their movement allowance. Reserves are units that possess a Reserve marker. These reserve units must have been designated in the previous Allied Player Turn (except for Allied units that begin the game in Reserve). The Allied Player does not receive this phase during the 12/16 AM German Player Turn.

6. German Combat Phase

Combat occurs after the phasing player has ceased all movement and enemy reaction movement is complete. The phasing player may now attack enemy units (i.e. non-phasing units) that occupy hexes adjacent to his own combat units. Friendly supplied artillery units may attack enemy units that are within their range of fire. The phasing player is never obligated to attack and does so at his option. The phasing player may attack as many or as few times as he wishes to until he has no more units eligible to attack or until he chooses to stop, providing all attacking units are adjacent to all defending units (with the exception of artillery units). The phasing player resolves his attacks in any order he chooses and may continue attacking until he has no more units eligible to attack or until he wishes to make no more attacks. Each attack is resolved according to the following routine.

Combat Routine (do the following for each attack):

Each attack is resolved individually with all attacking units totaling their combat strength and comparing it to the total defense strength of units in the hex under attack. Strengths on both sides may be modified by supply or terrain considerations. The comparison is reduced to one of the simplified odds ratios found on the Combat Results Table (CRT). A die is rolled on the appropriate column of the CRT depending on the odds and the terrain that the

defending unit occupies. The die roll result is cross-referenced with the odds column of the attack and the result is read and applied to the units involved in the battle. Each attack is resolved separately using this routine, and all results are applied immediately before proceeding to the next attack. The CRT results indicate to the players the various actions that must be taken with the units involved in a given combat.

Basically, the procedure yields results that will require units of either side to retreat or take step losses or to advance in victorious combat. Other special results include Firefights (FF), in which both sides take a step loss, and Engaged (ENG), in which units are locked in combat and may not move in their following turn.

7. German Reserve Phase

After friendly movement and combat has ended, units that were designated as reserves may move or remain in Reserve for defensive purposes in the upcoming Allied Player Turn. Reserve units that move in the Reserve Phase move normally and are taken out of Reserve (by removing the marker). Reserve units that move in this phase may attack enemy units that they move adjacent to at the end of the phase. No more than one friendly unit or Kampfgruppe (Advanced Game) may participate in reserve combat in a particular battle. No friendly artillery units nor other friendly non-reserve units may participate in reserve combat. Otherwise, combat is resolved as usual.

8. German Engineer Phase

The phasing player may attempt to destroy as many bridges as he wishes, as long as the units under his command are within the destruction range of those bridges. In the case of Allied forces, all units can attempt to destroy bridges, and in the case of the German forces, only engineer and commanders can do this. The phasing player may also place Bridge markers across river hexsides if he meets the specified conditions. In this case, only engineer units can construct bridges in both armies. In addition, the phasing player may place Improved Position markers on any units eligible to build them. This concludes the first player's turn.

Second Player Turn (Allied Player Turn)

The Allied Player then repeats the above sequence, exchanging roles with the German Player, moving and attacking with his own units. Upon completion of this second (Allied) Player Turn, the game turn marker is advanced on the Turn Record Track to signify the completion of the game turn. The first player (German) then begins the new game turn, proceeding through each phase of the turn in order. Note that supply is determined twice for all units: once during each player's Supply Determination Phase. Play proceeds in this manner until the end of the final game turn of the scenario being played, at which point the players determine the winner according to the scenario victory conditions.

II. Basic Rules

[1.0] Supply Determination

Units must be in supply to use their full Combat Strengths and movement allowances.

[1.1] When to Determine Supply Status

Supply status for all purposes is checked by both players at the start of each player's turn before movement or combat. The supply status that is determined at that time is in effect at all times in that player's turn regardless of combat or movement.

[1.2] Tracing Supply

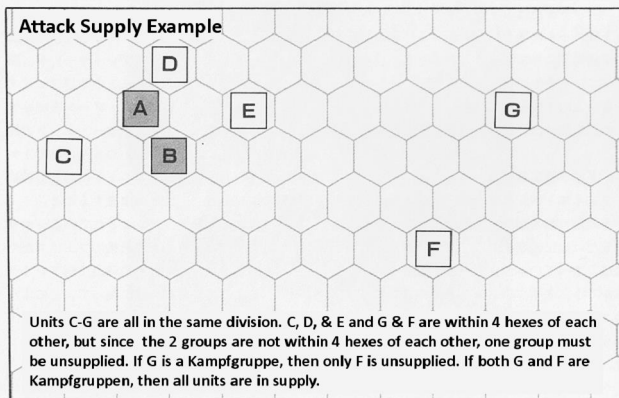
[1.21] To be in supply, a unit must be able to trace a supply line back to its supply source.

[1.22] Supply lines are traced along a line of continuous hexes stretching from the unit to a supply source counting no more than four hexes from the unit to a road hex, which must then not leave the road. Length along the road is unlimited.

[1.23] The supply line cannot be interrupted by enemy units, enemy zones of control, or blown bridges.

[1.24] The first four off-road hexes may cross any type of terrain but are blocked by enemy zones of control or enemy occupied hexes.

[1.25] Supply lines may be traced through friendly units that are in enemy zone of control; that is, for the purposes of supply determination, friendly units negate enemy zones of control.



[1.3] Divisional Attack Supply Limitation

[1.31] All units that belong to a division (see their designation) must be within four hexes of another friendly unit of their division at the end of the Movement Phase in order to be in Attack Supply. Note that German Kampfgruppen (KG) and Allied armored brigades are exempt from this limitation.

[1.32] This limitation does not apply to units that have moved onto the map using Strategic Movement until they leave Strategic Movement.

[1.33] If all other units of the division have been eliminated from play, this limitation does not apply.

[1.34] Also, some units (including artillery and engineers) are independent and do not have a parent division. In these two cases, the units need be within four hexes of any friendly unit or commander (Optional Rule). The four hexes may transverse any type of terrain AND enemy units or enemy zones of control.

[1.35] This limitation is in addition to the requirement of tracing a supply line. Any units that are not within 4 hexes of other units belonging to their division are out-of-supply.

[1.4] Supply Sources

[1.41] The sources of Allied supply are all road hexes leading off the north, south, or west map edges other than hexes 0101 and 0501.

[1.42] The source for German units is any road leading off the east edge of the map.

[1.5] Unsupplied Units

[1.51] Units are unsupplied when they are unable to trace a supply line when supply is determined or are not within four hexes of other units in their division.

[1.52] Unsupplied units have their attack strengths and movement allowances cut in half (fractions rounded up); their defense strengths are unaffected.

[1.53] In addition, unsupplied armored units are considered to have a movement allowance of one.

[1.54] Appropriate markers should be placed on out-of-supply units for the duration of that Player Turn.

[1.55] Remove the markers in the next Supply Determination Phase should their status change.

[1.6] Isolated Units

[1.61] Units are isolated if they are unable to trace a supply line and:

- 1) They are surrounded on all adjacent hexes by enemy units, or
- 2) They are surrounded on all adjacent hexes by enemy units or zones of control and are more than two hexes from any friendly supplied unit.

[1.62] Isolated units may not attack, and their defense strength and movement allowance are halved (rounding up).

[1.63] Armor/panzer units in isolation may not move. In this case, the Isolated marker is placed on the unit during the Player Turn. When the supply condition changes, the marker is removed during the Supply Determination Phase of the next Player Turn.

[1.7] Special Notes

[1.71] Units are never lost through lack of supply alone; they may remain unsupplied or isolated indefinitely

[1.72] Remember that supply is determined twice each turn ð once during each Player Turn.

[2.0] German Fuel Shortages

To simulate the critical German supply shortage that pervaded the later part of their offensive, beginning with the 12/20 AM German turn, the German Player must roll two dice after the Supply Determination Phase of his turn to see how many, if any, of his motorized divisions are arbitrarily out of supply. See the German Fuel Shortage Table.

[2.1] Procedure

[2.11] Rolling the dice on the table results in divisions being identified to be put out of supply. Out-of-Supply markers are placed on all the units of the indicated division(s).

[2.12] The markers remain in place until the beginning of the next German Player Turn.

[2.13] The effects on units of being out of supply from this rule and those of being unsupplied are identical.

[2.14] Units that are not in play that are identified by the Table are unaffected. If the indicated units are a division that is arriving as a reinforcement that turn, they arrive on the board in an out-of-supply state.

[2.2] Number of Dierolls

[2.21] From 12/20 AM to 12/23 PM, the German Player rolls once on the Table each turn.

[2.22] From 12/24 AM to 12/25 PM, the German Player rolls twice on the Table each turn. Rolling the same division more than once has no additional effect.

[2.23] From 12/26 AM to the end of the game, the German Player rolls three times on the Table each turn.

[2.3] Captured Fuel (Advanced Rules)

[2.31] If you are using the Advanced Rules, German capture of Allied fuel dumps can delay the use of the German Fuel Shortage Table. For more information, see section 9.0, Allied Fuel Dumps, in the Advanced Rules.

[2.32] If the German Player does not capture any fuel, the 2SS Panzer and 9SS Panzer divisions and the Fuhrer Grenadier Brigade arrive in the game in an unsupplied state (see the German Reinforcements Chart).

[3.0] Replacements

Replacements can be used to return destroyed units to the game or to refit reduced-strength units back to their full Combat Strength. Each player consults the Turn Record Track printed on the map at the start of his Player Turn.

Availability of German replacements is indicated by "GR" and Allied by "AR". If you see that you receive replacements, check the Replacement Table for the type and quantity.

[3.1] Replacement Procedure

[3.11] Both players receive replacements during the game. Replacement point can be used to refit reduced units and to return already destroyed units to the game.

[3.12] It costs one replacement point to bring any reduced unit of that type back up to strength.

[3.13] It costs two replacement points of the appropriate type to bring a previously destroyed unit back onto the board. However, in this case, such a unit returns to the game at reduced strength.

[3.2] Replacement Restrictions

[3.21] Replacement is performed during the Replacement Phase of the owning player's turn.

[3.22] A unit cannot be refitted if is unsupplied or isolated or if it is in an enemy zone of control.

[3.23] The unit receiving the replacement may move as usual to the subsequent Movement Phase.

[3.24] Eliminated units may not be rebuilt with replacements unless at least one other unit of the eliminated unit's parent division is still on the map. Such replaced units are placed in the nearest friendly controlled town to that of one of the units of the parent division. The town must be at least three hexes away from the nearest enemy unit.

[3.25] Replaced units must be brought on the board at reduced strength (a player could not spend three replacements and bring a previously destroyed unit on at full strength).

[3.26] Once on the map, such a unit can be replaced to full strength on the following turn by the addition of a further replacement.

[3.27] Units that were isolated when destroyed or that surrendered (Advanced Rules) may never be replaced. Such units should be placed in a Completely Destroyed box separate from other eliminated units.

[3.3] Accumulation of Replacement Points

Replacements are accumulated by type.

[3.31] There are two types of replacements ð armor and infantry. Armor replacements may be used to refit or replace armored/panzer units, which include all units with vehicle silhouettes. Infantry replacements can be used to replace infantry, Volksgrenadier, airborne infantry, Fallschirmjager, armored infantry, and panzer grenadiers.

[3.32] Artillery, engineers, and all British, French, and Belgian units are ineligible to be replaced or refitted. When these units are removed from the map due to combat results, place them in the Completely Destroyed box.

[3.33] Replacement points are accumulated and used by type.

[3.34] Players keep track of current replacement levels by type on their respective infantry and armor replacement tracks.

[3.35] When recording the number of replacement points, use the "x10" markers to indicate multiples of 10 points and the "x1" markers to indicate multiples of 1 point on the replacement tracks. For example, if you want to show 36 points, place the x10 marker in the 3 box and the x1 marker in the 6 box.

[3.4] Initial Replacement Points and The Replacement Schedule

[3.41] For the "Breakthrough", "Wacht am Rhein", and "Battle of The Bulge Campaign" scenarios, initial replacements and the receipt of additional replacements for both players are listed on the Replacement Table.

[3.42] The number of replacement points available at the start of any other scenario is given in the rules for that scenario.

[3.43] During the game turn when the replacement points arrive, players move the markers on the replacement tracks to record the additional points.

[3.5] Elimination and Total Destruction.

[3.51] When a normal unit is eliminated by a combat result or other cause, place it in the Eliminated box to show that it is available for replacement.

[3.52] In the case of a unit that is not eligible for replacement (such as engineers) or that was eliminated while unsupplied or isolated, place it in the Completely Destroyed box to show that it cannot be replaced.

[4.0] Creating Reserves

[4.1] Assigning Reserve Status to Units

[4.11] The phasing player may place Reserve markers at his discretion on any of his supplied units that is not adjacent to enemy units or in Strategic Movement.

[4.12] Reserve units may not move in the subsequent Movement Phase nor participate in battle in the Combat Phase (with the important exception of armor, panzer, and German combat teams (Kampfgruppen), which can move up to half of their movement allowance).

[4.13] Reserve units move during the Reserve Phase, at which time they can participate in reserve combat.

[4.14] At the owning player's discretion, a Reserve unit can remain in Reserve in order to move defensively during the Reaction Phase of the next enemy Player Turn.

[4.2] Limitations.

[4.21] Units arriving as reinforcements may not be placed in Reserve on their turn of entry.

[4.22] Units placed in Reserve may not be in Strategic Movement nor be in enemy zones of control.

[4.23] Unsupplied and isolated units may not be placed in Reserve.

[4.24] Both players are limited in the number of units that can be placed in Reserve by the number of Reserve markers available.

[4.25] Only one unit (or German Kampfgruppe) can be put in Reserve per division.

[4.26] Reserve units defend normally if they are attacked by enemy units but immediately lose their Reserve status.

[4.27] Once a Reserve unit has moved for any reason, it loses its Reserve status and the Reserve marker (except for armor, panzers, and Kampfgruppen).

[4.28] Artillery, engineers, anti-tank units, commando units, and commanders (Optional Rules) cannot be put in Reserve.

[4.29] Units in Reserve are immediately taken out of Reserve the instant an enemy unit moves adjacent to them, whether or not the enemy unit exerts a zone of control.

[5.0] Movement

In the Movement Phase of a Player Turn, the phasing player may move as many or as few of his own units as he desires. Units may be moved in any direction or combination of directions up to their movement allowance. The dice have nothing to do with movement; they are used to resolve combat. Units may move over and stack on top of friendly units (for expectations, see Strategic Movement and Road March). Movement allowances cannot be transferred from one unit to another, nor can they be accumulated from one turn to the next. Each unit or stack of units is moved through its entire movement before another unit or stack of units may be moved.

[5.1] Movement Procedure

[5.11] When moving a unit, the player moves the unit from hex to hex on the map.

[5.12] As a unit enters a new hex, it must pay the movement cost of the terrain in the hex.

[5.13] The unit pays for each hex it enters, and when it has spent its entire movement allowance, it can move no more during that phase.

[5.14] Units can pass freely through hexes occupied by other friendly units as no additional cost.

[5.2] Increasing or Reducing Movement Allowances and Unit Type

[5.21] Units may have their movement reduced by terrain, enemy units or supply status.

[5.22] Units may sometimes increase their movement capabilities by using Strategic, March, or Road Movement.

[5.23] For the purposes of moving through the map terrain, there are two types of units – motorized and non-motorized units. Motorized types include all units with a vehicle silhouette, all armored infantry/panzer grenadier units, all flak and anti-tank units, all artillery units and all commanders. All other units are considered to be non-motorized types.

[5.24] Motorized and non-motorized unit types pay differing movement points for different terrain types. See the Terrain Effects Chart for details.

[5.3] Movement Limits

[5.31] The total number of movement points used in one Movement Phase must not exceed the unit's movement allowance. In addition, it is not necessary to use the entire movement allowance, but any remainder may not be transferred to other units or carried over to the next Movement Phase.

[5.32] Movement from hex to hex must be consecutive; that is to say, a unit may not skip hexes.

[5.33] A unit may never enter a hex occupied by an enemy unit. When entering an enemy-controlled hex, the unit must stop immediately. Units may not move from one enemy zone of control to another. However, they may withdraw from an enemy zone of control into an uncontrolled hex and then reenter an enemy zone of control.

[5.34] It does not cost any additional movement points to enter or leave an enemy zone of control (exception: see Advanced Rule 7.0, Disengagement).

[5.35] Each player can move his units only during the phase in which movement of the unit is permitted.

[5.36] During the Combat Phase, retreat may be forced as a result of combat, or advance after combat may be allowed. Except for this retreat and advance, players may not move during the enemy Movement and Combat Phases.

[5.37] A unit that is unsupplied or isolated will have its movement capability restricted. For more information, refer to the rules on supply.

[5.38] Regardless of reductions to movement ability, all units may always move one hex unless it would be moving directly from one enemy zone of control to another or across a hexside that is prohibited for that type of unit. However, this rule does not apply to the movement of isolated armored units.

[5.39] Once a move has been started, when the phasing player releases his hand from the unit, no more movement of that unit is permitted. Movement is considered to be complete, and it cannot be changed.

[5.4] Road and Highway Movement

[5.41] **Benefits and Conditions:** As you can see from the Terrain Effects Chart, when a unit moves along a road or highway, the cost in movement points is lower than usual.

[5.42] However, in order to use road travel, the following conditions must be met:

- 1) Movement from hex to hex must be along the road.
- 2) There must be no other units (either friendly or enemy) in the hex that the unit is entering.

[5.43] **Normal Movement:** Units that cannot meet the above conditions must pay the full cost of the terrain in the hex where the road is located.

[5.44] Any unit may move by combining road movement and non-road movement in a single Movement Phase. Any fraction of a movement point is lost when changing the type of movement (e.g., when changing from a highway to a road). For example, if a unit moved three hexes along a highway at 1/2 MP per hex, then switched to a road, the highway cost would be rounded up to 2 MPs.

[5.45] Non-infantry units (armor, panzer, artillery, anti-tank, and anti-aircraft units) do not benefit from a road or highway when entering a road or highway containing other non-infantry units (infantry-type units include airborne, Fallschirmjager, armored infantry, and panzer grenadier). In such a case, the unit must pay the movement cost of the other terrain in the hex.

[5.5] Movement and Terrain

[5.51] **Bridge:** Units can receive the benefits of bridges only when the conditions for road or highway movement have been met.

[5.52] **Rivers:** Crossing a hexside without a bridge consumes a unit's entire movement allowance. In addition, Reserve-designated armored units that move in the regular Movement Phase may not cross a river hexside without a bridge during that phase.

[5.53] **Slope:** Crossing a slope hexside consumes a unit's total movement allowance regardless of the type of unit. In addition, Reserve-designated armored units that move in the regular Movement Phase may not cross a slope hexside during that phase.

[5.6] Movement-Restricted Units

A movement-restricted unit is a unit that may not move out of an area until certain conditions are met. Only the Allied Player has movement-restricted unit.

[5.61] All British and French and some US units that appear as reinforcements have limited ability to cross the Meuse River (in the case of British and French units) or the Semois River (in the case of US units).

[5.62] A movement-restricted unit cannot not move east across the specified river until its restriction is lifted. However, these movement-restricted units can move normally and participate in combat west of the river.

[5.63] **Lifting movement restrictions on British and French units:** The movement restriction on British and French units is not lifted until the number of Allied units eliminated (not including replaced ones) exceeds 50. However, restrictions on the British 29th Brigade are automatically lifted as soon as a German unit approaches

within four hexes of a hex containing a Meuse River hexside.

[5.64] **Lifting movement restrictions on US units:** US engineer and 11th Armored Division units arriving on December 25 and 17th Airborne Division units arriving on December 27 are movement-restricted units. These units may not move east of the line formed by the Meuse and Semois Rivers. This restriction is lifted when the number of Allied units destroyed exceeds 50 (not including replaced ones). In addition, the movement restriction on 11th Armored Division units is automatically lifted on December 29, and the movement restriction on 17th Airborne Division units is automatically lifted on January 1st.

[5.7] March Movement

In the Ardennes region, the road network passes through difficult terrain. The only roads that appear in the game are paved roads and highways. However, it is also true that unpaved roads not shown on the map enabled infantry units not in contact with the enemy to make very quick advances. Of course, the situation was very different when the enemy was encountered in a location where a reckless advance could lead to ambush. But, this is not true for armored units because the dirt roads were muddy until the ground froze.

[5.71] All non-armored units that do not move adjacent to enemy units during the Player Turn can use March Movement.

[5.72] During March Movement, the cost to enter any type of terrain except a road will be reduced by 1. However, it is never reduced to zero.

[5.73] Armored infantry (panzer grenadiers) can use March Movement at any time, but the armor/panzer units may not use March Movement until the ground freezes on the 12/23 AM turn.

[5.74] Units that are using March Movement may not be adjacent to enemy units at any time during the Movement Phase. Otherwise, there are no restrictions on March Movement, and no special movement point expenditure is required.

[5.75] No unit may use March Movement after the Heavy Snow weather on the 12/28 AM Turn.

[6.0] Strategic Movement

Strategic Movement allows you to move on a road faster than normal movement. However, be aware that there are various restrictions on Strategic Movement.

[6.1] Entering Strategic Movement

[6.11] A unit may enter Strategic Movement only if the following conditions are met at the beginning of the Movement Phase:

- 1) It is on a road or highway hex (including reinforcements).
- 2) It is the only unit in the hex, and it is at least four hexes

away from the nearest enemy unit.

4) It is in supply.

[6.12] Although most units can enter Strategic Movement at no cost, Allied non-motorized units must pay three movement points to do so.

[6.13] Units which fulfill the above requirements are designated by placement of a Strategic Movement marker on the unit.

[6.2] Benefits of Strategic Movement

[6.21] Motorized units in Strategic Movement have their movement allowance tripled.

[6.22] German non-motorized units (including artillery units with a movement allowance of 3) have their movement allowance doubled by Strategic Movement.

[6.23] Allied infantry, parachute infantry, and engineer units have their movement allowances increased fivefold. However, unlike other units, Allied infantry units must expend three movement points to enter Strategic Movement. This represents the time required to entruck for these units. Example: An Allied infantry unit with a movement allowance of 5 expends three movement points to enter Strategic Movement. It then could move 10 hexes down the road or 20 hexes along a highway in the same Movement Phase.

[6.3] Strategic Movements Limitations

[6.31] Units in Strategic Movement may not move off road or highway hexes.

[6.32] If forced to do so as a result of combat, they are immediately removed from Strategic Movement.

[6.33] Units in Strategic Movement have no zones of control and their attack and defense strengths are halved (rounding up).

[6.34] Units in Strategic Movement may not cross slope or river hexsides except on roads.

[6.35] Units in Strategic Movement may not enter or pass through a hex containing another friendly non-motorized unit, and they may never move adjacent to other friendly units that are also using Strategic Movement.

[6.36] Units in Strategic Movement must not approach within three hexes of any enemy units at any time during the Movement Phase (including the start and end of their movement). When counting the distance from the enemy unit to the moving unit, measure from the hex the enemy unit is in (exclusive) to the hex the moving unit is in (inclusive).

[6.4] Reinforcements and Strategic Movement

[6.41] Units designated as reinforcements may enter Strategic Movement prior to arriving on the board. However, units that begin their movement in Strategic Movement must remain in Strategic Movement until the end of the owning player's turn.

[6.42] Note that Allied non-motorized units must expend three movement points to enter Strategic Movement in the turn that they enter the map as reinforcements if they desire to enter in this fashion.

[6.5] Leaving Strategic Movement

[6.51] Units may leave Strategic Movement by removing the marker at the start of a friendly Movement Phase.

[6.52] There is no movement point cost to leave Strategic Movement.

[6.53] Units which begin their turn in an enemy zone of control or within four hexes of an enemy unit, must leave Strategic Movement immediately (that is, prior to the owning player's next Movement Phase).

[6.54] If units in Strategic Movement are unsupplied or isolated at the beginning of their Player Turn, the Strategic Movement marker is removed. However, the unit's movement capacity is reduced due to their supply condition.

[7.0] Stacking

If two or more units are in one hex, it is called a stack. In most cases, movement and combat are carried out by the units as a stack.

[7.1] Stacking Limit

[7.11] No more than three regiment- or brigade-sized units may ever occupy a given hex, regard less of unit type, strength or steps.

[7.12] For the purposes of stacking, battalion-sized units count as half of a unit (up to six battalions could occupy a hex).

[7.13] Artillery groups are considered as a brigade-size unit. The stacking limit of three regiment/brigade-sized units may never be exceeded, even by a single half-size unit.

[7.14] Company-sized units are not subject to the stacking limit (i.e., they do not count).

[7.15] Combat retreat results may force you to exceed this stacking limit, in which case (as an exception) the unit must lose a step.

[7.2] Moving the Stack

[7.21] Units may be moved as stacks as long as they do not use the road or highway movement rates (exception: see Advanced Rule 12.0, German Kampfgruppen).

[7.22] Units may be separated from the stack in the middle of a move, or they may continue to move after other units in the stack have exhausted their lower movement allowances.

[7.23] Stacks may be broken up, combined, and reassembled at any point during movement or during retreat after combat as long as the limit per hex is not exceeded.

[7.3] Roads, Highways, Strategic Movement

[7.31] Non-Infantry units (armor, panzer, artillery, and anti-tank) may never use the road/highway movement rate when entering a road or highway hex containing another non-infantry unit (infantry-type units include airborne infantry, Fallschirmjager, armored Infantry, and panzer grenadiers).

[7.32] In such a case, they must instead pay the cost of the other terrain in the hex.

[7.33] Units in Strategic Movement may not stack with other units of any type at any time. Note that German Kampfgruppen are considered to be one unit for the purposes of road movement (see Optional Rule 12.0, German Kampfgruppen).

[7.4] Stacking Impact of Game Markers

[7.41] All supply status, Improved Positions, Destroyed Bridge and Reserve markers have no effect on stacking and units stack normally in hexes occupied by these markers.

[7.42] Strategic Movement markers allow only one unit to occupy a given hex.

[7.5] Inter-Allied Unit Stacking

[7.51] British, French and US units may not stack together in the same hex unless forced to do so by a combat result.

[7.52] In the case of a stack caused by a combat result, the units must separate at the earliest opportunity.

[8.0] Zones of Control

Some of the units in the game possess zones of control. Zone of control (ZOC) refers to the six hexes adjacent to the hex in which a unit is located.

[8.1] Extent of Zones of Control

[8.11] A unit's ZOC extends into all types of terrain and across rivers. However, as an exception, ZOCs do not extend across Meuse River hexsides.

[8.12] A unit's ZOC extends into hexes occupied by enemy units except for the purposes of determining combat result retreat paths or supply lines.

[8.13] If your unit is in an enemy ZOC, then that enemy unit is also in your unit's ZOC.

[8.14] Both sides' ZOCs have exactly the same effect. If a hex is controlled by both a friendly unit and an enemy unit, both of the ZOCs are valid and the hex is considered to be controlled by both players.

[8.15] If a single hex is in the ZOCs of multiple units, there is no additional effect.

[8.2] Units with Zones of Control

[8.21] In this game, only the following units have ZOCs: all infantry, armored infantry, panzer grenadier,

Volksgrenadier, paratroop, and Fallschirmjäger units of regiment or brigade size.

[8.22] All armored regiments and brigades have provisional zones of control.

[8.23] No other units not have ZOCs. In other words, the following units do not have ZOCs: artillery, anti-aircraft, anti-tank, rockets, engineers, battalion-sized infantry units, battalion-sized armor/panzer units, and commanders.

[8.24] Units in Strategic Movement do not have ZOCs.

[8.3] Provisional Zones of Control

[8.31] If two or more battalion-sized infantry units are in a hex, they have a provisional ZOC.

[8.32] If a battalion-sized infantry units or a battalion-sized armored infantry (panzer grenadier) unit is in an Improved Position hex, it has a provisional ZOC.

[8.33] The ZOC of an armored regiment, armored brigade (US combat command), or German Kampfgruppe (Advanced Rules) does not extend into a forest hex except along a road.

[8.34] Note that during the 12/16 PM game turn Allied ZOCs do not extend into forest hexes. (see Basic Rules case 15.7).

[8.4] Effect of Zones of Control on Movement

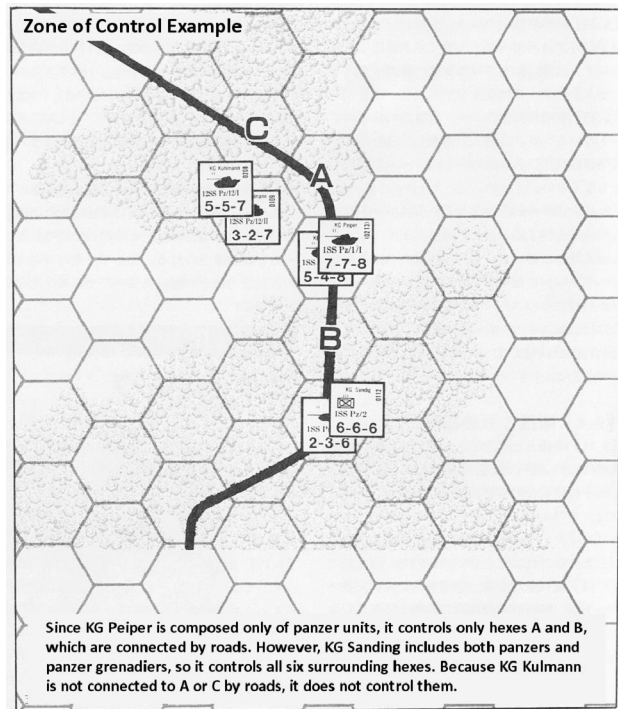
[8.41] A unit must immediately stop if it enters an enemy ZOC. However, attacking the adjacent enemy units is not mandatory.

[8.42] A unit may not move directly from one enemy ZOC to another.

[8.5] Cancelling Zone of Control Effects

[8.51] The presence of a friendly unit negates the effect of an enemy ZOC for the purposes of tracing supply lines and conducting retreats due to combat results.

[8.52] Your units' ZOCs have no effect on the movement of your own units.



[9.0] Reinforcements

During the phasing player's Movement Phase, he checks the Turn Record Track to see if any reinforcements are scheduled to arrive. If the track indicates that reinforcements are due, the player then checks his Reinforcements Chart to determine which units enter the game and the locations of their entry.

[9.1] When Reinforcements Arrive

[9.11] On the Turn Record Track, game turns are marked to indicate that ground reinforcements will arrive for Allied forces and German forces during the Movement Phase of the appropriate Player Turn.

[9.12] If reinforcements are arriving, the player then looks at the current scenario's Reinforcements Chart to see exactly which units are due and in what area they appear. In these cases, the turn and area are shown on both the unit counters themselves and the Setup Chart. Alternatively, the conditions for arrival may be given, so you must check the Reinforcements Chart to confirm that the unit meets the conditions for appearance. Also, be careful, as some reinforcements are used only with certain Optional Rules or Game Variants.

[9.13] Reinforcements may enter the game at any point in the owning player's Movement Phase at the designated area on the edge of the map.

[9.14] All units are coded with alphabetic entry areas and must enter the game in those specific areas.

[9.15] Units may enter on roads or on any non-road hexes between the designated roads. All reinforcements move

normally, counting the entry hex as their first hex of movement.

[9.16] If multiple units appear as reinforcements at the same hex, it is assumed that the units are strung out along an imaginary road beyond the edge of the map. Therefore, for example, when the second unit arrives, the entry hex is treated as its second hex of movement.

[9.17] A player may enter any unit onto the map in Strategic Movement at his discretion. However, note that Allied infantry, airborne, and engineer units entering in this fashion must first pay three movement points prior to movement.

[9.18] When a reinforcement unit is in Strategic Mobility, it cannot be stacked with other units. Also, note that armored units are subject to the same sort of restriction.

[9.2] Withholding Reinforcements and Blocked Entry

[9.21] Neither player may voluntarily withhold reinforcements but must enter them on the appropriate game turn on the designate hexes unless those hexes are blocked by enemy units.

[9.22] Reinforcements hexes are only blocked by physical occupation (not ZOCs) or by German exit markers (for Allied units).

[9.23] If, and only if, all scheduled entry hexes are blocked, the reinforcing unit(s) must enter by the next unblocked hex on the following game turn.

[9.24] In this case, the next unblocked hex would be to the west for Allied units or to the north or south for German units). In other words, the appearance of the reinforcements is delayed by one game turn.

[9.25] In certain cases, the Allied Player may be required to withhold units off the map to counter German exited units (see case 9.3 below).

[9.3] Exiting Units from the Map (German Player Only)

Only the German Player may exit his units off the map at Allied road entry hexes. These may only be exited off the north, south or west edges of the board, and they cause certain Allied reinforcements to remain off the board.

[9.31] **Movement Cost of Exit:** To exit the board, a unit must expend a number or fraction of movement points equivalent in the cost for entering an imaginary hex off the board identical to the hex it exits from. Exit hexes may only be road or highway entry hexes.

[9.32] **Status of Exited Units:** An exited unit is removed from play and may never return to the game. They are not considered eliminated units. A unit may exit from a road hex regardless of the number of friendly units which have exited from the same hex. No unit may exit the board in fulfillment of retreat as a result of combat; it must stop at the edge of the map and instead take a step loss. German units may not exit off the road hexes at 0101 or 0501.

[9.33] **Effects of Exited Units:** Exited units may count towards German victory conditions; for the number of points, see the victory conditions for the scenario being played. If a German unit exits on the west, north, or west edge, the Allied player may not bring on reinforcements at the hexes exited. And, Allied reinforcements with at least three times the attack strength of the exited units must be withheld as soon as possible (this is called "Pursuit").

[9.34] The Allied units held off for the Pursuit may be of any type. Neither the exited German nor the pursuing Allied units can enter the board for the remainder of the game. If the Allied Player has no further reinforcements coming onto the map from the side from which the German Player exits, he must withhold reinforcing units from another side of the map at the earliest opportunity. Units with at least three times the attack strength must be kept off the map as soon as possible to "pursue" them.

[10.0] Enemy Reaction Phase

In the Enemy Reaction Phase, the non-phasing player can move units with Reserve markers.

[10.1] Restrictions

[10.11] A unit that moves in the Enemy Reaction Phase may not move in Strategic Movement but otherwise moves exactly as described in the movement rules.

[10.12] Non-phasing units that move in the Enemy Reaction Phase must be supplied and must not begin the Reaction Phase adjacent to any enemy units.

[10.13] These units may not attack at the end of the Reaction Phase (note that this is different from movement in the Reserve Phase).

[10.14] The Allied Player does not receive an Enemy Reaction Phase in the first turn of the game.

[10.15] As soon as a Reserve unit moves in the Enemy Reaction Phase, the Reserve marker is removed.

[11.0] Combat

Phasing units that begin their Combat Phase adjacent to enemy unit(s) may, at the phasing player's discretion, attack those enemy units. It is also possible to attack non-adjacent enemy units with artillery units. The phasing player is the attacker, and the non-phasing player is the defender. The phasing player may make as many different attacks as he wishes, resolving the battles one at a time in any order he chooses. Combat is never mandatory.

[11.1] Attack Limits

[11.11] Attacks can be conducted only against adjacent enemy units, except in the case of artillery. The execution of an attack is optional, and it is not mandatory to attack adjacent enemy units.

[11.12] Each unit can only attack once during a Combat Phase. Also, each enemy unit can be attacked only once during a Combat Phase.

[11.13] Isolated units cannot attack.

[11.14] Units that are unsupplied or in Strategic Movement have their attack strength halved.

[11.2] Multi-Unit/Multi-Hex Combat

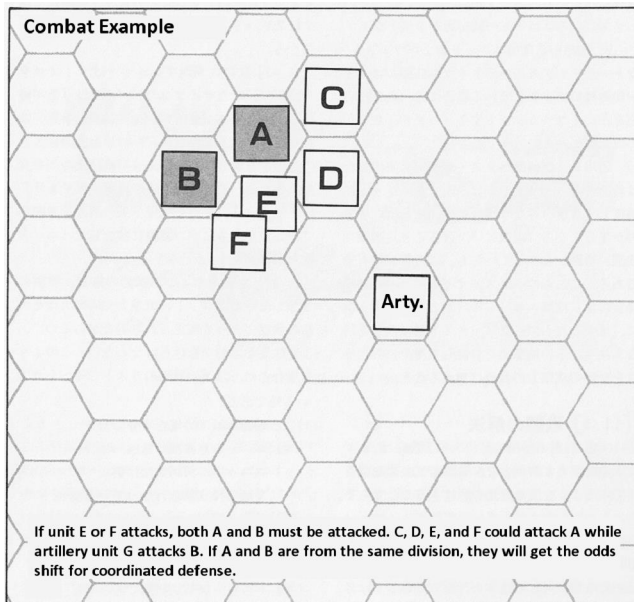
[11.21] When several units attack several defending units the attacker has the choice of how to resolve the combat, subject to the following provisions:

- 1) All defending units adjacent to the attacking units must be attacked.
- 2) Every attacking unit must be adjacent to every defending unit that it attacks (exception: see 12.0 Artillery)
- 3) When two or more units attack one defending unit (or hex) the attack strengths of all attacking units must be combined into a single attack strength. Similarly, should one unit attack two or more defending units (or hexes) the defense strengths of the defending units must be combined into a single defense strength.

[11.22] The attacker must attack all units stacked in one hex as one combined defense strength. However, attacking units stacked in a single hex may make separate attacks on adjacent defending units.

[11.23] The combat strength (attack or defense) of a single unit is unitary and may never be divided among different battles.

[11.24] Attack is voluntary; a unit is never required to attack simply because it is adjacent to an enemy unit.



[11.3] Terrain Effect on Combat

[11.31] Each type of hex terrain on the map has an appropriate odds column on the Combat Results Table. If there is more than one type of terrain in a hex then the most advantageous type to the defender is used.

[11.32] The odds determined in the combat resolution procedure outlined below in case 11.4 is found under the appropriate terrain column on the Combat Result Table and the die is rolled to determine the result. The terrain column used is based on the type of terrain that the defending units occupies. If more than one hex of enemy units is being attacked, the column most disadvantageous to the attacker is chosen.

[11.33] When the defending unit is located in the terrain listed below, adjust the combat odds column:

- 1) **Town Hexes:** If units are defending in a town hex, the odds column is shifted to the left (that is, a 2-1 attack becomes 1-1).
- 2) **City and Westwall Hexes:** All units defending in these hexes are doubled in their defense strength. German units defending in Westwall hexes receive a further defensive combat odds shift to the left (that is, a 2-1 attack becomes 1-1).
- 3) **River and Slope Hexsides:** Units attacking across rivers or up slope hexsides have their attack strengths halved (rounding up). The presence of bridges, fords, or roads has no effect on this limitation. Each unit is individually halved before all are added up.

[11.4] Combat Resolution

[11.41] The first step in the resolution of combat is the expression of the attacking and defending strengths as an odds ratio. To accomplish this, the attacking player totals the attack strengths of all units participating in a single attack, the defending player totals the defense strengths of all units defending against that attack. Compare the total attack strength to the total defense strength and state this as an odds ratio (i.e. 14-7).

[11.42] Simplify this ratio to one of those shown on the Combat Results Table by dividing the smaller number into itself (resulting in "1") and then into the larger number (resulting in "2" in the above example). Fractions are rounded off in favor of the defending player. Thus 14-7 becomes 2-1, 4-9 becomes 1-3, 19-10 becomes 1-1 and so forth.

[11.43] The attacker then rolls the die and cross references the die roll (possibly modified by Armor Superiority) with the odds column of the attack in the proper terrain row of the CRT, thus yielding the result of the combat which is applied to the participating units per the explanations of the results given below.

[11.44] **Modification of Attack and Defense Strength:** It is important to remember that the attack and defense strengths of units involved in combat may change depending on conditions. A brief summary of these is listed below:

- 1) Attack strength is halved if:
 - a) Units are unsupplied
 - b) Units are attacking across river or slope hexsides
 - c) Armor/panzer units are attacking into forest hexes (Advanced Game)
- 2) Defense strength is halved if:

- a) Units are isolated
 - b) Units are in Strategic Movement
- 3) Defense strength is doubled if:
- a) Units are in city or Westwall hexes
 - b) Units are in the Improved Positions

These reductions are not cumulative. The attack or defense strength of a unit may never be less than half its face value regardless of the situation, nor may it ever be more than double.

[11.45] **Modification of Combat Odds:** It is possible for the combat odds to be "shifted" one to the right or left based on certain combat conditions. A shift of the combat odds to the right (+1) would change a 2-1 attack to a 3-1; a shift of the combat odds to the left (-1) would change the attack to a 1-1, and so on. These odds shifts are cumulative; so that a +1 and -1 shift of combat odds in a battle would result in no change at all. The conditions that result in such shifts are described in greater detail later.

Requirements for column shifts:

- 1) Coordination on Attack (Section 11.7): Attacker +1
- 2) Coordination on Defense (Section 11.7): Defense -1
- 3) German surprise:
 - ÉAll German attacks during the 12/16 AM turn: +2
 - ÉAll German attacks during the 12/16 PM turn: +1
- 4) Tactical air support:
 - ÉFor the attacker: +1
 - ÉFor the defender: -1
- 5) Town or city hexes:
 - ÉIf occupied by the defending unit: defense -1
- 6) Westwall hex:
 - ÉIf occupied by a German defending unit: defense -1
- 7) Participation in the combat by a German Tiger tank unit:
 - ÉIn attack: +1
 - ÉIn defense: -1
- 8) Participation in the combat by a German Panther tank unit with no opposing Allied armor:
 - ÉIn attack: +1
 - ÉIn defense: -1
- 9) Combat in the Reserve Phase:
 - ÉAttacker: +1

[11.46] **Maximum and Minimum Combat Odds:** All applicable negative combat odds shifts are applied before positive shifts are applied. Note that odds greater than those on the Combat Results Table are resolved on the right-most column; all those less than those shown are resolved on the left-most column. Example: If an attack is calculated to be made at 1-5 odds with two positive odds shifts and a negative shift with minimum odds of 1-2 on the CRT in the Light Woods column, the negative shift could not result in less than the minimum 1-2, after which the positive shifts are applied and the attack is rolled as a 2-1 attack.

[11.47] **Modification of Dieroll:** The dieroll may be reduced by 1 if the attacker has Armor Superiority in a battle; it may be increased by 1 if the defender has Armor Superiority. For a more detailed explanation, see the rules on Armor Superiority (case 11.8 below and Advanced Rule 11.0).

[11.48] **Description and Usage of Combat Results:** Combat results beginning with D in the Combat Results Table are applied only to the defender (except for D1+) and combat results beginning with A are applied only to the attacker. Otherwise, a result affects both sides.

Combat Results

D1, D2 (defender retreat): Applies to the defender. The defending player must either remove the number of steps indicated (1 or 2) or retreat all units defending in the combat that number of hexes. Alternatively, step loss and retreat may be combined. If you take a step loss, this does not mean to reduce the strength of all participating units, but rather just one or two of them. When reducing a two-step unit, it may be reduced from two steps to one or it may be eliminated. Example: If a D2 combat results is rolled, the defending can choose:

- 1) To retreat all defending units two hexes.
- 2) To remove two steps from any participating units without any retreat.
- 3) To remove one step from any participating unit and retreat all units one hex.

D1+ (defender retreat, attacker loss): Apply the combat results as in D1, but also the attacker must take a one-step loss.

A1 (attacker retreat): Applies to the attacker. The attacking unit(s) must either remove one step from one of the involved units or retreat all involved units one hex.

D2x, A1x, A2x: The player to whom the result applies must take a mandatory step loss from one of the involved units and then take any combination of step losses or hexes of retreat to equal the "number" of the result.

FF (Fire Fight): Applies to both sides. It is mandatory for one defending unit to take a one step loss; then the attacker must also take one step loss. No retreat or advance is possible unless one player's units are eliminated as a result of these losses.

ENG: Applies to both sides. No step losses or retreats are indicated, however, units are assumed to be locked in combat. "Engaged" markers of the attacker's color (German or Allied) are placed on all involved units. The defending player choose one of three actions in the Combat Phase of his next Player Turn:

- 1) Remain in place.
- 2) Counterattack with the involved units.
- 3) Retreat two hexes.

If he chooses to remain in place, the markers remain and the attacker must refight the battle in his turn and may not move the involved units. At this time, both players may move up additional units to participate in the battle if they so desire. Armor/panzer units involved in Engagements may freely move out of Engaged results (during a Movement Phase) whether attacker or defender. Artillery units providing support fire are not affected by Engaged results. If the defender chooses to retreat, the attacker may immediately advance according to the rules covering advance after combat.

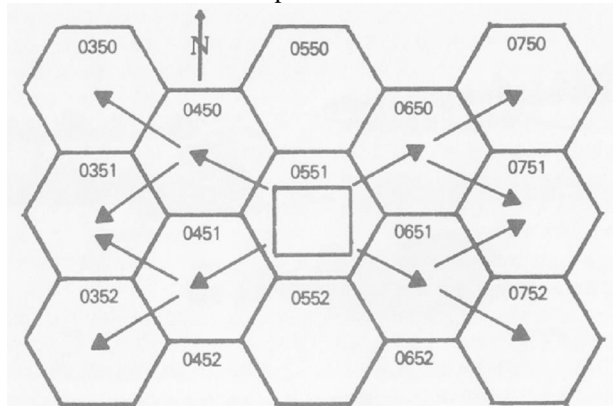
[11.5] Retreat after Combat

[11.51] The owning player, if he elects to retreat, always moves retreating units in a path through the hex grid equal to the length of the retreat indicated by the combat result (one or two hexes).

[11.52] The owning player determines the path of retreat within the following priorities:

- 1) If at all possible, not through river hexsides which are not traversed by an intact bridge or ford.
- 2) Always to the east for retreating German units and to the west for retreating Allied units.
- 3) If at all possible, not through enemy zones of control.
- 4) Never across a Meuse River hexside which is not traversed by a bridge or ford.

The east and west retreat priorities are illustrated below.



The two armies must retreat in the direction that follows the arrows as much as possible. Only when the direction indicated by the arrows cannot be retreated is any other direction allowed.

[11.53] **Effect of Zones of Control:** If no other retreat route exists, the unit may retreat through an enemy ZOC as follows. When retreating into an enemy ZOC one unit per stack must lose a step (not each unit in the stack). However, units may not retreat onto an enemy unit or off the map; in such cases, the stack loses one step for each hex that cannot be retreated.

[11.54] **Terrain Effects on Retreat:** Units may retreat through any type of terrain on the map without taking into account the movement cost. Note, however, that no unit may retreat across a Meuse River hexside unless it has an intact bridge or ford, and that no armored unit may retreat across any type of river hexside without a bridge.

[11.55] **Stacking and Retreat:** Units may not end their retreat in violation of stacking limits. If unable to do so, they must lose steps instead.

[11.56] **Zone of Control Negation for Retreat:** The presence of friendly units negates the effect of enemy ZOCs for the purposes of retreat. That is, friendly units may retreat over other friendly units that are in enemy ZOCs without having to take a step loss for each hex of such a retreat. If a unit is forced to retreat into a friendly occupied hex and that hex then undergoes an attack, the retreated unit does not add its combat strength to the units in that hex. It

does, however, suffer the combat results of the second attack (but may never advance).

[11.6] Advance after Combat

[11.61] When a unit retreats or is eliminated as result of combat, the opposing player's units that participated in the battle are eligible for advance after combat. Different types of units have different abilities to advance.

[11.62] **Length of Advance:** Victorious Infantry-type units (infantry, parachute infantry, Fallschirmjagers, and engineers) may advance one hex after combat. Armored infantry (panzer grenadiers) may advance two hexes after combat. Armor (panzer) units may advance one more hex than the defender retreated or was called on to retreat (with total elimination treated as a two-hex retreat).

[11.63] **When to Advance:** The option to advance must be exercised immediately before any other combat takes place. Units are never forced to advance and may advance less than the maximum number of hexes allowed.

[11.64] **Direction of Advance:** Advancing units may advance in any direction as long as the first hex advanced into is the defender's vacated hex.

[11.65] **Terrain Effects on Advance:** Advancing units may ignore terrain costs except that no more than one hexside may be crossed that is an unbridged river, slope, or ford hexside. Armored units may not advance across unbridged river hexsides and must stop their advance in the first forest hex entered in the advance, unless they are advancing along a road or highway.

[11.66] **Units Eligible for Advance:** Any victorious units may advance, regardless of whether they were the attacker or defender in the combat. However, artillery and rocket units may never advance after combat.

[11.67] **Elimination and Length of Advance:** In the event of a step loss or FF result that results in the elimination of one of the combatants, the victorious player's armored units may advance two hexes; all other types of units may advance one hex (except artillery).

[11.68] **Zone of Control Effects on Advance:** Advancing units must stop as soon as they enter an enemy ZOC.

[11.7] Combat Coordination

[11.71] **Coordinated Attack:** Any attack where the attacker has at least two units of any attacking division or divisions participating in the battle, the combat odds column of the attack is shifted one to the right (a 2-1 would become a 3-1). Other friendly units may participate in such an attack, but at least two units of a division must be participating in the attack to receive the benefit.

[11.72] **Coordinated Defense:** If any two units of a defending division are in the same hex or adjacent to one another, an attack on a hex containing one of these units would have its combat odds column shifted one to the left (a 2-1 would become a 1-1). This benefit is available only for defending regiment- and brigade-sized units.

[11.73] **Effects of Supply:** Unsupplied or isolated units may not be part of the components for a coordinated attack. However, unsupplied or isolated units may claim a coordinated defense.

[11.74] **Limits:** Regardless of the number of participating divisions in an attack or defense, a player may never receive more than one coordination bonus per battle. Some units have no parent division (the division designation does not appear on the counter). Such units cannot take advantage of the bonus.

[11.75] **Special Division Equivalents:** Even though they are not divisions, the units of the Fuhrer Begleit Brigade (Fuh Bglt) and the Fuhrer Grenadier Brigade (Fuh Gr) are eligible to receive the coordination bonuses.

[11.76] **Coordinated Attack and Defense:** It is possible for both the attacker and defender to possess respective offensive and defensive bonuses in which case the effects nullify each other.

[11.77] **Inter-Allied Coordination:** In any combat which involves British/French AND US units, none of the participating Allied units are eligible for combat coordination bonuses.

[11.8] Armor Superiority

[11.81] If one of the players in a battle has a supplied armored (panzer) unit participating and the opposing player does not, that player possesses Armor Superiority. Armored units are those that have a tank silhouette on the counter in place of a unit type symbol.

[11.82] If the player possessing Armor Superiority is the attacker, he may at his discretion subtract one from the die roll that results in the battle.

[11.83] If the player with Armor Superiority is the defender, he may add one to the die roll of the battle. This decision must be made prior to the die roll.

[11.84] **Restrictions:** If a player takes a loss in a battle in which he claimed Armor Superiority, he must take at least one of the losses from one of the participating armor units.

[11.85] **Terrain Considerations:** An attacker may not claim Armor Superiority if all the attacking armored units are attacking across river or slope hexsides. An attacking player may not claim Armor Superiority if attacking into a forest or Westwall hex. The defending player may not claim Armor Superiority if the armored unit(s) is/are in a forest hex.

[11.86] **German Tiger and Panther Tanks:** Several German panzer units are Tiger tanks (see the silhouettes). These units provide the German Player with an additional odds shift for any combat in which they participate (one to the right if attacking, one to the left if defending). The Tiger units are as follows:

- 1SS/501SS
- 506 Panzer
- 9/301 Panzer
- 614 Panzerjager

653 Jagdtiger

Note that the 653, 506, and 301 Panzer Battalions appear only when using Optional Rule 8.0.

[11.87] Also, German Panther units receive the same advantage when attacking only Allied non-armored units or M5 tanks.

[11.88] Of course, it is permissible for the German Player to obtain both Armor Superiority and the Tiger/Panther odds shift.

[12.0] Artillery

Artillery units (including German rocket or Nebelwerfer units) have two values that determine their combat effectiveness. The number in the place of its attack strength is the attack support strength of the unit. The second number is not its defense strength but rather its range in hexes. And, the final number is its movement allowance. Unlike other units, artillery units may provide attack or defensive assistance to friendly units in combat within its range. This is known as offensive and defensive fire support, respectively. Artillery units may also attack enemy units within their range independently without conventional adjacent attacks by other friendly units. Such attacks made by artillery units alone are known as "barrage attacks."

[12.1] Attack Support Fire

[12.11] Artillery units may support friendly attacking units by adding their attack support strength to the attack strength points of the units making the adjacent attacks.

[12.12] The range is counted from the artillery units hex to that of one of the defending enemy units.

[12.13] The combat results of attacks supported by friendly artillery units in no way affects the artillery units that are firing.

[12.14] Artillery units may attack adjacent enemy units with their attack support strength, but may not provide fire support for other attacks within their range when adjacent to any enemy units.

[12.15] Artillery units may only provide attack fire support for one battle in a given turn.

[12.2] Defensive Fire Support

[12.21] During the enemy player's Combat Phase, artillery units may provide defensive support for adjacent or non-adjacent friendly units that are within range of the artillery units.

[12.22] One half of the attack support strength of the artillery unit(s) providing the defensive support is added to the defense strength of any hex of friendly units within the range of the artillery unit.

[12.23] The results of the combat supported by artillery have no effect on the artillery unit that fired.

[12.24] An artillery unit cannot provide defensive support for other combats within range if it is adjacent to an enemy unit.

[12.25] Artillery units may provide defensive fire support for only one battle in a given turn.

[12.3] Barrage Attacks

[12.31] When artillery units attack enemy units independently without other friendly adjacent units, this is known as a barrage attack.

[12.32] Barrage attacks are resolved as any other attack except that the artillery unit's attack support strength is doubled to determine its barrage strength [sic]. The barrage strength points are then compared to the defensive strength points of the target unit(s) as an odds ratio. The die is rolled and the results are applied. Barraging artillery units are not affected by the combat results.

[12.33] Artillery units may not provide defensive support for friendly units undergoing barrage attacks. "ENG" and results affecting the attacker are treated as "no effect" results.

[12.4] Defense Against Attack

[12.41] All artillery and rocket units are assumed to have a defense strength of 2 when attacked. This is subject to modification by terrain and unit status.

[12.5] Movement Restrictions

[12.51] Artillery units move identically to motorized units.

[12.52] Artillery units may only cross rivers at bridges or fords.

[12.6] Special Restrictions on German Artillery

[12.61] Because of the German lack of transport, fuel and artillery ammunition, much of the German artillery was left behind during the offensive. Therefore, any German artillery units that cross west of the German Westwall line of hexes are flipped over to their reduced strength side.

[12.62] Thus, German artillery are permitted to move west of the Westwall, but their combat strength is reduced.

[12.63] If an artillery unit is on or behind the Westwall line, the unit remains at full strength. In this case, use the movement allowance that is printed on the back of the counter.

[12.64] If a German artillery unit that was at reduced strength west of the Westwall line crosses back onto or east of that line, it should be flipped back over to full strength. It is important to note, however, that this does not mean that German artillery have steps for the purposes of combat losses.

[12.7] Other Restrictions

[12.71] Artillery units are never required to fire simply because they are in range; their use is voluntary.

[12.72] Artillery units do not have steps and are permanently destroyed when forced to take a step loss.

[12.73] Terrain does not affect the line of fire of artillery units.

[12.74] Unsupplied artillery units have their attack support strengths halved (rounded up).

[12.75] Isolated artillery units and those in Strategic Movement may not fire.

[12.76] Artillery units may not fire at non-adjacent units if an enemy unit is adjacent to them.

[12.77] Any number of friendly artillery units may participate in attack, defense, or barrage fire so long as they have the same corps designation and are all within range.

[12.78] Artillery units are halved when firing into towns, cities, Westwall, and Improved Position hexes. In such cases, all friendly participating artillery units are totaled prior to the halving.

[12.79] Artillery fire may never be lower than half strength unless the artillery units are isolated. The attacking player must allocate his artillery support in each battle before the defending player is required to decide which friendly units he will support with defensive fire.

[12.8] 12/16 AM and 12/16 PM Game Turn Restrictions

[12.81] During the 12/16 AM game turn Allied artillery units may not perform any type of fire.

[12.82] During the 12/16 PM game turn Allied artillery fire is halved (rounding up). Allied defensive support fire is one-quarter of the attack support strength for this turn only (divide by four and round fractions up).

[13.0] Reserve Phase

After friendly movement and combat has ended, units that were designated as reserves may either move in a special Reserve Phase or remain in reserve for defensive purposes during the next enemy Player Turn.

[13.1] Movement of Reserve Units

[13.11] Units that move during the Reserve Phase are no longer in reserve (remove the marker). However, armored units (with silhouettes printed on the pieces) that moved during the Movement Phase can move only half of their movement allowance in the Reserve Phase.

[13.12] Units that move in the Reserve Phase can move their full movement allowance, but they may not use Strategic Movement.

[13.13] Units that move in the Reserve Phase can perform March Movement (see case 5.7).

[13.14] In other respects, units that move in the Reserve Phase do so in accordance with the normal movement rules.

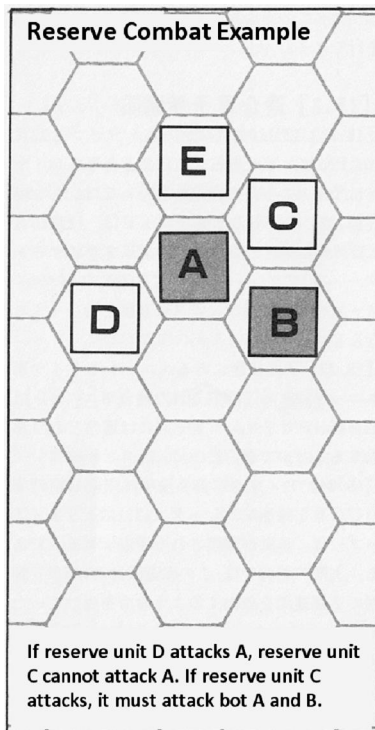
[13.2] Reserve Combat

[13.21] A unit that moves during the Reserve Phase may attack any enemy units it is adjacent to at the end of the phase.

[13.22] However, in this case, only one unit (or up to two units belonging to the same Kampfgruppe when using the Advanced Rules) may attack the enemy units in one hex.

[13.23] Combat resolution takes place after all units have finished moving and is resolved identically to standard combat, but note the following:

- 1) No more than one unit (or one Kampfgruppe) may perform a reserve attack in a single combat.
- 2) It is possible for an attacking armored unit (or Kampfgruppe) to benefit from Armor Superiority or Combined Arms (Advanced Rules) in reserve combat.
- 3) It is possible for a single unit to be attacked in the normal Combat Phase and then later be attacked by a reserve unit at the end of the Reserve Phase of the same Player Turn (but a single unit cannot be subjected to two attacks in a single Reserve Phase).
- 4) Artillery units may not be used by either the phasing or the non-phasing player to support friendly units involved in reserve combat.
- 5) Neither the attacker nor the defender may claim coordinated combat in resolving reserve combat.



[13.3] Special Capabilities of Armored Units

[13.31] Armored units and German Kampfgruppen (KG, see Advanced Rule 12.0) [sic] in reserve may move half of their normal movement allowance, move adjacent to enemy units during the Movement Phase, and participate in regular combat during the subsequent Combat Phase.

[13.32] The combat strength of these units is added to the total attack strength and the combat is resolved normally.

[13.33] After the normal combat is resolved, the reserve armored units may move again in the Reserve Phase per the rules above and then participate in reserve combat. However, if they receive an adverse result (A1, A2, A2x, or ENG) in the initial Combat Phase, they are immediately removed from reserve and may not do anything in the Reserve Phase.

[13.34] A reserve armored unit moving during the normal Movement Phase may not cross river hexsides without bridges or slope hexsides without roads.

[14.0] Bridges and Engineers

[14.1] Bridges

[14.11] When a unit crosses a river hexside over a bridge, the unit does not need to pay the usual river cost.

[14.12] Players can destroy bridges, rebuild them, or build new bridges in hexes where they did not exist at the start of the game.

[14.13] Also, note that some of the bridges on the Our River have been destroyed at the start of the game (even if printed on the map) [sic]. These bridges will not be available until they are rebuilt.

[14.2] Bridge Destruction

[14.21] An engineer unit can attempt to blow a bridge any time it is within 2 hexes of the hexside with the bridge and there are no enemy units in that hex.

[14.22] If any type of unit is in the hex that includes the bridge hexside, it can attempt to blow it up at any time.

[14.23] The procedure for bridge destruction is as follows: During the Engineer Phase that follows the Reserve Phase of his Player Turn, the phasing player can attempt to destroy a bridge if his units meet the conditions for bridge destruction. The player rolls the die once for each attempt to blow the bridge. If the die roll is 1 or 2, the destruction is successful and the player places a Destroyed Bridge marker on the hexside. If the die roll is 3 to 6, the attempt has failed.

[14.24] If the unit attempting to blow the bridge is an engineer, it will succeed on a roll of 1 to 4.

[14.25] If a bridge is destroyed, the road that passes over it is negated, and units must pay the full cost of the river. It remains in this state (with a Destroyed Bridge marker) until rebuilt.

[14.26] No matter how many units are within the eligible distance, a player can attempt only one destruction per bridge per Player Turn, and the die roll is not modified by the presence of additional units.

[14.27] The following units cannot attempt to blow bridges: unsupplied units, isolated units, disorganized units, units in Strategic Movement, and units in reserve.

[14.28] The Allied Player may not attempt to destroy bridges before the 12/17 PM game turn.

[14.3] Bridge Construction

[14.31] An engineer unit may build a bridge across a river hexside simply by moving across that hexside.

[14.32] Note that this costs the engineer unit its entire movement allowance, so it must begin the game turn adjacent to the hexside to be bridged. The player simply announces during the Movement Phase that the engineer is building a bridge. The unit remains in the hex, and bridge construction is completed (and a Bridge marker is placed) during the subsequent Engineer Phase. No units of either side can use the bridge for movement until the next Player Turn.

[14.33] Bridges may be built where no bridge previously existed and serve to connect otherwise unconnected roads (such as between hexes 1325 and 1425).

[14.34] An engineer unit which is unsupplied, isolated, or in Strategic Movement cannot build a bridge. The Allied player may build bridges at many locations, and the number of new bridges is limited only by the number of the markers.

[14.35] In contrast, the German Player is limited to a total of eight bridges during the course of the game.

[14.36] A unit that moves in the Reserve Phase cannot build a bridge during that turn (that is, a unit that has built a bridge in the Movement Phase loses its reserve status).

[14.37] Unlike other units, engineers can move and build Improved Positions in the same game turn. However, these units are subject to the restrictions described above.

[14.38] The German Player may not attempt to build bridges during the 12/16 AM game turn.

[14.4] Improved Positions

Improved Positions may be built in any hex by any friendly unit other than artillery.

[14.41] Units that attempt to build Improved Positions may not be in the enemy ZOC, may not be isolated, and may not move or participate in combat during the current Player Turn.

[14.42] Only one Improved Position can be built in each hex (that is, only one marker can be placed).

[14.43] The Improved Position marker is not counted against the stacking limit.

[14.44] The Improved Position is completed during the Engineer Phase of the current Player Turn, at which time the player places the marker in the hex.

[14.45] **Effect of Improved Positions:** The strength of a unit defending in an Improved Position is doubled.

[14.46] **Durability:** Improved Positions remain on the map so long as they are occupied by friendly units at the end of every movement phase and are not vacated as a result of

combat. Improved Positions which are vacant at the end of a Movement Phase or are vacated by friendly units for any reason are considered to be eliminated and are removed from the map.

[14.47] It is important to note that certain Allied units begin the game in Improved Positions.

[14.48] The Allied player may not attempt to build Improved Positions before the 12/17 AM turn.

[15.0] Special Rules

The following rules describe special influences on the battle that only apply during the early turns. The rules reflect the fact that the Germans achieved a total strategic level of surprise over the Americans. This bolstered German attack capability while nearly paralyzing Allied forces for the first two days. The effects of such overwhelming surprise is analyzed by Dupuy in *Numbers, Predictions and War*. The advantages of surprise generally continued for a period of three days with the strongest effects on the first day.

[15.1] Effect of German Surprise Attack

Due to the surprise of the German attack, on the 12/16 AM turn, all German attacks are shifted two to the right (a 2-1 becomes a 4-1). This includes reserve attacks in the first German Reserve Phase. Also, from the December 16 PM game turn to the December 18 AM game turn [sic], there will be one column shift to the right when the Germans attack.

[15.2] Allied Movement Limits

Due to the surprise of the German attack, the disruption of communications due to the artillery barrage, and German radio jamming on the 12/16 AM and PM turns (the first two turns of the game), all Allied units are restricted in their ability to move.

[15.21] During the 12/16 AM turn, only Allied units that were attacked by the German Player in his first turn attacks are eligible to move or attack German units. Even then, these units may move a maximum of one hex. In addition, during the 12/16 AM turn the Allied Player has no Reaction Phase prior to the German attacks.

[15.22] During the 12/16 PM turn, only Allied units that were attacked in the 12/16 AM or 12/16 PM turns (that is, during the first two game turns) may move, although they may move their full movement allowance. Allied reserve units may move normally in the 12/16 PM turn. US armored units that began the game in reserve may move freely in the 12/16 PM turn, even if German units have moved adjacent to them so that they are no longer in reserve.

[15.23] Beginning with the 12/17 AM game turn all Allied units can move normally.

[15.3] Restrictions on Allied Reserves

[15.31] The Allied Player may not designate reserves on the 12/16 AM or PM turns.

[15.32] Allied reserve units may not move in the Reaction or Reserve Phases of the 12/16 AM turn.

[15.33] Allied reserves and other units that have been attacked so far may move normally in the 12/16 PM turn.

[15.34] Combat Command B of the 9th Armored Division (a 6-5-7 setting up in hex 1311) is in reserve with limited movement capability. In the actual battle, this armored brigade was ordered to rescue the two regiments of the 106th Division. Therefore, if it moves during the 12/16 PM Reserve Phase, it must move to St. Vith and end its movement there. If the Allied Player chooses not to do this or cannot reach St. Vith, the unit is taken out of reserve and remains in place. It may then move normally in the 12/17 AM Allied Player Turn.

[15.4] Restricted German Movement

[15.41] The German Player does not receive his normal movement phase in the 12/16 AM turn. This is because he is assumed to have already moved into the historical assault positions. However, German units that set up in reserve may move in the Reserve Phase of the 12/16 AM turn. The German Player may not create reserves during the 12/16 AM turn.

[15.42] All German units may move normally beginning with the 12/16 PM turn.

[15.5] German Traffic Jams

In the 12/16 AM game turn, due to traffic congestion, German units may not use roads and the highways. During this turn, the German Player moves as if there are no roads on the map.

[15.6] Bridges

Due to the surprise of the attack, the Allied Player may not attempt to destroy bridges before the 12/17 PM turn. The German Player may blow them up from the start of the game. However, the German Player may not attempt to build bridges during the 12/16 AM turn.

[15.7] German Night Infiltration

During the first night of the battle, the German infantry and panzer grenadiers found it relatively easy to infiltrate the American line in heavily forested areas. Therefore, during the 12/16 PM turn, Allied ZOCs do not extend into forest hexes.

[15.8] Kampfgruppe Peiper

In the 12/17 AM turn, and only this turn, the two units of Kampfgruppe Peiper (ISS/1/I, ISS/1/II) may ignore enemy ZOCs in movement and advance after combat. To use this "breakout" capacity, the two units must end their 12/17 AM turn movement within four hexes of each other or (in

Advanced Games) remain stacked as a German Kampfgruppe.

[15.9] German Supply

All German assault units had sufficient supplies for the first two days of the battle. Therefore, German units are considered to be in supply for the first four turns of the game (to the end of the 12/17 PM turn). However, this special rule does not apply to the von der Heydte Fallschirmjager unit. It survives the drop, its supply state must be determined normally.

[15.10] Allied Air Support

The Allied Player may not fly air strike or interdiction missions with available tactical air support (Advanced Rules) before the 12/18 AM turn. Allied missions available in these turns may be used only for ground attack support or ground defense support.

[16.0] How to Win

In the Basic Game, it is recommended to play one of two scenarios: "Breakout" or "Wacht am Rhein". The difference between these two scenarios is only the length and victory conditions, so take your choice. The "Breakthrough" scenario is the shortest scenario of the game, only eight game turns in length. This scenario simulates the first four days, the most critical period for the German offensive. The "Wacht am Rhein" scenario is 20 game turns long, simulating the initial German attack and the subsequent Allied counter-attack. Both scenarios began with 12/16 AM game turn, and the initial setup of units is the same. Beginning players should do the shorter scenario first.

"Breakthrough" Scenario

Scenario Length: 8 game turns

Starting Turn: 12/16 AM

Ending Turn: 12/19 PM

Playing Time: 3-5 hours

Accumulated Replacement Points: As listed for 12/16 AM on the Replacement Schedule

Bridges: No bridges have been destroyed

Victory Conditions:

The German Player wins if at any time by the end of the 12/19 PM turn he accomplishes either of the following conditions:

1) Occupies any two of the following towns: St. Vith, Bastogne, Spa AND has three supplied motorized units on the map west of hex row 3100.

2) Occupies three Liege hexes.

The Allied Player wins by avoiding all of the German victory conditions.

"Wacht am Rhein" Scenario

Scenario Length: 20 game turns

Starting Turn: 12/16 AM

Ending Turn: 12/25 PM

Playing Time: 6 -12 Hours

Accumulated Replacement Points: As listed for 12/16 AM on the Replacement Schedule

Bridges: No bridges have been destroyed

Victory Conditions:

German Decisive Victory: If the German Player exits at least 12 panzer or panzer grenadier units off the west and north edges of the map at between entry hexes J and M, the game ends and he is awarded the Decisive Victory.

However, the units must be in supply when they exit.

German Tactical Victory: If either of these conditions is met by the end of the 12/19 PM turn [sic], the game ends as a German Tactical Victory.

1) The German Player occupies any of the Liege or Namur hexes.

2) He has at least three supplied motorized units west of the Meuse River and north of Vireux.

Once the German Player has achieved one of these victory conditions, the game ends and no more changes can be made. However, the German Player has the option of continuing the game in order to try to achieve a decisive victory.

Draw: At the end of the game the German Player has at least one unit each occupying the towns of St. Vith, Bastogne, and Marche.

Allied Tactical Victory: The Allied Player wins a tactical victory by avoiding all of the German victory conditions until the end of the 12/25 PM game turn.

Allied Decisive Victory: The Allied Player wins a decisive victory if he avoids all of the German victory conditions until the end of the 12/25 PM game turn and there are no German units in St. Vith, Bastogne, Marche, and Houffalize.

III. Advanced Rules

When playing an Advanced Game, the players use all of the Basic Rules. If there are changes in the rules below, the Advanced Rules supersede the Basic Rules. However, unlike the Optional Rules included later, the Advanced Rules must be used in their entirety.

[1.0] Allied Air Supremacy

On AM turns with clear weather (12/23 AM, 12/24 AM, 12/25 AM, 12/26 AM, 12/27 AM), the following rules are in effect. Note that these rules only apply on AM turns, not on PM turns:

[1.1] Allied Airpower Effects on German Movement

[1.11] During clear AM game turns, the movement allowance of German motorized units is reduced by one. Also, German motorized units may not enter Strategic Movement during these game turns.

[1.12] German reinforcements can arrive on the map in Strategic Movement if the German Player likes, but once they leave Strategic Movement, they will no longer be able to use Strategic Movement during a clear morning game turn.

[1.2] Allied Airborne Supply

[1.21] On clear weather AM turns, the Allied Player receives a C-47 transport plane on his reinforcement schedule.

[1.22] He may place this C-47 unit on any hex on the map.

[1.23] This unit elevates the supply state of any units in or adjacent to that hex from isolated to unsupplied. However, it has no effect on unsupplied units.

[1.24] The C-47 unit may only be placed in only one hex during each turn.

[1.25] If a German fighter unit is in the same hex as the C-47 or adjacent to it, then the Allied units do not receive this benefit unless an Allied fighter unit is also placed in the same hex as the C-47. Allied fighters performing this task are on an "escort" mission.

[2.0] Tactical Air Support

[2.1] Appearance of Tactical Air Support

Both Players receive tactical air support in the form of air "missions". A mission is used each game turn, and the number of missions (and type aircraft units) that are available from turn to turn is noted both on the Reinforcement Chart for each Player.

[2.12] In the Ardennes campaign, tactical air support was almost exclusively confined to daylight hours. Therefore, aircraft units designated to appear during an AM game turn will be used by both players prior to the start of the Combat Phase of the German Player Turn. The German Player places his air missions first, followed by the Allied Player.

[2.13] In contrast, aircraft units designated to appear in a PM game turn are used by both players prior to the start of the Combat Phase of the Allied Player Turn Combat Phase of the next AM game turn [sic]. In this case, the Allied player places his air missions first (declaring their missions) and then the German Player places his.

[2.14] Each player can also use the aircraft units listed for a PM game turn for actual PM game turn missions, but the only type of mission that tactical air support that can perform during PM turns is a bombing mission.

[2.15] Tactical air support missions include ground attack support, ground defense support, air attack, road interdiction, and interception of enemy aircraft.

[2.16] The units performing the above missions may be placed in any hex on the map. They do not count against stacking limits and they are not affected by the terrain in the hex. However, due to the overwhelming air superiority of the Allied forces in the western region, German air units cannot carry out any operations west of hex row 30XX (the row that connects hexes 3001 and 3037). In addition, only one friendly air unit may be placed in each hex during a single Player Turn [sic].

[2.17] All tactical air support is placed just before the Combat Phase.

[2.18] Both Players have some planes that are bombers and can only perform air attack missions. For the Allied Player these are the B-26, A-20, and Lancaster units. For the Germans it is the Ju-88 bomber unit. Air attack missions are resolved in the same way as road interdiction missions, which are the only other missions that can be done in a PM game turn [sic].

[2.19] Below are the types of aircraft that can perform each mission category:

Ground Attack Support

German: Me-109, Fw-190, JU-88

Allied: P-47, P-51, P-38, Typhoon

Ground Defense Support

German: Me-109, Fw-190, JU-88

Allied: P-47, P-51, P-38, Typhoon

Air Attack

German: Me-109, Fw-190

Allied: P-47, P-51, P-38, Typhoon

Road Interdiction

German: All

Allied: All

Enemy Aircraft Interception

German: Me-109, Fw-190

Allied: P-47, P-51, P-38, Typhoon

Air Supply of Ground Forces

German: JU-88
Allied:C-47

[2.2] Ground Attack Support

[2.21] When supporting a ground attack, an aircraft unit is placed just prior to resolving the attack during the Combat Phase. In this case, simply put the unit on the hex under attack. It has the effect of shifting the combat odds ratio one column to the right (2-1 becomes 3-1).

[2.22] No more than two air missions may be used to support a single ground battle [sic].

[2.23] The aircraft units are not affected in any way by the outcome of the combat they have supported.

[2.24] Ground attack support missions can be flown only during an AM game turn.

[2.3] Ground Defense Support

[2.31] When supporting a ground defense, an aircraft unit is placed just prior to resolving the attack during the enemy Combat Phase.

[2.32] In this case, place the air unit on the hex being attacked by enemy units. This shifts the combat odds ratio one column to the left (4-1 becomes 3-1).

[2.33] In a single combat, a player may place no more than two units to provide ground defense support [sic].

[2.34] Ground Defense Support can counteract the effect of enemy ground attack support.

[2.35] The aircraft units are not affected in any way by the outcome of the combat they have supported.

[2.36] Ground defense support missions also can be flown only during an AM game turn.

[2.4] Air Strikes and Road Interdiction

[2.41] An aircraft unit designated to do road interdiction will either attack an enemy ground unit or a road hex.

[2.42] This mission is performed during the Combat Phase of your Player Turn prior to combat resolution.

[2.43] Place an attacking air unit on the target unit (or in the target hex), and roll one die. If the die roll is a 1 or 2, the attack succeeds and the units in the hex fall into a state of disorganization. A unit in a state of disorganization cannot move or fight during the next Player Turn of the owning player, nor can it be put in reserve. Place a Disorganized marker on the unit. If the die roll is 3-6, the attack has "no effect".

[2.44] If the target unit is in Strategic Movement, subtract 2 from the die roll (a modified die roll of 0 or -1 also results in disorganization).

[2.45] German road interdiction missions are less effective. This means that if a German aircraft unit performs this mission, the enemy unit will be disorganized on a roll of 1 or less.

[2.46] If the air unit is attacking a road hex rather than an enemy unit (that is, interdicting the road), the road would be interdicted on a die roll of 1-3 (or 1-2 for a German attack).

[2.47] If the interdiction is successful, the player puts an Interdiction marker on the hex. During the next game turn (i.e., the next two consecutive Player Turns) that road hex cannot be used by either side for movement or tracing supply.

[2.48] Players who launch air attacks must decide which of these two types of strikes to perform. In other words, you cannot attack both the enemy unit on the road and the road hex itself at the same time in a single game turn. The marker placed by this attack will remain on the map until the start of the Combat Phase of the next friendly Player Turn.

[2.49] This air strike/road interdiction mission is the only type of tactical air support that can take used during a PM game turn.

[2.5] Bombing Missions

[2.51] Bomber units of both sides may perform only interdiction missions (described in case 2.4). These bomber units include the German Ju-88.

[2.52] If an Allied bomber unit attacks a road/highway hex on a road interdiction mission, subtract 1 from the die roll (a zero becomes a -1).

[2.6] Interception of Enemy Aircraft

[2.61] During a Player Turn when tactical air support is used, both players can interfere with the execution of enemy ground support and road interdiction missions.

[2.62] At the start of the Combat Phase, the phasing player first assigns his air units to missions and places the units on the map. Then, the non-phasing player places air units that have been assigned to intercept any of those enemy missions.

[2.63] The intercepting unit is simply placed in the hex with the target enemy aircraft unit, canceling out all the effects of the mission assigned to that unit.

[2.64] Interception missions cannot be flown in a PM game turn.

[2.7] German Airborne Resupply

[2.71] Once (and only once) during the course of the game, the German Player can use a Ju-88 unit to attempt airborne resupply of a single hex that contains an isolated German unit.

[2.72] This procedure is exactly the same as the Allied Airborne Supply described in Advanced Rule 1.2. The earliest time this mission can be done is when the Ju-88 unit arrives during the 12/21 PM game turn.

[2.73] If the German Player wants to have the option of flying a resupply mission, he may not use the Ju-88 unit to perform road interdiction during that game turn.

[2.74] If German Player does not use the Ju-88 unit to fly a resupply mission, he may reserve it to use later in the game.

[2.75] When attempting to resupply, the German Player must roll a die to determine if the attempt was successful. On a roll of 1-3, resupply succeeds and the unit's status changes from isolated to unsupplied. On a roll of 4-6, the resupply fails.

[2.76] A German resupply mission may be flown only during a PM game turn.

[3.0] 150th Panzer Brigade

The 150th Panzer Brigade was equipped with an English-speaking German commando detachment and captured US military gear. It was assigned to carry out a penetration operation code-named "Trojan Horse." The Brigade was commanded by Colonel Otto Skorzeny, a well-known German officer, who had been ordered to break through the Allied lines and capture a bridge across the Meuse River for later use by German panzer forces.

[3.1] Deception Movement Ability

The 150th Panzer Brigade may ignore enemy ZOCs during the 12/17 PM game turn. However, this capability disappears at the end of the 12/17 PM game turn or immediately after the unit attacks an enemy unit.

[3.2] Deception Effect

In the first attack made by the 150th Panzer Brigade, the German Player is entitled to shift the combat odds ratio one to the right (e.g., a 2-1 becomes a 3-1).

[3.3] Restrictions

The 150th Panzer Brigade may never stack with other German units at any time during the game. If stacking is forced by a combat result, etc., the unit must take a step loss rather than stack. This is because the other units would mistake German soldiers in American uniforms for their enemies, causing confusion.

[4.0] Surrender

In battle in Europe in World War II, unsupplied, surrounded combat forces could only hold out for a few days before lack of fuel, ammunition and food made further resistance impossible. During the Battle of the Bulge, forces on both sides were isolated, surrounded and forced to surrender. In general, the ability of a combat force to continue fighting after isolation depended on their experience, training, and tenacity. Generally, airborne forces on both sides were trained to endure this state for a longer time. On the other hand, inexperienced divisions could falter quickly under such conditions.

[4.1] Determining Surrender

[4.11] Units that have been isolated for a predetermined number of consecutive game turns are immediately removed from the map and treated as surrendered.

[4.12] **When this Determination is Made:** If a unit is isolated from the Supply Determination Phase of one enemy Player Turn to the Supply Determination Phase of the next enemy Player Turn, it is deemed to be isolated for one game turn and is removed from the map during this same phase.

[4.13] Different types of units can withstand surrender for different numbers of game turns. The number of consecutive game turns required to surrender after becoming isolated are as follows:

Unit Type	Consecutive Game Turns in Isolation for Surrender
Green Units	4
SS, Fallschirmjager, paratrooper units	8
Other Units	6

[4.14] Units belonging to the following divisions are green units:

German
62nd Volksgrenadier Division
276th Volksgrenadier Division
560th Volksgrenadier Division
Allied
75th Infantry Division
87th Infantry Division
99th Infantry Division
106th Infantry Division
9th Armored Division
11th Armored Division
66th Infantry Division
90th Infantry Division

[4.15] If a unit that was isolated for 2 or 3 turns is subsequently supplied (its state changes to unsupplied), the count of game turns in isolation to determine surrender starts over again at 1.

[4.16] Players must keep track of how many game turns each unit has been isolated.

[4.17] Units that surrender should be placed in the Completely Destroyed box separate from those eliminated in combat since units that surrender are not eligible to be replaced.

[5.0] Terrain Effects on Armor Operations

More than most weapon types, the combat effectiveness of armored units is strongly affected by terrain. Generally, armor is devastating in clear terrain where observation maximizes the effectiveness of its guns. On the other hand,

armor's effectiveness is stifled by closed terrain. In the rules below, armor refers to any unit with a vehicle silhouette:

[5.1] Zones of Control

[5.11] The zones of control of armored or panzer units (if they have them) do not extend into forest hexes except along roads or highways. For example, if an armored brigade is on a road and the road leads directly into a forest hex, the ZOC of the armored unit (if it has one) would extend into that hex. Without the road, it would not. This does not apply to armored infantry or panzer grenadier units.

[5.2] Combat

[5.21] If armored units attacking non-armored units defending in forest, Westwall or city hexes, their attack strength is halved (rounding up).

[5.22] This halving does not occur if the units being attacked also include armor.

[5.23] This is not in addition to other halving possible due to lack of supply or river hexsides; that is, the attack strength of units may never be less than half their face value.

[5.3] Clear Terrain

[5.31] If an armored unit attacks an enemy unit or stack in a clear hex that does not include an armor, tank destroyer, self-propelled gun, anti-tank gun, or anti-aircraft gun unit, the attack power of the armored unit is doubled.

[5.4] Step Losses

[5.41] In any battle in which steps must be lost, they must first be taken off a participating unreduced armored unit.

[5.42] There is no stipulation that any particular unit's strength level must be reduced if all armored units that participated in the battle were already at reduced strength.

[5.43] After one step has been taken off an unreduced armored unit, if additional step losses are to be taken in the battle, there is no requirement as to which units must take the additional losses.

[5.5] Sturm Tigers

[5.51] The German Sturm Tiger company (15A/1001, 1-1-4) and Brumbar battalion (6PzA/217, 2-3-6) may fire like artillery units.

[5.52] Their range is two hexes. Their attack strength is doubled when attacking town or city hexes.

[6.0] Night Combat

Night combat is a double-edged sword. The darkness of the night generally aids the attacker and reduces the number of casualties. On the other hand, night combat also significantly increases the problem of command control and often causes confusion during unexpected encounters with both friend and foe. The US Army was reluctant to engage

in night combat, arguing that it was difficult to control combat units and it tended to tire units out more, and, in fact, American troops that specialized in night fighting did not do well. That being said, however, the desperate struggle in mid-December often forced American soldiers to fight at night to deal with their aggressive enemies. However, after the German threat subsided, the US Army returned to its old way and avoided night battle. On the other hand, German soldiers actively engaged in night fighting from the start of the offensive in order to advance quickly to the Meuse River. The Germans, from their experience, knew that they could take advantage of the dense forests to infiltrate through enemy lines at night, and they did so often in the Ardennes. However, by December 20th the German Volksgrenadiers were getting exhausted and gradually became less aggressive in night attacks that resulted in more casualties and loss of strength.

[6.1] Night Effects

[6.11] If Allied units attack during PM game turns, all FF combat results should be converted to Engagements (ENG).

[6.12] Beginning with the 12/20 PM game turn, if German units attack during PM game turns, all FF combat results should be converted to Engagements (ENG).

[6.13] Beginning with the 12/28 PM game turn, if Allied units attack during a PM game turn, the combat odds ratio is shifted one column to the left (e.g. a 2-1 becomes a 1:1) and all FF combat results should be converted to Engagements (ENG).

[6.14] During PM game turns, German infantry and panzer grenadier units can ignore enemy ZOCs in forest hexes. This gives the German Player the opportunity to infiltrate Allied lines at night in the forest.

[7.0] Disengagement

To more realistically portray the difficulties of disengaging from enemy contact, add the following rule.

[7.1] Changes

[7.11] All non-armor (non-panzer) units must expend one additional movement point to exit an enemy ZOC above and beyond the terrain cost of the first hex entered. This cost only applies on AM turns (it was easier to disengage at night). Armor or panzer units are unaffected by this limitation. Note that this rule does not allow units to move from one enemy ZOC to another.

[8.0] Ground Conditions

[8.1] Ground Freeze

[8.11] Beginning with the 12/23 AM turn, the ground is considered to be frozen, making it off-road movement easier. The cost for all motorized units in rough, light woods, and forest hexes is reduced by 1, as shown on the TEC.

[8.12] The ground is considered to remain in this condition until the end of the 12/27 PM game turn.

[8.13] Beginning with the 12/28 AM turn the heavy snow rule take effect.

[8.2] Heavy Snow

[8.21] From the 12/28 AM game turn until the end of the game the weather is heavy snow. During this time, the movement allowance of all units is halved (rounding up), and the effect of ground freeze no longer applies.

[8.22] In addition, regardless of unit type, advance after combat is limited to one hex.

[9.0] Allied Fuel Dumps

The Allied fuel dumps represent three million gallons of gasoline of the US First Army in the Spa-Stravelot area. The German Player can try to capture this fuel, which will improve his supply situation. To prevent this, the Allied Player can attempt to blow up the dump.

[9.1] Capture of Fuel Dumps

[9.11] The German Player can capture a fuel dump by moving a unit into or through the hex.

[9.12] Each fuel dump is worth 5 or 10 points. When the German Player captures a certain number of points, it delays when he must begin rolling on the Fuel Shortages Table by that number of turns.

[9.13] If the German Player captures no fuel, he must start rolling on the 12/22 AM game turn.

[9.14] If the German Player captured 10 points of fuel, he would begin rolling on the Fuel Shortage Table during the 12/24 PM game turn.

[9.15] If he captured 15 points of fuel, he would begin rolling on the 12/27 AM game turn.

[9.2] Fuel Dump Destruction

[9.21] The Allied player may attempt to blow up a fuel dump when a German unit enters the hex containing the marker. However, in order to do this, he must have an engineer or Belgian infantry battalion within two hexes of the hex.

[9.22] To attempt to destroy a fuel dump, the Allied Player rolls one die. He succeeds according to the following table:

Game Turn	Dieroll
12/17 PM	1, 2, 3
12/18 AM	1, 2, 3, 4
12/18 PM	1, 2, 3, 4, 5

[9.23] If the attempt fails, the fuel dump shall be deemed to have been captured by the German Player.

[9.24] If the attempt succeeds, the capturing unit must immediately stop and may move no further that Game turn. Remove the fuel dump marker from the map.

[9.3] Evacuation of Fuel Dumps

[9.31] If a fuel dump has been neither captured by the German Player nor destroyed by the start of the 12/19 AM game turn, it is removed from the map. Of course, it can no longer be captured.

[9.4] Occupation of Fuel Dumps and German Reinforcements

[9.41] If the German Player has not captured at least one of the fuel dumps by the time the 9SS and 2SS Panzer Divisions and the Fuhrer Grenadier Brigade are scheduled to arrive on the map, these formations arrive on the board in an unsupplied state (see the German Reinforcements Chart).

[9.5] Belgian Fusilier Battalion Restriction

The Belgian V Fusilier battalion may not voluntarily move from hex 1811 until both the 10 and 5 point fuel dumps have been destroyed, evacuated or captured. The unit may not attempt to blow up the dump unless attacked by a German unit. Use the following table to resolve the attempt:

Game Turn	Dieroll
12/17 AM	1, 2
12/17 PM	1, 2, 3
12/18 AM	1, 2, 3, 4
12/18 PM	1, 2, 3, 4, 5

[10.0] "Operation Spatlese", the German 15th Army Offensive

The German 15th Army offensive was to be launched if the 6th Panzer Army was successful with its initial mission of crossing the Hohnes Venn plateau and reaching the Meuse. The attack, code named "Operation Spatlese," was to consist of an armored thrust from the Heinsberg area by the 15th Panzer Grenadier, 9th Panzer and four Volksgrenadier divisions. The spearhead was to converge on Maastricht and, in conjunction with the ISS Corps, advance past Liege, encircling the troublesome US 1st Army. The German Player may launch the offensive in the game once he has achieved certain territorial objectives. This has an effect on the arrival of reinforcements for both players.

[10.1] Requirements

[10.11] The German Player may launch this offensive any time that he has achieved all of goals given below. If the offensive is launched, the effects listed in case 10.2 apply immediately.

- 1) There is at least one SS unit within five hexes of a Meuse River hexside.
- 2) The German Player controls (was the last Player to occupy) the towns of Monschau and Rocherath, and any two of the following: Elsenbom, Malmedy, Spa, Verviers, Rotgen, Eupen, Simmerath, Aywaille and Herve.
- 3) It is the 12/21 AM turn or earlier in the game.

[10.2] Effects

[10.21] If this offensive is carried out, the following divisions will not appear as reinforcements unless they are already in the game:

US Army: All of the 84th Infantry Division, 83rd Infantry Division, 9th Infantry Division, 5th Armored Division, 2nd Armored Division, and all VII Corps artillery units.

British Army: 43rd Infantry Division, 51st Infantry Division, 9th Infantry Division, and 33rd Tank Brigade.

German Army: 246th Volksgrenadier Division, 340th Volksgrenadier Division, 9th Panzer Division, 15th Panzer Grenadier Division, 410th Artillery Brigade, and the 301st Panzer (Tiger) Battalion (Optional Rule).

[10.22] On turns subsequent to the launch of the offensive, the Allied Player will receive tactical air support as usual, but the number of missions is reduced by one.

[10.23] Once the German Player launches the offensive, it is impossible for him to achieve the Decisive Victory level. A Tactical Victory is the greatest level that can be achieved.

[10.24] Once this attack has been launched, the German Player must begin rolling on the Fuel Shortage Table two game turns earlier than usual unless he has captured a fuel dump. In this case, of course, the game turn in which the German Player begins rolling is also earlier than usual.

[10.25] Once this offensive has been launched, these conditions remain in effect for the rest of the game.

[11.0] Combined Arms/Armor Superiority

In the Advanced Game, Armor Superiority is achieved differently than in the Basic Game. Based on the type of units involved in attack and defense, the die roll may be modified by the Combined Arms Table based on the type of units participating in the attack and defense. The German Player still receives the beneficial combat odds shift for Tiger or Panther tanks in combat.

11.1 Procedure

[11.11] When resolving combat, both players look at the Combined Arms Table to see which types of units are participating in the battle.

[11.12] Cross-index the attacking type with the defending type on the Combined Arms Table.

[11.13] The numbers shown on this table are the die roll modifiers to be applied during combat resolution. The defending player uses the most advantageous column to determine results against the attacker. For example, if a defending stack contains both infantry and armored units, use the infantry and armored column when the enemy is infantry type and use the armored column when the enemy is armored type.

[11.14] US combat commands, British tank brigades, and German Kampfgruppen (KG; see Advanced Rule 12.0) are

considered to contain both infantry and armor when determining this effect. Treat armored infantry and panzer grenadier units as pure infantry types for this purpose.

[11.15] If a unit type is not listed on the Combined Arms Table, the player does not get any die roll modifier. In addition, if more than more type listed on the Combined Arms Table is participating in the same combat, the owning player may choose which one to use in determining the combined arms effect.

[11.16] In the Advanced Game, if both players have armored units involved in the battle, the player having the better quality of vehicles receives the Armor Superiority benefit. In this case, the best armored vehicle type on each side among units participating in the battle is used to determine which player has Armor Superiority.

[11.17] When determining Armor Superiority, the number of armored units participating in the battle and the strength of the armored units are not taken into account. An "A" on the Table means that the Allied Player has Armor Superiority, and "G" means that the German Player has Armor Superiority. If the result is "D", then the defending side has Armor Superiority. If it is determined that a player has Armor Superiority, then the combat is modified in his favor. To assist in identification, vehicle types are printed on all armored units.

[12.0] German Kampfgruppen

In the actual battle, the Germans organized panzer Kampfgruppen which were task forces similar to the American combat commands. These were based on the "einheit" or unity principle, with a balanced force of armor and infantry, and were typically built around the panzer regiment or panzer grenadier regiment in the panzer divisions (see Lucas and Cooper's book for more information). In the case of the Kampfgruppe being built around the panzer regiment (such as in the 1SS and 12SS Panzer Divisions), the panzer grenadier battalion mounted on half tracks in the division would be added to the Kampfgruppe for the combined arms advantage. In the Advanced Game the German Player may organize such Kampfgruppen (KG), which have the advantages and limitations described below.

[12.1] Effects on Movement and Combat

[12.11] Kampfgruppen always possess the infantry/armor combined arms advantage, regardless of the type of units they contain.

[12.12] Kampfgruppen have the same zone of control as US combat commands (that is, the ZOC of Kampfgruppen extends into forest hexes only along roads) [sic].

[12.13] They may move as a single unit even though all Kampfgruppen (KGs) are always made up of two separate units. They move at the rate of the slower unit of the two.

[12.2] Formation of Kampfgruppen

Kampfgruppen can be formed in two ways.

[12.21] Units with the Same Name: If German Player moves two units with the same Kampfgruppe (KG) name into the same hex, they can be treated as a single Kampfgruppe unit. For stacking purposes, a Kampfgruppe is treated as one unit of regiment size. It always possesses the infantry/armor combined arms advantage in attack and defense (as described in case 12.11) even if formed from only panzer units. The units that formed the Kampfgruppe move as one unit until German Player chooses to separate them.

[12.22] If there are not two units with the same Kampfgruppe name, the German Player can form a Kampfgruppe from one unit with a KG designation and another unit in the same division that meets the Kampfgruppe requirement. For example, KG Knittel of the 1st SS Panzer Division can form a Kampfgruppe with 1SS/501SS, or 1SS/1 (Panzerjager IV) can form a Kampfgruppe with KG Hansen of the 1st SS Panzer Division. In addition, even if neither unit has the designation KG, a Kampfgruppe can be formed by combining a panzer grenadier regiment and a panzer battalion from the same division. For example, 116Pz/60 and 116Pz/228 can form a Kampfgruppe. In this case, the following requirements must be met:

- 1) At least one of the Kampfgruppe's units must have the silhouette of an armored vehicle (it can be Puma or half track).
- 2) If two panzer battalions (with silhouettes) are from the same division, they may form a Kampfgruppe (in this case, the Kampfgruppe cannot be formed with an independent panzer battalion).
- 3) The unit that forms a Kampfgruppe with a panzer grenadier regiment must be either a reconnaissance or panzer battalion from the same division or an independent panzer battalion (that is, a Kampfgruppe cannot be formed from two panzer grenadier units). In this case, the units that formed the Kampfgruppe are moved as one until they are separated by the German Player.

[12.3] Organizational Restrictions

[12.31] The German Player may not form Kampfgruppen between units with different Kampfgruppe designations (for example, 1SS/KG Peiper may be formed by the two units that are labeled KG Peiper, but the 1SS Panzer Division unit cannot form a Kampfgruppe from KG Sanding and KG Peiper units. However, it is possible to form a Kampfgruppe from KG Sanding and the 1SS/JgIV unit.)

[12.32] If there are two units on the map that have the same Kampfgruppe name (such as KG Peiper), you can only form a Kampfgruppe of that name by using these two units. However, if one of the two units is eliminated, the surviving unit is no longer bound by this restriction.

[12.33] In order for a panzer grenadier regiment without a KG designation to form a Kampfgruppe, the paired unit must have an armored vehicle silhouette and must be a

panzer unit belonging to the same division as the panzer grenadier unit or one that is independent.

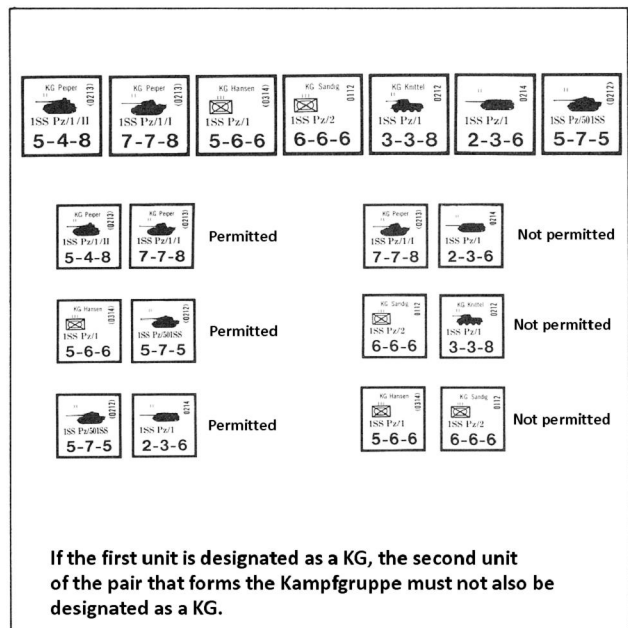
[12.34] Kampfgruppen may not be larger than a regiment with a battalion. They are always made up of two units, one of which must be an panzer or tank destroyer unit (with an armor silhouette). However, it is possible for a Kampfgruppe to be made up of two panzer battalions so long as they both belong to the same division and do not have different KG designations.

[12.35] For stacking purposes, Kampfgruppen are considered to be single regiment-sized units.

[12.36] Kampfgruppen that are composed of two panzer battalions can move twice in one game turn when in reserve. In other words, they can move like conventional reserve armored units. On the other hand, Kampfgruppen which include a panzer grenadier regiment, can move only in the Reserve Phase if in reserve [sic].

[12.37] Kampfgruppen which include a panzer grenadier regiment have full zones of control [sic].

[12.38] It is possible to change the composition of Kampfgruppen when friendly units are in the same hex, subject to the limitations described above.



[13.0] How to Win

The victory conditions of the "Breakthrough" and "Wacht am Rhein" scenarios are exactly the same in an Advanced Game as in a Basic Game. It is recommended that a player who is going to play the Advanced Game for the first time play one of these shorter scenarios first before trying to play any other scenarios or game variants. In the Advanced Game, two new scenarios are added: the long "Battle of The Bulge Campaign" and "We Cannot Force the Meuse!", which begins at the high point of the German offensive December 22. Keep in mind that, in the latter scenario, the

setup time is longer because of the large number of units that have to be deployed on the map; setup will take about an hour to complete.

[13.1] "Battle of the Bulge Campaign " Scenario

The scenario begins with the 12/16 AM game turn and ends at the end of the 1/2/1945 PM game turn. At the start of the game, there are no destroyed bridge markers on the map, and the accumulated replacement points are listed in the 12/16 AM section of the Replacements Table. The victory conditions are the same as in the Basic Game "Wacht am Rhein" scenario. Playing time is 12-20 hours.

[13.2] "We Cannot Force the Meuse!" Scenario

This scenario starts with the German Player Turn of the 12/22 AM game turn (the high point of the German offensive) and ends with the 12/25 PM game turn. The setup positions for units participating in this scenario are given on both players' Setup Charts specific to this scenario. For other details, please refer to the following.

Accumulated replacement points:

German:

Armor type: 2

Infantry type: 2

Allied:

Armor type: 1

Infantry type: 1

Bridges:

Constructed bridge markers are placed across the following hexsides:

0533/0534, 0831/0932, 1029/1130, 1226/1327,
1325/1425

Destroyed bridge markers are placed across the following hexsides:

1432/1433, 2212/2312, 1913/2013, 1812/1713,
1915/2014, 2012/2013, 2623/2723, 3217/3318,
2413/2313

Playing Time: 3-5 hours.

Supply: During the 12/22 AM game turn, the German 2nd and 9th SS Panzer Divisions are considered unsupplied. However, The German Player should also determine fuel shortage as usual during this turn.

Victory Conditions: Same as for the Basic Game "Wacht am Rhein" scenario. Play ends on 12/25 PM game turn, at which point the winner is determined.

IV. Optional Rules

If both players agree, the game can be played using some or all of the following Optional Rules. Using these Optional Rules will result in additional complexity, but, in exchange, the players can get maximum realism.

[1.0] German Airdrop

This rule simulates the airborne operation known as the "Operation Stosser" by 1,200 German paratroopers belonging to Kampfgruppe Heydte.

[1.1] Landing

[1.11] On the 12/17 AM turn the German Player must attempt to drop the single air droppable Fallschirmjager unit (a 1-1).

[1.12] The hex upon which the unit is dropped may be any hex that is not an enemy ZOC, forest, city, or town hex. The German Player rolls the die on the German Airborne Drop Table to see if the unit survives.

[1.2] Restrictions

[1.21] If the unit survives the air drop, it is immediately placed in its air drop hex.

[1.22] If it does not, it is eliminated and removed from the game.

[1.23] It is considered to be in supply during the 12/17 AM game turn. In subsequent turns its supply state is determined normally.

[1.24] The unit may not move on the turn that it is dropped.

Note that no other paratroop/Fallschirmjager units in the game may be air dropped.

[2.0] Fog of Battle

To help dispel the unrealistic element of certainty that prevails in most wargames, the following recommendations are made:

- 1) Neither player may examine enemy stacks until he has actually committed the units that will attack them.
- 2) Both players should keep their respective Setup Charts out of direct view of their opponent. The failings of memory will prevent players from omniscience concerning the exact types of units arriving or their whereabouts.
- 3) Allow each player a maximum of 15 minutes for movement and combat when playing his turn. This will speed play, sharpen skill, and add the "idiocy element" without arbitrary rules. Use a chess clock or a visible time piece with a second hand.

[3.0] Variable Weather

During the actual battle the weather was a decidedly uncertain element. To reflect this reality, beginning on the 12/23 AM game turn, the German Player must roll on the Weather Table at the end of each game turn. If the result is clear weather, the next game turn will be clear. Beginning on the 12/28 AM game turn, the weather is automatically Heavy Snow, and it remains so until the end of the game.

[4.0] Operation Grief

Eight commando units are provided that represent the famous "Einheit Stielau" jeep teams of Skorzeny's Operation "Grief. Their purpose was to spread panic behind enemy lines, re-direct enemy traffic, demolish bridges, disrupt communications and provide special reconnaissance. They appear in the game as reinforcements during the 12/16 PM game turn. Their special functions are described in the following rules.

[4.1] Movement and Limitations

[4.11] The German commando units move identically to other German motorized units except that they may freely move through friendly units at the road and highway movement rates and are unaffected by the presence of enemy ZOCs for the purposes of movement.

[4.12] These commando units may not enter the portion of the map south of hex column xx20.

[4.13] At the end of a commando unit's movement, the die is rolled. If the total number of Allied ZOCs entered in that turn is greater than the die roll, the unit is eliminated. Roll for each commando unit individually.

[4.14] For each turn from the 12/17 AM turn on, 1 is subtracted from the die roll for each check. Thus, on the 12/17 AM turn, 1 would be subtracted from the die roll, on the 12/18 AM turn 3 would be subtracted, and so forth. Beginning with the 12/19 AM turn, the commando units are automatically eliminated as soon as they enter an enemy ZOC.

[4.15] Commando units are not affected if they are stacked with other units when they enter an enemy ZOC.

[4.16] Commando units are always in supply, and they are never unsupplied or isolated.

[4.17] Commando units do not have attack or defense strengths. They cannot attack or be attacked during the combat phase.

[4.18] The German Player may not end a Movement Phase with more than one commando unit in any hex.

[4.2] Traffic Misdirection

[4.21] Commando units have no ZOC nor do they prevent Allied units from entering the hex they occupy in any way.

[4.22] If an Allied unit enters a road or highway hex a commando unit occupies, it must immediately stop and the German Player must roll the die. If 1 or 2 is rolled, the German Player may move the Allied unit(s) up to three hexes of the German Player's choice along the road.

[4.23] The Allied units may not move again after such a misdirection.

[4.24] On a roll of 3-6 the commando unit is permanently eliminated and the Allied unit may complete its movement normally.

[4.3] Bridge Demolition

[4.31] German commando units may attempt to destroy bridges. They must be adjacent to the hexside to be blown and the player must roll the die.

[4.32] Only a roll of 1 will destroy the bridge.

[4.33] Commando units may not attempt to blow a bridge if there is an Allied unit adjacent to the hexside.

[4.34] This procedure is carried out during the Engineer Phase of the German Player Turn.

[4.4] Sabotage

German commando units may attempt to interfere with Allied attempts to blow bridges.

[4.41] If a German commando unit is within one hex of a bridge hexside that the Allied Player is trying to blow, the presence of the commando unit causes 1 to be added to the die roll of the destruction attempt.

[4.5] Combat Deception

German commando units may try to aid German attacks.

[4.51] They do this by being situated on a friendly unit involved in the attack. The German Player rolls the die.

[4.52] If the roll is 1-4, the German Player can shift the odds ratio one column to the right when combat is resolved.

[4.53] If the roll is 5-6, no effect is obtained during the attack, and the commando unit is destroyed.

[4.54] The German Player can use only one commando unit in a single attack and can attempt this "combat deception" only once per game turn.

[4.55] In these circumstances, the commando entering the enemy ZOC unit while stacked with other friendly units is not subject to the usual elimination die roll.

[5.0] Commanders

The game contains 22 commander units, which represent various army and corps commanders and their staffs. Army commanders and corps commanders have different roles, and both have the ability to influence offensive and defensive combat. An example of both types is shown below.



Army Commander



Corps Commander

[5.1] Army Commanders

[5.11] **Command Range:** The range of command of an army commander is three times the movement allowance of the unit.

[5.12] **Command Capability:** Only army commanders can "coordinate" corps commanders and enable them to perform useful functions. The attack option rating of each army commander represents the maximum number of corps commanders that he may coordinate during the owning player's Player Turn. The defense option rating represents the maximum number of corps commanders that can be coordinated when defending (during the opposing player's Player Turn). For each corps commander that is coordinated, the army commander expends one attack or defense option point. An army commander may only coordinate corps commanders which are shown in the order of battle as being subordinated to his army.

[5.13] **Attack and Defense Assistance:** The attack or defense option point that were not used to coordinate corps leaders can be added to the strength of friendly units in combat within the range of the army commander.

[5.14] **Manteuffel and Patton:** The German 5th Panzer Army commander, Manteuffel and the US 3rd Army commander, Patton, have a further command capability. They may provide an additional movement point to all units of a single division if they begin their turn in the same hex as at least one of the units of the division. This effect lasts for the single turn that the Patton or Manteuffel begins with that division. These two army commanders may exercise this ability in every game turn if the players desire, but it may apply to no more than a single division in a turn.

[5.2] Corps Commanders

The commander of a corps will influence the resolution of combat by giving "orders" to the units under command. The different "orders" they give require the expenditure of varying numbers of attack or defense option points.

[5.21] **Command Range:** The maximum command range of corps commanders is twice their movement allowance. This is reduced to one times their movement allowance if they are forced to retreat as a result of combat or if they are in Strategic Movement. In order for a corps commander to be able to issue attack or defense orders (other than Emergency Attack or Emergency Defense), he must be coordinated by his army commander. The names of the army commanders who can command specific corps leaders are listed in the Commanders List. The commander of the British XXX Corps is considered to be under

constant command, regardless of the status of any army commanders.

[5.22] **Attack Orders:** The Attack Order Table shows the types of attacks that the commander can order and their cost in attack option points. Important note: If the attack is taking place within the movement allowance of the unit's corps commander, the cost in attack option point is half that given here. All attacks fought by units outside the command range of the controlling corps commander are resolved as Emergency Attacks. In addition, attacks made without using the use of any attack option points by a commander are also carried out as Emergency Attacks.

[5.23] **Defense Orders:** Corps commanders issue defense orders as well. The types of defense orders and their cost in defense option points are shown in the Defense Orders Table. Important note: If the defense is taking place within the movement allowance of the unit's corps commander, the cost in defense option point is half that given here. All defensive battles fought by units outside the command range of the controlling corps commander are resolved as Emergency Defenses. In addition, defenses conducted without the use of any defense option points by a commander are carried out as Emergency Defenses.

[5.24] **Procedure:** Prior to combat resolution, both players declare which army commander is coordinating which corps commander or point out the uncoordinated corps commander. When resolving the battle, the attacking player first declares his attack order for the battle, then the defending player declares his defense order. Alternatively, you can take a deck of playing cards and pull from it eight cards: the ace, 2, 3, and 4 of diamonds and spades. The attacker uses the spade and the defender uses the diamonds. In each battle each player secretly selects the card that corresponds to the order to be executed and places it face-down on the table. They are revealed just before the combat resolution die is rolled. This allows both players to keep their orders secret until the battle is resolved.

[5.25] **Other Functions:** In order for a unit to be designated as a reserve, it must be within the command range of its corps commander. Also, an army commander that does not use all of its attack option or defense option points can add the unused points to the attack or defense strength of friendly units which are fighting in a hex within his command range. Only one commander can apply his attack/defense points to each hex. These points can only be allocated to units subordinate to that commander.

[5.3] Elimination

Commander units can be eliminated in combat under certain conditions. If they are alone in a hex and attacked, the attack is resolved at maximum odds for the terrain. They are eliminated just as any other combat unit would be destroyed. When commanders are stacked with other friendly units that have been attacked, a die is rolled if the combat result is an FF or D result. A roll of 6 means the commander is permanently eliminated. The same is done when attacking units with a commander present receive an

FF or A result. Again, a roll of 6 means the commander is permanently eliminated.

[5.4] Range

When measuring command range, you can trace through any terrain, and even through hexes containing enemy units or zones of control. Command range is not affected by terrain cost or supply status. The command range of a commander in Strategic Movement is up to one times his movement allowance in the case of a corps commander and up to two times his movement allowance in the case of an army commander.

[5.5] Movement

A commander moves in the same way as any other motorized unit. However, these units are free to pass over their own units at the highway movement rate and are do not count against the stacking limit. Commanders may freely pass over their own units in Strategic Movement. Also, a commander has no zone of control.

[5.6] Combat

Commanders may not attack. If attacked while stacked with other friendly units, the commander defends with his defense option points. If a commander is attacked while alone in a hex, the combat is resolved at maximum odds. In the case of an FF or D result, the commander is eliminated.

[5.7] Air Attacks

[5.71] Both players can place their aircraft units in hexes containing enemy commanders to attack both army and corps leaders.

[5.72] The attacking player rolls two dice and totals them. If the target is an army commander, he becomes disorganized on a roll of 2. If the target is a corps leader, this happens on a 2 or 3.

[5.73] In the case of the German Army, if the corps represented by the commander is not an armored corps (LXXIV-Puechler, LXVII-Hitzfeld, LXVI-Lucht, LXXXV-Kneiss, LXXX-Beyer, LIII-Rothkirch), disorganization occurs on a 2,3, or 4. For the purposes of this rule, all Allied corps commanders are considered to be armored.

[5.74] If the commander is disorganized, place a Disorganized marker on it.

[5.75] A disorganized commander cannot move during the next game turn and may not issue attack or defense orders (that is, all attack/defense orders to units under his command become Emergency Attack or Emergency Defense).

[5.76] Disorganized army commanders may not coordinate any corps commanders.

[5.77] Enemy air units may contest such air attacks by also placing a fighter unit on the hex to cancel the attack.

[5.8] Restrictions

[5.81] The commander of the British XXX Corps (Horrocks) may only control British units and British units may only be controlled by Horrocks.

[5.82] The two corps commanders of the 6th Panzer Army (Priess and Bittrich) may not control non-SS panzer or panzer grenadier divisions, and SS panzer or panzer grenadier divisions may only be controlled by one of these two commanders.

[5.9] List of Commanders

[5.9] List of Commanders			
German Armies			
Army	Commander Name		Deployment
6th Pz Army	Dietrich		0109
5th Pz Army	Manteuffel		0724
7th Army	Brandenberger		0429
German Corps			
Corps	Commander Name	Parent Army	Deployment
LXXIV Korps	Puechler	—	20AM R-S
LXVII Korps	Hinzfeld	6th Pz Army	0405
I SS Pz Korps	Priess	6th Pz Army	0112
II SS Pz Korps	Bittrich	6th Pz Army	19AM T-U
LXVI Korps	Lucht	5th Pz Army	0619
LVIII Pz Korps	Kruger	5th Pz Army	0822
XLVII Pz Korps	Luttwitz	5th Pz Army	0824
LXXXV Korps	Kneiss	7th Army	0728
LXXX Korps	Beer	7th Army	0431
LIII Korps	Rothkirch	7th Army	21PM Y
XXXIX Pz Korps	Decker	5th Pz Army	27AM W-Y
Allied Armies			
Army	Commander Name		Deployment
1st Army	Hodges		2109
3rd Army	Patton		22AM C-D
Allied Corps			
Corps	Commander Name	Parent Army	Deployment
V Corps	Gerow	1st Army	1504
VII Corps	Collins	1st Army	22AM L-N
VIII Corps	Middleton	1st or 3rd Army	2427
III Corps	Millikin	3rd Army	22AM D-C
XII Corps	Eddy	3rd Army	21AM A-B
XVIII Airborne Corps	Ridgeway	1st Army	18AM I-G
British XXX Corps	Horrocks		22AM L-N

[6.0] Malmédy Massacre

The SS soldiers who fought in the Ardennes were reputed to be ruthless and brutal. There are many allegations about the massacre of US prisoners, but the SS soldiers belonging to Kampfgruppe Peiper are most often accused of this. On December 17, it was discovered that 86 American prisoners of war were ruthlessly gunned down near Malmédy, Belgium. The news of this appalling incident quickly spread throughout the Allied ranks and excited their resolve to resist in this battle.

When using the special breakthrough rules of Kampfgruppe Peiper, it is assumed that this massacre occurred on 12/17 AM. In this case, all Allied units that became isolated after the 12/17 PM game turn can remain isolated one game turn

longer than usual before surrendering (see Advanced Rule 4.0). In other words, a green unit that usually surrenders when it has been isolated for four consecutive game turns can last for five turns if it becomes isolated after the 12/17 PM game turn.

[7.0] Roadblocks

To represent the roadblocks used during the actual battle, all engineer units may attempt to block road or highway hexes in the same way they can blow bridges.

[7.1] Implementation Methods

[7.11] The procedure is same as that for bridge destruction.

[7.12] If the block is successful, a Destroyed Bridge marker is placed on the hex to indicate that the road is blocked. The marker is kept on the map until another friendly or enemy unit enters the hex where the marker is located.

[7.13] Units that enter the roadblock hex must stop in the hex and end their movement for that game turn. Then, the owning player can remove the Destroyed Bridge marker immediately, and the hex becomes a normal road hex again.

[7.14] At the start of the game, to indicate the demolition of an overpass in the area of the 6th Panzer Army, hex 0713 road is blocked.

[8.0] German General Headquarters Tiger Tank Battalions

The Germans possessed several Tiger heavy panzer battalions belonging to the General Headquarters of the Army. One of these, the 501st SS Panzer Battalion, was assigned to the 6th Panzer Army. The other independent units were the 506th Battalion, the 301st Panzer Battalion, the 614th Jagdpanzer Battalion (Tiger-Elefant) and the 653rd Jagdpanzer Battalion. These troops were controlled by several chains of command that made their participation in the battle uncertain. The 653rd Jagdpanzer Battalion was assigned to the 5th Panzer Army and Panzer Lehr Division, but, per Hitler's final instructions, this Jagdtiger battalion unit was ordered to cooperate in deterring US Army reinforcements moving from the north. Therefore, this unit was redeployed to the outskirts of Trier on the 16th and reassigned to the 6th Panzer Army. It was intended to be used in conjunction with the 25th SS Panzer Grenadier Regiment of the 12th SS Panzer Division on the Eupen Road. However, the movement of this unit was interrupted by Allied bombing, which delayed its arrival in the 6th Panzer Army sector by several days. Since the 6th Panzer Army also did not make much progress, the 653rd Jagdpanzer Battalion was eventually transferred to participate in Operation Nordwind in the Alsace region. In

the game, the German Player rolls a die to determine if the 653rd Jagdpanzer Battalion Unit will appear. The 506th Panzer Battalion belongs to the 6th Panzer Army, but its time of arrival is uncertain. The 301st Panzer Battalion, which was attached to the 9th Panzer Division, entered the battle late due to the fuel shortages prevalent among the German forces in late December.

[8.1] Appearance of the Battalions

[8.11] The 501st Panzer Battalion starts the map. The 614th Jagdpanzer Battalion appears in accordance with the German Reinforcements Chart.

[8.12] During the German Player Turn of 12/17 AM, the German Player rolls a die to determine if the 653rd Jagdpanzer Battalion will appear. If the die roll is 1, this unit will arrive in entry area "Y", and if the die roll is 2, it will appear in entry area "T-U". If the die roll is 3-6, this unit does not appear on that game turn. If it did not arrive on the 12/17 AM game turn, the German Player rolls again during the 12/19 AM game turn to see if it will appear in the 6th Panzer Army sector. If, at this time, there are SS units within 5 hexes of a hex including a Meuse River hex side, this battalion appears automatically. If this condition is not met, a roll of 1 means that the unit arrives in the entry area "T-U". On any other roll, the unit will never appear in the game.

[8.13] On the 12/17 AM game turn, the German Player rolls one die to determine whether the 506th Panzer Battalion will appear. This unit arrives in the "T-U" entry area on a roll of 1. If it does not appear this turn, the German Player will continue to roll the die each game turn until it does. Also, this unit always arrives at reduced strength.

[8.14] At the start of the 12/17 AM game turn, the German Player rolls one die to determine whether the 301st Panzer Battalion will appear. This unit arrives in the "U-X" entry area on a roll of 1-2. If it does not arrive this turn, the German Player will continue rolling each turn until it does.

[8.15] As stated in the Armor Superiority rules of the Basic Game, if one of these Tiger tank battalions is participating in a battle, the combat odds ratio is shifted one column in favor of the German Player when the combat is resolved (i.e., one column to the right when attacking and one column to the left when defending).

[8.16] If you do not use this Optional Rule, then only the 501st Panzer Battalion and 614th Panzer Battalion will appear in the game.

[9.0] German Flak and Panzerjager Units

The German Player has six flak (anti-aircraft) regiments and three heavy Panzerjager (anti-tank) battalions available in the game. The flak regiments were trained in the ground

support and anti-aircraft roles by the Luftwaffe and consisted of 36 of the dreaded German 88mm guns. Fully motorized, a single battery of four of these guns could easily deliver 60 rounds per minute against rapidly moving aircraft at a range of over two miles. The same well emplaced battery could deliver a murderously effective fire against a slower moving enemy tank or infantry assault at the same distance. The Panzerjager battalions consisted of three companies of 88mm guns (30 tubes) specifically trained by the Wehrmacht for a ground combat role. They were also full motorized.

[9.1] Effect on Armor Superiority

[9.11] No Allied attack may claim the Armor Superiority bonus when attacking any hex that contains German flak or Panzerjager units or any hex that is adjacent to such units.

[9.12] If a German Panzerjager unit with at least one strength point is participating in an attack, the Allied Player will not be able to possess the Armor Superiority bonus on the defense. This provision does not apply to the flak units. This does not mean that the German Player will necessarily have Armor Superiority, but only that the Allied Player does not.

[9.13] However, please note that German flak gun and Panzerjager units with reduced strength cannot attack because they do not have any attack strength.

[9.2] Effect on Allied Tactical Air Power

An Allied tactical air unit may not be placed on or adjacent to a German flak regiment. This does not apply to Panzerjager units.

[10.0] Monschau Artillery Restriction

In the planning for "Wacht Am Rhein," Field Marshall Model, commander of Army Group B, forbade the use of artillery fire on the picturesque German town of Monschau. His staff has said that the Field Marshall wished to save the historic latticed houses there. Whatever the reason, the 6th Panzer Artillery staff was not free to use their guns on the American defense there. In the course of the actual battle, the town escaped the artillery pounding that ravaged the rest of the front. In the first day of battle the German infantry attack there was repulsed with heavy casualties. However, on December 18 after the failure of the initial attack, this restriction was rescinded and Monschau received heavy artillery fire in preparation for the final German assault on the town.

[10.1] Restrictions

[10.11] If you use this Optional Rule, the German Player may not use artillery support or barrage in an attack on hex 1006, the town of Monschau, during the first two turns of the game.

[10.12] This applies only to the 12/16 AM and 12/16 PM game turns.

[11.0] Tank Recovery and Repair

In the actual battle, both sides attempted to recover and repair armored vehicles lost on the battlefield. Generally, units on the attack were more able to effectively recover their vehicles since they more often retained the ground over which the vehicles had been lost.

[11.1] Changes

[11.11] For every five armored steps lost while defending, the owning player gains one armor-type replacement point.

[11.12] For every three armored steps lost while attacking, the owning player gains one armor-type replacement point.

[11.13] Players should keep track of armored steps lost while attacking or defending on a piece of paper. Incorporate new armor-type replacement points onto the Replacements Track as they are earned.

[11.14] Armored losses include step losses from any units with armored silhouettes.

[12.0] Allied Air Observation

In the actual battle, the presence of Allied spotter aircraft during clear weather daylight hours considerably increased the effectiveness of Allied artillery fire through air observation.

[12.1] Changes

During AM turns with clear weather, the attack support strength and defense support strength of all Allied artillery units is increased one point beyond the normal value.

[13.0] German Fuel Shortage

This rule is used in place of Basic Game rule 2.0, "German Fuel Shortages." It adds greater realism in simulating the German fuel supply shortages during the battle. where German motorized troops advanced further from their supply dumps near the Rhine River (east of the map edge) and, as the supply lines lengthened, they became more likely to run short of fuel on the battlefield. The problem became even more serious when the weather cleared and Allied air power made fuel resupply increasingly more uncertain.

[13.1] Changes

[13.11] During the Supply Determination Phase of each turn beginning with 12/19 AM, the German Player rolls the die and consults the German Fuel Shortage Table (Optional Rule) for each panzer and panzer grenadier division on the map to see if it is in supply.

[13.12] The German Player also rolls the die for each independent panzer battalion on an individual basis.

[13.13] When determining supply status, note the location of the westernmost unit in the division to determine the degree to which fuel has been used. This is done by finding the hex row number of that unit and dividing it by 10 (rounding down), then subtracting the resulting number from the die roll for the division. For instance hex 1321 would indicate 1 is to be subtracted from the die roll (hex row 13), hex 0106 (hex row 01) would indicate nothing is to be subtracted from the die roll and hex 2910 (hex row 29) would indicate 2 is to be subtracted, and so on. If a "U" appears on the Table below where the modified die roll is indexed on it, then all the units of the division are arbitrarily unsupplied for that entire turn. Place the appropriate Unsupplied markers.

V. Game Variants

Game variants can be used in three ways:

1. A player chooses a game variant according to his own interests and uses it with the consent of his opponent. All game variants have a historical basis and provide insight into "what if ..." situations in this battle.
2. Another way they may be used is for play balance. If the Allied Player is more skilled than the German Player, the "All Out German Offensive" variant will give him a handicap. If the German Player is more skilled, the "4th Armored Committed Early" variant will help address the disparity. These are just examples.
3. The third option is to use game variants to introduce a further amount of uncertainty into the game. The variants can be chosen by using cards as follows:

At the beginning of the game, before play, the Allied Player shuffles and deals four cards from an ordinary playing deck. Give one card, face up, to each player; then give a second to both, face down. Both players examine the face down card received in secret. If the card is a black suit card (any spades or clubs), it indicates that the historical version of the game is played with no variants. However, if a red suit (hearts or diamonds), the number of the card indicates the number of the game variant that is applicable to the player. Aces are considered to be one. The player with the higher point card showing has the choice of keeping his face down card, or returning it to the bottom of the deck and selecting the next card from the deck. The winner's face down card may only be traded once. The player who loses the card showing must keep the original face-down card he received. The two cards showing are then returned to the deck and both players keep their face-down cards indicating the variant that they must comply with. Jacks have a value of 11; Queens are 12 and Kings are top card. If a player has a King of Hearts or Diamonds as a face-down card, he may choose whatever variant he pleases, or the historical game. This is kept secret until such time in the game as situations occur that are dictated by the variant that will influence game operations. At the end of the game, both players must show their cards at the time of victory determination to show that, if one was indicated, the variant was properly carried out. This method is simple and will most often result in historical games while adding a realistic element of uncertainty. It also aids in reducing the repetitive nature of the game situation.

German Game Variants

1. German Free Deployment

For those who would like to allow the German Player freedom in setting up his forces, follow these guidelines before play:

Changes

The German Player places his "at start" units on the map in the correct Army sector under which they are listed on the German Setup Chart. These army sectors are the 6th Panzer Army, the 5th Panzer Army and the 7th Army. German Volksgrenadier, Fallschirmjager, and engineer units may be set up anywhere within their respective army boundary, but at least one hex west of the Westwall hexes (the Schamhorst Line). (Exception: Two units of the 26th Volksgrenadier Division may be set up on the Westwall line in the 5th Panzer Army sector.) All other German units may set up anywhere within their respective army boundaries, but at least two hexes east of the western most line of Westwall hexes (Scharnhorst Line) (Exception: Units of the 304th Panzer Grenadier Regiment of the 2nd Panzer Division may set up in any Westwall hex in the 5th Panzer Army sector.) In the initial setup, no more than three German units may be stacked in any single hex.

12/16 AM game turn

The German Player receives his 12/16 AM Movement Phase, although it is important to note that rule 15.5, "Traffic Jams", is in effect. The German Player may also put eligible units into reserve that he elects not to move after setup.

Other Effects

Other than these changes, the game is played normally. However, to reflect the advantage that the German Player will receive from this flexibility, victory conditions are altered. In the "Breakthrough" scenario, the victory conditions are the same save that in order to win the German Player must occupy all three towns at the end of the scenario in order to win (St. Vith, Spa, and Bastogne) and have at least three supplied motorized units west of hex row 3100. In the "Wacht Am Rhein" scenario and the "Campaign Game" the level of victory attained at the end of the game is shifted one in favor of the Allied Player (a draw would become an Allied tactical victory).

2. Operation Martin

The German commander of the Western Front, von Rundstedt, recognized during the Ardennes strategic planning that, while the operational plan held considerable merit, the forces available to the Germans were not up to the distant objective of Antwerp. To the experienced general "absolutely all conditions for the possible success of such an offensive were lacking." Accordingly, von Rundstedt and his staff set out to produce a plan that required less terrain to be negotiated while aiming at maximum destruction of Allied forces. His "Plan Martin" advocated a short encirclement attack aimed at the troublesome US 1st Army in the Aachen area. The 5th Panzer and 6th Panzer armies were to be concentrated in the north with the 7th Army providing flank protection. A simultaneous attack would be made by the 15th German Army supported by armor in the vicinity of Roermond. The jaws of the two attacks would come together near Liege. Of course, Hitler rejected all the alternative plans submitted by

his generals based on the premise that "desperate situations demand desperate solutions."

Changes

1) Use the instructions for the free German set up in Variant #1. However, the following changes to the initial army assignments are made:

2) The 116th Panzer, 2nd Panzer, Panzer Lehr, 26th Volksgrenadier and 560th Volksgrenadier Divisions set up along with the 6th Panzer Army units in that army sector. Likewise, the following artillery units are deployed in that sector: 401st and 766th Artillery Brigades and 7th and 15th rocket brigades.

3) In addition to the standard units, the following are placed in the 5th Panzer Army sector: 5th Fallschirmjäger Division, 352nd Volksgrenadier Division, 406th Artillery Brigade, and 18th rocket brigade.

4) The following German units do not arrive: 10th SS Panzer, 9th Panzer, 15th Panzer Grenadier, 246th Volksgrenadier Divisions and the 410th Artillery Brigade.

5) The German 15th Army Offensive (Advanced Rule 10.0) is assumed to be launched on the first turn of the game without the German Player having to fulfill any requirements. Note that several Allied divisions and other units will not be eligible to arrive as reinforcements and Allied tactical air power will be reduced - see case 10.2 of Advanced Rules.

6) The game concludes and the winner is determined at the end of the Allied Player Turn of the 12/25 PM game turn.

7) **Victory Conditions:** The German Player wins if, at the end of the game, he meets one of the following conditions:

- a) He has occupied all three Liege hexes.
- b) He has occupied both Spa and St. Vith and one of the following: Seraing, Huy, Ardenne.

The Allied Player wins by avoiding the German victory conditions.

3. Herbstnebel

Like Rundstedt, General Model, the head of Army Group B, felt that Hitler's "Wacht am Rhein" operation was overly ambitious, and in his view, "This plan didn't have a leg to stand on." Model also rejected Rundstedt's idea of a two-pronged attack. He wanted to concentrate his forces in a single thrust to the Meuse River and then change direction to the north to encircle the enemy in Aachen. As in the OB West plan, the 6th and 5th Panzer Armies would be concentrated in the north to lead the attack, but Model assigned the German 7th Army to advance behind the 6th Panzer Army to provide flank support for both armies. However, as with Operation Martin, this alternative plan was rejected by the Fuehrer. "There is absolutely no alternative to the present intentions," Hitler concluded.

Changes

1) Use the rules for German Free Deployment in Game Variant 1. However, the following units must be reassigned to different armies at the start of the game.

2) The following units are to be deployed with the 6th Panzer Army: 116th Panzer Division, 2nd Panzer Division, Panzer Lehr Division, 26th Volksgrenadier Division, 560th Volksgrenadier Division, the 401st Artillery Brigade, the 766th Artillery Brigade, the 7th Rocket Brigade, and the 15th Rocket Brigade.

3) In addition to the usual units, the 5th Panzer Army will include 167th Volksgrenadier Division.

4) In addition to its regular units, the 7th Army will include the 79th Volksgrenadier Division and the 9th Volksgrenadier Division.

5) All units normally assigned to the 7th Army sector are not deployed on the map at the start of the game. Instead, they appear as reinforcements in the 6th Panzer Army sector during the 12/19 AM game turn.

6) During the 12/19 AM game turn, the following units appear in the 6th Panzer Army's sector as reinforcements. They may arrive at any entry area in this sector. 5th Fallschirmjäger Division, 352nd Volksgrenadier Division, 212th Volksgrenadier Division, 276th Volksgrenadier Division, 406th Artillery Brigade, 408th Artillery Brigade, 8th Rocket Brigade, and 18th Rocket Brigade.

7) The 15th Army offensive of the Advanced Rules may not be launched.

8) If you use this game variant, the game will end and a winner will be determined at the conclusion of the Allied Player Turn of the 12/25 AM game turn.

9) **Victory Conditions:**

The German Player will win if one of the following conditions is met at the end of the game:

- a) He has occupied all three hexes of the city of Liège.
- b) He has occupied both Spa and St. Vith and one of the following: Seraing, Huy, Ardenne.

The Allies Player wins by avoiding the German victory conditions.

4. Hitler Commits His Reserves

In the actual battle, Hitler and his staff delayed the entry of German reinforcements, preferring not to commit these until the Ardennes massif or Meuse River was crossed. The idea was to have fresh formations on hand to exploit the initiative. Hitler and his staff waited for the stalled 6th Panzer Army to break out, not recognizing that the only hope for the offensive was to reinforce Manteuffel's success in the south expeditiously. Consequently, this denied depth to the attack as it neared the river and made it easier for the Allied forces to organize counterattacks.

Changes

All German reinforcements that have conditions attached to their time of arrival do not have to achieve these objectives to enter the game. (Example: The 2nd SS Panzer Division arrives on the 12/18 AM turn regardless of whether Rocherath and Malmedy have been captured, the 10th SS and 11th Panzer Divisions arrive on the 12/20 AM turn regardless of whether the German Player has units across the Meuse River.

5. SS Panzer Divisions

The question as to whether tanks or infantry should lead the attack was still unresolved in German military doctrine in December 1944. Field Marshall Model of Army Group B felt that the German infantry should punch the holes for the German armor, while Dietrich, the 6th Panzer Army commander, wished to use his tanks for the breakout. Model felt that the armor that would be needed for the big drive to the Meuse would sustain damage from this premature commitment, and he overruled Dietrich. Unfortunately, this assessment overestimated the offensive capabilities of the Volksgrenadier formations. After the war Col. Peiper of the infamous 1st SS Panzer Division judged this as a mistake. "Attack with tanks at the same time as the infantry." he said, "An unsupported infantry attack wastes too much time."

Changes

Both players set up normally, however, the German Player may move all the units of the 1st SS and 12th SS Panzer Divisions prior to his initial attacks. In this case, please note that the rule "German Traffic Jams" in case 15.5 of the Special Rules will apply.

6. Cancellation of Operation Hermann

Operation Hermann was the German code name for the New Year's Day strike on Allied air fields that destroyed more than 500 Allied planes on the ground. A large fighter contingent (1100 planes) of the 5th Fighter Division was being held for this purpose. These planes and their fuel could have been used to add to German air presence and contest Allied air superiority in the Ardennes.

Changes

The number of tactical air missions that the German Player receives on Fog and Clear weather turns is doubled. The German Player may freely choose the type of additional units he wishes to fly each turn. On Fog or Clear turns where the German Player has no air missions, he receives one. Also, the Allied Air Supremacy provisions (Advanced Rule 1.0) are not instituted until the AM turn of the third day of Clear weather (12/25 AM if using historical weather). You are responsible for providing your own aircraft units for the additional amount. [sic]

7. Early Start of Russian Winter Offensive

As December came to a close in the Ardennes, General von Waldenburg of the 116th Panzer Division noted that in the Ardennes headquarters, "Everyone looked with dismay to the east where the big Russian offensive was about to begin any day." On January 8 Hitler began moving the 6th Panzer Army to that front. On January 12, 1945, the Soviets began their annual winter offensive against the German forces, halting the further relief of the over-taxed Ardennes forces. This variant assumes the Russians launched their offensive early, around December 22.

Changes

No further German reinforcements arrive after the end of the 12/22 PM game turn.

8. Cancellation of Operation Nordwind

Operation Nordwind was the code name for another German counteroffensive in the west aimed at cutting off the US troops of General Devers' 6th Army Group in Alsace. It jumped off on January 1, 1945 with six infantry and three motorized divisions aimed at encirclement of units of the US 7th Army and the French 1st Army in the Saverne area. Militarily, it gained little, the deepest penetration made being only 15 miles. These reserves could have been moved to the Ardennes if the offensive was cancelled.

Changes

Three divisions -- the 6th SS Mountain Division, the 17th Panzer Grenadier Division, and the 257th Volksgrenadier Division -- enter the game due to the cancellation of Operation Nordwind. Units belonging to these divisions appear in the game as follows. Every game turn the German Player rolls a die. On a roll of 1 or 2, he may have a unit from one of the above three divisions appear in the "Y-Z" entry area as a reinforcement (exception: the 6th SS Mountain Division appears in the öSö area). Also, each time a division is introduced into the game, the German Player may also add one independent unit to the game along with that division. Choose from the 654th Jagdpanzer Battalion, the 19th Rocket Brigade, and the 20th Rocket Brigade. Continue rolling the die each turn until all units are in the game. In addition to this, the 653th Jagdpanzer Battalion will automatically appear in the "Y" entry area during the 12/16 PM game turn.

9. SS Armored Division Deployment

In the actual battle, the deployment positions of the I SS Panzer Corps (1st SS Panzer Division and 12th SS Panzer Division) were determined by Hitler on the grounds that the closest base of attack to the Meuse was at Elsenborn. However, due to the presence of the US 2nd Infantry Division and the Germans' lack of understanding of the rugged terrain in the area, the 12th SS Panzer Division was exhausted by heavy fighting with the US V Corps.

Changes

The German Player may deploy units belonging to the 1st SS and 12th SS Panzer Divisions anywhere he likes in the army's sector, subject to the restrictions described in Game Variant 1. All other units should be set up in their historical starting positions.

10. More Careful Preparation for Operation Stösser

In the actual battle, preparations for the German airborne landing were made in great haste (in fact, the preparations were not made until December 8), the 506th Panzer (Tiger) Battalion was stranded in the Jülich area due to Allied attacks, and the training of pilots for the operation was very poor. This Game Variant assumes that the operation was better planned and carried out at dawn under more

favorable weather conditions. Several possible areas were discussed as possible drop points. Model wanted a pre-dawn descent at Krinkelt, and the 6th Panzer Army commander proposed a crossing point on the Meuse. In response, Hitler wanted to block the American I Corps' reinforcements (that is, land at the crossroads of Baraque Michel). In this Game Variant, the German Player can choose the landing point.

Changes

The German Player does not have to roll the dice to determine the survival of the von der Heydte unit (1-1-5). That is, this unit lands automatically at the point chosen by the German Player. However, the landing hex cannot be town, city, or forest (that is, it must be clear, rough, light woods, or marsh).

11. 6th Panzer Army Reinforced Before Attack

Several formations of the 6th Panzer Army arrived late for the attack. The 246th Volksgrenadier Division suffered losses on the congested roads in the area, and part of the 3rd Fallschirmjager Division also made a late appearance.

Changes

The following units enter the map (or move into their assigned entry areas) prior to the German Combat Phase in the first game turn. Other units should be set up as normal. ÉAll units of the 246 Volksgrenadier Division appear in area "R-S".

ÉThe 506th Panzer Battalion unit appears in area "S-T."

ÉThe 8th Regiment of the 3rd Fallschirmjager Division appears in area "U".

12. German All-Out Offensive

This assumes that Hitler heeded Jodl's and Rundstedt's advice and did everything possible to increase the striking power of "Wacht Am Rhein".

Changes

Institute all of the following German game variants: 4, 5, 6, 8, 10, 11.

Allied Game Variants

1. Early Warning of Allied Forces

The success of the Allied ULTRA code breaking system had lulled the Allied intelligence operation into relative complacency in spite of an accumulation of conventional evidence of an impending German offensive. This variant assumes that the Allied G-2s took the reports from the Ardennes more seriously, with the possibility of discovering "Wacht Am Rhein" before it was launched.

Changes

Roll the die before the start of the game. On a roll of 1-4, all Allied reinforcements in the game arrive one turn earlier than indicated on the Reinforcements Chart. The German Player does not receive the surprise combat odds shift on

the first turn and Allied units may move freely on the 12/16 AM and PM turns. Allied artillery units may fire normally during this period.

2. Patton Hesitates

Patton was preparing for a major offensive in the Saar. When the Ardennes offensive began and General Bradley called on him to send the 10th Armored Division to Middleton's VIII Corps, Patton resisted. He warned that the Germans were probably staging a spoiling attack to throw him off. "If you take the 10th from me, you'll be playing into the hands of the Hun." After a convoluted debate, Patton agreed to send the division but promptly advised his other troops to "get involved" or else they might be taken too. In the end, Patton enthusiastically embraced his 3rd Army "cavalry" role in the rescue of the surrounded 101st Airborne. However, there was a strong historical possibility that he could have dragged his feet in hopes of continuing plans for his offensive.

Changes

All Allied units arriving on the south edge of the board are delayed in their arrival by two turns. (Example: Units scheduled to arrive on the 12/22 AM game turn at "D" would actually arrive on the 12/23 AM game turn.)

3. Release of the SHAEF Reserve is Delayed

The two US Airborne divisions represented the only strategic reserve available to SHAEF. During the first days of the battle, there was some resistance at releasing these divisions until the situation in the Ardennes was clarified. As it was, these units were committed rapidly, but, given the chaos of the first day and the importance of these airborne divisions, it was a strong possibility that their release might have been delayed.

Changes

All units of the 82nd and 101st Airborne Divisions do not arrive until the 12/19 AM game turn.

4. Allied Command Confusion

The further possibility existed that an appreciation of the extent of the German offensive would not be achieved by the US commanders quickly. As late as the second day of the offensive, many G-2s still felt the offensive was a spoiling attack to halt the US attacks in the Aachen and Saar areas. As a result, Hodges ordered the attack by the 99th and 2nd Infantry Divisions, which had been cancelled on the 16th, to continue on the 17th. The lack of communication could have led to greater delays in the Allied reaction.

Changes

The appearance of Allied reinforcements is delayed by one game turn, except. reinforcements arriving on the south edge of the map, which are delayed by two game turns, and the 82nd and 101st Airborne Divisions, also delayed by two game turns.

5. The US 2nd Infantry Division

The German planners did not expect the US 2nd Infantry Division to be in the Elsenbom area, and they were greatly delayed by this division. Until just before the battle, it had occupied the positions held at the beginning of the offensive by the 106th Division, which was composed of green troops. This variant assumes that the 106th Division was sent to the US 3rd Army and that the 2nd Infantry remained in the Schnee Eifel.

Changes

The three infantry regiments of the US 2nd Infantry Division sets up in the three hexes normally occupied by the 106th Infantry Division. The 2/741 Tank Battalion sets up in St. Vith, and the 99/395 unit sets up in 0908 in an Improved Position. The 106th Infantry Division arrives as a reinforcement on the south edge of the map on the 12/26 PM turn at entry area "D-C".

6. The US 66th Infantry Division

The US 66th Infantry Division was scheduled to appear on the Western Front in early December, but its arrival was delayed by the torpedo attack that sunk the USS Leopoldville, which was carrying the soldiers. This Game Variant assumes that the division arrived safely in England.

Changes

The three infantry regiments of this division appear on any road hex on the west edge of the map during the 12/24 AM game turn.

7. US 4th Armored Division Committed Early

The commitment of the 4th Armored Division to the battle was particularly confused. Combat Command B was available as early as the morning of the 20th while the rest of the division closed up the next day. However, all of Patton's III Corps would not be ready until the morning of the 22nd. Both Eisenhower and Patton favored an attack in depth, and General Gaffey, the division commander, and his subordinates were worried that they would be endangered by piecemeal commitment. Thus, the Division was held back. This assumes the Division was committed as quickly as possible.

Changes

The 4th Armored Division's CCB arrives at entry area "D" during the 12/20 AM game turn. The 4/CCA and 4/CCR units appear at "D" during the 12/21 AM game turn.

8. Montgomery Holds Back XXX Corps

Montgomery was preparing to use the British XXX Corps in Operation Veritable, an attack in the Ruhr area, and preferred not to commit these divisions to the Bulge fighting. The British army had almost no replacements, and there was political pressure in England to disband the exhausted 50th Division. Also, the Royal Tank Regiment in the Corps was turning in its motley assortment of worn-out vehicles in exchange for new tanks as they arrived. This

Variant assumes that Montgomery was not very cooperative in aiding the Ardennes.

Changes

Unless at least one German motorized unit crosses the Meuse River, no British units appear in the game. If so triggered, any British units designated in normal game play to have arrived before the game turn that the German forces crossed the river appear in their (originally) designated entry area two game turns later. All other units appear two game turns after their designated game turn of arrival. Note that British units are still subject to the usual movement restrictions.

9. Poor Weather Continues

This variant assumes that the high pressure weather system from the east failed to materialize and the overcast conditions continued until snows began on the 28th.

Changes:

The weather is assumed to remain overcast after the end of the 12/18 PM turn. The Allied Air Supremacy rules (Advanced Rule 1.0) are not used and no tactical air power is available to either player until the 12/29 AM game turn, at which point Fog conditions begin. In addition, ground conditions remain muddy and the ground freeze rule is not used.

10. Early Commitment of the US 90th Infantry Division

In the actual battle, the US 90th Infantry Division, along with the 3rd Army's XX Corps, stayed south of the Ardennes during December in order to "draw enemy's forces there". This division appeared at the Battle of the Bulge on January 7th and took part in the bitter winter battles around Bastogne. If the situation in the Ardennes had been more serious, the Division would have been committed much earlier.

Changes

After the 12/26 AM game turn, if the German Player has occupied Bastogne, then during the next game turn the 90th Infantry Division units will appear in entry area "B-D" on the southern edge of the map. Their earliest turn of arrival in the game will be 12/26 PM game turn.

11. Lifting the Restrictions on the Movement of the US Forces

The restrictions on movement imposed on the American troops in the Semois River area were somewhat excessive, reflecting the fact that the Allied forces were trying to prevent the possibility of a German crossing of the Meuse River in the Sedan area. The Allied troops held in this area were valuable engineer units and inexperienced officers and men unsuited to participation in the tough Ardennes battle. This game variant assumes that the situation was considered serious enough for such units to be committed to the battle.

Changes

If the German forces occupy St. Vith, Bastogne, and Marche, the US movement restrictions set forth in case 5.6 are lifted. Once this situation occurs, these units can freely cross the Meuse and Semois Rivers. However, note that the movement restrictions imposed on British and French military units remain in effect.

12. The Allied Big Solution

Field Marshall von Rundstedt remarked that, in counterattacking the German spearhead, the Allies opted for a "small solution" instead of attacking the sensitive German positions at the base of the Bulge. Many of the German General Staff were quite apprehensive that the Allies would undertake such a large attack. Hitler's "no retreat" proviso could have made the tactical situation quite difficult.

Changes

Allied units need not arrive on the specific road entry hexes to which they are assigned but may instead enter anywhere on the appropriate side of the map on which they are scheduled. However, Allied units arriving from the north may not enter at hexes 0101 or 0501 or any hex east of "Q", and those arriving from the south may not enter east of "A".

VI. Designer's Notes

1. Player's Notes

The German Player

The most important point for the German Player to keep in mind is Rundstedt's admonishment to the German forces at the opening of the battle – "Forward to the Meuse!" The German Player should move his forces as quickly as possible to the west and attempt to exploit any breakout that may materialize. This is very important in the opening turns of the game when the situation is still fluid. The German Player can accomplish much more by moving down a road to the west than by moving to surround towns or enemy forces. Towns and enemy units are only as important as their retarding influence on the westward march. Some towns such as St. Vith, Bastogne, and Marche are important to the game. Even so, if they do not fall to a first attack, they should be surrounded, bypassed, and dealt with later. The German Player can simply not afford the time to pound on American delaying forces.

Three main axes of armored advance are recommended. The I SS Panzer Corps in the north should move along the line Losheim Gap-Stavelot-Trois Ponts-Werbomont-Huy. The 1st SS Division's Kampfgruppe Peiper should exploit the breakout rule to the maximum, capturing the Stavelot fuel dump if possible. The 12th SS Panzer begins in an unfortunate position and players have found it prudent to move it south through the Losheim Gap rather than into the tempting fight for the Elsenbom Ridge. Leave the slugging fights in the Monschau-Rocherath area to the Volksgrenadiers along the line.

The 116th Panzer Division should attempt to pierce through the American defenders in the Westwall and, if successful, advance Houffalize-La Roche-Marche. The nearby Volksgrenadiers should close in on St. Vith as it is bypassed.

The main 5th Panzer Army effort consisting of the 2nd Panzer and Panzer Lehr should advance Clerf-Wiltz-Bastogne-Rochefort-Dinant. Bastogne will likely be a problem unless the race to the town can be won against the airborne divisions. The 7th Army Volksgrenadiers should be left to deal with the problems to the south.

The reserve armor arriving in the game should be thrown behind the westernmost forces and move up in Strategic Movement. In general a broad front advance by all the German forces is best as it increases the possibility of an effective blow at the Meuse crossings and makes Allied counterattacks difficult to organize.

If you get a shot at the Meuse or Liege, try to pull it off before December 23. By that time, various factors in the

game conspire to ruin your day – Patton in the south, the British in the west, Allied airplanes in the sky, and flagging fuel deliveries. Of course this means getting to the Marche area from which to launch the assault as quickly as possible. This brings us back to the main recommendation for the German Player: "Forward to the Meuse." As it was historically, a quick breakout is all important.

The Allied Player

It is difficult to outline the Allied strategy in detail, as much of the early portion of the game consists of reacting to German moves and attempting to stop major enemy advances. Generally, however, it is best in the game to try to hold the northern and southern shoulders of the line (Monschau- Elsenbom and Ettelbruck-Echternach). With this accomplished, the German advance is channeled to the center of the board where it will not threaten your reinforcement entry hexes. Also, the resulting line will not be so long that it cannot be adequately defended. Later, the inevitable constriction of the German attack spearhead will allow more Allied counterattacks in the game.

Even though the Germans will advance through the center, important towns and road junctions should be held to slow the German momentum. In the north, the towns of Vielsam, St. Vith, La Roche, Marche and Baraque de Fraiture should be stoutly garrisoned. In the south, Bastogne, St. Hubert, and Rochefort should be defended in a like manner. Even so, remember to get out of positions before they become untenable and your units are destroyed. On the other hand, Bastogne and Marche may be pivotal to the game and hold-at-all-costs defense may be necessary in those cases.

As the Germans advance, blow bridges before them and tie up their forces with local counterattacks. Be careful at the end of your turn that you have not left an avenue for the German forces to sneak across the Meuse or into Liege. Finally, on December 23, several events occur that tend to slow the German advance as well as bolster the Allied counter-attack capability. If you can pinch off the advanced German units near the Meuse, this will usually turn the tide of the game in your favor.

2. Designer's Notes

As I work on the finishing touches for *The Last Gamble*, I am impressed by two facts:

First, designing a really careful historical game is an immense amount of work. I have spent three years on this game, including a very intensive work schedule since 1984. Two aspects are especially time consuming. First, there is the basic research which, if the history of this project is to be believed, can go on forever. I have been a student of this battle for well over 10 years now, and there are still questions. Is there any end to this process? Secondly, the playtesting and refinement stage requires more than a little patience and forbearance. When is it time to stop and pronounce the game ready? The diminishing returns of this task make this very difficult to determine.

The second impression is that the amount of information on this battle is staggering. Especially imposing are the reams of Allied after-action-reports and German after-war interviews (see the bibliography). Special mention must be made of Charles B. MacDonald, author of *A Time for Trumpets: the Untold Story of the Battle of the Bulge* (William and Morrow, 1985), who allowed me to see his new work before it was published and pointed out some historical documents to read. Also, Bruno Sinigaglio, the designer of Avalon Hill's new *Battle of the Bulge*, kindly lent me some books related to that game design, which yielded some new ideas. Victor Macek, Forest Opper, Shelby Stanton, and Richard Gutenkunst have helped with very difficult order of battle questions — many that have baffled Bulge historians for years. I believe that game players and historians will find much of this new information to be of considerable interest. A bibliography and detailed order of battle are supplied to aid game players and other designers in studying the battle.

With this description of the scope of the project, I would like to describe the individual aspects of the game in terms of their philosophic and analytic basis. Comments are organized in terms of the rules section of the game to which they are applicable.

I. Introduction

[2.0] About the Game

A friend gave me Avalon Hill's 1965 *Battle of the Bulge* game nearly 20 years ago. After struggling through the arcane rules, we learned to while away our Sunday afternoons in a cardboard recreation of the titanic battle in the Ardennes forest of Belgium and Luxembourg. A ritual face off between the German Wehrmacht and US good guys became a weekend event in suburbia. The game was intriguing in that it seemed to evidence a solid historical event — strategic air power, engagements, one-way traffic and even the endorsement of McAuliffe on the cover! Surely, my friend Mark and I thought, this must be the ultimate in realism. But was it?

Soon we noticed that whoever played the Germans seemed to win pretty handily, the pink panzers knifing through the thin US blue line on their way to the edge of the coffee table. A great game tactic was to surround the US units in a low odds attack and tie them up with an "engagement" or, better yet, a "contact" result where they would have to counterattack at bad odds and commit suicide. But when I read Cole's Official History volume published around the same time, I found some very curious differences in the orders of battle. And, I couldn't find the suicide attacks anywhere. The Americans seemed to have made the Germans force them out of every defensive position they occupied on the battlefield.

Years later I would know how very serious those errors in the Avalon Hill game were. In spite of everything, however, *The Battle of the Bulge* was still a tremendous game. And, I'm not the only one who feels this way. Nicholas Palmer shows a similar appreciation in his well-written book *The Best of Board Wargaming*. But it seemed to me that I could not ignore the stupid historical mistakes evident in the Avalon Hill game. It wasn't long before other companies released games dealing with the Battle of the Bulge, but none of them seemed to have the excitement of the old Avalon Hill game.

So in 1974, I set off to Washington, D.C., to see if I could do better. The immediate result was the early historical research for SPI's *Wacht Am Rhein*. designed by Jim Dunnigan. The ultimate product of this phase of my study was the publication of *Battles for the Ardennes*, a quadrigame that is still being published. I originally intended *Dark December*, the direct predecessor of *The Last Gamble*, to be a redesign of Avalon Hill's *Battle of the Bulge*, but unfortunately this job had already been given to Bruno Sinigaglio. For this reason I decided to peddle my prototype to Operational Studies Group (OSG). but that game is no longer in print. *Dark December* had several faults, the greatest of which was an over-simplified design — a result of trying to emulate the simplicity of the original Avalon Hill game. So, I have embarked on still another attempt to create the ultimate Bulge game.

The Last Gamble is not as simple as Avalon Hill's original Bulge, but the game manages to combine historical accuracy with a high level of excitement. The map has been greatly improved and the order of battle reaches a level of detail never before seen in a Bulge game. An aspect of which I am particularly proud is the setup positions in the game. These were painstakingly researched and provide a great deal of insight into the problems that surrounded the Germans' first assault. As far as game concepts are concerned, the rules framework will be familiar to most experienced players, with the correct use of reserves and zones of control being the only important elements to be learned. For novice players, the Basic Game is designed to provide a quick introduction to the game's basic concepts before moving on to the real meat of the game: the Advanced and Optional Rules. This way, whether you are new to wargaming or a more experienced player, you will be able to absorb the rules quickly and enjoy the game play.

I believe the major reason that the old Avalon Hill *Bulge* was such a good game was that it was so exciting. Accordingly, the major design goal for *The Last Gamble* has been its excitement level. The rush of Panzer Lehr to Bastogne, the breakout of Kampfgruppe Peiper and the race to the Meuse are faithfully reproduced. Then, too, the characteristic aspects of the campaign must be created as well. The German commandos, the fuel shortages, the engineers, and the Tiger tanks — they're all in the package because they were part of the battle and add a certain flavor that is undeniably Battle of the Bulge.

Several have asked me if I will ever do a game on a different subject, but I don't think I will ever tackle a new topic. It takes too long to do a really good job, and that imposes a limit. As I get older it is more and more difficult to commit so much effort to such a consuming project with such poor financial remuneration. I think I will stick to the Battle of the Bulge. It is still interesting after 11 years, and I like to think that it offers me the unique possibility of making a real contribution to historical research. My next objective is to write a book on the subject.

[3.0] Game Organization

The board was drawn from the 1944 US Army 1:100,000 scale maps. For individual towns, the maps in the 2160 series were used for Bonn, Liege, Namur, Brussels, Trier, Arlon, Marche, Mezieres. The original terrain analysis for *Dark December* was one of the strong points of that effort. There is more terrain in the new game. The board stretches further to the north, east and west. The additional terrain in the north is useful to show the projected line of advance of the 6th Panzer Army. The extension six miles to the east permits a more accurate representation of the actual German assault positions on December 16.

The new features in *The Last Gamble* include elevated terrain greater than 600 meters in altitude, bounded by slope hexsides. Roads are divided into two categories: "highway" and "road". Highways are paved surfaces over 6 meters in width, and roads are all other paved surfaces greater than 3 meters. The two types of road make it possible to show the advantages of movement on highways, and it is easier to see why Bastogne, St. Vith, and Marche were so important in the battle.

[5.0] Game Scale

The two-mile hexes are ideal in presenting the typical frontage of an infantry regiment when zones of control are included, and the twelve-hour game turns match up nicely with the interval between major attacks in the battle. However, players must keep in mind that there are several differences in play between day and night turns.

[6.0] Units

There are two principal types of units: motorized and non-motorized. Armored units feature silhouettes to distinguish them from other units in the game. This was

done because of the importance of armored units and the combined arms rules in *The Last Gamble*.

In determining the strength of each unit in *The Last Gamble*, I re-evaluated the actual strength of all units. A full strength, experienced US infantry regiment has a value of 4-5-5 (from left to right: attack strength, defense strength, and movement allowance; hereafter, a string such as "1-1" represents only attack and defense strengths), while an average German Volksgrenadier regiment has a value of 3-4-5. The derivation of these numbers is easily described. Each infantry battalion is assumed to be 1-1, as were medium artillery battalions. This gives a basic regimental strength, without divisional support, of 4-4 for US units and 3-3 for Volksgrenadier regiments. In the case of the US Army, the support weapons consisted of one battalion (1-1) of divisional artillery, an engineer battalion (0-1), an anti-aircraft battalion (0-1) a command post (0-1), a field artillery company (0-1) and a reconnaissance unit (0-1). Apportioned to each of the three regiments this gives a 4-5 or 5-5 in the case of an experienced unit. German support elements were a medium artillery battalion (2-1), an anti-tank battalion (0-1), an assault gun company (1-1), a fusilier battalion (1-1), a command post (0-1), and heavy weapons (0-1), giving an average strength of 3-4-5. But, note that many of the Volksgrenadiers had no fusilier battalion (1-1) and less than half their allotment of assault guns. The US airborne regiments had a considerably lower number of rifles than the conventional infantry regiment plus much lower artillery support capability. For this reason, the typical airborne regiment is a 3-4-5. Before complaining about the low strength of paratroopers, please understand that a US airborne regiment had the same strength as a German Volksgrenadier regiment but with no assault guns and only half the artillery support firepower of the German unit. In addition, there is a fourth regiment in each airborne division, which gives it amazing endurance. The combat units within a US armored division are tank battalions (3-2), infantry battalions (1-1), self-propelled artillery battalions (1-1), and divisional support units (reconnaissance battalions, divisional tanks). It is presented as battalions, and the typical strength for each is 6-5-7 for a unit with full equipment. In the case of four-unit divisions (2nd Armored Division and 3rd Armored Division), each battalion is represented by its own piece along with the armored infantry unit. One of the important changes in this new Bulge game is that armored units are shown at the battalion scale. In evaluating armored battalions, an operational-strength US M4 battalion was used as the basis for the numbers (evaluated as 3-2-7 for 40 operational tanks). Although not well known, American tank strength was almost never the allotted 53 medium tanks. A sample of seven US tank battalions entering the Ardennes shows an average operational strength of only 37 tanks! The German Mk IV was considered the equal of the Sherman, the Mk V Panther equal to 1.5 M4s and the Tiger equal to two Shermans. The various Allied and German assault guns and tank destroyers were equated in a similar fashion. The open top of the US tank destroyers was considered a decided

liability. Those interested are referred to the order of battle for details about armored strengths.

German reconnaissance battalions are given in the game while American recon battalions are not, since recon battalions were typically found in combat command R in the US armored divisions. The Germans used these battalions as maneuver forces while the Americans tended to use them for support. Also, included is a series of smaller independent battalion-level units on both sides from the proud 99th "Norwegian" battalion to the lowly 999th Ost (Russian) battalion. This also includes a battalion-level deployment for the spread-out US 28th Division at the beginning of the game.

Artillery, a critical weapon in the actual battle, is now depicted. The numerical estimates are based on the actual numbers of guns and their calibers in the various corps, brigades, and groups. Also considered in this analysis is the amount of ammunition available to the guns. This clearly demonstrates the difference between the Allied artillery, which in most cases had received almost unlimited ammunition, and the German artillery, which was subject to severe restrictions. A battalion of 12 US 105mm guns was the basis for the firepower scores, being equivalent to a 1 in attack support strength. In the case of German rocket artillery (Nebelwerfer) units, the calculation is equated at 80% of the actual number, and in the case of regular German artillery, the number of tubes for conversion calculation was 70% of the actual number. Still, players will recognize the power of the German rocket (Nebelwerfer) units. Although inaccurate and short ranged, they had a pronounced psychological effect when used in saturation fire (see Cole 1965, p. 507).

Engineer formations are represented for both sides. As in the actual battle, both players will find it expedient not to sacrifice these important units as delaying forces. They can impose far more delay through their bridge demolition capabilities and through creation of Improved Positions and roadblocks (Optional Rules). (for example, see *The Ardennes: Engineers as Infantry*, The Corps of Engineers, The War Against Germany, OCMH, 1985).

Generally, units have been tailored to reflect the strengths and weakness of their historical counterparts. Although the armor seems most powerful, keep in mind that it is the infantry, "the queen of battle," that carried out most operations. In *The Last Gamble*, the proper cooperation between tanks and infantry is crucial to winning the game.

[7.0] Preparation for Play

Over 60 research hours were devoted to correct positioning of the combatants as they faced each other on the battlefield on the morning of December 16, 1944. US unit after action reports, the German A-C series manuscripts and Lutichau's very useful "Progressive Buildup and Operations" (R-8) was used to great benefit in this process. This was deemed especially important in the design process because the starting position are the last bit of control that the designer can exert on the play process.

Consequently, it is very desirable that the players begin on a firm historical footing. The result of this difficult work is pleasing indeed. Players will see exactly why as the game progresses and they can compare the problems they face to those described in the history books (see "The Last Blitzkrieg").

[8.0] Game Procedure

The reserve rules add a very important element of military operations to the game. In World War II battle, few situations were such that a commander would risk all of his troops to action (see Strawson 1972 pp. 74-76). If there were to be fresh forces to exploit offensive success, they must be kept out of the fray. To a somewhat lesser extent, a defender would try to maintain a mobile reserve to deal with dangerous enemy penetrations. In the game, the players must now take this into consideration. The Enemy Reaction Phase of the turn also brings the game closer to the simultaneous movement that occurs in reality. Careful handling of reserves is crucial to good play.

II. Basic Game

[1.0] Supply Determination

The supply rules take into account the administrative requirement that divisions remain in communication with their supply head. This requires that players manage to keep their divisions fairly well organized.

[2.0] German Fuel Shortages

The German Player labors under Fuel Shortage rules that reflect the historical reality of the logistical shoestring under which the Ardennes offensive was launched. The probabilities in the Fuel Shortage Table are based on an analysis of the comparative periods of time that each German motorized division was "out of gas" during the battle. Players will note that the probability of the SS divisions running out of fuel is particularly high (see Wegener 1945, p.12, for more on this point). The main reason here is that the II SS Panzer Corps arrived on the field on December 19 and 20 with no fuel in the corps trains. Both the 9th SS and 2nd SS Panzer Division's panzer grenadiers marched to the battle on foot while the tanks waited for petrol. What little fuel the II SS Panzer Corps could scrounge up to the 21st was allocated to the respective reconnaissance battalions (Weidinger, 1979; Tieke, 1975).

[5.0] Movement

The movement system is simple and straightforward. Off-road travel was very difficult for motorized units until the ground froze. (See General Manteuffel's testimony, B-151, 1946 for this.) For this reason, the control of roads became a major goal, and, in particular, the importance of highways could not be ignored. A limit must be imposed on the number of units that can move along the road, which is a standard game feature. One of these limitations, for instance, is the traffic congestion rule. Of course, this occurs in real-life battles. What the Persian army learned at

Thermopylae was relearned on a grand scale by the Germans fighting through the Ardennes in 1944.

The British restrictions duplicate Montgomery's reluctance to commit these units. They were scheduled to lead an offensive in the north (Operation Veritable) and British replacements were no longer available. Furthermore, the logistical situation would assume nightmarish proportions if the XXX Corps was introduced across the VII Corps lines of communications (see Whipple, 1948). Because of the presence of Allied supply depots in the Namur-Liege area, the British were specifically assigned to prevent the Germans from developing bridgeheads across the Meuse River.

[6.0] Strategic Movement

With Strategic Movement, units can achieve faster movement by utilizing roads. In particular, American infantry units can move much longer distances by this method (see Manteuffel, 1946, B-151, for a discussion of allied truck pools). As the game shows, such a convoy was not an appropriate combat formation. It was not really possible to attack from a moving motorized convoy. The American truck companies tended to drop off the infantry no closer than four miles from the front and further away when the situation was fluid. In general, the road net in the Ardennes did more to help the Allies to get into defensive position than it did to aid the German advance because the Allied forces were able to reach their defense lines quickly. This was especially true in terms of the German supply and traffic situation. German Players are not allowed to put their units in Strategic Movement until they have taken Rocherath, St. Vith, and Clerf because Allied defenses in these towns were close to the German lines of departure and defending these towns would prevent the movement of German motorized units, which could not travel very well except by road (see Kramer 1945, Denkert n.d., and Lucht 1946).

[7.0] Stacking

The stacking limitation reflects the minimum operational front for a single regiment in World War II. In actual combat, as the battle drew to a close, both armies deployed a large number of troops to very narrow fronts. This rule illustrates the operational limitations of such concentrations.

[8.0] Zones of Control

Zones of control exist in the game only for regiment-sized infantry or armored infantry (panzer grenadier) units. This was deemed appropriate, as armored, artillery and engineer troops were neither equipped nor trained to hold territory. Armor is important for its shock value, infantry to consolidate and hold ground, artillery to support operations, and engineers to perform special functions. The dense forests in the Ardennes were a mixed bag for attack and defense. It was very difficult to root out an enemy in dense woods, as the Allies had learned in the Hurtgen Forest. However, since such dense foliage also provided cover

from observation, it was often possible for the Germans to infiltrate around the American positions, particularly during the long winter nights.

[9.0] Reinforcements

The German Player can bring in reinforcements faster than happened historically by achieving specific goals. This is based on OKW's (i.e. Hitler's) decision to deploy reserve troops when the initial goals were met (see p. 563 in Cole's 1965 book and Kramer's 1954 description). The II SS Panzer Corps was to be committed as soon as the 6th Panzer Army had secured a road that could handle more than 6,000 vehicles. On December 22, the 11th Panzer Division was actually in reserve north of Bitburg (see Schrodek 1976 and Donnhauser 1982). Hitler gave up on the advance to the Meuse River and decided to carry out a tactical revenge battle in Bastogne, so it was not actually committed to the battle.

[11.0] Combat

The combat results represent the typical range of outcomes encountered in the Ardennes battle over a 12 hour period. These involved losses, retreats, inconclusive combat, or combinations thereof. The game's Combat Results Chart allows for more damaging results than the original in *Dark December*, yet it does not wipe out an entire stack of combatants with only one strength reduction. This is due to the time scale. Regimental units were seldom wiped out in a single 12 hour period. For example, the 110th Infantry Regiment of the 28th Infantry Division was completely destroyed in the actual battle, suffering 90% casualties. However, this was over a period of two days! Allowing retreats through enemy ZOCs remedies another cause of the attrition problem often seen in Bulge games. The attrition in the game was adjusted so that the historical casualties are approximated. Best estimates are that Allied casualties over the period were 75,000 (including the 6-8,000 who surrendered in the 106th Division) and 70-100,000 for the Germans (Schramm 1946; C-020, Bauer, 1955; R-60). Assuming approximately 4,000 combatants per regiment, this amounts to 38-40 steps for either side in casualties. Of course this does not account for replacements (the US units received more than 30,000 replacements over the same period; the Germans some 15-20,000). Losses in tanks and assault guns was about 750 for the Allies and 800-1000 for the Germans.

During the battle period, Allied tank replacements amounted to more than 400 vehicles, while panzer shipments reaching the Ardennes amounted to about 200 (see Mayo, 1968, Jung, 1971, Lutichau, R-16 and Stumpf, Ethint #61). This adds another 30 odd armor battalion steps for either side, ignoring units refitted. Since there are 36 game turns in this game period, this amounts to an average per-turn attrition of about one step loss for both armor and infantry units for each player!

Players will note that combat effectiveness of units can vary greatly depending on supply situation, unit formation, and terrain. The rationale here is fairly self-evident. The

Tiger and Panther tank units receive a special benefit due to their psychological impact on American soldiers (see Mayo, 1968) as well as the formidable weapon itself. They should strike terror in the Allied Player in the game as well. The Armor Superiority rules are similar. It was very difficult for infantry to operate unassisted against armor (Lucht, B-333; Senfuss, B-073). More complex than these factors was the consideration of unit morale and exhaustion. These elements are also built into each unit's combat ability, and some units reflect their high (or low) quality, resulting in a combat value with extra points added (or removed).

The advance after combat rules also reflect the different unit capabilities. Stacking is not allowed in advance because of the general disorganization resulting from attacks, even when successful. Armor advance through forested terrain is restricted.

The combat coordination bonus reflects the fact that well coordinated attacks were much more likely when a division was properly committed. This is simply because a well-coordinated attack of various combat support elements necessitated a common communications and command network. The usual tactic for either side was to lead off an attack with two regiments in line and another in reserve (Manteuffel, 1946; B-151).

The combined arms nature of WWII combat has been well documented. The German panzer Kampfgruppe was based on this theory of a balanced infantry-tank team (see Lucas and Cooper, 1977 p.13-77 for an excellent discussion). The US attempted to emulate this technique with the combat command organization of the 1943 armored division. Game players will find equal rewards to utilization of this concept.

[12.0] Artillery

The artillery rules need some explanation. The Germans leave behind half of their artillery when they first move these units because of their lack of fuel, ammunition and prime movers. It seems that many of the latter had been loaned to the German engineers, not to be seen for quite a while. Consequently, at least half of the German corps artillery was left behind at the line of scrimmage. Illuminating references to the problems encountered by the Wehrmacht artillery arm are found in Staudinger, 1948; B-759 and Triepel, 1947; B-506. For instance, in B-393 the artillery commander of 5th Panzer Army describes how the 766th Artillery Brigade and the 15th Rocket Brigade were "immobilized" when the artillery commander of the 5th Panzer Army loaned their prime movers to the Panzer Lehr artillery regiment which was lacking its organic complement.

[13.0] Reserve Phase

The entire reserve system was developed as a result of a study of the dominant tactics of the period. In the initial attacks, the German panzer units were held out of battle in reserve so that success achieved by the infantry elements could be exploited. There are numerous examples available in the B series manuscripts of the panzer units involved. In

MS B-873 the commander of the 116th Panzer Division describes his rationale for holding the tanks in reserve: "... the panzer regiment had been brought up to Hofswald in order to be committed in support of the 60th or 156th Grenadier Regiments as the situation developed." Players will note that this facet has been implemented so that the German units being held in reserve at the beginning of the battle are in reserve in the game as well. Winning play in the game can often be achieved over an opponent who does not pay attention to reserves.

[14.0] Engineer Phase

This rule recreates the bridge-blowing capabilities of the US engineers that were used so successfully in frustrating German tankers. They were responsible for the disappointments encountered by Peiper at Trois Pons and the 116th Panzer Division at the Ourthe River. For more information on the engineers, I recommend that you read "The Damned Engineers" by Janis Giles.

Improved Positions represent foxhole lines, log huts, gun emplacements and constructed obstructions. Many US infantry units were set up in such positions at the beginning of the battle and these substantially reduced the magnitude of the effect of the German artillery barrage.

[15.0] Special Rules

The special rules contain several important elements. Most of these are due to the tactical effects of the surprise of the German attack and its inhibiting effect on Allied reaction. The 9th Armored Combat Command B was sent to rescue the entrapped 106th Division in the Eifel and must also do so in the game. Also, duplicated are the infamous German traffic snarls.

There are numerous records of the initial German infiltration through the Allied line via the woods (see Viebig, 1946; Waldenburg, 1946). This is reproduced in a very simple fashion in the game. The Kampfgruppe Peiper rule is similar. It reflects the confusion of the American line the night of December 16-17 and the initiative of the unit. It should give the Allied Player a shock similar to that received by the 1st Army in Spa when panzers were seen approaching Hodges' headquarters.

[16.0] How to Win

The victory conditions are straight from the operational plans approved by Hitler and ordered by Model on December 11 ("Operational Order for the Attack by Army Group B over the Meuse Towards Antwerp" - Ia Nr 0180/44). The conditions of victory in the "Breakthrough" scenario are slightly modified from the historical ones for the sake of game balance. The historical victory achieved in the "Wacht am Rhein" scenario was an Allied tactical victory. If the Germans win a decisive victory, they are assumed to have taken Antwerp, delayed victory in Europe by months and won the Atom bomb sweepstakes. Many German military minds, including Guderian and von Rundstedt, felt that Hitler's intuition had failed him in his choice of front for his final foray. Any victory in the

Ardennes short of the Antwerp prize had little promise of influencing the outcome of the conflict. In a joint statement issued by Generals Keitel and Jodl shortly before they were executed for war crimes, they stated "There is a criticism that it would have been wiser to use our available reserves on the Eastern Front rather than on the Western Front. We will leave that criticism to the judgment of history."

III. Advanced Rules

[1.0] Allied Air Supremacy

This reflects the fact that Allied air power was most effective in inflicting damage on German transport and in interdicting roads. This constricted German movement capabilities through the threat of air attack, and reduced the regular flow of supply (see Thompson, "Tactical Air Phase in the Ardennes," and Lutichau, R-7). The Allied air weapon certainly did damage the German attacking formations themselves, but claims were almost always inflated by ten to one. The damage inflicted by the Allied air forces on the Germans was mainly psychological in nature. Allied planes were everywhere and the powerful German panzer forces were reduced to hiding in the woods. It was a discouraging situation, especially for the Luftwaffe which was both outnumbered and out-skilled by the Allied air forces.

[2.0] Tactical Air Support

This was a difficult part of the design. The number of air missions allotted in the game was based on the list of Ardennes ground support sorties essayed for the battle by both air forces (see Thompson). However, it was not nearly this simple. Weather conditions in the Ardennes severely hampered TAC air operations. Also, many of the German sorties launched never made it to the Ardennes, having been intercepted far to the east of the battlefield. Finally, the respective air forces at this point in the war were considerably more disparate in terms of skill than the ground forces. (If you are interested in this point, Werner Girbig's 1973 book, *Six Months to Oblivion: The Eclipse of the Luftwaffe Fighter Force* is recommended.)

A computer program was used to make adjustments for these variables. First, in the case of "cloudy" weather conditions, it was assumed that only 20 per cent of the aircraft actually arrived on the battlefield and provided effective support; in the case of "foggy" weather conditions, this was set at 60 per cent, and in the case of "clear" weather, it was set at 100 per cent. And, in the case of German aircraft, after making this weather correction, 33 per cent of the remaining aircraft were assumed to have arrived on the field without being intercepted by the Allied air forces. Finally, in the case of the Allies, 40 aircraft estimated to have arrived on the battlefield were counted as one unit, and in the case of the Germans, 60 were counted as one unit, taking into account the quality of their pilots. The result of this calculation is the number of aircraft units for both armies that are available in each game turn. The aircraft types that appear in each game turn were determined based on the writings of Girbig and Tompson.

[3.0] 150th Panzer Brigade

Bruno Sinigaglio, the designer of Avalon Hill's new version of their Bulge game, correctly points out that this brigade was not really a panzer unit but rather a panzer grenadier Kampfgruppe. In my game, however, it maintains the panzer status to reflect the advantage the "Trojan" tanks theoretically possessed. The organization of this unit and its mission were determined by consulting microfilm Ethint-12.

[4.0] Surrender

This rule is self explanatory. It allows the 106th Division to surrender as it did historically and adds an element of vulnerability to the inexperienced troops fighting in the battle.

[5.0] Terrain Effects on Armor Operations

An excellent discussion of the problems of terrain is contained in MacDonald's *Siegfried Line Campaign* in his discussion of the Hurtgen Forest armor engagements.

[6.0] Night Combat

The American Army was not well disposed toward night fighting, particularly after the German offensive played itself out. Patton, like the Germans, thought it was a good offensive idea (see Patton, *War as I Knew It*). MacDonald, (1973, p. 53 and 54). On the German side, Otto Remer, the commander of the Fuhrer Begleit Brigade, noted that in fighting the Americans an old battle wisdom was true: "Lord let the evening come, then is the battle won."

[7.0] Disengagement

This is often taken for granted in World War II tactical operations. It was easiest to pull out of the line at night. MacDonald's *The Siegfried Line Campaign* contains numerous examples.

[8.0] Ground Conditions

The thaw that coincided with the beginning of the offensive made off-road deployment exceedingly difficult (see Kramer, A-924). The dates for the freeze and the beginning of the heavy snows are taken from Thompson "Weather in the Ardennes." The tactical effect of both is described by Cole. (1965, p. 649-650).

[9.0] Allied Fuel Dumps

The combat implications of this problem are described in the US Army's First Army Operations Report, Giles' 1970 book, and "Overrunning of Installations" by Thompson.

[10.0] Operation Spatlese

Hitler recognized that Rundstedt's idea of a double envelopment was a good one. However, the requirement placed on the launching of this offensive was that the Allies in the V Corps area "had ceased to react" to the Ardennes thrust. In view of relative strengths of the two combatants,

this was unlikely. A discussion of this plan is contained in Luttichau's R-12 and R-13. Von Zangen (B-812) gives an enlightening picture of the limited capabilities of the 15th Army.

[11.0] Combined Arms/Armor Superiority

This assessment of the performance of armored units is probably controversial. The main reference for this evaluation was Ellis' 1981 book, which states that, "In determining the performance of vehicles, armament, armor, speed, gun turning speed and rate of fire should be considered." Other useful discussions are contained in Chapter 16 of Mayo's 1968 work. Many separate references were used to ascertain the principal armored vehicle types and operational strengths for the various formations. Note that a unit's vehicle type is the armored vehicle in the unit that offered the greatest tactical advantage. Luttichau's R-16 and Tessin were the most useful in determining the vehicles in German panzer units. For the Americans the V and VII corps histories for the 1st Army and the 3rd Army After Action Report for the US forces in the south were very useful. In addition, microfilm of the German archives provided information for the panzer formations as well as day-by-day strength in many cases.

The reasoning behind the rule is a qualitative model of success or failure in combat conceptually based on a logit decision algorithm. Simply stated, your chance of winning a battle (the enemy decides to run) increases geometrically when the enemy perceives that you have an inherent advantage (such as heavier tanks) in the battle.

IV. Optional Rules

The Optional Rules are already explained in each section. The organization and mission of von der Heydte are from microfilm Ethint-75, and details on Operation Grief are from microfilm Ethint-12. The commander units reflect the real function of leaders in modern warfare, and it is prohibited to use these units in combat. In the actual battle, Manteufel accompanied the attack forces and encouraged the officers under his command, and in the game he can speed up German divisions. Even though the Malmedy massacre was announced, it did not have much impact on the American military's resolution of the battle and only reduced the chances of Allied units surrendering. Roadblocks were another mission of the engineers and were effective in preventing the Panzer Lehr Division from advancing through the Foret de Freyr. Refer to the Orders of Battle in the Study Booklet for the notion that OKW had no coherent plan for the commitment of panzer battalions under its immediate control. All told, fewer than 100 Tigers participated in the Ardennes attack, and there is no certainty what tanks were used in the Panzer Lehr Division.

V. Game Variants

These rules were fun to design, and they can be very interesting when played with cards. The background to these variants is explained elsewhere, so be sure to give them a try.

In Conclusion

Where does this bring us in our understanding of what happened in the Ardennes forest some 40 years ago? Probably, in spite of our best efforts, we will never know exactly what happened or why. The game does portray the major elements that I believe had a significant effect on how the battle was fought. However, players should not delude themselves into believing that "this is exactly the way it was."

There is no suffering index in a cardboard game. Some 20,000 young men lost their lives in the Ardennes wood and many more were maimed for life with scars of the flesh or psyche. In the end, the Battle of the Bulge was a testament to the ill ends which men may pursue. And, even after the battle ended, traces of the extraordinary acts of the Nazis still lingered. We must not forget and not allow the immeasurable damage caused by this war to fade away.

As for the game itself, it was very exhausting to design. And, while many people tend to downplay this kind of research effort, I hope that anyone with a serious interest in the history of the battle will find some of the information I've published enlightening. In the final analysis, however, it is a game to be played. *The Last Gamble* should provide entertainment both for the serious historian and for players who are simply concerned about winning or losing. I hope you enjoy it.

Danny S. Parker

List of Place Names on the Map

Refer to this list when investigating victory conditions and the conditions for the commitment of reinforcements. Also included is a list of towns and cities in Japanese alphabetical order.

Towns and Cities

Andenne	アンデンヌ	4206	Revin	ルヴァン	5526
Aywaille	エヴェール	2610	Rochefort	ロシュフォール	3821
Bastogne	バストーニュ	2427	Rossignol	ロシニョール	3138
Beaufort	ボーフォール	0832	Rotgen	レットゲン	1103
Beauraing	ボーラン	4620	Schleiden	シュライデン	0307
Bertrix	ベルトリックス	3832	Schmidt	シュミット	0503
Biekirch	ビーキルヒェ	1231	Sedan	セダン	4634
Bitburg	ビットブルグ	0328	Seraing	スラン	3104
Bouillon	ブイヨン	4231	Simmerath	ジンメラート	0704
Celles	セル	4416	Spa	スパ	2109
Charlevill-Mezieres	シャルルヴィール・メズィエール	5232,5331	St. Hubert	サン・テュベール	3426
Ciney	シネー	4213	St. Vith	サン・ヴィト	1317
Clerf	クレルフ	1624	Stadtkyll	シュタットキル	0314
Consdorf	コンスドルフ	0635	Stavelot	スタヴロ	1812
Dinant	ディナン	4714	Sugny	ズークニー	4830
Durby	ディルビー	3215	Troi Ponts	トロワボン	1914
Echternach	エヒテルナッハ	0534	Verviers	ヴェルヴィエ	2105
Elsenborn	エルゼンボルン	1010	Viander	ヴィアンデル	1130
Ettelbruck	エテルブルック	1432	Vielsalm	ヴィールサルム	1917
Eupen	オイベン	1504	Vireux	ヴィルー	5221
Fosse	フォッス	5409	Waxweiler	ヴァックスヴァイラー	0724
Gedinne	ジュディンヌ	4624	Wellin	ヴェラン	4221
Gemund	ゲムンド	0205	Werbomont	ヴェルボモン	2513
Givet	ジヴェ	4919	Wiltz	ウィルツ	1829
Habay La Neuve	アベ・ラ・ヌーヴ	2637	Yvoir	イヴォワール	4812
Havelange	アヴランジュ	3813			
Herbeumont	エルボーモン	3835			
Hersdorf	ヘースドルフ	0221			
Herve	エルヴ	2303			
Hotton	オットン	3318			
Houffalize	ウーファリーズ	2222			
Huy	ユイ	3908			
Kyllburg	キルブルグ	0125			
La Roshe	ラ・ロッシュ	2921			
Liege	リエージュ	2903,3002,3003			
Malmedy	マルメディー	1511			
Manhay	マナー	2616			
Marche	マルシュ	3519			
Martelange	マルトゥランジュ	2434			
Mersch	メルシュ	1435			
Mettet	メッテ	5412			
Monshau	モンシャウ	1006			
Montherne	モンテルヌ	5228			
Namur	ナミュール	5007,4906			
Nandrin	ナンドラン	3408			
Neufchateau	ヌフシャトー	3233			
Nideggen	ニーデゲン	0302			
Noville	ノヴィール	2325			
Ohey	オエー	4108			
Ouffet	ウフェ	3111			
Paliseul	パリスール	4229			
Pronsfeld	プロンスフェルド	0721			
Prum	プリュム	0519			
Rocherath-Krinkert	ロッヘラート＝クリンケルト	0810			
Recogne	ルコーニュ	3531			

Rivers

Alzette River	アルゼット河
Ambleve River	アンブレーヴ河
Kall River	カール河
Kyll River	キール河
L'Homme River	ロム河
Lesse River	レッシ河
Meuse River	ムーズ河
Our River	ウール河
Ourthe River	ウールト河
Prum River	プリュム河
Roer River	ローエル河
Sambre River	サンブル河
Sauer River	ザウエル河
Semois River	スモワ河
Sure River	シュール河
Vesdre River	ヴェストル河
Vicht River	ヴィヒト河
Warche River	ヴァルシュ河

Forests and Other Features

Bois Bahiette	バヒーテの森
Bois Jacques	ジャックの森
Bois d'Emmels	エンメルの森
Bois de Baillonville	ヴェロンヴィルの森
Bois de Bellegarange	ベルガランジュの森
Bois de Cedrogne	セルローニュの森
Bois de Chooz	シューズの森
Bois de Chardonne	シャルドンヌの森
Bois de Crupet	クルーペの森
Bois de Dave	ダーヴの森
Bois de Elsenborn	エルゼンボルンの森
Bois de Famenne	ファミンヌの森
Bois de Fragotte	フラゴットの森

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Bois de Geauvelant	ジョーヴランの森	ゲムンド	Gemund	0205
Bois de Harre	アールの森	コンスドルフ	Consdorf	0635
Bois de Haute Marlagne	オート・マルラーニュの森	サン・テュベール	St. Hubert	3426
Bois de Hazelles	アゼールの森	サン・ヴィト	St. Vith	1317
Bois de Haute Marlagne	マルラーニュの森	シネー	Ciney	4213
Bois de Hez	エズの森	シャルルヴィール・メズイエール	Charleville-Mezieres	5232, 5331
Bois de Jeneffe	ジュネッフの森	シュタットキル	Stadtkyll	0314
Bois de Porcheresse	ポルシュレスの森	シュミット	Schmidt	0503
Bois de Revin	ルヴァンの森	シュライデン	Schleiden	0307
Bois de Regnier	ルニエの森	ジュディンヌ	Gedinne	4624
Bois de Sent Han	セント・ハンの森	ジンメラート	Simmerath	0704
Bois de St. Remacle	サン・ルマークの森	ジヴェ	Givet	4919
Bois de St. Hubert	サン・テュベールの森	スタヴロ	Stavelot	1812
Bois de Tave	ターヴの森	スバ	Spa	2109
Bois de Tellin	テランの森	スラン	Seraing	3104
Bois de Warre	ワールの森	ズークニー	Sugny	4830
Bois de Wallerode	ワルロードの森	セダン	Sedan	4634
Bois de la Haie Dille	ラ・エ・ディルの森	セル	Celles	4416
Bois des Fagnes	レ・ファーニュの森	ディナン	Dinant	4714
Bois du Roi	ル・ロワの森	ディルビー	Durby	3215
Foret Danlier	ダンリエの森	トロワポン	Troi Ponts	1914
Foret d'Herbeumont	エルブモンの森	ナムュール	Namur	5007, 4906
Foret de Ardennes	アルデンヌの森	ナンドラン	Nandrin	3408
Foret de Chiry	シリーの森	ニーデゲン	Nideggen	0302
Foret de Freyr	フレイエルの森	ヌフシャトー	Neaufchateau	3233
Foret de Luchy	リュシーの森	ノヴィール	Noville	2325
Foret de Ruiles	ルイールの森	バスターニュ	Bastogne	2427
Foret de Sedan	セダンの森	パリスール	Paliseul	4229
Forst Geolstein	ゲールシュタインの森	ビーキルヒェ	Biekirch	1231
Forst Monshau	モンシャウの森	ビトブルグ	Bitburg	0328
Hellenthaler Wald	ヘーレンターラーの森	フォッス	Fosse	5409
Hertogen Waltd	ヘルトゲンの森	ブイヨン	Bouillon	4231
Steinburner Wald	シュタインブルナーの森	プリュム	Prum	0519
Baraque Miche!	バラック・ミッシェル	ブロンスフェルド	Pronsfeld	0721
Baraque de Fraiture	バラック・ドゥ・フレテュール	ヘースドルフ	Hersdorf	0221
Basses Ardennes	低アルデンヌ	ベルトリックス	Bertrix	3832
Elsenborn Ridge	エルゼンボルンの尾根	ボーフォール	Beaufort	0832
Famenne Depression	ファメンヌ低地	ボーラン	Beauraing	4620
Hautes Ardennes	高アルデンヌ	マナー	Manhay	2616
Herre Plateau	エール台地	マルシュ	Marche	3519
Hohes Venn	ホーヘス・ヴェン	マルトゥランジュ	Martelange	2434
Losheim Gap	ロスハイム峡谷	マルメディー	Malmedy	1511
Scharnborst	シャルンボルスト	マッテ	Mettet	5412

Towns and Cities (in Japanese alphabetical order)

アベ・ラ・ヌーヴ	Habay La Neuve	2637	モンテルヌ	Montherne	5228
アンデンヌ	Andenne	4206	ユイ	Huy	3908
アヴランジュ	Havelange	3813	リエージュ	Liege	2903, 3002, 3003
イヴォワール	Yvoir	4812	ルコーニュ	Recogne	3531
ウーファリーズ	Houffalize	2222	リヴァン	Revin	5526
ウィルツ	Wiltz	1829	レットゲン	Rotgen	1103
ウフェ	Ouffet	3111	ロシニョール	Rossignol	3138
エテルブルック	Ettelbruck	1432	ロシュフォール	Rocheftort	3821
エヒテルナッハ	Echternach	0534	ラ・ロッシュ	La Roshe	2921
エルゼンボルン	Elsenborn	1010	ロッヘラートニクリンケルト	Rocherath-Krinkert	0810
エルボーモン	Herbeumont	3835	ヴァックスヴェイラー	Waxweiler	0724
エルヴ	Herve	2303	ヴィールサルム	Vielsalm	1917
エヴェール	Aywaille	2610	ヴィアデル	Viander	1130
オイベン	Eupen	1504	ヴィルレー	Vireux	5221
オエー	Ohey	4108	ヴェラン	Wellin	4221
オットン	Hotton	3318	ヴェルボモン	Werbomont	2513
キルブルグ	Kyllburg	0125	ヴェルヴィエ	Verviers	2105
クレルフ	Clerf	1624			

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GERMAN

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17SS Pz/37	17SS Pz/38	Van de Hote	6PAZ/21ak/3	XLB/184	7A/15/14k	3F/5	3F/15	5F/15	30/117
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2-3-5	2-3-5	2-3-5	2-3-5	2-3-5	1-2-6	2-1-7	2-2-5
2Arm/41	2Arm/42	2Arm/43	2Arm/44	2Arm/45	2Arm/46	2Arm/47	2Arm/48
3-3-6	1-2-6	2-1-7	2-1-7	2-1-7	2-1-7	2-1-7	3-3-6

GERMAN SS

12SS Pz/22	12SS Pz/10	12SS Pz/653	6SS/11	6SS/12	6SS/506
3-3-6	1-1-8	1-2-6	4-4-5	4-4-5	1-1-6
12SS Pz/27	12SS Pz/28	12SS Pz/29	12SS Pz/30	12SS Pz/31	12SS Pz/32
2-2-8	3-2-7	3-3-6	3-3-6	1-1-8	1-2-6
12SS Pz/33	12SS Pz/34	12SS Pz/35	12SS Pz/36	12SS Pz/37	12SS Pz/38
3-3-6	1-1-8	1-2-6	2-2-6	3-2-7	4-4-7
12SS Pz/39	12SS Pz/40	12SS Pz/41	12SS Pz/42	12SS Pz/43	12SS Pz/44
3-3-6	3-3-6	3-3-6	3-3-6	3-3-6	1-2-6

MB/4	MB/29	2Arm/66/1	2Arm/66/2	2Arm/66/3	2Arm/67/1	2Arm/67/2	2Arm/67/3
2-1-8	1-2-5	2-1-7	2-1-7	2-1-7	2-1-7	2-1-7	2-1-7
78/883	78/885	78/709	75/289	75/290	75/291	75/50	75/629
1-1-6	1-2-6	2-1-7	1-1-5	2-3-5	2-3-5	1-2-5	0-1-5



THE LAST GAMBLE COUNTER SHEET NO.1[200;BACK]

The Last Gamble
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Pz Lehr/243	Pz Lehr/243	Pz Lehr/243	Pz Lehr/243	Pz Lehr/243	Pz Lehr/243	Pz Lehr/243	Pz Lehr/243	Pz Lehr/243
1-2-6	3-2-7	4-4-6	1-2-6	2-3-5	2-3-5	1-3-6	1-3-6	0-1-6
9Pz/10	9Pz/11	9Pz/9	9Pz/56	Pz Lehr/130	Pz Lehr/130	Pz Lehr/901	Pz Lehr/130	Pz Lehr/559
3-3-6	2-3-6	2-1-8	1-2-6	2-1-7	2-2-7	2-2-6	2-2-8	3-4-6

☀	☀	☀	☀	☀	☀	☀	☀	☀
↑	↑	↑	↑	↑	Dis-organized	Dis-organized	Dis-organized	Dis-organized
↑	↑	↑	↑	↑	↑	↑	↑	↑
Isolated	Isolated	Isolated	Isolated	Isolated	Isolated	Isolated	Isolated	Isolated

GERMAN

26/78	26/26	21Pz/41	31Pz/94	21Pz/2	31Pz/304	21Pz/2	31Pz/304	9Pz/241	9Pz/331
3-3-5	2-2-6	3-2-7	4-4-7	3-3-6	2-3-6	2-1-8	1-2-6	2-1-7	3-3-7
116 Pz/16/11	116 Pz/16/1	116 Pz/60	116 Pz/136	116 Pz/116	116 Pz/228	XLB/15V	XLB/566	26/39F	26/77
2-1-7	3-3-7	3-3-6	2-3-6	1-1-8	1-2-6	4-4-3	3-3-5	3-3-5	

GERMAN

H.Gra. B/54	20V	19V	227/67	227/66	227/17	Pz Lehr/130	H.Gra. B/53
2-2-6	5-2-5	5-2-5	2-2-5	2-2-5	2-2-5	2-3-6	1-1-6

3Pz/7	18S Pz/1XW	18S Pz/9VW	18S Pz/388	18S Pz/402	18S Pz/402	12/18	12/9	277/68	277/68
1-2-6	5-2-5	6-2-5	4-4-5	4-4-5	2-3-5	2-3-5	2-3-5	2-2-5	2-2-5
246/352	246/404	246/689	326/751	326/752	326/753	3PG/3	3PG/29	3PG/103	3PG/103
2-2-5	2-2-5	2-2-5	2-2-5	2-2-5	2-2-5	2-3-6	3PG/29	1-2-6	1-1-8

310/314	310/305	310/306	11Pz/15/1	11Pz/15/1	11Pz/110	11Pz/111	11Pz/111	11Pz/81
2-2-5	2-2-5	2-2-5	2-1-7	7-7-7	3-3-6	2-3-6	1-1-8	1-2-6
15PG/115	15PG/115	15PG/115	15PG/33	Fah Gr/Pz	Fah Gr/Pz	Fah Gr/911	9/36	9/37
2-3-6	2-1-7	1-1-8	1-2-6	3-3-7	3-3-6	1-2-6	2-2-5	2-2-5



About the Designer

Danny S. Parker has been a student of the Battle of the Bulge for more than 15 years. During this time he has designed two games on the subject: SPI's *Battles for the Ardennes*, and OSG's *Dark December* and has served as research assistant for SPI's battalion-level *Wacht Am Rhein* and Avalon Hill's *Battle of the Bulge*, 2nd edition.

For the last two years, he has worked as a research consultant to author Charles B. McDonald. McDonald's book, *A Time for Trumpets* was recently published by William & Morrow, New York. The book is based on the order of battle that Parker researched for *The Last Gamble*. Mr. Parker is an honorary member of Veterans of the Battle of the Bulge and the Royal Committee of Veterans Who Participated in the Battle of the Bulge. He holds degrees from Florida International University and the University of Montana. Mr. Parker currently lives in Helena, Montana.

The Last Gamble Design Credits

Game Design:Danny S. Parker

Game Development:Danny S. Parker

Research Assistance:Joseph Balkowsky

Geoff Barnard

Mike Cox

Heinz Gunther Guderian

Richard Gutenkunst

Winston Hamilton

Marc Heinrich

Larry House

Charles von Luttichau

Victor Madej

Charles MacDonald

William F. Murphy, Jr.

Forrest Opper

Jean Paul Pallud

Bruno Sinigaglio

Shelby Stanton

George Wagner

Playtesting:Tyrone Bomba

Bobby Clinton

Jerry Daumiller

David Harris

David Jones

Erik Lutterbie

Mike Joslyn

Mitch Gniadek

Alan Okagaki

Chris Rohrs

Nikki Rohrs

Abraham Taylor

Val Thomas

development for Japanese Version:Makoto Sasaki

Cover Art:Shin Uede

Art Work:Takashi Yamada

Rieko Tsuiki

Translation:Makoto Sasaki

Production Coordination:Makoto Sasaki

Layout for Game Chart:Nakahara Design

Layout for Rules Book and Study Book:Yamada Photo Process

Typesetting:Yamada Photo Process

Design Tact

Special Thanks to:Ms. Yoshiko Jinnai (Belgian Tourist Office)

Photo Credits:U.S. Army

U.S. Air Force

Bundesarchiv

Bundesarchiv Preussischer Kulturbesitz

Imperial War Museum

Hubert Meyer

Heinrich Hoffmann

Henry Hunt Library

Robert Capara/Magnum

Janice Giles

Rudolf Siebert

R. Crouquet

P. Drosch

Allied Initial Setup/Reinforcements Chart

For Scenarios Starting on the December 16 AM Game Turn

This Initial Deployment/Reinforcements Chart is for December 16. It is used for the three scenarios that begin on that date: "Breakthrough", "Wacht am Rhein", and "Battle of the Bulge Campaign". The initial deployment and reinforcement information for these scenarios is included for each unit, but the arrival of some of the reinforcements may be conditional, so be sure to use this table to identify the units before placing them on the map (see the notes at the end for more information). Units labeled "Reduced Strength" appear in the game at reduced strength (flipped over). In addition, units marked with "Optional Rule" do not appear in the game unless the appropriate Optional Rule is being used. The reinforcements that do not have an entry area designated are aircraft units.

INITIAL DEPLOYMENT

12/16 AM (At Start of Game)

Designation	Hex				
78/311	0802	1A/99Nor	2207	1A/705 M18	"M~N"
78/310	0704	1Army Hodges [Optional Rule]	2109	30/743 M4	"Q"
78/309	0804	9/CCB	(1312)	XXIX/P-38	
78/709	0704	The hex of placement for each fuel dump is printed on the counter (Advanced Rules)			
78/893 M10	0704	Bel.V Fus	1811	9/39 [注 6 参照]	"Q"
V/32/79	1003			1/703 M36	"P"
V/406	1107				
V Corps Gerow [Optional Rule]	1504				
V/102 M5	[1006]				
99/395(-)	0709	1/16	"P" [or 19 AM, see note 1]	1A/740 M4	"N~P"
99/395/3	[0908]	1/634 M10	"P" [or 19 AM, see note 1]	78/628 M36	"Q"
99/394	[0712]	7Arm/CCA M4	"P~Q"		
99/393	[0710]	7Arm/CCB M4 TF Erlenbusch	"P~Q"		
2/23	(1010)	7/Arm/CCR M4	"P~Q"	3Arm/32/1 M4 TF Kane	"N"
2/644 M10	(0809)	7Arm/814 M36	"P~Q"	3Arm/33/3 M4 TF Hogan	"N"
2/38	0708	V/187	"P~Q"	3Arm/32/3 M4 TF Orr	"N"
2/9	0708	4/22(-)	"A"	3Arm/36	"N"
2/741 M4	(0810)	1/18	"Q" [or 19 AM, see note 2]	3Arm/33/1 M4 TF McGeorge	"P"
VIII/14 M5	0715	1/26	"Q" [or 19 AM, see note 2]	3Arm/33/2 M4 TF Lovelady	"P"
106/422	0717	1/745 M4	"Q" [or 19 AM, see note 2]	3Arm/32/2 M4 TF Doan	"Q"
106/423	0818	78/2Rgr	"Q" [or 19 AM, see note 2]	XXX/2HHC M5 [BR]	"H~J"
106/424	[1020]	IX/P-47			
VIII/1107	1317				
VIII/174	1320				
VIII/402	1118	10Arm/CCA M4	"B"		

10Arm/CCR M4 "B"
9/47 "Q"
30/117 "Q"

IX/P-47
IX/P-38

12/18 AM
82/504 "I~H"

82/505 "I~H"

82/508 "I~H"

82/325G "I~H"

[1031] 101/501 "G"

0832 101/502 "G"

0534 101/506 "G"

(0635) 101/327G "G"

(0635) XVIII Corps Ridgeway [Opt. Rule] "I~G"

0436 30/119 "Q"

0736 30/120 "Q"

1829 V/190 "M~O"

2427 10Arm/CCB M4 "D"

2427 10Arm/609 M18 "D"

(1723) XXIX/P-38

(1521) **12/18 PM**

2013 1A/705 M18 "M~N"

2109 30/743 M4 "Q"

2109 IX/P-47

(1312) XXIX/P-38

12/19 AM

9/39 [注 6 参照] "Q"

1/703 M36 "P"

12/19 PM

1A/740 M4 "N~P"

78/628 M36 "Q"

12/20 AM

3Arm/32/1 M4 TF Kane "N"

3Arm/33/3 M4 TF Hogan "N"

3Arm/32/3 M4 TF Orr "N"

3Arm/36 "N"

3Arm/33/1 M4 TF McGeorge "P"

3Arm/33/2 M4 TF Lovelady "P"

3Arm/32/2 M4 TF Doan "Q"

XXX/2HHC M5 [BR] "H~J"

12/20 PM

84/334 [注 6 参照] "L~O"

VII/1313 TF Thrasher "H~J"

12/21 AM

84/333 [See note 6] "L ~ O"
 84/335 [See note 6] "L ~ O"
 84/771 M4 [See note 6] "L ~ O"
 84/638 M18 "L ~ O"
 5Arm/CCR M4 [See note 6] "P" [See note 3]

12/21 PM

9/746 M4 [See note 6] "Q"
 XXX/29Arm F [B R] "J"
 VIII/602 M18 "E"
 RAF BC/Lancaster

12/22 AM

9/60 [See note 6] "Q"
 XII Corps Eddy [Optional Rule] "A ~ B"
 5/10 "A ~ B"
 4Arm/CCA M4 "C ~ D"
 4Arm/CCB M4 "C ~ D"
 4Arm/704 M18 "C ~ D"
 4Arm/CCR M4 "C ~ D"
 26/101 "C ~ D"
 26/104 "C ~ D"
 26/328 "C ~ D"
 26/735 M4 "C ~ D"
 80/317 "C"
 80/318 "C"
 80/319 "C"
 80/702 M4 "C"
 80/610 M36 "C"

III/6 M5 TF Fickett "E ~ F"
 VII/29 "K"
 III/193 "C ~ D"
 III/203 "C ~ D"
 III/1137 "C ~ D"

3Army Patton [Optional Rule] "C ~ D"
 III Corps Millikim [Optional Rule] "C ~ D"
12/23 PM

VII Corps Collins [Optional Rule] "L ~ N"
 XXX Corps [B R] IX/P-38
 53/71 "J"
 53/158 "J"
 53/160 "J"
 XXX/4 AGRA "J"
 43/129 [See note 6] "L ~ N"
 43/130 [See note 6] "L ~ N"

43/214 [See note 6] "L ~ N"
 XXX/5 AGRA "L ~ N"
 XXX/34Arm Churchill "L ~ N"
 GA/5/2GG F "K"
 GA//5/1CG F "K"
 GA/5/2IG F "K"
 GA/2WG Cromwell "K"
 GA/5/1CG "K"
 GA/32 "K"

XXX Horroks [Optional Rule]

12/22 PM

75/289
 75/290
 75/291
 75/750 M4
 75/629 M10
 XVIII/517
 XVIII/509
 Fr.2 / Metz [R A]
 VIII/342 [R A]
 VIII/354 [R A]
 VIII/366 [R A]
 VIII/392 [R A]
 VIII/1308 [R A]
 XII/183

12/23 AM

2Arm/66/1 M4 [See note 6]
 2Arm/66/2 M4 [See note 6]
 2Arm/66/3 M4 [See note 6]
 2Arm/67/1 M4 [See note 6]
 2Arm/67/2 M4 [See note 6]
 2Arm/67/3 M4 [See note 6]
 2Arm/41 [See note 6]
 2Arm/702 M36 [See note 6]
 VII/4 M5 [See note 6]
 VII/759 M5 [See note 6]
 IX/P-47
 IX/B-26
 XIX/P-47
 XIX/P-47-2
 XXIX/P-38
 IX/C-47

12/23 PM

IX/P-47
 IX/P-38
 XIX/P-47
 XXIX/P-38
 IX/A-20
 IX/C-47

12/24 AM

66/262 [See note 7]
 66/263 [See note 7]
 66/264 [See note 7]
 5/2
 5/11
 5/737 M4
 XII/182
 XII/177
 VII/18 [See note 6]

"K" VII / 188 [See note 6] "M ~ N"
 VII / 142 [See note 6] "M ~ N"
 5Arm/CCA M4 [See notes 4 & 6] "M ~ O"
 "J" 5Arm/CCB M4 [See notes 4 & 6] "M ~ O"
 "J" VII/2 M5 "B"
 "J" VII / 1306 "A ~ C"
 "J" VIII / 118 [R A] "H"

"J" IX/P-47
 "J" IX/P-38
 "N" XIX/P-47
 "G ~ H" XIX/P-47-2
 "G" XXIX/P-38
 "G" IX/B-26
 "G" IX/C-47
 "G" II/Typhoon
 "G" II/Typhoon
 "C ~ B" RAF BC/Lancaster

12/24 PM

"L ~ M" IX/P-47
 "L ~ M" IX/P-38
 "L ~ M" XIX/P-47
 "L ~ M" XIX/P-47-2
 "L ~ M" XXIX/P-38
 "L ~ M" IX/B-26
 "L ~ M" IX/A-20
 "L ~ M" IX/C-47
 "L ~ M" II/Typhoon
 "L ~ M" II/Typhoon/2
 RAF BC/Lancaster

12/25 AM

11Arm/CCA M4 [R A] "G"
 11Arm/CCB M4 TF Poker [R A] "G"
 11Arm/CCR M4 [R A] "G"
 51/152 [B R] [See notes 5 & 6] "M ~ N"
 51/153 [B R] [See notes 5 & 6] "M ~ N"
 51/154 [B R] [See notes 5 & 6] "M ~ N"
 XXX/6Gds Tk Churchill [See nt 5] "M ~ N"
 XXX/33Arm F "K"
 IX/P-47
 IX/P-38
 IX/P-51
 XIX/P-47
 XIX/P-47-2
 "G ~ K" XXIX/P-38
 "G ~ K" IX/B-26
 "G ~ K" IX/A-20
 "B" IX/C-47
 "B" II/Typhoon
 "B" II/Typhoon/2
 "B" RAF BC/Lancaster
 "B"
 "M ~ N"

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12/25 PM

IX/P-47
IX/P-38
XIX/P-47
XIX/P-47/2
XXIX/P-38
XXIXP-47
IX/B-26
IX/C-47
II/Typhoon
II/Typhoon/2

12/26 AM

35/134
35/137
35/320
35/654 M10
XVII/2/551
IX/P-47
IX/P-38
XIX/P-47
XIX/P-47/2
XXIX/P-38
XXIX/P-47
IX/B-26
IX/C-47
II/Typhoon
II/Typhoon/2
RAF BC/Lancaster

12/26 PM

90/357 [See note 8]
90/358 [See note 8]
90/359 [See note 8]
6Arm/CCA M4 TF Brown
6Arm/CCB M4
6Arm/CCR M4
6Arm/603 M18
83/329 [See note 6]
83/330 [See note 6]
83/331 [See note 6]
XVIII / 32 / 179
IX/P-47
IX/P-38
XIX/P-47
XIX/P-47/2
XXIX/P-38
XXIX/P-47
IX/B-26
IX/C-47
II/Typhoon
II/Typhoon/2
RAF BC Lancaster

12/27 AM

XII/404
17/507 [R A]
17/513 [R A]
17/193 [R A]
17/194 [R A]
6/3 [B R]
6/5 [B R]
6/6 [B R]
IX/P-47
IX/P-38
IX/P-51
XIX/P-47
"D ~ C" XIX/P-47/2
"D ~ C" XXIX/P-38
"D ~ C" XXIX/P-47
"D ~ C" IX/B-26
"P" IX/A-20
IX/C-47
II/Typhoon
II/Typhoon/2
RAF BC Lancaster

12/27 PM

IX/P-47
IX/P-38
IX/P-51
XIX/P-47
XIX/P-47/2
XXIX/P-38
XXIX/P-47
IX/B-26
IX/A-20
IX/C-47
II/Typhoon
II/Typhoon/2
RAF BC Lancaster

12/28 AM

XVIII/401

12/29 AM

XIX/P7
IX/B-26

12/30 AM

87/345
87/346
87/347
XVIII / 211
XIX/P-47
XIX/P-47/2

12/30 PM

"D ~ C" XIX/P-47
"G" XIX/P-47/2
"G"
"G" 12/31 AM
"G" XIX/P-47
"K" XIX/P-47/2
"K"
"K" 12/31 PM
XIX/P-47
IX/P-47

1/1/1945 AM

83/761 M4
XIX/P-47
IX/B-26

1/1 PM

XIX/P-47
IX/P-47

1/2 AM

IX/P-38
XIX/P-47

1/2 PM

XIX/P-47
IX/B-26

NOTES:

1) The earliest date of appearance for these two units is the 12/17 AM game turn, in which case the Germans must have occupied Rocherath or Eupen. These units appear in the game turn when this condition is met, or, if it is not met, they appear in the 19AM game turn.

2) The earliest appearance for these four units is the 12/17 AM game turn, but, as above, they appear when a German unit occupies or is adjacent to Eupen. These units appear on the game turn when this condition is met, or, if it is not met, they appear on the 12/19 AM game turn.

3) These units appear in the game turn when the Germans have occupied Marche or crossed the Meuse River. However, they never appear before the 12/21 AM game turn.

4) The 5/CCA and 5/CCB units appear in the game turn when a German unit enters any Liege hex or crosses the Meuse River. However, they never appear before the 12/24 AM game turn.

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5) These units must not appear in the game until at least one German unit has crossed the Meuse River. Also, these units may not move east across the Meuse and Semois Rivers.

6) When playing the Advanced Game, these units do not appear if the German 15th Army offensive takes place (see Advanced Rule 10.0).

7) Units of the 66th Infantry Division appear only when Allied Game Variant 6 is in effect.

8) Units of the 90th Infantry Division appear only when Allied Game Variant 10 is in effect.

[BR] and [RA]: These marks flag British and American units with movement restrictions (see Basic Rule 5.7). As the rule states, units with restricted movement may not move east of the line of the Meuse and Semois Rivers until certain conditions are met.

101/327G	2528
XVIII Corps Ridgeway [Optional Rule]	2513
30/117	1812
30/119 [reduced strength]	2311
30/120	1511
V/190	2310
10Arm/CCB M4 [reduced strength]	2528
10Arm/609 M18 [reduced strength]	2528
1A/705 M18	2427
30/743 M4	1812
30/823 M10	1812
9/39	1008
1A/740 M4	2311
78/628 M36	

For the "We Cannot Force the Meuse!" Scenario

Use this chart for the above scenario.

ELIM means that the unit has already been eliminated and does not appear in the game.

INITIAL DEPLOYMENT

12/22 AM (At Start of Game)

Designation	Hex				
78/311	0802	VIII/422	0736	84/334	3519
78/310	0704	VIII/1128	3223	VII/1313 TF Thrasher [A R]	5019
78/309	0804	VIII Corps Middleton [Optional Rule]	3223	84/333	3518
78/709	0704	VIII/1102	3531	84/335	3518
78/893 M10	0704	9Arm/CCR M4	ELIM	84/771 M4	3519
V/32/79	1003	9Arm/811 M18	ELIM	84/638 M18	3318
V/406	1107	V/1111	2013	5Arm/CCR M4	
V Corps Gerow [Optional Rule]	1504	IA/99Nor	1511	9/746 M4	1106
V/102 M5	1006	1A/526	1511	1/703 M36	1011
99/395(-)	1009	1Army Hodges [Optional Rule]	2109	XXX/29Arm F [B R]	4815
99/395/3	1009	9/CCB [reduced strength]	1318	VIII/602 M18	3233
99/394 [reduced strength]	0910	Bel.V Fus	2109	XXX/2HHC M5 [B R]	5019
99/393 [reduced strength]	0910	1/16	1311		
2/23	1010	1/634 M10	1011		
2/644 M10	1010	7Arm/CCA M4	1616		
2/38	0911	7Arm/CCB M4 TF Erlenbusch	1416		
2/9 [reduced strength]	1010	7/Arm/CCR M4	1917		
2/741 M4 [reduced strength]	0911	7Arm/814 M36	1619		
VIII/14 M5	ELIM	V/187	1408		
106/422	ELIM	4/22(-)	0436		
106/423	ELIM	1/18	1211		
106/424 [reduced strength]	1319	1/26	1011		
VIII/1107	[2418]	1/745 M4	1011		
VIII/174	ELIM	78/2Rgr	0905		
VIII/174	ELIM	10Arm/CCA M4	0834		
VIII/402	3826	10Arm/CCR M4	1434		
VIII/333	ELIM	82/504 [reduced strength]	2113		
28/112 [reduced strength]	[1520]	82/505	2015		
28/707 M4	ELIM	82/508	2017		
28/110/1	ELIM	82/325G	2218		
28/110/2	2830	101/501 [reduced strength]	2428		
28/110/3	ELIM	101/502	2527		
28/109/1	[1734]	101/506	2427		

REINFORCEMENTS

12/22 AM

9/60 [See note 6]	"Q"
XII Corps Eddy [Optional Rule]	"A ~ B"
5/10	"A ~ B"
4Arm/CCA M4	"C ~ D"
4Arm/CCB M4	"C ~ D"
4Arm/704 M18	"C ~ D"
4Arm/CCR M4	"C ~ D"
26/101	"C ~ D"
26/104	"C ~ D"
26/328	"C ~ D"
26/735 M4	"C ~ D"
80/317	"C"
80/318	"C"
80/319	"C"
80/702 M4	"C"
80/610 M36	"C"
III/6 M5 TF Fickett	"E ~ F"
VII/29	"K"

III/193	"C ~ D"	XIX/P-47-2		12/25 AM	
III/203	"C ~ D"	XXIX/P-38		11Arm/CCA M4 [R A]	"G"
III/1137	"C ~ D"	IX/C-47		11Arm/CCB M4 TF Poker [R A]	"G"
3Army Patton [Optional Rule]	"C ~ D"			11Arm/CCR M4 [R A]	"G"
III Corps Middleton [Optional Rule]	"C ~ D"	12/23 PM		51/152 [B R] [See notes 5 & 6]	"M ~ N"
VII Corps Collins [Optional Rule]	"L ~ D"	IX/P-47		51/153 [B R] [See notes 5 & 6]	"M ~ N"
XXX Corps [B R]		IX/P-38		51/154 [B R] [See notes 5 & 6]	"M ~ N"
53/71	"J"	XIX/P-47		XXX/6Gds Tk Churchill [See nt. 5]	"M ~ N"
53/158	"J"	XXIX/P-38		XXX/33Arm F	"K"
53/160	"J"	IX/A-20		IX/P-47	
XXX/4 AGRA	"J"	IX/C-47		IX/P-38	
43/129 [See note 6]	"L ~ N"			IX/P-51	
43/130 [See note 6]	"L ~ N"	12/24 AM		XIX/P-47	
43/214 [See note 6]	"L ~ N"	66/292 [See note 7]	"G ~ K"	XIX/P-47-2	
XXX/5 AGRA	"L ~ N"	66/293 [See note 7]	"G ~ K"	XXIX/P-38	
XXX/34Arm Churchill	"L ~ N"	66/294 [See note 7]	"G ~ K"	IX/B-26	
GA/5/2GG F	"K"	5/2	"B"	IX/A-20	
GA//5/1CG F	"K"	5/11	"B"	IX/C-47	
GA/5/2IG F	"K"	5/737 M4	"B"	II/Typhoon	
GA/2WG Cromwell	"K"	XII/182	"B"	II/Typhoon/2	
GA/5/1CG	"K"	XII/177	"B"	RAF BC/Lancaster	
GA/32	"K"	VII/18 [See note 6]	"M ~ N"		
XXX Horroks [Optional Rule]	"K"	VII / 188 [See note 6]	"M ~ N"	12/25 PM	
		VII / 142 [See note 6]	"M ~ N"	IX/P-47	
		5Arm/CCA M4 [See notes 4 & 6]	"M ~ O"	IX/P-38	
		5Arm/CCB M4 [See notes 4 & 6]	"M ~ O"	XIX/P-47	
	"J"	VII/2 M5	"B"	XIX/P-47/2	
	"J"	VII/1306	"A ~ C"	XXIX/P-38	
	"J"	VIII / 118 [R A]	"H"	XXIX P-47	
	"J"	IX/P-47		IX/B-26	
	"J"	IX/P-38		IX/C-47	
	"N"	XIX/P-47		II/Typhoon	
	"G ~ H"	XIX/P-47-2		II/Typhoon/2	
	"G"	XXIX/P-38			
	"G"	IX/B-26		12/26 AM	
	"G"	IX/C-47		35/134	"D ~ C"
	"G"	II/Typhoon		35/137	"D ~ C"
	"G"	II/Typhoon		35/320	"D ~ C"
	"C ~ B"	RAF BC/Lancaster		35/654 M10	"D ~ C"
				XVII/2/551	"P"
				IX/P-47	
				IX/P-38	
				XIX/P-47	
				XIX/P-47/2	
				XXIX/P-38	
				XXIX/P-47	
				IX/B-26	
				IX/C-47	
				II/Typhoon	
				II/Typhoon/2	
				RAF BC/Lancaster	
				12/26 PM	
				90/357 [See note 8]	"B ~ D"

90/357 [See note 8]	"B ~ D"	IX/A-20	
90/357 [See note 8]	"B ~ D"	IX/C-47	
6Arm/CCA M4 TF Brown	"D ~ C"	II/Typhoon	
6Arm/CCB M4	"D ~ C"	II/Typhoon/2	
6Arm/CCR M4	"D ~ C"	RAF BC Lancaster	
6Arm/603 M18	"D ~ C"		
83/329 [See note 6]	"L ~ M"	12/28 AM	
83/330 [See note 6]	"L ~ M"	XVIII/401	"L ~ P"
83/331 [See note 6]	"L ~ M"		
XVIII/32/179	"L ~ P"	12/29 AM	
IX/P-47		XIX/P7	
IX/P-38		IX/B-26	
XIX/P-47			
XIX/P-47/2		12/30 AM	
XXIX/P-38		87/345	"F"
XXIX/P-47		87/346	"F"
IX/B-26		87/347	"F"
IX/C-47		XVIII/211	"L ~ P"
II/Typhoon		XIX/P-47	
II/Typhoon/2		XIX/P-47/2	
RAF BC Lancaster			
		12/30 PM	
12/27 AM		XIX/P-47	
XII/404	"D ~ C"	XIX/P-47/2	
17/507 [RA]	"G"		
17/513 [RA]	"G"	12/31 AM	
17/193 [RA]	"G"	XIX/P-47	
17/194 [RA]	"G"	XIX/P-47/2	
6/3 [BR]	"K"		
6/5 [BR]	"K"	12/31 PM	
6/6 [BR]	"K"	XIX/P-47	
IX/P-47		IX/P-47	
IX/P-38			
IX/P-51		1/1/1945 AM	
XIX/P-47		83/761 M4	"L, M"
XIX/P-47/2		XIX/P-47	
XXIX/P-38		IX/B-26	
XXIX/P-47			
IX/B-26		1/1 PM	
IX/A-20		XIX/P-47	
IX/C-47		IX/P-47	
II/Typhoon			
II/Typhoon/2		1/2 AM	
RAF BC Lancaster		IX/P-38	
		XIX/P-47	
12/27 PM			
IX/P-47		1/2 PM	
IX/P-38		XIX/P-47	
IX/P-51		IX/B-26	
XIX/P-47			
XIX/P-47/2			
XXIX/P-38			
XXIX/P-47			
IX/B-26			

NOTES:

1) The earliest date of appearance for these two units is the 12/17 AM game turn, in which case the Germans must have occupied Rotgen or Eupen. These units appear in the game turn when this condition is met, or, if it is not met, they appear in the 19AM game turn.

2) The earliest appearance for these four units is the 12/17 AM game turn, but, as above, they appear when a German unit occupies or is adjacent to Eupen. These units appear on the game turn when this condition is met, or, if it is not met, they appear on the 12/19 AM game turn.

3) These units appear in the game turn when the Germans have occupied Marche or crossed the Meuse River. However, they never appear before the 12/21 AM game turn.

4) The 5/CCA and 5/CCB units appear in the game turn when a German unit enters any Liege hex or crosses the Meuse River. However, they never appear before the 12/24 AM game turn.

5) These units must not appear in the game until at least one German unit has crossed the Meuse River. Also, these units may not move east across the Meuse and Semois Rivers.

6) When playing the Advanced Game, these units do not appear if the German 15th Army offensive takes place (see Advanced Rule 10.0).

7) Units of the 66th Infantry Division appear only when Allied Game Variant 6 is in effect.

8) Units of the 90th Infantry Division appear only when Allied Game Variant 10 is in effect.

9) The allied fuel dumps have already been withdrawn.

[BR] and [RA]: These marks flag British and American units with movement restrictions (see Basic Rule 5.7). As the rule states, units with restricted movement may not move east of the line of the Meuse and Semois Rivers until certain conditions are met.

German Initial Setup/Reinforcements Chart

For Scenarios Starting on the December 16 AM Game Turn

This Initial Deployment/Reinforcements Chart is for December 16. It is used for the three scenarios that begin on that date: "Breakthrough", "Wacht am Rhein", and "Battle of the Bulge Campaign". The initial deployment and reinforcement information for these scenarios is included for each unit, but the arrival of some of the reinforcements may be conditional, so be sure to use this table to identify the units before placing them on the map (see the notes at the end for more information). Units labeled "Reduced Strength" appear in the game at reduced strength (flipped over). In addition, units marked with "Optional Rule" do not appear in the game unless the appropriate Optional Rule is being used. The reinforcements that do not have an entry area designated are aircraft units.

INITIAL DEPLOYMENT

12/16 AM (At Start of Game)

Designation

Hex

6th Panzer Army

5th Panzer Army

15A./902	0706	18/294	0614	5FJ/14	1128
6PzA/394 [reduced strength]	0306	18/295	0615	5FJ/15	1029
6PzA/667 [reduced strength]	0207	18/293	0719	5FJ/13	(1028)
6PzA/217 [reduced strength]	0108	5PzA/244 Stg	0614	5FJ/11 StgIII	0929
6PzA/150Pz [See Adv. Rule 3.0]	0112	LXVI/16VW	0619	LXXXV Korps Kneiss [Optional Rule]	0728
326/751	0707	LXVI Korps Lucht [Optional Rule]	0418	LXXXV/406	0930
326/752	0906	62/190	0920	352/914	(0930)
326/753	0907	62/183	0921	352/915	1030
LXVII Hitzfeld [Optional Rule]	0207	62/164	0721	352/916	0931
LXVII/17VW	0806	LVIII/1FLAK	0722	276/986	0831
6PzA/2Flak/3	0511	116Pz/60	1021	276/987	(0631)
LXVII/405	0706	116Pz/156	1122	276/988	0732
6PzA/2Flak/2	0406	116Pz/16/1 IV KG Bayer	(0922)	LXXX/8VW	0532
6PzA/2Flak/4	0512	116Pz/16/II V KG Bayer	(0922)	LXXX/408	0531
277/989	0609	116Pz/228 Jpz IV	(1022)	LXXX Korps Beyer [Optional Rule]	0431
277/990	0610	116Pz/116 Puma KG Stepen	1022	212/423	0533
277/991	(0510)	LVIII/401	0922	212/316	(0432)
ISSPz/9NW	0509	LVIII/7VW	1022	212/320	0334
ISSPz/402	0408	LVIII Pz Korps Krurger [Opt. Rule]	0822	7A/605	0431
6PzA/62Eng	0207	560/1130 KG Schumann	1222	7A/44	0235
6PzA/253Eng	0512	560/1128 KG Schmidt	1223	7A/999	0337
6PzA/73Eng	0414	5PzA Army Manteufel [Opt. Rule]	0724	7A/15FLAK	0731
12SSPz/12/I KG Kuhlmann	0208	XLVII/182	0724	7A/668	0930
12SSPz/12/II KG Kuhlmann	0109	Pz Lear/243 Stg	0624	7A/657	0231
12SSPz/12 Jpz IV	(0309)	Pz Lear/559 Jg V [reduced strength]	0724	7 Armee Brandenburger [Opt. Rule]	0429
12SSPz/12 Puma KG Bremer	0208	Pz Lear/130 KG Fallois	(0925)		

The Last Gamble

REINFORCEMENTS

12/16 PM

Commando Units (8 units)

3FJ/8 "U" [See Opt. Rule 4.0] "U"
Jgkp II/ME-109 "U"

12/17 AM

5PzA/614 "Y"
5PzA/653 [See Opt. Rule 8.0] "Y"
V.der Hydte [See Opt. Rule 1.0]
Jgkp II/ME-109

12/17 PM

H.Gru.B/519 "S"
Jgkp II/FW-190

12/18 AM

The reinforcement units listed below appear when the German player has secured a target point (or both if there more than one is given) that must be occupied by the German Player (either a German unit is there or was the last unit to pass through) in order for it to arrive. The name of the town/city that must be occupied is indicated in parentheses after the entry area code. The game turn indicated in square brackets after this name is the turn in which the unit appears if the Germans do not achieve their goal. However, even if the target is occupied, the earliest these units appear is the 12/18 AM game turn. After this turn, these units will appear immediately if the target is occupied. Also, if the German Player does not capture a US fuel dump (Advanced Rule), the 2nd SS Panzer Division and the 9th SS Panzer Division arrive in an unsupplied state and remain that way until the 12/21 AM game, turn. However, this rule does not apply to the reconnaissance battalions of these divisions (2SSPz/2 StgIII KG Krag and 9SSPz/9 Puma KG Recke). Also, even if a panzer division is unsupplied because of this rule, the German Player must still check for fuel shortage.

2SSPz/2/II IV "U ~ W"
(Malmedy, Spa [12/20 PM])
2SSPz/2/I V "U ~ W"
(Malmedy, Spa [12/20 PM])
2SSPz/3 "U ~ W"
(Malmedy, Spa [12/20 PM])
2SSPz/4 "U ~ W"
(Malmedy, Spa [12/20 PM])
2SSPz/2 StgIII KG Krag "U ~ W"

(Malmedy, Spa [12/20 PM]) 3PG/8 "R ~ S"
2SSPz/2 JpzIV "U ~ W" (Monschau [12/19 AM])
(Malmedy, Spa [12/20 PM]) 3PG/29 "R ~ S"
IISS/502W "U ~ W" (Monschau [12/19 AM])
(Malmedy, Spa [12/20 PM]) Jgkp II/ME-109
9SSPz/9/I V KG Terkamp "V"
(Trois Ponts, Werbomont [12/19 PM])
9SSPz/9/II KG Terkamp "V"
(Trois Ponts, Werbomont [12/19 PM])
9SSPz/9 Puma KG Recke "V"
(Trois Ponts, Werbomont [12/19 PM])
9SSPz/9 JpzIV "V"
(Trois Ponts, Werbomont [12/19 PM])
9SSPz/20 "V"
(Trois Ponts, Werbomont [12/19 PM])
9SSPz/19 "U"
(Trois Ponts, Werbomont [12/17 AM])
IISS Pz Korps Bittrich [Optional Rule]
"T ~ U" (2nd Panzer Division, along with the first unit to appear for the 9th Panzer Division)
Fuh Bglt/Pz IV "U ~ W"
(St. Vith [12/19 AM])
Fuh Bglt/PzG "U ~ W"
(St. Vith [12/19 AM])
Fuh Bglt/200 StgIII "U ~ W"
(St. Vith [12/19 AM])
3PG/103 JgIV "R ~ S"
(Monschau [12/19 AM])
3PG/103 Hftrk "R ~ S"
(Monschau [12/19 AM])
3PG/3 StgIII "R ~ S"
(Monschau [12/19 AM])
12/18 PM
5PzA/669Ost "W"
12/19 PM
246/352 "S"
12/20 AM
H.Gru.B/506 VI [reduced strength]
"T ~ U" [See Optional Rule 8.0]
LXXIV Korps Puechler "R ~ S"
10SSPz/10/II IV KG Bachmann [reduced]
"S ~ U" [see note 1]
10SSPz/10/I V [reduced strength]
"S ~ U" [see note 1]
10SSPz/10 Puma KG Brinkmann
"S ~ U" [see note 1]
10SSPz/655 JgV "S ~ U" [see note 1]
10SSPz/10 JpzIV "S ~ U" [see note 1]
10SSPz/21 "S ~ U" [see note 1]
10SSPz/22 "S ~ U" [see note 1]
11Pz/15/II IV "Y ~ Z" [see note 2]
11Pz/15/I V [reduced strength]
"Y ~ Z" [see note 2]
11Pz/11 Puma "Y ~ Z" [see note 2]
11Pz/61 JpzIV "Y ~ Z" [see note 2]
11Pz/110 "Y ~ Z" [see note 2]



An SS tank hides in the Ardennes Forest to refuel.

11Pz/111 "Y ~ Z" [See note 2]
 Fur Gr/Pz V "Y" [See note 4]
 Fur Gr/PzG "Y" [See note 4]
 Fur Gr/911 StgIII "Y" [See note 4]

12/21 AM

560/1129 KG Happich "W"
 LIII Korps Rothkirch [Optional Rule] "Y"
 79/208 "Z"

12/21 PM

Jgkp II/JU-88
 79/212 "Z"
 79/226 "Z"

12/22 AM

15PG/33 JpIV "U ~ W" [See note 3]
 9Pz/10 KG Reich "U ~ X" [See note 3]
 9Pz/9 Lynx "U ~ X" [See note 3]

12/23 AM

H.Gru.B/741 Jpz38t "U ~ W" [See note 3]
 15PG/104 "U ~ W" [See note 3]
 15PG/115 KG Mauke "U ~ W" [See note 3]
 15PG/115 IV KG Mauke "U ~ W" [See note 3]
 15PG/115 Hftrk "U ~ W" [See note 3]
 9Pz/33/I IV KG Streit "U ~ X" [See note 3]
 9Pz/33/II V KG Streit "U ~ X" [See note 3]
 9Pz/50 JgIV "U ~ X" [See note 3]
 9Pz/11 KG V.Bodehoff "U ~ X" [See note 3]
 H.Gru.B/301 VI [reduced strength] "U ~ X" [See Optional Rule 8.0]
 Jgkp II/ME-109

12/24 AM

Jgkp II/ME-109

12/24 PM

Jgkp II/ME-109
 246/404 "S" [See note 3]
 246/689 "S" [See note 3]

12/25 AM

IISSPz/410 "R ~ T" [See note 3]
 167/331 "Y ~ Z"
 Jgkp II/JU-88

12/25 PM

167/387 "X"
 167/339 "X"
 9/36 "Y"

12/26 AM

H Gru B/353 [Optional Rule] "Y ~ Z"
 H Gru B/654 [Optional Rule] "Y ~ Z"
 9/57 "Y"
 Jgkp II/ME-109
 Jgkp II/FW-190

12/26 PM

9/116 "Y"

12/27 AM

XXXXIX Pz Korps Decker [Optional Rule] "W ~ Y"

12/29 AM

89/1055 [reduced strngth] "S"
 89/1056 [reduced strngth] "S"

12/30 AM

Jgkp II/JU-88
 340/694 "U" [See note 3]
 340/695 "U" [See note 3]
 340/696 "U" [See note 3]

12/31 AM

Jgkp II/JU-88

1/2 AM

Jgkp II/JU-88

Nordwind Reserves [See note 5]

6SS/11 2 0 AM "S"
 6SS/12 2 0 AM "S"
 6SS/506 2 0 AM "S"
 257/457 2 0 AM "X"

257/466 2 0 AM "Y"
 257/477 2 0 AM "Y"
 17SSPG/17 PumaKG Wahl 2 6 AM "Y ~ Z"
 17SSPG/17 StgIII 2 6 AM "Y ~ Z"
 17SSPG/37 KG Fick 2 6 AM "Y ~ Z"
 17SSPG/38 KG Kaiser 2 6 AM "Y ~ Z"
 H.Gru.B/353 Jp38t 2 6 AM "Y ~ Z"
 20VW [reduced strength] 2 6 AM "Y ~ Z"
 19VW [reduced strength] 2 6 AM "Y ~ Z"
 H.Gru.B/654 JgV 2 6 AM "Y ~ Z"

NOTES:

10th SS Panzer Division and 9th SS Panzer Division:

1) Units in these divisions appear when German units cross the Meuse River between Liege and Namur (inclusive). However, even in this case, the earliest these units can appear is the 12/20 AM game turn.

2) Units of these divisions appear if a German SS unit crosses the Meuse between Givet and Namur (inclusive). Again, however, these units cannot appear before the 12/20 AM game turn.

Even if above conditions 1 and 2 are not met, the German Player may bring these units into the game at any time after the 12/20 AM game turn. However, in this case, the following restrictions must be observed:

- a) If a Draw victory condition is achieved, it is considered an Allied Tactical Victory.
- b) After committing these divisions, the German Player must roll for fuel shortage one additional time per turn.



German close support artillery deployed in the Volksgrenadier regiment.



Knittel's 1st Reconnaissance Battalion advancing on the road between San Vith and Malmédy.

c) Both divisions are considered to be in an unsupplied state on the game turn of entry.

15th Army Offensive

3) In the event of a 15th Army offensive, these units do not appear in the game.

Führer Grenadier Brigade

4) The three units of the Führer Grenadier Brigade enter the game in an unsupplied state and remain unsupplied until the 21PM game turn unless the Germans have captured a fuel dump.

Operation Nordwind

5) The units shown in this note only appear if Operation Nordwind is cancelled (that is, German Game Variants 8 or 11 are in effect). If the operation is cancelled by a Game Variant, the units indicated here appears in 12/20 AM game turn.

Victory levels are adjusted as follows:
 German Decisive --> German Decisive
 German Tactical Victory --> Draw
 Draw --> Allied Tactical
 Allied Tactical --> Allied Decisive
 Allied Decisive --> Allied Strategic

12SSPz/560 Jpz V	1012
1SSPz/1/II IV KG Peiper [reduced]	2211
1SSPz/1/I V KG Peiper	2211
1SSPz/501SS VI	2112
1SSPz/1 Puma KG Knittel	1913
1SSPz/1 KG Hansen	1813
1SSPz/1 Jpz IV	1813
1SSPz/2 KG Sanding	1815
ISSPz k Preiss [Optional Rule]	1513
6PzA Armees Dietrich [Optional Rule]	0713
12/27F [reduced strength]	0912
12/48	0912
12/89	0811
ISSPz/4NW	0913
ISSPz/388	0613
246/352	0707
79/208	0928
79/212	0528
79/226	0428
3FJ/9 [reduced strength]	1212
3FJ/8	1313
3FJ/5	1113
6PzA/683	0708
18/294 [reduced strength]	1317
18/295	1216
18/293	1316
5PzA/244 Stg	1216
LXVI/16VW	1118
LXVI K Lucht [Optional Rule]	1016
62/190 [reduced strength]	1218
62/183	1217
62/164	1218
LVIII/1	2522
116Pz/60	3017
116Pz/156	2819
116Pz/16/1 IV KG Bayer	3118
116Pz/16/II V KG Bayer	3118
116Pz/228 Jpz IV	2819
116Pz/116 Puma KG Stepen	2820
LVIII/401	2621
LVIII Pz K Kruger [Optional Rule]	2621
LVIII/7VW	2620
560/1130 KG Schumann	2319
560/1128 KG Schmidt	2721
560/1129 KG Happich 1125 [S.M.]	
5PzA Army Manteufel [Optional Rule]	3127
XLVII/182	2525
Pz Lear/243 Stg	2429
Pz Lear/559 Jg V	2430
Pz Lear/130 KG Fallois	3127
Pz Lear/901 KG V.Hauser	2429
Pz Lear/902 KG V.Porschinger	2430
Pz Lear/130 IV KG V.Fallois	3028
Pz Lear/130 V KG V.Porschinger	2430

For the "We Cannot Force the Meuse!" Scenario

Use this chart for the above scenario.

ELIM means that the unit has already been eliminated and does not appear in the game.

INITIAL DEPLOYMENT

Designation	Hex		
15A./1000	0601	277/991	0908
272/982 [reduced strength]	0702	ISSPz/9NW	0710
272/981 [reduced strength]	0705	ISSPz/402	0609
272/980 [reduced strength]	0603	6PzA/62Eng	0813
15A./902	0702	6PzA/253Eng	1714
6PzA/394 [reduced strength]	0503	6PzA/73Eng	1513
6PzA/667 [reduced strength]	0807	12SSPz/12/I KG Kuhlmann [reduced]	1113
6PzA/217 [reduced strength]	0812	12SSPz/12/II KG Kuhlmann	1012
326/751 [reduced strength]	0806	12SSPz/12 Jpz IV [reduced]	1012
326/752	0906	12SSPz/12 Puma KG Bremer	0812
326/753	0807	12SSPz/25 KG Muller [reduced]	1013
LXVII Corps Hitzfeld [Optional Rule]	0610	12SSPz/26 KG Krause	1012

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2pz/304 KG V.Cochhausen	3024	LXXX K Beyer [Optional Rule]	0533	9SSPz/19 [See note 4]	1716
2Pz/2 KG Guttman	2925	212/423	0634	IIS Pz K Bittrich	1415
2Pz/31/II IV KG Guttman	2926	212/316 [reduced strength]	0434	Fuh Bglt/Pz IV	1415
2Pz/31/I V KG V.Cochhausen	2825	212/320	0534	Fuh Bglt/PzG	1415
2Pz/2 Puma KG V.Bohm	3124	7A/605	0534	Fuh Bglt/200 StgIII	1415
2Pz/38 Stg	2725	7A/44	0235	3PG/103 JgIV	0809
5PzA/600	2624	7A/999	0337	3PG/103 Hftrk	0809
XLVII/15VW	2227	7A/15	2134	3PG/8	0810
XLVII Pz K Luettwitz [Optional Rule]	2525	7A/668	1432	3PG/29	0909
XLVII/766	2325	7A/657	0534	Fur Gr/Pz V	0728
5PzA/207	2730	7 Armee Brandenburger [Opt. Rule]	1829	Fur Gr/PzG	1631
26/39F KG Kaufmann	2627	6PzA/150 Pz	1512	Fur Gr/911 StgIII	0728
26/77	2328	Einheit Steilau/1	2820	5PzA/669Ost	0918
26/78	2426	Einheit Steilau/2	3124	5PzA/614	2430
26/26 Jpz 38t KG Kunkel	2627	Einheit Steilau/3	1722	LIII K v.Rothkirch [Optional Rule]	2020
LXXXV/18	2532	Einheit Steilau/4,5,6,7,8	ELIM	10SSPz/10/II IV KG Bachmann [See note 1]	
7A/47	1532	5PzA/653 [not used]		10SSPz/10/I V	[See note 1]
5FJ/14	2330	H.Gru.B/506 VI [reduced strength]	1216	10SSPz/10 Puma KG Brinkmann [See note 1]	
5FJ/15	2433	V.der Hydte	ELIM	10SSPz/655 JgV	[See note 1]
5FJ/13	1832	2SSPz/2/II IV [See note 4]	1321	10SSPz/10 JpzIV	[See note 1]
5FJ/11 StgIII	2334	2SSPz/2/I V [See note 4]	1722	10SSPz/21	[See note 1]
LXXXV K Kneiss [Optional Rule]	1631	2SSPz/3 [See note 4]	2121	10SSPz/22	[See note 1]
LXXXV/406	2531	2SSPz/4 [See note 4]	2221	11Pz/15/II IV	[See note 2]
352/914	1632	2SSPz/2 StgIII KG Krag [See note 4]	1521	11Pz/15/I V	[See note 2]
352/915	1433	2SSPz/2 JpzIV [See note 4]	1621	11Pz/11 Puma	[See note 2]
352/916 [reduced strength]	1233	IIS/502W	1214	11Pz/61 JpzIV	[See note 2]
276/986	0934	9SSPz/9/I V KG Terkamp [See note 4]	1414	11Pz/110	[See note 2]
276/987 [reduced strength]	0833	9SSPz/9/II IV KG Terkamp [See note 4]	1515	11Pz/111	[See note 2]
276/988	0734	9SSPz/9 Puma KG Recke [See note 4]	1716		
LXXX/8VW	0533	9SSPz/9 JpzIV [See note 4]	1314		
LXXX/408	0532	9SSPz/20 [See note 4]	1615		



General Model and his staff. General Kreps inspects a tank of the 116th Panzer Division.



Panther advancing through the Ardennes.

REINFORCEMENTS

12/22 AM

15PG/33 JpIV "U ~ W" [See note 3]
 9Pz/10 KG Reich "U ~ X" [See notes 2&3]
 9Pz/9 Lynx "U ~ X" [See notes 2&3]

12/23 AM

H.Gru.B/741 Jpz38t "U ~ W" [See note 3]
 15PG/104 "U ~ W" [See note 3]
 15PG/115 KG Mauke "U ~ W" [See note 3]
 15PG/115 IV KG Mauke "U ~ W" [See note 3]
 15PG/115 Hftrk "U ~ W" [See note 3]
 9Pz/33/I IV KG Streit "U ~ X" [See note 3]
 9Pz/33/II V KG Streit "U ~ X" [See note 3]
 9Pz/50 JgIV "U ~ X" [See note 3]
 9Pz/11 KG V.Bodehoff "U ~ X" [See note 3]
 H.Gru.B/301 VI [reduced strength]
 "U ~ X" [See Optional Rule 8.0]
 Jgkp II/ME-109

12/24 AM

Jgkp II/ME-109

12/24 PM

Jgkp II/ME-109
 246/404 "S" [See note 3]
 246/689 "S" [See note 3]

12/25 AM

HSSPz/410 "R ~ T" [See note 3]
 167/331 "Y ~ Z"
 Jgkp II/JU-88

12/25 PM

167/387 "X"
 167/339 "X"

9/36

"Y"

12/26 AM

H Gru B/353 [Optional Rule]
 H Gru B/654 [Optional Rule]
 9/57
 Jgkp II/ME-109
 Jgkp II/FW-190

"Y ~ Z"

"Y ~ Z"

"Y"

12/26 PM

9/116

"Y"

12/27 AM

XXXXIX Pz Korps Decker [Optional Rule]

"W ~ Y"

12/29 AM

89/1055 [reduced strength]
 89/1056 [reduced strength]

"S"

"S"

12/30 AM

Jgkp II/JU-88
 340/694
 340/695
 340/696

"U" [See note 3]

"U" [See note 3]

"U" [See note 3]

12/31 AM

Jgkp II/JU-88

1/2 AM

Jgkp II/JU-88

Nordwind Reserves [See note 5]

17SSPG/17 Puma KG Wahl2 6 AM "Y ~ Z"
 17SSPG/17 StgIII 2 6 AM "Y ~ Z"
 17SSPG/37 KG Fick 2 6 AM "Y ~ Z"

17SSPG/38 KG Kaiser 2 6 AM "Y ~ Z"
 H.Gru.B/353 Jp38t 2 6 AM "Y ~ Z"
 20VW [reduced strength] 2 6 AM "Y ~ Z"
 19VW [reduced strength] 2 6 AM "Y ~ Z"
 H.Gru.B/654 JgV 2 6 AM "Y ~ Z"

NOTES:

1) Units of the 10th SS Panzer Division appear after a German unit crosses the Meuse River between Liege and Namur (inclusive)

2) Units of the 11th Panzer Division appear in the German Player Turn after a unit crosses the Meuse between Givet and Namur (inclusive).

Even if above conditions 1 and 2 are not met, the German Player may bring these divisions into the game at any time after the 12/20 AM game turn. However, in this case, the following conditions must be observed:

a) If a Draw victory condition is achieved, it is considered an Allied Tactical Victory.
 b) If a German Tactical Victory condition is achieved, it is considered a Draw.
 c) Units of both of these divisions are considered to be unsupplied in the game turn during which they appear.

c) Both divisions are considered to be in an unsupplied state on the game turn of entry.

15th Army Offensive

3) In the event of a 15th Army offensive, these units do not appear in the game.

The 2nd and 9th Panzer Divisions

4) All units of the 2nd and 9th Panzer Divisions, with the exception of the reconnaissance battalions, are in an unsupplied state for the duration of the scenario. However, this is independent of the German Player's roll of the dice to determine which units are unsupplied.

Operation Nordwind

5) The units shown in this note appear only if Operation Nordwind is cancelled (that is, German Game Variants 8 or 11 are in effect). If the operation is cancelled by a Game Variant, the units indicated here appear in 12/26 AM game turn. Victory levels are adjusted as follows:

German Decisive --> German Decisive
 German Tactical Victory --> Draw
 Draw --> Allied Tactical
 Allied Tactical --> Allied Decisive
 Allied Decisive --> Allied Strategic

[SM]: A unit in Strategic Movement.

Other Charts and Tables

Combat Results Table

Terrain	Strength Ratio									
	Or less									
Forest	1-1	2-1	3-1	4-1	5-1	6-1	7-1	8-1	9-1	10-1 +
Lt. Woods	1-2	1-1	2-1	3-1	4-1	5-1	6-1	7-1	8-1	9-1 +
Rough	1-3	1-2	1-1	2-1	3-1	4-1	5-1	6-1	7-1	8-1 +
Clear	1-4	1-3	1-2	1-1	2-1	3-1	4-1	5-1	6-1	7-1 +
Dieroll										
0	D1+	FF	D1	D2	D2	D2x	D2x	D2x	D2x	D2x
1	ENG	D1+	FF	D1	D1	D2	D2x	D2x	D2x	D2x
2	ENG	ENG	D1+	FF	D1	D1	D2	D2x	D2x	D2x
3	A1	ENG	ENG	D1+	FF	FF	D1	D2	D2x	D2x
4	A1x	A1	ENG	ENG	D1+	D1	FF	D1	D2	D2x
5	A2x	A1x	A1	ENG	ENG	D1+	D1	D1	D1	D2
6	A2x	A2x	A1x	A1	ENG	ENG	D1+	FF	FF	D1
7	A2x	A2x	A2x	A1x	A1	ENG	ENG	D1+	D1+	FF

Combat Results

D1, D2 (Defender Retreat): Applies to the defender. The defender can choose to lose the specified number or steps (1 or 2) or retreat all of the defending units that number of hexes. Step reduction and retreat may be combined.

D1+ (Defender Retreat, Attacker Loss): Apply a D1 result to the defender, and the attacker must lose one step.

A1 (Attacker Retreat): Applies to the attacker. The attacking player retreats all attacking units one hex or does not retreat and reduces the strength of any one participating unit by one step.

D2x, A1x, A2x (With Step Loss): The player receiving the result first reduces the strength of one of the participating units by one step, then applies the D2, A1, or A2 result as usual.

FF (Fire Fight): Applies to both sides. First, the defending player reduces one participating unit by one step, then the attacking player reduces one participating unit by one step.

ENG (Engaged): Applies to both sides. There is no loss or retreat. For more information, see paragraph 6.3 in the combat rules.

Combat Strength Modifiers

The Attack and defense strengths of the units participating in the battle may change depending on their current state.

- Attack strength is halved when:
 - the unit is out of supply
 - the unit is attacking across a river or slope hexside
 - the unit is using Strategic Movement
 - an artillery unit is using support fire against a town, city, Improved Position, or Westwall hex
 - an armored unit is attacking a forest hex (Advanced Rules).
 - Defense strength is doubled when:
 - defending in a city hex
 - defending in a Westwall hex
 - defending in an Improved Position.
 - Defense strength is halved when:
 - the unit is isolated
 - the unit is using Strategic Movement
 - An artillery unit's attack Support Strength is halved when:
 - firing defensively in support of a friendly unit
 - firing against a town, city, Improved Position, or Westwall hex.
- Note : The above modifications are not cumulative. That is, regardless of state, the attack strength and defense strength units can never be less than halved or more than doubled.

Dieroll Modifiers

- If the attacker has Combined Arms or Armor Superiority, subtract 1 from the dieroll.
- If the defender has Combined Arms or Armor Superiority, add 1 to the dieroll.

Combat Odds Shifts

- Coordination on attack: Attacker +1
- Coordination on defense: Defense -1
- German surprise:
 - All German attacks during the 12/16 AM turn: +2
 - All German attacks during the 12/16 PM turn [sic]: +1
- Tactical air support:
 - For the attacker: +1
 - For the defender: -1
- City hex:
 - If occupied by the defending unit: defender -1
- Town hex:
 - If occupied by the defending unit: defender -1
- Westwall hex:
 - If occupied by a German defending unit: defender -1
- Participation in the combat by a German Tiger tank unit:
 - In attack: +1
 - In defense: -1
- Participation in the combat by a German Panther tank unit with no opposing Allied armor:
 - In attack: +1
 - In defense: -1
- Combat in the Reserve Phase:
 - Attacker: +1

Note: The ratios are manipulated cumulatively. Also, perform all the defender's strength ratio shifts first.

Please note that the Basic Rules and the Advanced Rules have slightly different resolution methods.

German Fuel Shortage Table

Dieroll	Division / Brigade That Is Out of Supply
2	Panzer Lehr
3	Panzer Lehr, 11th Panzer Division
4	15 Panzer Grenadier Division
5	3 Panzer Grenadier Division
6	12 SS Panzer Division, Führer Grenadier Brigade
7	2 SS Panzer Division
8	9 SS Panzer Division, 10 SS Panzer Division
9	1 SS Panzer Division, Führer Escort Brigade
10	116 Panzer Division, 11 Panzer Division
11	2 Panzer Division, 9 SS Panzer Division
12	2 Panzer Division, 15 Panzer Grenadier Division

(Explanation)

If German forces do not occupy an Allied fuel dump, roll two dice.

- 1) From 12/20 AM until 12/23 PM, the German Player rolls once each turn.
- 2) From 12/24 AM until 12/25 PM, the German Player rolls twice each turn.
- 3) From 12/26 AM until the end of the game, the German Player rolls three times each turn.

- If the same division is affected by 2 or 3 rolls in a single turn, additional rolls becomes "no effect" Also, if a division is not yet on the map, the result becomes ""no effect"".
- All unit of the division specified by this table are considered to be out of supply for the turn.
- For the effect of occupying an Allied fuel dump, see advanced rule 9.0.

Replacement Table

	US		German	
	Infantry	Armor	Infantry	Armor
Start of the Game	6	1	18	5
12/17 AM	-	1	-	1
12/17 PM	-	1	-	-
12/18 AM	3	-	-	-
12/19 AM	2	1	-	1
12/19 PM	-	-	1	-
12/20 AM	-	1	-	-
12/20 PM	-	-	3	-
12/21 AM	1	1	-	1
12/21 PM	1	-	-	-
12/22 AM	2	1	1	-
12/22 PM	1	-	-	-
12/23 AM	-	1	3	1
12/24 AM	1	-	-	-
12/25 PM	-	1	2	1
12/26 AM	1	-	-	-
12/26 PM	1	4	-	-
12/27 AM	1	5	-	1
12/28 AM	-	-	1	-
12/29 AM	1	-	-	1
12/30 AM	2	1	-	-
1/1 AM	2	-	1	1
1/2 AM	2	1	-	-

(Explanation)

Replacements arrive per the schedule above. If you do a scenario that starts in the middle of a game turn, follow the instructions for that scenario.

Terrain Effects Chart

Terrain type	Movement Cost by Unit Type		Effect on Combat
	Motorized	Non-Motorized	
Clear	1	1	—
Rough	2	2	—
Light Woods	3	2	—
Forest	4	3	—
Town	1	1	—
City	1	1	Defender doubled
Westwall	4	O/T	Defender doubled
River hexside	One turn	One turn	Attacker halved
Slope hex side	May not cross	1	Attacker halved
Meuse hexside	May not cross	May not cross	Attacker halved
Road	1	1	—
Highway	1/2	1	—
Bridge	Same as road/ highway		Same as river
Ford	1	0	Same as river
German Border	No effect	No effect	—
Strategic Movement (road)	1	1	Att./def. halved
Strategic Movement (highway)	1/2	1/2	Att./def. halved
March Movement	Reduced travel cost off road (see note)		

Notes:

- 1) Hexsides across which movement is prohibited can be crossed using a road or bridge.
- 2) Moving during the normal movement phase. Reserve armor / armor units may not cross river hex sides.
- 3) A unit using Strategic Movement has its movement factor doubled. In addition, the Allied non-motorized units using strategic movement have their normal movement factor multiplied by five.
- 4) March movement: The cost for off-road movement (except for clear) is reduced by 1. For example, infantry units pay 2 MPs to enter forest hexes while motorized units pay 3. Although the effects of terrain and surface freezing (Advanced Rules) are cumulative, the cost to enter a hex is never reduced below 1. During march movement, a unit may not enter an enemy zones of control.
- 5) The attack support strength of an artillery unit is also affected by terrain.

Armor Superiority Table (Advanced Rule)

	Allied Tank					
	M5	M4	M10. Churchill	M18, Cromwell	M 36	M4/A3, Firefly
German Tank						
Panzer IV	G	D	G	D	D	A
Panzer V (Panther)	G	G	G	G	D	G
Panzer VI (Tiger)	G	G	G	G	G	G
Jagdpanzer IV	G	D	G	D	D	D
Jagdp Panther	G	G	G	G	D	D
Jagdtiger, Elefant	G	G	G	G	G	G
Hetzer	G	D	D	D	A	A
Halftrack, Lynx, Puma	D	A	A	A	A	A
Sturmtiger, Brumbar	G	A	A	A	A	A
Stug III	G	D	G	D	D	D

(Explanation)

In the advanced game, if both players have armor participating in a combat (the Combined Arms Table shows ""**""), the player with superior armor will get an advantage. In this case, look at the Armor Superiority Table above and cross-index the best participating armored units on both sides. The number of armored units participating in the battle and the strength of the armored units is not considered at all. If the result is ""A"" , the Allied player has Armor Superiority, and if the result is ""G"" , the German Player has Armor Superiority. In addition, in the case of a result of ""D"" , the defender has Armor Superiority. If the attacking player has Armor Superiority, subtract 1 from the die roll when the battle is resolved. If the defending player has Armor Superiority, add 1 to the die roll when the battle is resolved .

Combined Arms Table (Advanced Rule)

	Type of Attacking Unit		
	Infantry	Armor	Infantry and Armor (CCx, KG)
Type of Defending Unit			
Infantry	0	0	-1
Infantry and Armor (CCx, KG)	+1	+1	**
Armor	0	**	-1
Anti-tank Gun, Anti-aircraft Gun	0	+1	+1
Engineer	0	+1	0
Artillery/Rocket Artillery	0	0	-1

(Explanation)

- 1) The value of the die roll modifier.
- 2) If ""**"" appears above, see the Armor Superiority Table to determine the die roll modifier.
- 3) In determining combined arms effects, US Army combat commands, British tank brigades, and German Kampfgruppen (KG; see Advanced Rule 2.0) are considered to be composites of infantry and armor. Panzer grenadier and armored infantry units should be treated as infantry units for this purpose.

Allied Fuel Dump Destruction (Advanced Rule)

Game turn	Dieroll
12/17 PM	1,2,3
12/18 AM	1, 2, 3, 4
12/18 PM	1, 2, 3, 4, 5

(Commentary)

The Allied player may attempt to destroy a fuel dump when a German unit enters the hex with the dump. However, in order to do so, he must have an engineer or Belgian Fusilier battalion within two hexes. The Allied player rolls one die and succeeds in blowing it up on the listed results.

Special Table for Belgian Fusilier Unit (Advanced Rule 9.5)

Game turn	Dieroll
12/17 AM	1,2
12/17 PM	1,2,3
12/18 AM	1, 2, 3, 4
12/18 PM	1, 2, 3, 4, 5

Surrender Table (Advanced Rule)

Unit type	Consecutive Game Turns in Isolation
Recruit unit	4
SS. Airborne, paratrooper	8
Other units	6

(Explanation)

The advanced rule is that units isolated for the periods given above will surrender.

Commanders (Optional Rule)

Attack Order Summary Table

Attack order	Attack Points	Impact on Combat Resolution
1. Emergency attack	0	A combat result of FF and ENG is treated as A1.
2. Normal attack	1	Normal combat results apply.
3. Full attack	2	Shift the odds column one to the right. In an FF, D1+, or D2+ result, the attacker's loss is doubled.
4. Breakthrough attack	2	If you can advance after combat, advance one more hex than normal. If you must retreat, attacking units that participated in the combat lose their zones of control. FF, D1+, and D2+ losses to the attacker are doubled.

Note: When a unit is attacking within the movement range of its corps HQ, the attack option point cost is half that given above. Also, any combat that occur while the attacking unit is outside the command range of its corps HQ will be resolved as an emergency attack.

Defense Order Summary Table

Defense order	Defense Points	Impact on Combat Resolution
1. Emergency defense	0	D1 and D2 can be satisfied only by retreats. ENG is treated as D1 .
2. Base defense	1	You can choose to take a step loss instead of retreating.
3. Withdrawal	2	D1 and D2 can be satisfied only by retreats. FF and ENG are treated as D2.
4. Full defense	2	Shift the odds column one to the left. You can take step losses instead of retreat. In FF and D2+, defender losses are doubled.

Note: When a unit is defending within the movement range of its corps HQ, the defense option point cost is half that given above. Also, any combat that occur while the defending unit is outside the command range of its corps HQ will be resolved as an emergency defense.

German Airborne Drop Table (Optional Rule)

Dieroll	Effect on Unit
1	Full strength
2	Half strength
3	Eliminated
4	Eliminated
5	Eliminated
6	Eliminated

(Various restrictions)

- 1) The target hex may be any hex, even an enemy zone of control, forest, city, or town.
- 2) If the unit survives the drop, immediately place it on the map.
- 3) If a unit drops successfully during the 12/17 AM turn, it is considered to be in supply for the turn.

German Fuel Shortage Table (Optional Rule)

Dieroll	12/19-20	12/21-23	12/24 or later
-2 or less	U	U	U
-1		U	U
0			U
1 or more			

Notes:

- 1) For each Allied fuel dump captured by the German Player, add 1 to the die roll to determine fuel shortage for each division. Also, the German motorized division that captured the Allied fuel dump is no longer subject to shortage for the remainder of the game.
- 2) In determining fuel shortage for the following formations, subtract 1 from the die roll: 2th SS Panzer Division, 9th SS Panzer Division, 10th SS Panzer Division, 11th Panzer Division, and the Führer Grenadier Brigade. Also note that the units of each mentioned division/brigade enter the game in an unsupplied state unless the German Player has captured a fuel dump prior to their arrival.

Weather Table (Optional Rule)

Game Turn	Dieroll for Clear Weather
12/23 AM	1
12/24 AM	1, 2
12/25 AM	1, 2, 3
12/26 AM	1, 2, 3, 4
12/27 AM	1, 2, 3, 4, 5

(Explanation)

See Optional Rule 3.0.

German Attacks in the First Turn and Their Combat Odds

	Attacking Units	Defending Units	Terrain	Final Odds
1)	272/980	78/310, 78/709	Rough	1-1(+1)
2)	326/752	102 Arm Cav	Rough	1-1(+1)
3)	326/753, 405VAK, 7VW	99/353/3	Light Woods	4-1
4)	277/989, 277/990 9VW, 402VAK	99/393	Forest	4-1
5)	12/48, 12/27, 4VW	99/394	Forest	4-1
6)	3FJ/9, 244Stg, 388VAK, 18/294, 18/295	14Cav	Rough	7-1(-1)
7)	18/293, 16VW	106/423	Light Woods	3-1
8)	62/183, 62/190, 116/60, 401VAK	106/424	Light Woods	3-1
9)	560/1130, 116/156, 7VW	28/112	Light Woods	2-1
10)	2P,/304, 766VAK	28/110/1	Light Woods	6-1
11)	26/77, 15VW	28/110/3	Forest	4-1
12)	5FJ/15, 18VW	28/109/2	Rough	3-1
13)	352/916, 352/915, 406VAK	28/109/3	Light Woods	4-1
14)	276/986, 276/988	9/CCA	Light Woods	3-1(+1)

Note: VAK is an artillery brigade, VW is a rocket brigade, and the number in parentheses after the combat odds is the die roll modifier.

Notes on This English Translation

This translation of Hobby Japan's rulebook for *The Last Gamble* was created in September 2020 by Terry Gordon. It is based on a sentence-by-sentence comparison of two or more of the following sources:

- A machine translation by SYSTRAN Pro (using SYSTRAN OCR).
- A machine translation by SYSTRAN Pro (using CZUR OCR).
- A machine translation by Google Translate (using CZUR OCR).
- A machine translation by DeepL Translator (using CZUR OCR).
- The rules for *Hitler's Last Gamble*, the heavily revised US edition of the game published by 3W in 1989.

While OCR and machine translation have come a long way in the past thirty years, the raw results are still not usable without considerable human proofing and revision. This is especially true for text that contains specialized terminology (both military and gaming) and a mix of Roman and kana/kanji characters.

If the Hobby Japan and 3W rules appeared to be the same, I generally retained the 3W text. In the many cases where there appeared to be significant differences, I took extra care to ensure that the final version of the translation was as true to the Japanese original as possible. I did not attempt to retrofit any of the *Hitler's Last Gamble* rule changes, even those that could be construed as errata. I am not aware of the existence of any official errata for the Hobby Japan game, but there are certainly some passages that would benefit from clarification or elaboration. In cases where I am confident of the translation but I find the results unexpected, confusing, or contradictory, I have added a "[sic]" notation.