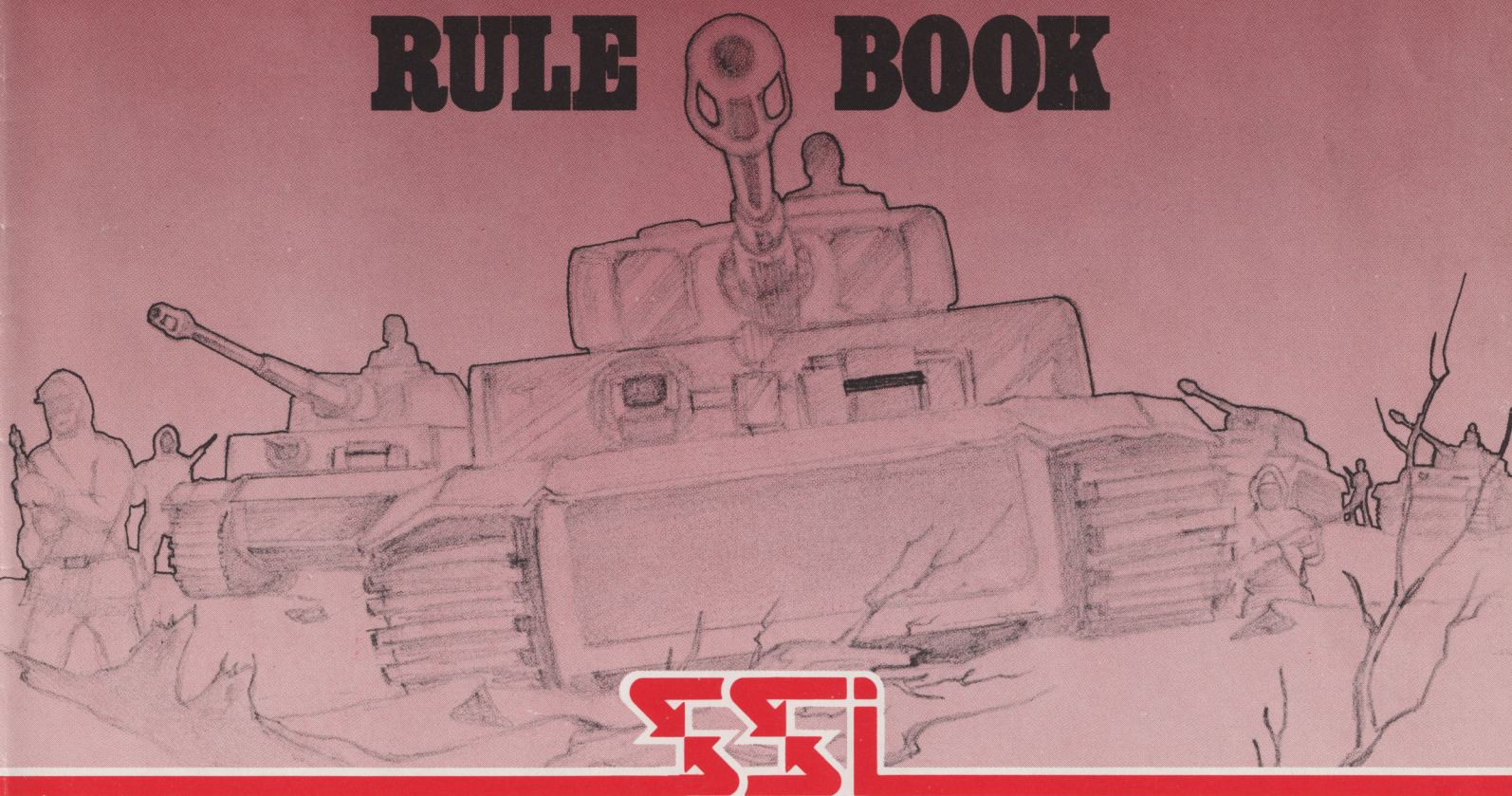


THE BATTLE OF THE BULGE: TIGERS IN THE SNOW

RULE BOOK



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1.0 INTRODUCTION

TIGERS IN THE SNOW is a computer simulation of the Battle of the Bulge which took place during World War II in December, 1944. The program allows you to recreate this famous battle assuming command of either the Allied or German forces. You have the option of choosing either the computer or another player as an opponent. You can also play both sides or have the computer play against itself. The simulation contains the following features:

Detailed Terrain Map	Supply
Historical Units	Combat Readiness
Attack/Defense Strategies	Second Combat
Weather	Reinforcements/Replacements
Air Power	Fuel Limitations
Artillery	

The program gives you the option to save the game at the end of each turn. Careful attention to detail and accuracy truly makes TIGERS IN THE SNOW a tense and exciting game as Germany desperately tries to regain the offensive.

2.0 GETTING STARTED

2.1 Please refer to the enclosed card and follow the instructions carefully. Located on the card is a brief overview of the game for those of you who wish to get into the game quickly. Also on the card are loading instructions, scenario options, terrain map, terrain costs, unit information, symbol key, saving the game instructions, and victory conditions.

2.2 The game begins on December 16, 1944 and ends December 27, 1944. Each game turn represents one day of actual time. There are a total of 12 game turns.

3.0 SEQUENCE OF PLAY

The game has been divided into several phases. Your input into each phase depends on which forces you control. Listed below are the phases which are explained in greater detail in later sections.

- A. German Player Turn
 1. German Movement Phase
 2. German Combat Phase
 - a. Unit selection segment
 - b. German artillery segment
 - c. Allied artillery segment
 - d. German strategy segment
 - e. Allied strategy segment
 - f. Combat resolution segment
 - g. Retreat/Advance segment
- B. Allied Player Turn (repeat Steps 1 and 2 of the German Players Turn, using Allied units)
- C. Reinforcement Phase
- D. Victory Status Phase
- E. Save Game Phase

4.0 ZONES OF CONTROL

4.1 The six map positions that surround a combat unit make up that unit's zone of control (ZOC).

4.2 Zones of Control affect movement, combat, and supply.

4.3 All units must expend 4 movement points upon entering an enemy ZOC. Movement from one enemy ZOC directly into another enemy ZOC costs an additional 4 movement points.

4.4 Zone of Control movement costs are in addition to terrain costs to enter the map position. A position may not be entered if a unit does not have sufficient movement points.

4.5 German infantry and Allied mechanized units must stop after entering an enemy ZOC. They are allowed to move from one enemy ZOC directly to another.

4.6 Allied infantry units must stop upon entering an enemy ZOC. They are allowed to move from one enemy ZOC directly into another enemy ZOC only in directions 4, 5, and 6.

4.7 German mechanized units may move through enemy ZOC up to the limit of their movement allowance.

4.8 Units are isolated if there are not 3 or more consecutive positions within the unit's ZOC free of enemy units. (see Supply)

4.9 The isolated supply state changes to limited supply if one friendly unit is in the unit's ZOC.

4.10 Limited supply changes to supplied if two or more friendly units are located within the unit's ZOC.

4.11 Isolated units may not attack. Supply states also modify a unit's combat strength. (see Supply)

4.12 While advancing after combat, units may retreat/advance into an enemy ZOC. Upon retreat, units entering a ZOC will lose a random number of combat points. When advancing, units must stop upon entering an enemy ZOC.

5.0 MOVEMENT

5.1 During the Movement Phase, you may move as many of your units as you desire. A unit begins each turn with a certain number of Movement Points (MP) which depends on the type of unit, weather (German only), fuel (German only), ZOC (Allied only), supply, and a random factor.

5.2 See the Terrain Effects Chart on the enclosed card. Each map position contains a specific type of terrain (i.e., forest, rough, clear, etc.). To enter each position, a unit must pay a certain number of MP (e.g. to enter a forest costs 6 MP in comparison to 2 MP for entering a clear position).

5.3 When a unit's MP reaches zero the computer will automatically end the unit's movement for that turn and proceed to the next unit. A unit cannot exceed its MP allowance. (Example: If a unit had only 1 MP left it could not enter a forest which costs 6 MP.)

5.4 A unit must pay 4 additional MP to move into an enemy Zone of Control. Movement from enemy ZOC to enemy ZOC costs an additional 4 MP for a total of 8 MP plus the cost of the terrain to enter the position (see Zones of Control).

5.5 Allied units are prohibited from leaving the map, either during normal movement or during retreat/advance. German units automatically exit the map during the Victory Status Phase if located on specific map edges and are free of enemy ZOC (see enclosed card).

5.6 No stacking (two or more units on the same map position) is allowed during any phase of play.

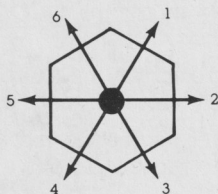
5.7 There is no movement phase for the German Player during the first game turn. Allied units are reduced in movement on the first turn.

5.8 When a unit moves, information will be displayed on the screen as shown in the example below. Terrain and MP will be updated as the unit is moved.

**GERMAN 277 VG COMBAT: 46 COMBAT STATE: 7 SUPPLIED
TERRAIN: TOWN * MP LEFT: 19 ***

The above information shows that the German Unit 277 VG has 46 combat points remaining, is in combat state 7 (see section 7.0), is supplied (see section 10.0), is in a town, and has 19 movement points remaining. Note: The CP value displayed during a human phase is actually 1-5 points higher than the unit's true strength (1-15 during a computer phase).

5.9 Movement is accomplished by pressing one of the numeric keys "1-6". The direction of movement corresponds to the position shown on the diagram at the lower right of the display screen (see below). For example, "1" moves your unit to the NE, "2" moves you E, "3" moves you SE, and so on. If you are finished with a unit, type "F" and its movement will end. If you are finished with your movement phase, type "E" to end the phase.



5.10 During computer movement, the following information will be displayed as shown in the example below:

ALLIED 4 INF COMBAT: 60 COMBAT STATE: 7 SUPPLIED
COMPUTER MOVEMENT PHASE
TERRAIN: FOREST * MP LEFT: 20 *

6.0 ARTILLERY

6.1 During combat, both players are given the opportunity to allocate artillery points to the battle. Each artillery point allocated adds 10 combat points to the total of the side which allocated the artillery.

6.2 There are two artillery segments during each combat. First the attacking player allocates artillery and then the defender allocates artillery. If a player does not have any remaining artillery points, the computer will skip that player's artillery segment.

6.3 After the attacker has chosen the defending unit and the attacking units, the computer will ask, "ATTACKER'S ARTILLERY PHASE (0-3)". This means that the attacker can allocate from 0 to 3 artillery points. The number of artillery points available for the attack will equal the number of attacking units or the total remaining artillery points, whichever is less. Then the computer will ask, "DEFENDER'S ARTILLERY PHASE (0-2)". At this point the defender allocates his artillery.

7.0 COMBAT

7.1 All attacking units must be adjacent to the defending unit which is under attack. Attacking is completely voluntary. As many as six units may participate in any one attack.

7.2 There is only one defending unit per attack. A unit can attack/defend only once per combat phase, **except any unit that can advance 3 or more hexes** (whether he actually advances them or not) may be able to attack again in the same phase.

7.3 When the human player is attacking, the computer will flash on the map, one by one, each enemy unit eligible to be attacked. For each unit indicated, the computer will display the information in the format below:

ALLIED 4 INF COMBAT: 54 COMBAT STATE: 7 SUPPLIED
DO YOU WISH TO ATTACK ALLIED UNIT? Y/N

If you wish to attack press "Y"; otherwise, press "N". If you press "N" the computer will continue to the next eligible unit. If you wish to end your combat phase type "E". If "Y" is pressed, the computer will display:

GERMAN 116 PZ COMBAT: 95 COMBAT STATE: 4 SUPPLIED
DO YOU WISH TO ATTACK WITH THIS GERMAN UNIT? Y/N

When it asks the above question, it will flash the candidate attacking unit. Press "Y" if you wish the unit to attack. The computer will scan each of the six positions around an enemy unit to be attacked. You will be given the opportunity to include any friendly units in those positions in the attack.

7.4 After all of the attacking units have been selected, you will be asked to select one of four attack strategies as shown below:

ATTACK STRATEGY:

1 = MAJOR 2 = MEDIUM 3 = LIGHT 4 = RECON
 (see 9.0 for an explanation of the effects on combat.)

7.5 When the computer decides to attack, you will be asked to select one of four defense strategies shown below:

DEFENSE STRATEGY:

1 = COUNTER-ATTACK 2 = HOLD POSITION
3 = WITHDRAWAL 4 = DELAYING ACTION

(see 9.0 for an explanation of the effects on combat.)

7.6 After strategies have been chosen, the computer will display all of the attacking and defending units by name at the bottom of the screen. On the map itself, attacking units will be numbered "1-6" and the defending unit will be shown as "D". The names remain for some seconds unless you press any key to continue. The combats results will then be displayed as in the example below:

MAJOR VS DELAYING ACTION

ODD: 11.05 ATTACKER LOSSES: 0 DEFENDER LOSSES: 13
*** DEFENDER RETREAT 3 HEXES * (HIT KEY)**

In the example, the attacker chose a "MAJOR" strategy and the defender chose a "DELAYING ACTION" strategy. The odds are determined by dividing the total attacker's modified combat points by the defender's modified combat points. In the example, the attacker lost 0 combat points and the defender lost 13 combat points. If the attacker had lost combat points in the battle, they would have been distributed evenly among the attackers according to strength. The defender is required to retreat 3 map positions or take additional losses.

7.7 The unit's combat points are modified by terrain, supply, supply state, combat state, and artillery support.

7.8 Losses are based on the attacker/defender combat points ratio (odds), attack/defense strategies, airpower (for Germans only, see 13.0), and a random factor.

7.9 During the combat phase, you may receive various messages as a result of the combat situation and/or results:

*** STRATEGY ALTERED ***
*** UNIT ELIMINATED ***

The message "STRATEGIES ALTERED" will appear occasionally and causes the strategy to be selected randomly. This simulates the "fog of war" in which orders are not always followed or carried out as expected. The message "UNIT ELIMINATED" indicates that one of the units in the battle has been eliminated.

7.10 When a unit's CP falls below 20 there will be a chance that the unit will be eliminated at any time it suffers losses in combat.

8.0 RETREATS/ADVANCES

8.1 Units may be required to retreat/advance as a result of combat. If the unit does not retreat the full number of hexes (map positions) required, the unit will suffer additional losses based on the number of retreat hexes remaining and a random factor. Pressing "F" will abort the retreat and incur the losses.

8.2 During retreat, the human player will be asked to input a direction in the same manner as in the movement phase.

8.3 If a unit retreats into an enemy ZOC, it will suffer additional losses.

8.4 Units cannot retreat off the map or onto another unit.

8.5 After all retreating units have completed their movement, the other player will have the opportunity to advance his unit(s). The first position to be moved into must be the enemies vacated hex. The advancing unit may then move into any position. In the case of the defender advancing, with more than one retreating attacker, the defender must advance first into the position vacated by the attacker closest to the number 1 position (moving clockwise). There will be no

confusion on this position, as it will be the only one that the computer will allow you to advance into. If the retreating unit is eliminated, the advance result is increased by one hex. If an attacker retreat is called for, and one of the attacking units is eliminated or does not retreat the full result, the advance is correspondingly increased or decreased.

8.6 The computer will retreat/advance its own units. The computer may not advance at all times depending on a random factor and the strategic mode that it is currently in.

9.0 STRATEGY OPTIONS

9.1 For each attack both sides must chose a combat strategy.

9.2 The choice of each player will impact the number of losses on both sides and the extent of the retreat and advance. The strategy selected represents the player's commitment to the battle. The smaller the commitment, the smaller the losses. The final impact on losses is the mixture of both player's strategy.

9.3 During combat, after both sides have chosen their strategy, a message will occasionally appear: **STRATEGY ALTERED** The new strategy, which has been chosen at random by the computer, will be displayed with the combat results. The chances of receiving this message depends on the strategy selected and a random factor. The greater the commitment, the greater the chance of the options being changed. The German player has a lower chance of a change.

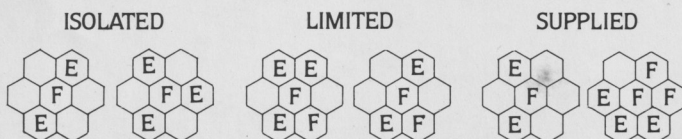
10.0 SUPPLY

10.1 There are two types of supply in **TIGERS IN THE SNOW** : general supply and local supply. General Supply affects combat. The lower the level of supply, the greater the chance that the combat points of a unit will be cut in half during combat. Local Supply also effects combat. The lower the local supply state, the less effective the units combat points are during a battle.

10.2 General supply represents the overall theatre combat supply state. A certain amount of supply is made available each game turn. Supply is then consumed during combat and is a function of the unit's combat points and the combined strategies selected by the players. The more intense the combat strategies, the greater the amount of supply consumed.

10.3 As General supply is depleted, the chances of that unit not receiving supplies will increase. When this occurs, the "UNIT DID NOT RECEIVE SUPPLIES" message will appear. The unit's CP will be halved for that particular battle. Please note that a unit may be in **SUPPLIED** state, but not receive supplies for a given battle. This rule simulates the difficulty both sides experienced with the muddy roads and traffic jams. All units will automatically not receive supplies if the General supply is zero.

10.4 Local supply represents the state of supply of a unit based on the combat situation of that unit. It is used to reflect the fact that situation of that unit. It is used to reflect the fact that some units are harder to keep in supply because of the position and activity of the enemy. In this game, local supply is simulated by examining the six positions around a unit. If a unit does not have 3 or more consecutive positions in it's ZOC free of enemy units, then that unit is considered **ISOLATED**. If one friendly unit is adjacent to an isolated unit, then that unit's supply state is considered to be **LIMITED**. Two friendly units adjacent to an isolated unit cancel the effect of isolation and that unit is again considered to be **SUPPLIED** (see examples). Isolated units have both movement points and combat points halved, and they are not allowed to attack. They are also not allowed to retreat, so they must pay the combat point penalty if forced to retreat Units in **LIMITED** supply have their movement and combat points reduced by ¼.



10.5 The Allied units may have their local supply state increased by one through airdrops. Airdrops can only occur during clear or scattered weather. The Allied player has no control over airdrops, each Allied unit is eligible for an airdrop during good weather (clear or scattered). The computer will randomly decide if the airdrop has been successful for each unit. As would be expected, the chances for successful airdrop are better during clear weather. If the airdrop is successful, the supply state of isolated units increases to limited, and limited to supplied.

10.5 Local supply is determined at the instant of movement and combat. It is possible for a unit to be isolated at the beginning of a phase and supplied by the end, or vice-versa.

11.0 FUEL

11.1 The German mechanized forces had a limited fuel supply. As German units move, Fuel points will be consumed. Fuel is also consumed during combat.

11.2 As the Fuel point allotment decreases the chances that a given unit will run out of fuel increases. When this happens the unit will receive less movement points.

11.3 Allied units have no fuel restrictions.

12.0 WEATHER

12.1 Weather is simulated in **TIGERS IN THE SNOW** to reflect the actual weather of the battle. The weather will be different each time you play the game, but it will always follow a pattern similar to the weather of December 1944.

12.2 Weather influences Allied airpower. In this game all airpower effects are a function of weather. Generally speaking, the better the weather the more effect air power has on the game (See 13.0 for the effects of airpower.), Weather is simplified to four possible conditions: **CLEAR**, **SCATTERED**, **CLOUDLY**, and **OVERCAST**.

13.0 AIRPOWER

13.1 Airpower effects combat, supply, and movement.

13.2 The German player may suffer greater losses during good weather combat due to the effects of airpower. The better the weather, the greater the chances of additional losses.

13.3 Airpower can improve the Allies local supply state through the use of airdrops. See 11.4 for details.

13.4 The effect of airpower on movement (air interdiction) takes the form of reduction of German unit's movement points. The better the weather, the greater the possible movement point losses.

14.0 REINFORCEMENT/ REPLACEMENTS

14.1 At the end of every turn the computer will check to see if any reinforcements are due. Those that are will be placed on the map, unless the entry position is occupied. In that case the computer will wait one turn and then select a new position. (See data card.)

14.2 A unit, beginning its movement free of enemy ZOC, will receive replacement combat points at that time.

15.0 COMBAT STATE

15.1 The Combat State of a unit ranges from 0 to 7.

15.2 A unit's Combat State is increased by one each turn. Two points are subtracted for each new hex entered.

15.3 Combat State reflects the amount of time that a unit remains

in one location. It simulates fortifications, improved positions and the time needed to lay out a successful attack/defense. It also simulates the loss of unit integrity suffered with frequent and long marches.

15.4 Combat State modifies a unit's CP by 10% per point. Thus a unit with a Combat State of 5 will defend and/or attack with a strength 50% higher than its listed CP.

16.0 BRIDGES

16.1 Bridges are not physically located on the map. They are, however, reflected in the movement costs to enter a river.

16.2 Check the data card for costs to move through rivers. If a German Unit has an insufficient number of MP's to move through a river, the message BRIDGE BLOWN will appear.

17.0 BRITISH MOVEMENT RESTRICTIONS

17.1 British units cannot enter and thereby cross the Meuse River (see the enclosed card) until a German unit exits the map. Exception: The British 29th armored brigade may move freely.

18.0 EXITING THE MAP

18.1 See the enclosed card and note the areas indicated where German units may exit the map.

18.2 German units automatically exit the map (and receive the victory points) when they are located on an eligible map edge free of enemy ZOC during a victory status phase.

19.0 VICTORY CONDITIONS

19.1 The victory status will be displayed at the end of the last seven turns of the game at the bottom of the screen.

19.2 Please refer to the enclosed card which explains how victory points are awarded and gives the victory level breakdown.

20.0 SAVING A GAME

20.1 A game may be saved at the end of each turn. Please see the enclosed card.

21.0 STRATEGY AND TACTICS

21.1 German Strategy

The burden of the attack is on the German player. He has very little time and cannot afford any costly mistakes. He must constantly attack at major and medium strategies to force high retreat results. If he can achieve an advance of 3 or more he is able to attack again. If there are strong panzer units in the battle, this can be a tremendous advantage.

The German's major objective is to exit a minimum of two panzer units off the Northwest or West map edges receiving 200-400 victory points per unit depending on the turn it exits and its combat strength. To be able to cross the Meuse before 12/22/44 the German must break out of the bulge with sufficient forces to cover the flanks of units about to exit (units do not receive victory points nor are allowed to exit if in an enemy ZOC). The towns of Bastogne, Marche, and Rochefort are worth sizable victory points and must be taken for any major victory to be achieved.

Bastogne is usually heavily defended. The German must decide to leave it alone and cross the Ourthe River heading for the map edge or concentrate on taking Bastogne.

Watch your fuel and supply levels as their depletion will slow and eventually stop your offensive.

21.2 Allied Strategy

For the most part the Allied player is in a defensive mode during the majority of the game's turns. The northern flank has enough units and strength to be held. The southern flank can usually be held only in the area around the 4th Division and CCR/10. Deploy units carefully in front of the German's expanding bulge to slow his advance. Avoid getting surrounded and thereby isolated.

The Allied basic objective is to deny the Germans the towns worth victory points and prevent their crossing the Meuse. Protect the map edges worth victory points. If the German manages to breakthrough, try to isolate his forward units. Counterattack where the German is weak. If possible, break through to the east edge which is worth considerable victory points to the Allied player.

Beware of retreating during combat. If the Germans are given 3 or more advance hexes they will be able to attack again.

22.0 HISTORICAL COMMENTARY

The Battle of the Bulge was Germany's last major counter-offensive on the Western front in World War II. Code-named Wacht am Rhein (Watch on the Rhine), the offensive was launched in the early morning hours of December 16, 1944. Opening the battle, the Germans unleashed a devastating artillery barrage which created havoc and confusion among the green American combat units. Outnumbering the defenders by a three-to-one margin, the German infantry quickly infiltrated many of the American outposts.

During the first two days the veteran 28th U.S. Infantry Division and the 14th Armored Cavalry Group were completely overrun. The 106th U.S. Infantry Division was isolated and expected no help. The 106th surrendered on December 19, 1944.

The stubborn defense by the 7th Armored Division of the St. Vith sector kept the German panzer units from breaking out to the west in the northern part of the battlefield. The valiant St. Vith defenders finally withdrew across the Salm River into the 82nd Airborne's sector on the 23rd of December.

By December 21st, Bastogne was encircled with the 101st Airborne, CCB110, CCR19, and other remnants holding the perimeter. Part of the Panzer Lehr and the 26V6 Divisions began assaulting the town. While the north and south flanks were in a stalemate, the German 116th Panzer, Panzer Lehr, and 2nd Panzer Divisions had crossed the Ourthe River and were heading for the Meuse River.

Allied reinforcements met the German advance, stopping them from reaching their goal of crossing the Meuse River. Running out of fuel and supplies, the final German offensive on the Western Front lost its momentum and came to a halt.

23.0 ACKNOWLEDGEMENTS

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