

# Panzer Leader

**RULES, DESIGNER'S NOTES,  
AND CAMPAIGN DATA**

PANZER LEADER IS AVALON HILL'S TRADEMARK NAME FOR ITS  
WORLD WAR II WESTERN FRONT TACTICAL GAME

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For current replacement parts price list, send a stamped self-addressed envelope to: Parts Dept., The Avalon Hill Game Company, 4517 Harford Road, Balto., Md. 21214.

OUR DESIGN DEPARTMENT will be happy to take the time to answer queries regarding play of this game but **ONLY** when accompanied by a self-addressed envelope containing first class postage.

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## RULES OF PLAY

### I. INTRODUCTION

*PANZER LEADER is a realistic game simulating tactical level combat on the Western Front during World War Two. The twenty game situations cover the gamut of combat encounters between the Allies and their German adversaries. Additionally, the open-ended design of the PANZER LEADER game system allows players to design and compile their own situations, thus creating unlimited game possibilities. Like its famous sister-game, PANZERBLITZ (Tactical Armored Combat on the Eastern Front, 1941-45), PANZER LEADER is not only an exciting game experience, it is also a valuable source of comparative information illustrating the strengths and weaknesses of the opposing German, British and American armies.*

*IF YOU HAVE NEVER PLAYED A WARGAME BEFORE, don't be overwhelmed by what may look like a lot of complicated rules. Sometimes more than a few words are required to precisely express a simple and easily understood concept. REMEMBER: These rules are based on common sense applications of real-life events and operations. As such, their only purpose is to translate real-world occurrences into the game format. It is not necessary to memorize these rules. Read the rules once, play a practice game or two, then re-read any sections that are unclear, bearing in mind the experience gained in the practice games. Once the basics of movement and combat are understood, the finer points of the rules will fall into place as you gain experience.*

*A WORD TO VETERAN AVALON HILL GAME PLAYERS: Although this game is based on the familiar PANZERBLITZ game-system, many subtle refinements and changes have been added. Read ALL of the rules before beginning play, as even some of the 'standard' rules sections contain significant changes.*

## II. COMPONENTS

### A. GAME EQUIPMENT:

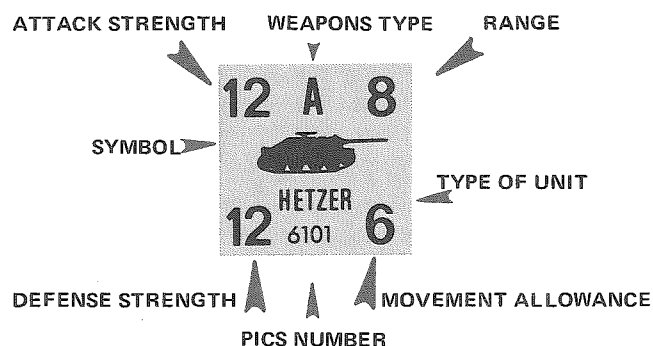
1. Mapboard consisting of four sections which can be joined together in a variety of ways to form many different terrain configurations.
2. German die-cut counter sheet (192 pieces).
3. Allied die-cut counter sheet (192 pieces).
4. Set of Situation and Player Aid Cards (seven cards).
5. Rules of Play and Designer's Notes booklet.
6. One die.

### B. THE MAPBOARD

The four-section mapboard represents a varied sampling of typical terrain in France and Germany. Each section is identified by a letter (A, B, C or D) located just above the fold line. The board is "geomorphic" i.e., capable of being changed by re-arranging the four sections in a variety of juxtapositions. The long edge of each mapboard section will line up with the long edge of any other section no matter which way they are joined together, except for the sea edge of board 'B'. The short edges join with each other in a similar fashion. The scale of the mapboard is 1 hexagon = 250 meters. Refer to the Terrain Effects Chart for a complete explanation of mapboard symbols and their effects on movement and combat.

### C. THE PLAYING PIECES

The die-cut, cardboard pieces represent platoon or battery-sized military units of different types (e.g., infantry platoons, tank platoons, assault gun platoons, etc.), which are the playing pieces used in the game. Hereafter they will be referred to as "units" or "unit counters". The numbers on the unit counters represent that unit's capabilities with respect to movement, attack, defense and range of weapons. The other symbols or silhouettes identify what type of units the counters represent.



Notice that all vehicle units are symbolized with an appropriate silhouette and all other (non-vehicular) units are symbolized with standard military-planning symbols.

**Movement Allowance:** The basic maximum number of hexagons (hexes) which a unit may move in one turn, expressed as a certain number of movement points. In general each unit will expend one movement point from its movement (point) allowance to move a distance of one hex.

**Attack Strength:** The basic offensive power of a given unit, expressed as a certain number of attack strength points.

**Defense Strength:** The basic defensive strength of a given unit, expressed as a certain number of defensive strength points.

**Range:** The maximum effective distance (in hexes) that a unit's attack strength can be used against enemy units. *EXAMPLE: a unit with a range of 8 could fire its weapons (use its attack strength) against any enemy unit's defense strength within that 8-hex range.*

## III. GENERAL OUTLINE OF PLAY

Each side maneuvers its forces (playing pieces) on the terrain map seeking to destroy enemy units or gain a specific territorial objective as outlined on the Situation Cards. Players move their pieces and have combat by taking turns. Each complete turn represents six minutes of real time.

The forces in a given Scenario may be unequal and one side may have a better chance of winning than the other, but it is primarily the skill of the individual player which determines the outcome of the game. The chance element introduced by the use of the die-roll Combat Results Table is only that degree of chance consistently present in any real-life combat event.

## IV. SEQUENCE OF TURNS

PANZER LEADER is played in turns. Each turn is divided into two identical player segments: the Allied player segment and the German player segment.

To avoid confusion, each player segment is further divided into four 'phases'.

### A. ALLIED PLAYER SEGMENT:

1. Combat Phase: Allied player executes and resolves minefield attacks, direct and indirect fire combat, and writes 'orders' for the next turn's indirect fire combat.
2. Air Phase: Allied player moves any aircraft units desired. German player executes and resolves anti-aircraft attacks. Allied player resolves fighter bomber attacks.
3. Movement Phase: Allied player moves any units that did not fire in the combat phase.
4. Close Assault Phase: Allied player executes and resolves all CAT attacks.

### B. GERMAN PLAYER SEGMENT:

German player follows the same procedure as outlined above using his own units.

- C. 'Turn Now' counter is moved one box signifying the completion of one game turn. This procedure is followed for each turn of the game.

## V. MOVEMENT

During the movement phase of a player's segment, he may move as many uninverted units as he wishes. Each unit may be moved as many hexes as desired within the limits of its movement allowance and terrain restrictions (see the Terrain Effects Chart).

### A. TERRAIN FEATURES

1. The hexagonal grid superimposed upon the mapboard is used to regulate movement and combat. A hex is considered to be a given type of terrain if all or any part of it contains that terrain feature. The only exception to this is town hexes where slight overlap into non-town hexes is ignored. Terrain affects movement and defense as outlined in the Terrain Effects Chart (TEC).
2. The 'heavy hex side' symbols (different colored bars superimposed upon some hex sides) are explained in the OBSTACLE AND ELEVATIONS section of the rules.
3. Sea hexes may be entered only by units presumed to be in landing craft or amphibious vehicles.
4. The half-hexes on the outer edges of the board are considered playable and may be utilized as if they were complete hexagons.

### B. HOW TO MOVE UNITS

1. Movement is calculated in terms of hexes. Basically, each unit expends one movement point (MP) of its total movement (point) allowance for each hex it enters. To enter some types of hexes requires the expenditure of more than one MP for each hex entered. A complete list of these 'entry costs' is found on the Terrain Effects Chart (TEC).
2. In any one turn a player may move as many or as few of his units as he desires. Movement is voluntary, never required.
3. Units which have fired (used their attack strength) in the combat phase of a player's segment may not move in that movement phase. 'Dispersed' units may not move (see How to Have Combat and the Combat Results Table).
4. Each unit is moved individually, tracing the path of movement through each hex in turn. Once a unit has completed its movement, it may not be changed, repositioned, or realigned. (A unit's movement is considered completed when the player begins moving another unit).
5. Units with a movement allowance of '1' may move one hex per turn regardless of terrain.
6. Units may move through hexes containing other friendly units. Units may not, however, enter or move through hexes containing the maximum allowable number of units (see Stacking, below).
7. Units may not enter or pass through hexes containing enemy units (EXCEPTION: see OVERRUN RULE).
8. No enemy movement is allowed during a friendly movement phase.
9. No combat, enemy or friendly, takes place during the movement phase (EXCEPTION: See OVERRUN RULE and OPPORTUNITY FIRE OPTIONAL RULE).

### C. TRANSPORTING UNITS

1. The "C" class vehicular units have the capability of transporting non-vehicular units (guns and infantry). Each "C" unit has the capacity to transport one non-vehicular unit. The non-vehicular unit being transported is indicated as such by being placed UNDER the "C" unit. Never place non-vehicular units under vehicular units unless they are being transported by those units.
2. In any one turn a "C" unit may either "Load", "Transport", or "Unload", or it may perform combinations of these operations depending on the type of unit being transported.
  - a. Artillery units of 88mm or larger (88mm, 90mm, 105mm, 107mm, 120mm, 150mm, 155mm, 170mm, and 8"), require the 'C' unit to expend its entire movement allowance to load or unload. That is, the 'C' unit and the artillery unit must be in the same hex at the beginning and end of the movement phase.
  - b. Artillery units of less than 88mm, (20mm, 37mm, 40mm, 57mm, 75mm, 76mm, 81mm, 17 lbr), the Nebelwerfer, 25 lbr, and all infantry type units, require the 'C' unit to expend half of its movement allowance for that phase (fractions round UP) to load or unload. The 'C' unit may move up to half its movement allowance before performing the load or unload operations, or it may perform either of them and move up to half its movement allowance afterwards. The passenger unit may NOT move in the player segment in which it is loaded or unloaded.
  - c. Passenger or carrier units which use their attack strength in the current player segment, or are dispersed, may NOT load in that player segment.
  - d. A carrier unit's movement allowance may never be split before and after a load or unload operation in the same movement phase. It may only load or unload in a single movement phase, NEVER BOTH.
  - e. Carrier units may not load or unload in a hex if such procedures violate stacking limits (see below).
3. A truck or wagon unit and the unit it is transporting have a combined defense strength of '1'.
4. When using halftracks as transport, the defense strength of the halftrack unit is used when attacked. Halftrack units may fire while loaded.
5. Passenger and carrier are treated as one unit for stacking and combat purposes (see Stacking Limitations). If combat results call for elimination, both are eliminated. If dispersed, both are dispersed.
6. ONLY GERMAN armored vehicle units (tanks, assault guns, etc.), may transport infantry-type units in a fashion similar to "C" units. Each armored unit may transport one passenger unit. EXCEPTION: German SPA units may never transport other units.
  - a. If a German armored unit is destroyed while transporting, both passenger and carrier are destroyed. Units being transported on armored units may be attacked exclusive of the armored unit, in which case the passenger unit has a nominal defense strength of '1'. The armored unit is

unaffected if only its passenger unit is attacked. In this case, the passenger unit is immediately unloaded if dispersed, unless such unloading violates the stacking limits. In which case BOTH the armored unit and its passenger are dispersed.

b. German armored units may fire when loading or unloading passengers. All other transport rules, however, apply.

7. See Unit Function Table for the exact capabilities of all units.

#### D. ROAD MOVEMENT

Units traveling along roads do so at the road movement rate regardless of the other terrain in the road hexes. Units may travel all roads on the mapboard through hexes containing types of terrain in which they might otherwise be prohibited. Roads do not alter the defensive effects of other terrain in the hex.

1. All units move along roads at a cost of '½' movement point per road hex. Entering a road hex through a non-road hex side is done at the cost of the other terrain in the road hex being entered.

2. Units may freely combine road and non-road movement in the same turn.

3. A unit may move into a road hex from an adjacent road hex of the same road at the road movement rate ONLY if the hex contains no more than TWO other units.

4. If the hex contains more than two other units, the road movement rate may not be used.

5. If entry into a particular hex is prohibited for a unit except by road movement, a unit may not enter that hex if there are MORE than two units in that hex.

*EXAMPLE: A vehicular unit may cross a green hex side and enter a hex containing two other units via a road at the road movement rate. If there were three or more units in that hex, it could not cross that green hex side.*

6. Units may not enter hexes containing blocks, fortifications, or minefield counters at the road movement rate regardless of the number of units in the hex. Vehicular units may not cross adjacent green hex sides when moving into a road hex containing an enemy fortification, a block or minefield counter.

7. Remember: a vehicle with passengers is considered as one unit and may therefore travel at the road movement rate without affecting other units abnormally.

### VI. STACKING

A. Both sides may stack a maximum of four units in one hex.

B. When a unit is being transported by another unit, the passenger and the carrier are considered as one unit for stacking purposes.

C. Minefield counters do not count towards stacking limits.

D. Block, fortification (limited: see rules) and wreck counters do count towards stacking limits.

E. Stacking limits apply at ALL TIMES. (EXCEPTION: units may overrun enemy units stacked four-high). Units may not enter or move through hexes containing four units (friendly units, blocks, wrecks, fortification counters, or combinations thereof).

F. See Unit Function Table for exact stacking restrictions of all units.

### VII. COMBAT

#### A. HOW TO HAVE COMBAT

Basically, to have combat, the attacking unit compares its attack strength to the defending unit's defense strength. The comparison is stated as a ratio, attacker to defender, which is then rounded down (in the defender's favor) to conform to the 'combat odds' column printed on the Combat Results Table (CRT). *EXAMPLE: 11 to 3 rounds down to 3 to 1. Roll the die and apply the results, as indicated by the CRT, to the defending units involved in that specific combat situation.*

#### B. DIRECT FIRE ATTACKS

1. Direct fire attacks are executed in the combat phase of a player segment. Only the player whose combat phase it is may attack; the other player is considered the "defender."

2. A player may make as many or as few attacks per turn as he desires (within the restrictions of the rules of combat). A player is never forced to attack. Attacks are voluntary, never required.

3. Only enemy units within range of an attacking unit may be fired upon by that unit. Infantry units with an asterisk ("\*") after their range may fire to twice their printed range at the reduced effectiveness of one half normal attack strength.

4. A single unit may not attack more than one enemy-occupied hex per combat phase. Attack and defense strengths are not transferable from one unit to another. Each unit is treated as an indivisible attack strength and defense strength.

5. More than one attacking unit may fire at one target unit. All attacking units firing on the same defending unit must total their attack strengths into one combined attack strength before computing the combat odds. Units may fire only once per player segment.

6. Units which fire (attack) in the combat phase of player segment may NOT move in the movement phase of the same player segment.

7. All attacking units executing direct fire attacks must be able to trace a 'direct line of fire' to the target hex. A 'direct line of fire', as explained under the 'Obstacles and Elevation' section, is a straight line traced from the attacking unit's hex dot to the target hex dot which is free of blocking terrain.

8. The attacker may choose any combination of units in the defending hex as his target. Any units within that hex that are not fired upon are not affected by the combat results.

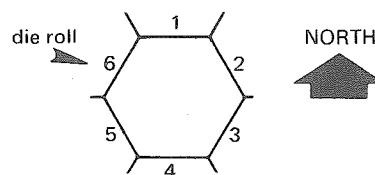
9. Direct fire attacks are resolved on the Combat Results Table using the procedure outlined in 'A' above.

### C. INDIRECT FIRE

1. Indirect fire attacks, like direct fire attacks, are executed in the combat phase of a player segment.
2. ONLY Class 'M', and those class 'H' units indicated by parentheses, '(H)', may employ indirect fire.
3. Unlike direct fire attacks, the target hex must be designated at the beginning of the combat phase of the previous turn by secretly writing down the target hex coordinates and the firing units. (NOTE: Artillery units that are dispersed may NOT be targeted for indirect fire.) Such designated targets MUST be fired upon (i.e., the gun cannot change targets if the target hex turns out to be empty or if something better turns up) if the unit is to execute any attacks in that combat phase. The unit is not required to attack, but if it does, it must attack only the designated target hex using the indirect fire method.
4. As the name implies, indirect fire differs from direct fire in that the firing unit itself is not required to trace a 'direct line of fire' to the target (i.e., it doesn't have to 'see' the target hex). In order for certain artillery units to attack a target by the indirect fire method, it is only necessary that another friendly unit be able to 'see' ('have a direct line of sight to') the target hex. In regards to woods and town hexes, a friendly unit must be adjacent to those hexes, or an enemy unit must have fired from those hexes, for indirect fire attacks to be designated against them (see section L. SPOTTING).
5. Any combat unit, except trucks and wagons, that could theoretically use direct fire against a hex (i.e., 'see' it) may be used to fulfill the indirect fire sighting requirements.
6. Indirect fire attacks are directed against specific hexes, not necessarily specific enemy units. In some cases a target hex could even be empty at the time the attack is designated in anticipation of enemy units moving into it.
7. Units that are loaded or dispersed may not be designated for indirect fire. Units designated for indirect fire may not move between the time the fire is designated and the time the fire is executed.
8. If all of the units sighting (or spotting) a particular target hex are destroyed, dispersed, or move away between the time the indirect fire is designated and when it is executed, the fire may become scattered. To determine if the fire scatters in this event, roll the die once and consult the Scatter Chart, below:

DIE ROLL	EFFECT
1 or 2	Indirect fire hits target normally.
3, 4, or 5	Indirect fire hits one of the six adjacent hexes, roll die once and consult Scatter Diagram to determine which hex hit.
6	Indirect fire widely dispersed. No units in target hex are attacked.

If the fire is scattered, the full effect of the indirect fire is applied to one of the adjacent hexes according to the die roll. Units in that hex (enemy or friendly) receive the full effect of the attack.



SCATTER DIRECTION DIAGRAM

9. Indirect fire attacks must be directed towards all of the units in a target hex.
10. Indirect fire attacks are resolved differently than other types of attack. For each indirect fire attack follow this procedure:
  - a. Calculate the number of strength points firing and DIVIDE this total by the number of enemy UNIT COUNTERS in the target hex. Passenger-carrier and fortifications (plus the units in them) count as one.
  - b. This reduced attack strength is then applied to each individual target unit to create combat odds for (and an individual attack on) each unit. The die is rolled once for each target unit and the results applied accordingly.
  - c. *EXAMPLE: 80 strength points fire indirectly at a target hex containing three German units; an engineer (DS = 10), an infantry (DS = 8), and an 81mm mortar (DS = 3). This computes as  $80 \div 3$  (the number of defending units) = 26 (the reduced attack strength). Applied to each defending unit, this generates combat odds of 26 to 10 (2-1), 26 to 8 (3-1), and 26 to 3 (4-1). The die is rolled three times once under the 2-1, 3-1, and 4-1 columns, and the results applied to each of the respective defending units.*
11. Indirect fire may NOT be combined with direct fire against the same target hex in the same combat phase.
12. NOTE: (H)-type weapons may only use indirect fire against targets which are more than  $\frac{1}{4}$  of their printed range away (rounded down). *EXAMPLE: A British 25 lber. (range = 35) could not fire indirectly at targets that are within 8 hexes of its location.*

### D. OVERRUN ATTACK

1. Armored vehicle units may only overrun those enemy units located in clear terrain hexes (including clear terrain road hexes and clear hilltop hexes).
2. Unlike other methods of attack, overruns are executed and immediately resolved as they occur in the movement phase. (Stacking limits are ignored in this case: see below.) All units intending to overrun the same target are moved before the attack is resolved.
3. To overrun a unit or stack of units, move the attacking armored vehicle unit(s) straight through the enemy-occupied hex, exiting into the hex DIRECTLY opposite the hex of entry. Overrunning units must stop in the 'exit-hex' and may move no further that movement phase. If the exit hex is occupied by enemy units, the overrun attack may not be made. Overrunning units may not move at the road rate, but they may use roads to negate the effects of terrain. Overrunning units must have sufficient movement points remaining to reach the exit hex. The exit hex does not have to be a clear terrain hex, nor does the entry hex; only the target hex must be clear terrain.

4. Overrunning units attack with an increased combat effect. The odds ratio of the attack is computed using the normal procedure. The combat odds, however, are then INCREASED by one column in favor of the attacker (e.g., an odds ratio of 3 to 1 increases to 4 to 1). Additionally, '2' is subtracted from the die roll results (e.g., a die roll of '3' is treated as if it were a roll of '1').

5. A defending stack is treated as one combined defense strength when being overrun. More than one armored unit may overrun an enemy stack and the overrunning units do not have to enter and exit through the same hexes. They must, however, execute their overrun attack as one combined attack strength. In other words, a defending unit or stack may not suffer more than one overrun attack per movement phase.

6. In determining overrun odds use only the strengths printed on the units (for attacker and defender). Do not halve or double the attack strengths as shown on the Weapons Effectiveness Chart. Use only the overrun "bonus" as outlined in '4' above.

7. Overrunning units may not execute direct fire attacks during the combat phase of the segment in which the overrun is made.

8. Units on block, wreck, minefield or fortification counters may not be overrun.

9. The German SPA units (Maultier, Wespe and Hummel) may NOT make overrun attacks. Halftracks may not overrun armored vehicles (including halftracks). See the Unit Function Table for an exact listing of overrun limitations for all types of units.

#### E. CLOSE ASSAULT TACTICS (CAT)

All types of German and Allied infantry and engineer units have the option of using close assault tactics (CAT) instead of making a normal attack. Close assault attacks are executed in the close assault phase of a player segment.

1. Close assaulting units must be adjacent to the defending unit or stack of units they are attacking.

2. Units utilizing CAT may NOT make normal attacks in the same player segment.

3. Units that have been transported by vehicular units in the same player segment may not use CAT attacks. Units may, however, move and CAT attack in the same player segment (NOTE: Overrun and CAT attacks are the only exceptions to the general rule which forbids movement and combat by the same unit in the same turn.)

4. Close assaulting units have their effectiveness increased by subtracting 2 from their die-roll result. (e.g., a die roll of "2" becomes a die-roll of "0"). The defending stack must be treated as one combined defense strength and may suffer only one close assault per player segment.

5. If infantry and engineer units are stacked together in the same hex when close assaulting the same defender, the effectiveness of that close assault is further increased by raising the odds in their favor to the next highest ratio (as in the overrun rule). At least one engineer unit must be stacked with at least one infantry unit.

6. Allied MG units may only close assault if they are stacked in the same hex with at least one (non-MG) infantry-type unit (infantry, engineer, or scout) which is close assaulting the SAME defender.

7. Close assault is the only way in which "I" units may attack armored vehicle units.

8. Any type of defending unit may be attacked using close assault tactics. CAT may be executed from any type of terrain except stream hexes.

9. SPECIAL: CAT attacks may not be executed against targets in sea hexes.

#### F. WEAPON-TO-TARGET RELATIONSHIPS

1. The class-key letter symbols determine what type of weapons a unit is armed with:

- 'I' — Light (infantry-type) weapons (rifles and machine-guns).
- 'A' — Armor piercing weapons (high velocity tank and anti-tank guns).
- 'H' — High explosive shells (low velocity howitzers, etc.).
- '(H)' — High explosive shells with indirect fire capabilities.
- 'M' — Mortars (similar to '(H)').

#### 2. WEAPONS EFFECTIVENESS CHART (WEC)

a. The effectiveness of these weapons changes in relation to target type and range from target. This is reflected in the WEC by doubling and halving a unit's attack strength accordingly. NOTE: Half range is always rounded DOWN to the nearest whole hex; the attacking unit loses fractions. (EXAMPLE: half of 9 is 4. Half attack strength is never rounded off; retain fractions (EXAMPLE: half of 13 is 6½).

b. When making a direct fire attack against units in a mixed stack, determine what type of unit counter (armored or non-armored) predominates in the stack and treat the entire stack as if all the units in it were that type of target. If the target stack is divided evenly between armored and non-armored unit counters, treat the whole stack as if it were that type of target least favorable to the particular attacking unit(s). Units being transported are ignored; only the carrier units are considered when determining predominance. Units inside fortifications are ignored for determining predominance; rather, the fortification is counted as ONE armored unit.

c. Units in town hexes are considered as armored targets whether or not such units actually are armored. Units stacked together in town hexes MUST be attacked as one combined defense strength when using direct fire.

d. Fortifications are considered armored targets.

e. WEC is not used in determining overrun odds.

f. H and M class weapons are always halved (do NOT round off; retain fractions) against armored vehicles unless the H is used for direct fire against armor at a range of 6 hexes or less.

9. Infantry units with an asterisk after their range (EXAMPLE: 2\*) may fire to double their printed range with an attack strength of one-half their normal strength.

## G. OBSTACLES AND ELEVATIONS

1. The mapboard is a two-dimensional representation of a three-dimensional space. The various terrain features, aside from affecting movement and combat may also affect the ability of attacking units to fire at given defending units by obstructing the Line-of-Sight. Since the weapons used in this game are primarily direct-fire weapons, an attacking direct fire unit may not fire at any target which it cannot 'see' (i.e., trace an unobstructed line from the firing units hex to the target hex).

The terrain symbols on the map show the location of potential obstructions and the hex side symbols show in which direction fire is obstructed. These "heavy" hex side symbols are color-coded according to the type of obstruction they represent.

2. There are three general types of obstacle/hex sides which block the Line-of-Sight and therefore prevent fire:

a. Low Obstacles: Ground-level green (woods) hex sides and ground-level town hexes. (10 to 20 meters.)

b. Medium Obstacles: Dark brown (slope) hex sides. (60 to 70 meters.)

c. High Obstacles: Orange (hilltop) and cliff hex sides. (100 to 140 meters.)

3. Whether or not a firing unit can 'see over' these obstacles depends upon the elevation at which the firing unit and its potential target are. Units themselves are not considered as obstacles, and players may fire over or through all units, enemy or friendly.

a. There are three elevations at which a unit may be:

1) Ground Level: 0 meters

2) Slope Level: 50 to 60 meters.

3) Hilltop Level: 100 to 140 meters.

b. A unit's elevation is determined by the terrain it is on. The Target Elevation Table shows what hex side symbols obstruct the Line-of-Fire in different cases.

## H. HILL AND SLOPE DEFENSE EXCEPTIONS

As indicated on the TEC (Terrain Effects Chart) a unit using direct fire against an enemy unit defending on a slope or hilltop, attacks at one half attack strength. There are some exceptional cases, however, in which the attacker is NOT halved. They are:

1. When the defending unit is on a hilltop, an attacking unit is NOT halved if it is also on a hilltop hex.

2. When a defender is on a slope, the attacking unit is NOT halved if the attacker is directly adjacent to the defender (regardless of elevation).

**EXCEPTION:** If there is a brown hex side symbol BETWEEN an adjacent attacker and defender, the attacking unit's attack strength IS halved. Units on slopes can conceivably be attacked by units which are halved and units which are not halved as part of the same attack.

3. Units using indirect fire are never halved because of elevation differences.

4. In all situations other than those described above, an attacking unit (regardless of elevation) is halved when firing at units defending on slopes or hilltops.

## I. HOW TO DETERMINE THE LINE-OF-SIGHT/ LINE-OF-FIRE (LOS/LOF)

For all practical purposes, the Line-of-Sight is equivalent to the Line-of-Fire. Essentially, the Line-of-Sight is a perfectly straight line measured from the center of the firing unit's hex to the center of the target unit's hex. The dot in the center of each hex represents the midpoint of that hex. The LOS is traced by placing a straightedge on the mapboard so that it runs through the midpoint dots of the firing unit's hex and the target unit's hex. The line is exactly equivalent to the Line-of-Fire from the firing unit to the target unit. Using the TET and LOS/LOF OBSTRUCTIONS sections, determine whether or not any town hexes or other hex side symbols encountered in tracing the Line-of-Sight actually obstruct the Line-of-Sight.

## J. LOS/LOF OBSTRUCTIONS

1. Only those hex side symbols (brown, green or orange) or town hexes intersected by the straightedge line between the firing unit and the target unit block the Line-of-Sight (and Line-of-Fire).

a. If the straightedge bisects a hex side symbol through its LENGTH, that symbol blocks the LOS/LOF. **SPECIAL:** It would NOT block the LOS/LOF if it were a brown hex side connected to an orange hex side.

b. The defender is given the benefit of the doubt if the straightedge cuts exactly through the 'corner' of a hex where a symbol side and a non-symbol side meet. Note that the heavy symbols do not always extend to the very ends of the hex sides. The LOS/LOF is blocked, however, through the entire hex side even if it is traced through that part not covered by the heavy symbol color.

2. When firing FROM a slope or hilltop TO a ground-level target, the Line-of-Sight is obstructed if the target unit is directly behind a town hex or a green hex side. 'Directly behind' means the intended target is either adjacent to a town hex such that part of the town hex blocks the Line-of-Sight, or that a green hex side forms part of the target unit's hex such that it blocks the LOS.

3. When firing FROM ground-level TO a target on a hilltop or a slope, the Line-of-Sight is obstructed if the FIRING UNIT is directly behind a town hex or green hex side.

4. When firing FROM a hilltop TO a ground-level target, the Line-of-Sight is obstructed by intervening brown hex side symbols if such a symbol is closer to the TARGET hex than to the firing unit or if the symbol is exactly midway between the two. To determine the relative position of the brown symbol, count the number of hex SIDES through which the Line-of-Sight is traced (including the side of the firing hex and the side of the target hex).

5. When firing FROM ground-level TO a target on a hilltop, the Line-of-Sight is obstructed by intervening

brown hex side symbols if such a symbol is closer to the FIRING UNIT than to the target, or exactly midway between the two.

6. Notice that '3' is the converse of '2', and '5' is the converse of '4'.

7. The ONLY case in which a unit may trace an unobstructed Line-of-Sight through MORE than ONE orange (hilltop) hex side symbol is when both the target and the firing unit are on hilltops. In all other situations, the LOS is obstructed if it must be traced through MORE than ONE orange hex side.

8. No matter what the obstacle or the terrain, a unit may ALWAYS fire at a target to which it is directly adjacent (regardless of elevation).

9. In some cases, there are towns and woods on top of hilltops. The green hex side symbols and town hexes in these cases obstruct ALL fire, when they are intervening obstacles, no matter what the elevation of the target and firing unit (except when directly adjacent to each other as per '8').

10. When both the target and the attacker are on ground-level, ALL hex side symbols (green, brown and orange) and town hexes obstruct the Line-of-Sight (except as per '8').

#### 11. MAPBOARD NOTES:

a. In some cases, slope hexes do not have brown hex side symbols. This is because the brown symbols actually represent the way in which the slopes curve and form 'corners' to obstruct the LOS. Consequently, whenever a slope is relatively straight, it does not obstruct the LOS along it.

b. In some instances, two or more slope hexes meet without a hilltop being formed between them. This represents a ridge or 'razorback' hillock. The brown hex side symbols represent the 'spine' of these edges. NOTE: When firing from a hilltop hex to one of these ridge hexes or vice-versa, the brown hex side spine DOES NOT obstruct the LOS/LOF.

c. Some hexes contain both woods AND slopes. Terrain effects in these hexes are the combined effects for both types of terrain. NOTE: Green hex sides block the LOS/LOF in slope/hilltop woods hexes in exactly the same manner as they would for ground level woods hexes.

d. Mapboard section 'B' contains unusual terrain configurations consisting of hilltop and slope hexes. To simplify LOS/LOF determination, only the slope-most row of hilltop hexes are orange hex sides. When determining the LOS (especially on the 'interior' hexes of the mapboard), assume the elevation to be ground level to ground level, unless it intersects one orange hex side and a slope or cliff symbol. Sighting down a row of orange hex sides (as in hilltop to hilltop) would still be treated as ground level to ground level.

e. Additionally, note that the cliff-plateau on board 'B' has lower terrain on all sides (cliff to sea-ward, slope to land-ward) thus forming a coastal bluff, except for the one row of orange hexes which is treated in the same manner as the orange hex rows described above.

## K. STREAMS

Northern European streams and small rivers are characterized by steep-sided meanders and silted bottoms. Further, they form depressions and support heavy vegetation offering excellent concealment. While not exceptionally swift, the depth of the slow moving water and the 'mushy' consistency of the streambeds make streams unfordable for vehicles:

1. Vehicular units (including wagons) may never enter stream hexes except in (undestroyed) bridge hexes.

2. Non-vehicular units may enter stream hexes, but only after rolling a die once for each unit attempting to enter. A die roll of 1, 2 or 3 permits entry. If unsuccessful, a unit may not move during that movement phase. NOTE: The die must be rolled for each separate stream hex a unit attempts to enter.

3. Units in stream hexes may not attack in any manner.

4. Units in stream hexes may not be attacked by units in ground-level hexes unless such units are adjacent.

5. Units in stream hexes may be attacked by units in hilltop or slope hexes if they can trace an unobstructed LOS/LOF into that stream hex. Treat the unit in the stream hex as if it were at ground level for TET purposes.

6. Permanent and temporary bridges are equivalent to clear terrain for all purposes (except, of course in the case of temporary bridges built in woods-stream hexes, etc.). The hex in which a bridge crosses a stream is considered clear terrain even if the road carried by the bridge becomes unusable for road rate movement purposes (due to wrecks, blocks, other units, etc.). If the bridge is destroyed, however, the hex would be treated as a regular stream hex.

## L. SPOTTING

1. When a defending enemy unit is in a woods or town hex, it may not be fired upon by friendly units which are not directly adjacent unless it has been 'spotted' by at least one friendly unit. Defending units are spotted if:

a. There is a friendly, undispersed, unit adjacent to the defending enemy unit.

b. The defending unit has fired (used its attack strength in a non-CAT attack) while in the LOS of a friendly undispersed unit during the previous player segment and that friendly unit can still trace an unobstructed LOS to the target. Place a 'Spotted' marker on those enemy units that fire while in the LOS of friendly undispersed units as such firing occurs. (NOTE: friendly units that are dispersed by such fire cannot be used to fulfill the requirement). The markers remain until the enemy units are no longer in friendly LOS or ALL friendly spotting units are subsequently dispersed, or the firing unit moves out of its initial firing hex into an unspotted town or woods hex.

2. Spotting units must be undispersed at the time that they 'direct' fire. In regards to 'b', above, the spotting unit cannot have been dispersed since the target unit fired.

3. Truck and wagon units may not spot for any type of fire.

## VIII. WRECKAGE

Whenever an ARMORED unit or a fortification counter is destroyed in combat, it is removed from the board and replaced with a wreck counter, to a maximum limit of three wrecks per hex:

- A. Wrecks may not be moved or removed.
- B. Each wreck counts as one unit for stacking purposes.
- C. The presence of wrecks has no effect on combat.
- D. NOTE: There is a limit to the total number of wrecks that may accumulate in any one particular hex. No more than THREE wreck counters are ever placed in any single hex. If an armored unit is destroyed in a hex containing three wrecks, no additional wreck markers are placed in that hex; the armored unit is simply removed from the mapboard.

## IX. POSITIONAL DEFENSES

### A. MINES

- 1. The player with the minefield counters may position them anywhere within his set-up area unless otherwise directed by the situation card. Each mine counter represents a minefield constructed in that hex.
  - a. Only one mine counter may be placed in each hex. Minefield counters may not be placed on sea, town, bridge, or swamp hexes.
  - b. Once positioned, mines may not be moved.
  - c. Mines have no friends—they affect both sides.
- 2. As soon as a unit moves onto a mine it must stop.
- 3. The opposing player, during the combat portion of his turn, rolls the die for the attacking minefield. The minefield attacks ALL units at 2 to 1 odds no matter what the terrain. Each unit on a minefield counter is 'attacked' separately. Surviving units may move off in their next turn.
- 4. Units dispersed by minefields may not move off them, and must again suffer a minefield attack in the following turn.
- 5. A minefield is never 'used up'. It remains active until removed by an engineer unit.
- 6. Minefields do not affect stacking limitations.
- 7. Minefield attacks take place in the combat phase BEFORE normal attacks and do not preclude direct or indirect attacks against that unit in the SAME combat phase.

### B. BLOCKS

BLOCK counters represent tank traps, road blocks, barbed wire, felled trees and anything else that may impede movement.

- 1. Blocks may be placed anywhere within a player's set-up area, (except sea hexes) no more than one block per hex.
- 2. A unit may only enter a hex containing a block counter if it begins its movement phase directly adjacent to

that hex. Upon entering the block hex, the unit must stop and may move no further that turn. In its NEXT movement phase, it may move off the block at the normal movement rate.

- 3. Blocks do not obstruct the Line-of-Sight and have no effect upon combat.
- 4. Blocks count as one unit for stacking purposes.
- 5. Blocks are never 'used up.' They may only be removed by engineer units.
- 6. A block counter on a road negates the road in that hex. VEHICULAR UNITS may not cross adjacent green hex sides when moving into a block-road hex.

### C. FORTIFICATIONS

(Bunkers, redoubts, 'pill-boxes', etc.)

- 1. Fortifications may be placed anywhere within a player's set-up area, (except swamp, sea, beach, or stream hexes) as directed by the situation card. Once placed, they may not be moved.
- 2. Fortifications, and the units in them, count as one unit for stacking purposes.
- 3. Units in fortifications defend using the defense strength of the fortifications only. Their own defense strengths are ignored. Fortifications are treated as ARMORED targets. Terrain and Weapons Effectiveness are taken into account when a fortification is defending. Any type of unit(s) may occupy a fortification within normal stacking limitations (see below).
- 4. Units attack from fortifications using their normal attack strength.
- 5. If a fortification is destroyed, any units in it are also destroyed. A destroyed fortification counter is replaced with a single wreck counter, regardless of the number or types of units inside it.
- 6. A fortification counter itself has no attack strength and may only defend.
- 7. If abandoned or unoccupied, fortifications may be 'captured' and used by the opposing player. To capture a fortification, simply move a unit into the unoccupied fortification counter.
- 8. Unwanted fortifications may only be destroyed by attacking them with one's own fire weapons.
- 9. The fortification unit is not an obstacle to fire.
- 10. Units are indicated as being IN a fortification by placing them UNDER the fortification counter. Friendly units ON TOP of a fortification (i.e., 'outside' the fortification) and the fortification counter on which they are sitting, may be attacked individually or in combination like normal targets.
  - a. Enemy units may move on top of a fortification counter while friendly units are inside of it, but must stop and end all further movement. (They may move off the fortification hex normally in the next turn.) In this case, friendly units may fire on that hex; but the die must be rolled twice, once for the attack on the enemy units and then for the effect on friendly units in the fortification.

b. Enemy units may not enter a fortification hex if there are friendly units ON TOP of the fortification.

c. When enemy units are on top of a fortification, friendly units inside the fortification may not leave nor may other friendly units enter that hex. The friendly units inside may still attack any enemy units within range, including the units sitting on the fortification. When attacking the units sitting on the fortification, the units inside attack as if they were adjacent to the enemy. Similarly, the enemy units may attack the fortification as if they were adjacent to it. The units inside, in this case, may NOT use close assault tactics.

11. Fortifications do not count against the stacking limits of units inside them. They DO, however, count as one unit for stacking purposes for units outside of them. Thus, it is conceivable that a hex containing a fortification counter may hold four units INSIDE the fortification and an additional three units OUTSIDE.

12. Fortifications may suffer 'dispersal' in which case the units occupying them are dispersed also.

13. No more than one fortification may be placed in a given hex.

14. Armored vehicles may NOT make overrun attacks against fortifications.

15. Fortifications may NOT be placed on top of mines or blocks (or vice-versa).

16. Un-occupied fortification counters (or those containing only truck or wagons) may never spot for other units.

## X. ENGINEERS

Engineers may be used to clear minefields, create and remove blocks, demolish bridges and increase the effectiveness of CAT attacks.

**A. CLEARING MINEFIELDS:** Minefields are cleared in a four-turn process, as follows:

1. Turn 1: Engineer unit moves adjacent to minefield.
2. Turn 2: Minefield counter is inverted at the beginning of the movement phase.
3. Turn 3: Engineer unit moves onto minefield.
4. Turn 4: Minefield is removed at the beginning of the movement phase.
5. If the engineer unit is dispersed at any time during this sequence, the clearing process is temporarily halted. When that engineer unit is undispersed, the sequence is restarted at the step in which the dispersal took place. Once the minefield is inverted, other units entering that hex are still liable to the normal minefield attack until such time as the engineer unit removes the mine counter.
6. If an engineer unit is eliminated during this sequence, any new engineer unit must begin all over again.
7. An engineer unit may only clear one minefield counter at a time. When engaged in minefield clearing, the engineer unit may not attack in any manner or load into a carrier vehicle.

**B. DEMOLITIONS AND OBSTACLES:** Other tasks require engineers to use explosives and specialized equipment which is usually carried in their vehicles. Before the game, designate one truck, halftrack or other carrier for each engineer platoon to carry its equipment. This vehicular unit may no longer transport anything but its designated engineer unit. In addition, it must be in either the same hex or adjacent to the hex in which the engineers are performing any of the following:

1. Bridge demolition: To destroy a bridge, an engineer unit must remain on the bridge hex for three turns. (It must begin and end three friendly movement phases in a row without moving out of the hex.) On the fourth, or any subsequent turn, it must move to an adjacent hex. As soon as it makes this move, the die is rolled for the bridge demolition. A die roll of 1-5 means that the bridge is successfully destroyed and a BLOCK counter is placed on that hex. It is then treated as an ordinary stream hex for the remainder of the game. A die roll of 6 means that the attempt has failed. In this case, the engineer unit must move back into the bridge hex if another demolition attempt is desired. It executes the same procedure as before, but may opt to remain stationary on the bridge hex for fewer turns: 1 turn on the bridge—die roll of 1 or 2 for successful demolition; 2 turns on the bridge—die roll of 1-4 for success; 3 turns or more on the bridge—die roll of 1-5 for success. If the attempt fails again, the sequence must be restarted from the beginning. An engineer unit may not be dispersed during any of the stationary turns, or the sequence is interrupted until the unit becomes undispersed again.

2. Creating blocks: Within the time period of any given situation, an engineer unit may only create one block on one road hex. The procedure is the same as bridge demolition procedure, but when successful the engineer unit places a block counter on the road hex. The number of stationary turns required to initially create a block is two turns for a woods-road hex and four turns for any other type of road hex. Only one turn is required to try again if the first attempt fails. A die roll of 1 through 5 on the second or any subsequent attempt successfully creates the block.

3. Removing blocks: The procedure for removing a block is exactly the same as that used in clearing minefields.

**C. SPECIAL ENGINEER VEHICLES:** The British developed a number of specialized armored vehicle types which were given to the 79th Armoured Division for the Normandy invasion. Three of these types are used in the game:

1. Sherman Flail: This unit performs like a normal tank unit, except that it may clear minefields. Procedure for doing this is: a) Flail unit moves into the minefield hex and ends all movement. b) In the following movement phase, the flail unit expends half of its total movement allowance leaving the minefield hex. c) As the flail leaves the hex, the minefield is removed from the board. Flail tanks cannot be harmed by minefields.

2. Churchill Flamethrower: This was a Churchill tank with its main armament replaced by a flamethrower for close range work.

3. **Valentine Bridgelayers:** This was a Valentine chassis converted to carrying a tank bridge for rapid deployment. Bridges are laid in the following manner:

a) Valentine enters stream hex and ends all movement. b) In the following movement phase, the Valentine expends three movement points leaving stream hex, c) As the Valentine leaves, the tank bridge is placed on that stream hex, which can be used like a permanent bridge in the same movement phase. Once emplaced, the tank bridge may not be relocated. NOTE: the Valentine bridge layer is the only exception to the rule forbidding vehicular units to enter stream hexes.

4. **Destroying Temporary Bridges:**

a. **Engineers:** Engineer units may destroy temporary bridges in the same manner as permanent bridges except that the engineers are required to remain on a bridge for only TWO consecutive turns. In the third turn, the engineers move to an adjacent hex and the temporary bridge is automatically destroyed. NOTE: No block counter is placed in the hex.

b. **Artillery:** Combat units may destroy temporary bridges by gunfire by using direct or indirect fire. 'I'-type weapons may not be used to destroy bridges.

1. Temporary bridges must be ignored for combat purposes if any other units in the hex are being attacked.

2. When attacked by themselves, using the special defensive strengths printed on the bridge counters, temporary bridges are destroyed if an 'X' outcome is rolled on the Combat Results Table. Any other result means 'no effect'.

3. If a temporary bridge is attacked by indirect fire, other units in the hex are ignored, but the attack strength of the indirectly firing units is HALVED automatically. (Bridges are very difficult targets to hit and destroy.)

4. If the temporary bridge is destroyed by direct or indirect fire, any vehicular units (and their passengers) in that hex are destroyed. Non-vehicular units are unaffected. Do NOT place wreck counters in this situation.

5. Permanent bridges may not be attacked or destroyed by artillery fire.

## **XI. AMPHIBIOUS LANDINGS**

The following rules are used in those situations depicting Allied landings in Normandy:

**A. SET-UP PROCEDURE:**

1. German player places all of his allotted fortification, block and minefield counters on the mapboard as designated by the situation card.

2. Allied player secretly records the turn of landing and the co-ordinate of the initial placement hex for each of his units. (when using the optional naval support fire, the Allied player writes any indirect fire orders for the first TWO game turns at this point.)

3. German player then places his remaining units on the mapboard.

**B. ALLIED INITIAL SEA HEX PLACEMENT:**

1. No 'landing craft' units are provided on the counter sheets. Instead, Allied units are inverted and placed on the first sea hex adjacent to the beach hex on which they intend to land.

2. Only ONE Allied unit may be placed on each sea hex.

3. Units with a movement allowance of '0' must be 'paired' with carrier-type units. DO NOT place the carrier units with the passenger units on the sea hexes. Place only the passenger unit on the sea hexes. Carrier units are positioned on top of their passenger units when such units move onto the beach hexes in the following movement phase. (They are presumed to be already loaded.)

**C. BEACH LANDING**

1. All Allied units on land hexes are moved before units on sea hexes are moved onto beach hexes.

2. In the turn following the initial placement, all units on sea hexes must move onto beach hexes. Units that cannot move onto beach hexes because of stacking limitations are eliminated instead.

3. Units previously dispersed by German fire may land on the adjacent beach hex, but may move no further in that movement phase.

4. Undispersed units are turned face up and may move onto beach hexes and continue normal movement to the limits of their movement allowances.

5. If a unit moves from a sea hex to a beach hex already occupied by a friendly unit, all units in that hex are dispersed. No additional penalties accrue against units previously dispersed.

**D. GERMAN FIRE**

1. When firing at Allied units on sea hexes, the German player must allocate all firing units that are attacking a particular target before that target unit is turned face up and the combat resolved.

2. Allied units that are dispersed while on sea hexes are not inverted. Instead, to avoid confusion, indicate dispersed units by temporarily placing a spare 'Spotted' marker on top of them. When dispersed units are moved to beach hexes, the 'Spotted' marker is removed, and the units remain inverted.

3. All Allied units (except DD tanks) on sea hexes are assigned a provisional defensive strength of '8', representing the defensive strength of the landing craft carrying them, and are treated as ARMORED targets for WEC purposes.

4. DD (amphibious) tanks retain their normal defensive strength while on sea hexes. SPECIAL: When attacking DD tanks on sea hexes, the German player must add '2' to the die roll, reflecting the difficulty in hitting such targets in the water. Each DD tank unit must roll one die for survival as per the instructions in the individual scenarios. This is done in the turn AFTER placement on the sea hexes BEFORE any other units are moved onto beach hexes.

5. After landing on beach hexes, Allied units revert to their normal defensive capabilities.

## XII. AIRPOWER

Two types of tactical aircraft are represented in the game; fighter-bombers (P-47 Thunderbolts and British Typhoons), and light observation aircraft (the L-5). Because of the space-time scale of the game, the aircraft units perform in a rather abstract manner. Each aircraft counter is equivalent to one airplane.

### A. MOVEMENT

1. Aircraft units move, undergo AA attacks, and resolve combat during the air phase of a player segment.
2. Aircraft have unlimited movement capabilities; they may move anywhere on the mapboard in one turn. Terrain has no effect on aircraft movement.
3. Aircraft units enter and exit the mapboard as indicated in the individual situation rules. Aircraft may leave before the end of the game, but once exited, they may never return.

### B. OBSERVATION AIRCRAFT (L-5)

1. L-5 observation aircraft are used to sight enemy units to fulfill indirect fire sighting requirements.
2. L-5 units may sight enemy units in clear terrain to a range of thirty (30) hexes. Enemy units in woods and town hexes that fire may be sighted if the L-5 is within ten (10) hexes of the firing unit.
3. Rules governing blocking terrain do not apply for LOS from aircraft to ground unit, or vice-versa.
4. As with ground units sighting for indirect fire, the L-5 must be within range of the target unit from the time the indirect fire order is written until it is executed in the following turn.

### C. FIGHTER-BOMBERS

1. Fighter-bombers (FB's) have three different types of direct fire weapons systems: machine guns, and air-to-ground rockets or bombs. Fighter-bomber attacks are executed in the air phase of the player segment.
2. Fighter-bomber attacks are executed by moving the FB unit to a hex adjacent to the target hex undergoing AA attack, if any, and resolving combat. All aircraft attacks are executed as direct fire attacks.
  - a. A particular target hex may be attacked only once per air phase.
  - b. All aircraft units attacking a single target hex must total their attack strengths and resolve the attack with a single roll of the die.
3. Weapons Characteristics: The following chart illustrates the armament each FB unit could possibly carry (the exact armament is given in the individual situations):

TYPE OF WEAPON	ATTACK STRENGTH	
	Typhoon	P-47
Machine guns	2 (A)	3 (I)
Bombs (2x 1000 lb.)	30 (H)	30 (H)
Rockets (8-10x 15")	20 (A)	20 (A)

a. All WEC effects apply to aircraft in the same manner as ground units; 'A' weapons are normal for armored targets and halved against non-armored targets, 'H' weapons are normal against non-armored targets and halved against armored targets, and 'I' weapons are normal against non-armored targets and ineffective against armored targets.

b. Bomb and rocket attacks may be made against single units in a stack or combinations of units as in regular direct fire attacks.

c. An FB unit may not attack with machine guns in the same air phase in which it conducts a bomb or rocket attack.

d. Machine gun strength points may be combined with bomb and rocket attacks so long as an aircraft unit involved in the attack does not do both.

4. Each FB unit may conduct bomb or rocket attacks only once per game. It may fire its machine guns only four times per game. A side record must be maintained to verify FB employment.

e. FB units may sight targets in the same manner as the L-5 aircraft. They may not, however, sight (or spot) targets for ground units, but only for other FB units. Thus, FB units cannot be used to sight targets for indirect fire, but if one FB unit sights a target, all FB units presently on the board may attack it.

### D. ANTI-AIRCRAFT DEFENSE (AA)

1. Anti-aircraft fire is a type of direct fire attack initiated in the Allied player's air phase, before FB units execute their attacks. AA fire is resolved in a similar manner to regular direct fire, except the AA Table and Procedures are used instead of the normal CRT.

2. Only German 20mm, 20(4)mm, 37mm, and Wirbelwind units may initiate direct fire AA attacks against aircraft.

3. AA attacks are executed in the same manner as regular attacks with these exceptions:

a. The LOS requirements are modified as in B.3., above.

b. All aircraft are considered non-armored targets.

c. The attack strengths of AA guns are doubled if attacking half range or less.

4. Place a blank counter on those AA units that fire to indicate that they may not attack or move in the German player's segment.

5. See AA Table for further clarifications.

## XIII. SUMMARY OF TURN SEQUENCE

### A. ALLIED PLAYER SEGMENT

#### 1. COMBAT PHASE:

a. Allied player writes indirect fire attacks for next turn.

b. Allied player resolves any minefield attacks against German units.

c. Allied player resolves all indirect fire attacks. All units that fire are inverted to signify that they may not move or load in the current player segment.

d. Allied player resolves all direct fire attacks. All units that fire are inverted to signify that they may not move or load in the current player segment.

2. **AIR PHASE:**

a. Allied player moves all aircraft units.

b. German player executes AA attacks. Blank counters are placed on firing units to signify that they may not fire, move, or load in the German's next player segment.

c. Allied player resolves all aircraft attacks.

3. **MOVEMENT PHASE:**

a. Allied player moves as many face-up VEHICULAR units as he desires, executing any overrun attacks as he does so.

b. Allied player moves any face-up NON-VEHICULAR units.

4. **CLOSE ASSAULT PHASE:** Allied player executes close assault attacks using any face-up infantry-type units that did not unload in the current player segment.

5. All inverted Allied units are turned face-up.

**B. GERMAN PLAYER SEGMENT:**

1. German player repeats '1' through '5' (except he has no air phase) using his own units.

2. Indicate the passage of one complete game turn on the Turn Record Track. Players repeat 'A' and 'B' for each turn for as many turns as the situation card indicates or until one player concedes defeat.

## **XIV. USING THE SITUATION CARDS**

Each of the twenty situations is a complete game. Each game depicts a facet of an actual battle that occurred in Europe between D-Day and V-E Day. The situations are organized in chronological order. It is suggested that players begin with those situations using fewer units:

**A. GENERAL ORGANIZATION**

Each situation is organized in the following format:

1. **Historical Description:** Gives the name of the battle, background, and the units involved.

2. **Mapboard Orientation Diagram:** Illustrates the correct placement of the geomorphic mapboards. Use the 'NORTH' marker to orient placement of units, etc.

3. **Available Forces:** Illustrates the units to be used for each side. Whenever a number preceded by a multiplication sign appears below a unit's picture (e.g. 'x6'), the side in question receives the stated quantity of that particular unit type.

4. **Set-up:** States the order in which each side sets up and restrictions on unit placement (if any).

5. **Special Rules:** Rules applicable ONLY to the situation in question are outlined in this section.

6. **Victory Conditions:** Provide the criterion for assessing victory. The terms 'marginal', 'tactical', and 'decisive' are qualitative expressions provided to judge the degree of victory or defeat. Players may eventually discover that one side or the other possesses such strong advantages that a marginal victory by the opposing side becomes a significant achievement. These qualitative expressions are useful in determining individual levels of victory. Players will find that experience will shift the qualitative aspects of victory from the criterion stated in the situation such that a 'draw' result, for example, will represent a superior effort by an underdog player.

7. **Turn Record Track:** Use this track to record the passage of turns by advancing the 'Turn Now' counter at the end of every complete turn.

**B. GENERAL RULES FOR THE SITUATIONS**

1. The half-hexes around the exterior mapboard edge are playable for all purposes.

2. For SET-UP and VICTORY CONDITION purposes, however, half-hexes are not playable. That is, if one side is required to set-up on an entire board section, it may not set-up on the half-hexes of that board which would be, by extension, part of the adjacent board. Likewise, victory conditions requiring units to be on a certain board section are not fulfilled if such units are on the half-hexes of that mapboard section which also extend into the adjacent section.

3. Units must enter, or be placed on, the mapboard when indicated. Units may not exit the mapboard unless specifically indicated. Units in violation of this rule are considered eliminated for victory purposes.

4. The side that sets-up last (usually the 'offensive' player) must initially place units such that they are out of the LOS/LOF of, or unspotted by, enemy units unless otherwise specifically indicated.

5. Only NAVAL indirect fire may be pre-recorded before the beginning of a game (specifically in situations No. 2 and No. 3) for the first two turns of the game. Otherwise, NO indirect fire targets may be selected until the beginning of the combat phase of the first game turn.

6. In those situations utilizing Allied airpower, the Allied player must indicate the type of armament (bombs or rockets) his FB units will carry. This selection is announced prior to the setting-up of any units unless the armament is dictated by the situation's special rules.

7. In many of the situations, the victory conditions require one side or the other to 'control' specific geographic locations: **DEFINITION:** Control of Town or Bridge Hexes:

- a. A side controls a TOWN HEX if at least one friendly unit occupies, or is the last to enter or pass through, that town hex.
  - b. A side controls a BRIDGE HEX if at least one friendly unit occupies, or is the last to enter or pass through, that bridge hex AND at least one hex on each side of the stream that is also ADJACENT to that bridge hex.
  - c. Control of a TOWN requires that ALL town hexes in that town be controlled.
  - d. Dispersal does not affect a unit's ability to control a hex.
8. Trucks, wagons, empty fortifications, and temporary bridge counters may NOT control hexes. Also, these unit types do not count in any way for victory determination either for units destroyed, or units occupying certain mapboard sections.
  9. GRANCELLES, the largest town on board section A, consists of all town hexes on both sides of the stream for victory condition purposes.

### C. THE MAPBOARD LOCATION SYSTEM

The letters running down the length of each of the four mapboard sections identify each particular ROW of hexes running across the short width of that section. The individual hexes in that row are identified by counting the number of hexes (starting with and including the hex with the row-letter in it). To identify a given hex on the map (regardless of configuration) give the section letter first, row-letter second, and the hex number last. Thus, 'A-Q-10' is the hexagon on the 'A' board section containing the town of KUHN, the board section letter 'A' is in hex 'A-R-6'. In some mapboard configurations, the row-letters of two boards will be in the same hex (two half-hexes joined together); those hexes may be identified as belonging to either section.

## XV. OPTIONAL RULES

Players may employ as many or as few of the Optional Rules as desired.

### A. INFANTRY QUICK-TIME SPEED

Any infantry-type unit (non-MG or mortar) may increase its speed to two hexes for one movement phase with the following limitations:

1. The unit may not enter slope, woods, stream, or town hexes (moving out of is permitted). Moving along a road negates the above restrictions.
2. Units using Quick-time speed may not also use the road movement rate (i.e., they may not move four hexes).
3. If fired on by opportunity fire (see below) while moving, the unit defends at half defense strength.
4. At the end of its movement (and AFTER Opportunity Fire attacks) the unit must roll one die. A 4, 5 or 6 means it is dispersed until the end of the current player segment. Units already dispersed accrue no additional penalty if dispersed again.

### B. OPPORTUNITY FIRE

1. Any enemy unit that expends  $\frac{1}{4}$  (rounded DOWN) or more of its movement allowance continuously in LOS of a friendly unit may be attacked by that unit using direct fire attack techniques.
2. Each firing unit may attack only once per enemy movement phase.
3. Units that fire in the enemy movement phase are not inverted. Instead, place "Opportunity Fire" counters on top of these units signifying that they may not fire or move in the next friendly player segment. The counters are removed at the end of the next friendly player segment.
4. As an enemy unit moves through the LOS of a friendly unit, it may be fired upon by that unit as it enters that hex which constitutes  $\frac{1}{4}$  of its movement allowance expended in the friendly LOS (or any hex thereafter which is also in the LOS of the friendly unit). At that point, the non-moving player announces an opportunity fire attack. The enemy unit's movement is halted and the attack is immediately resolved. If the unit is dispersed, it is inverted and ends all movement. If the attack has no effect, the unit may resume its normal movement.
5. Movement points expended by the enemy unit moving into forest and town hexes that are in the firing unit's LOS do NOT count unless the target is SPOTTED by a friendly unit as it does so.
6. An enemy unit may be attacked more than once during each enemy movement phase if that unit expends  $\frac{1}{4}$  of its movement allowance in the LOS of EACH attacking unit.
7. Passenger units that are unloaded in a target hex may also be attacked using opportunity fire. In this case, the moving player must first state whether or not the passenger unit is being unloaded in that hex BEFORE the firing player announces an opportunity fire attack in that hex.
8. Units being transported on German armored units may be attacked exclusive of the carrier units.
9. Enemy units that do not move may NOT be attacked by opportunity fire even if they are in the LOS of friendly units.
10. Enemy units conducting over-run attacks may not be fired upon while in the hex occupied by the friendly unit being over-run.
11. Opportunity fire attacks against units moving into hexes (including town hexes) containing other units may NOT be directed against those other units in the hex. In this special case, those other units are ignored.
12. Units designated for indirect fire attacks in the next friendly combat phase may not use opportunity fire.
13. Units dispersed by opportunity fire remain dispersed until the end of their CURRENT player segment.

### C. NAVAL SUPPORT FIRE

Some situations provide naval support fire for the Allied player. This will be in the form of a specified number of naval attack strength points per turn.

1. Naval fire may be used in two ways: As direct fire against targets in the open that can be seen directly from any sea hex or as indirect fire with a ground unit sighting (or spotting). Naval indirect fire attacks must be written TWO turns in advance.
2. Direct naval and ground fire may be combined into one attack strength during the combat phase. Indirect naval fire may be combined with indirect ground fire.
3. All naval fire is (H) class and must be used in groups of 20 attack strength points, minimum.
4. Naval fire has unlimited range, but is always presumed to be firing at ranges greater than six hexes.

#### D. PANZERBLITZ ASSAULT

German infantry units on armored vehicles may "jump off" in the hex immediately in front of a unit about to be overrun by those armored vehicles. The infantry may then close assault the units which were just overrun by the vehicles during the CAT phase.

### XVI. EXPERIMENTAL RULES

The following optional rules are termed 'experimental' because their application to game situations could unpredictably alter game balance and 'flow'. Nevertheless, they do add interesting dimensions to play and enliven situations that, with repeated play, could become stereotyped:

#### A. FUNCTIONAL MOBILITY FOR TURRETED AFV'S:

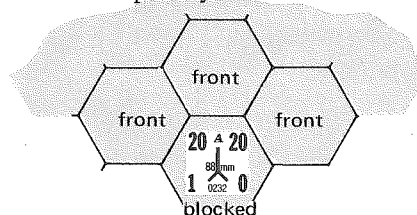
To further differentiate the mechanical and operational advantages of the turreted tank versus assault guns and other self-propelled weapons, employ the following rules:

1. Allied and German turreted armored vehicles may use their attack strength in the combat phase and move up to half of their movement allowance (rounded DOWN) in the movement phase of the same player segment:
  - a. Units that fire are inverted as usual, but during the movement phase those units that move are turned face-up and execute half of their movement allowance.
  - b. German tank units that fire in the combat phase may either move half of their movement allowance or load/unload. They may NOT do both, however.
2. Tank units that fire and move in the same player segment may not make over-run or 'panzerblitz assault' attacks during that same movement phase.
3. Tanks using opportunity fire in the previous enemy movement phase are considered to have fired in their own combat phase for purposes of this rule.
4. See the Unit Function Table for a precise listing of which unit types may exercise this rule.

#### B. ARTILLERY FIELD-OF-FIRE LIMITATIONS

Artillery pieces are not very mobile once they are emplaced for firing. Therefore the following rule section restricts the direction in which artillery units can fire:

1. Non-mortar artillery types with a movement allowance of '0' may only fire at targets that are within their 'field-of-fire'.
2. A unit's field-of-fire consists of those hexes within an area radiating from the 'front' three hex sides towards which the unit is facing. Facing is determined by the position of the weapons-symbol on the unit counter:



3. Artillery unit counters must be faced towards one specific hex side. Ambiguously positioned counters may be adjusted to a specific hex side by the opposing player!
4. Facing Changes: Artillery units may adjust their facing to any other hex side during the movement phase of their player segment:
  - a. Units that fire in the combat phase of their player segment may NOT change their facing.
  - b. An artillery unit of 88mm or larger (EXCEPT 25 lber) may only change facing if there is a carrier-type unit in the same hex at the beginning of the movement phase. (There must be one carrier unit for each separate artillery unit.)
  - c. An artillery unit of less than 88mm (including 25 lber) does not need a carrier-type unit in the same hex to change facing.
5. See the Unit Function Table for a precise listing of which unit types must abide by these field-of-fire rules.
- C. SMOKE SHELL CONCENTRATIONS (SSC)
  1. Those artillery weapons with indirect fire capabilities (EXCEPT Maultier and Nebelwerfer) may fire 'smoke' shell concentrations, (SSC's) in order to obstruct the LOS/LOF traced through certain target hexes.
    - a. SSC's are executed in the same manner as any other type of direct or indirect attack, but a minimum of 25 attack strength points must be fired into the hex to obstruct the LOS/LOF.
    - b. SSC's may not be fired into hexes occupied by friendly units.
    - c. SSC's may not be fired into sea, stream (including those crossed by bridges), or swamp hexes.
    - d. SSC's have no effect on enemy units that may be in the target hex.
    - e. SSC's may not be fired as part of an opportunity fire attack.
    - f. SSC's may not be fired into a hex that undergoes a regular direct or indirect fire attack in the same combat phase. (Note, however, that regular fire could be directed at a hex containing an SSC in subsequent turns).
  2. Duration: An SSC lasts for two consecutive turns after which it is dissipated.
    - a. Indicate those hexes receiving SSC's by placing a HEADS-UP coin in each one as they are fired upon.

b. At the beginning of the first friendly combat phase after firing, all HEADS-UP coins presently on the mapboard are flipped over.

c. At the beginning of the second friendly combat phase after firing, all TAILS-UP coins are removed, signaling the dissipation of the smoke shell concentration.

d. If both sides are using smoke shells, it is suggested that two different denominations of coins be used.

### 3. Effects:

a. SSC's obstruct the LOS/LOF through the target hex at ALL elevations. By way of example, picture a solid column of dense smoke 250 meters wide extending vertically from the target hex to an altitude of several hundred meters. This obstruction also includes air-to-ground sightings if airpower is employed.

b. The LOS/LOF from a firing unit's hex to a target hex is obstructed if the straight line traced from hex-dot to

hex-dot intersects any part of the SSC target hex.

c. The LOS/LOF is not blocked for units firing into or out of hexes containing SSC's, but such hexes must be spotted to be fired upon. (In effect, for LOS/LOF purposes, SSC hexes function like 'unusually tall' town hexes.)

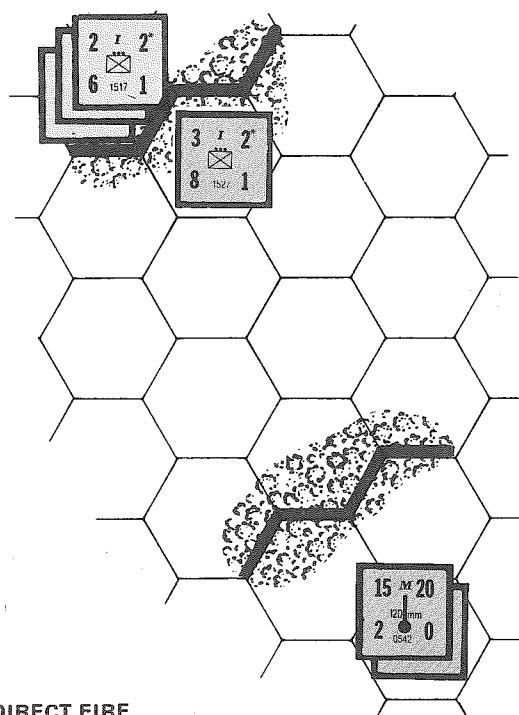
4. Firing SSC's is the same as a regular direct or indirect fire attack and places the same types of restrictions on these firing units as any other type of attack.

5. Smoke shell concentrations have no effect upon movement.

6. SSC's may be fired into a hex as often as desired to, in effect, create a continuous LOS/LOF obstruction.

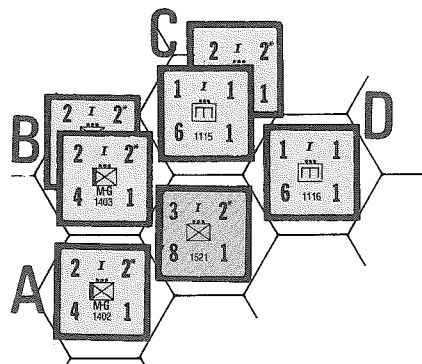
7. Even though only weapons with indirect fire capabilities may fire SSC's, they may be fired directly, or indirectly.

## XVII. EXAMPLES OF PLAY



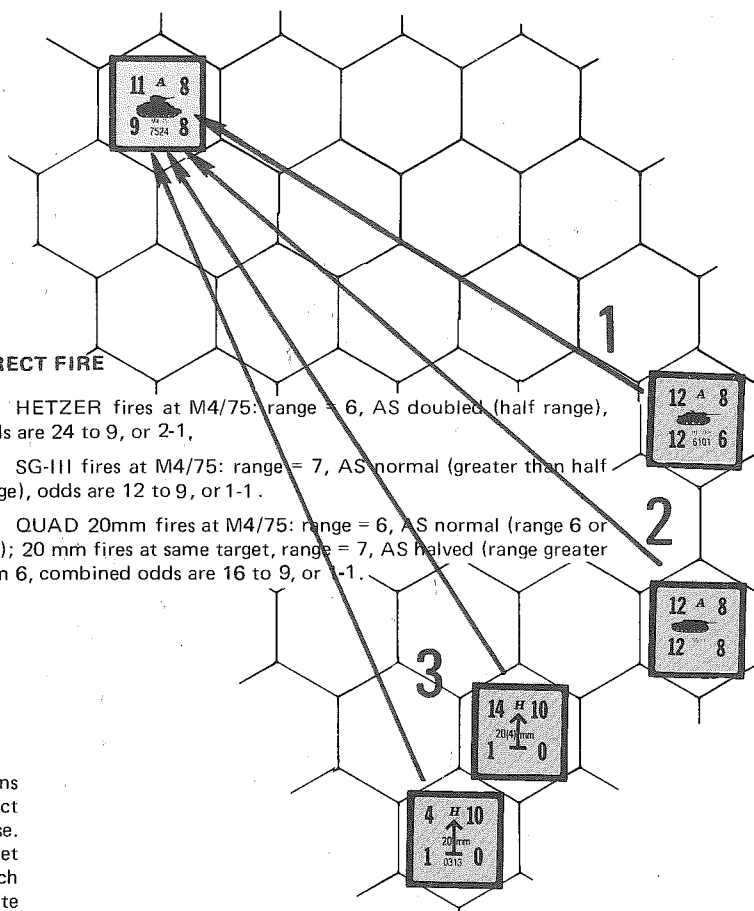
### INDIRECT FIRE

Two 120mm mortars fire indirectly at three Allied infantry platoons with German infantry unit spotting. Green hex sides block direct fire; therefore, indirect fire was ordered in previous combat phase. Attack computes as  $30(\text{combined AS}) \div 3 (\text{number of units in target hex}) = 10$ , which is the attack strength applied against each defending unit. Odds are: 10 to 6, 10 to 6, 10 to 6 (three separate 1-1 attacks).



### DIRECT FIRE

1. HETZER fires at M4/75: range = 6, AS doubled (half range), odds are 24 to 9, or 2-1.
2. SG-III fires at M4/75: range = 7, AS normal (greater than half range), odds are 12 to 9, or 1-1.
3. QUAD 20mm fires at M4/75: range = 6, AS normal (range 6 or less); 20 mm fires at same target, range = 7, AS halved (range greater than 6, combined odds are 16 to 9, or 1-1).



### CLOSE ASSAULT TACTICS

Allied units use CAT against German infantry platoon. Attack computes as 8 to 8, or 1-1. Allied engineer unit raises odds to 2-1 and 2 is subtracted from die roll. NOTE:

1. MG unit at 'A' cannot attack because it is not in the same hex as an infantry-type unit.
2. MG unit at 'B' can attack because it is with infantry unit.
3. Engineer unit at 'C' raises odds one column. Note that if engineer unit was at 'D' instead, it would NOT raise the odds because it would not be with an attacking infantry unit.



## MOVEMENT

## OBSTACLES, ELEVATION, AND LINE-OF-SIGHT










































**LOS/LOF**























## REASON

A diagram showing a network of nodes (A through Z) arranged in a hexagonal grid. Nodes A, B, C, D, E, F, G, X, and Y are highlighted with thick borders. Solid arrows indicate primary connections, while dashed arrows indicate secondary or indirect connections. A central node, possibly 'O', is connected to several other nodes. The diagram illustrates a complex system of relationships or transport paths.

























## TRANSPORT




















# THE UNIT FUNCTION TABLE

CLASSIFICATION DATA					COMBAT					MOVEMENT			OR	EXP					
CAT	SYMBOL	NAME AND CODE GROUP	#	COMPOSITION	WEAPON	ATTACK MODES					TARGET	CAR	PASS	STACK	QM	TUR	AFV	ARTY FOF	SSC
						DF	IF	OR	CAT	AA									
TOWED GUNS (0000's)		57mm (0211-3)	3	Four 57mm anti-tank guns, 39 men.	A	●					NA			●					
		76mm (0221-2)	2	Four 3-inch M5 anti-tank guns, 47 men.	A	●					NA			●					
		90mm (0231-2)	2	Four 90mm M2 anti-aircraft guns, 96 men.	A	●					NA			●	●			C	
		171lb (0240)	1	Four 17-pounder (76mm) anti-tank guns, 51 men.	A	●					NA			●	●				
		40mm (0331-2)	2	Six 40mm Bofors anti-aircraft guns, 42 men.	H	●				●	NA			●	●				
		25lb HOW (0431-3)	3	Six 25-pounder (86.4mm) gun-howitzer, 39 men.	(H)	●	●				NA			●	●				●
		105mm HOW (0441-6)	6	Six 105mm M2A2 howitzers, 117 men.	(H)	●	●				NA			●	●			C	●
		155mm HOW (0461-2)	2	Six 155mm M1 howitzers, 152 men.	(H)	●	●				NA			●	●			C	●
		8 inch HOW (0480)	1	Six 8-inch guns, 136 men.	(H)	●	●				NA			●	●			C	●
		76mm (0511-2)	2	Four 76mm mortars, 29 men.	M	●	●				NA			●	●				●
	81mm (0521-3)	3	Six 81mm mortars, 59 men.	M	●	●				NA			●	●				●	
	107mm (0530)	1	Four 4.2" (107mm) mortars, 52 men.	M	●	●				NA									●
INFANTRY (1000's)		Engineer (US) (1111-6)	6	Forty-nine men, two MG's plus mine clearing, demolition, and construction equipment.	I	●			●		NA			●	●				
		Engineers (UK) (1121-4)	4	Sixty-five men, 3 BREN guns, mine clearing, demolition, and construction equipment.	I	●			●		NA			●	●				
		Scout (1201-3)	3	Twenty-four men, four automatic rifles, two MG's.	I	●			●		NA			●	●				
		Machine gun (1401-3)	3	Forty men, six .50 cal. MG's three rocket launchers.	I	●			2		NA			●	●				
		Rifle (1511-9/1521-9)	18	Thirty-six men, six automatic rifles, four machine guns, one 60mm mortar.	I	●			●		NA			●	●				
		Armored Infantry (1531-9)	9	Forty-five men, six automatic rifles, five MG's, 12SMG's, one 60mm mortar.	I	●			●		NA								
TRANSPORT (2000's)		Truck (2201-6)	6	Five 2½-ton trucks, five drivers.							NA	●		●					
		Scout Car M3 (2221-3)	3	One Daimler scout car, four M3 scout cars, five MG's, 12 men.	I	●					A	3		●					
		Bren Carrier (2301-9)	9	Six Bren carriers, six Bren guns, 12 men.	I	●		1	ona		A	●		●					
		Halftrack M3 (2401-9/2411-9)	18	Five M3 halftracks, five MG's, ten men.	I	●		ona			A	●		●					
		M20 (3201-3)	3	Six M20 armored cars, six MG's, 24 men.	I	●		ona			A			●					
ARMORED CARS (3000's)		M8 (3301-3)	3	Six M8 armored cars, 37/53 gun, 12 MG's, 24 men.	A	●		●			A			●					
		Daimler (3401-5)	5	Six Daimler armored cars (37mm), six MG's, 24 men.	A	●		●			A			●					

CAT	SYMBOL	NAME AND CODE GROUP	#	COMPOSITION	WEAPON	ATTACK MODES					TARGET	CAR	PASS	STACK	QM	TUR AFV	ARTY FOF	SSC
						DF	IF	OR	CAT	AA								
SP ARTILLERY (4000's)		Sexton (4101-3)	3	Six Sexton self-propelled artillery howitzers (25-pdr), 51 men, six MG's.	(H)	●	●				A			●				●
		M7 (4201-3)	3	Six M7 Priest self-propelled howitzers, 105/28 gun, six MG's, 45 men.	(H)	●	●				A			●				●
		Recon HQ Troop (4600)	1	One Daimler scout car, six White scout cars, one 3-inch mortar, 39 men.	H	●					A			●				
ASSAULT GUN (5000's)		M16 (5101-2)	2	Six quad-.50 cal. MG's SP, on M3 halftracks, 39 men.	H	●		●	na	●	A			●				
		M4/105 (5401-2)	2	Three M4A3/105 Sherman assault guns (105mm howitzer), three MG's, fifteen men.	H	●		●			A			●			●	
		Churchill Flamethrower (5500)	1	Four Churchill Mk. III tanks with main armament replaced with flamethrowing equipment, four MG's, 20 men.	H	●		●			A			●			●	
TANK DESTROYERS (6000's)		Achilles (6301-2)	2	Four Achilles tank destroyers (76mm), four MG's, 20 men.	A	●		●			A			●			●	
		M10 (6401-3)	3	Four M10 tank destroyers, 76/53 gun, five MG's 20 men.	A	●		●			A			●			●	
		M18 (6500)	1	Four M18 tank destroyers, 76/53 gun, five MG's 20 men.	A	●		●			A			●			●	
		M36 (6600)	1	Four M36 tank destroyers, 90/53 gun, five MG's, 20 men.	A	●		●			A			●			●	
TANKS (7000's)		M5 (7201-3)	3	Five M5 Stuart light tanks, 37/53 gun, ten MG's, 20 men.	A	●		●			A			●			●	
		M24 (7300)	1	Five M24 light tanks, 75/40 gun, ten MG's, 20 men.	A	●		●			A			●			●	
		Cromwell (7401-4)	4	Four Cromwell tanks (75mm), eight MG's, 20 men.	A	●		●			A			●			●	
		Sherman (UK) (7511-8)	8	Three M4/75 Sherman tanks, one M4A4 Sherman Firefly (76.2mm) tank, eight MG's, 20 men.	A	●		●			A			●			●	
		M4/75 (7521-9)	9	Five M4A3/75 Sherman tanks, 75/40 gun, ten MG's 25 men.	A	●		●			A			●			●	
		M4/76 (7531-3)	3	Five M4E8/76 Sherman tanks, 76/53 gun, ten MG's 25 men.	A	●		●			A			●			●	
ENGINEER AFV's (8000's)		Valentine Bridgelay (8100)	1	Four modified Valentine tanks with main armament removed, equipped with small box girder bridges.	I	●		●	na		A	● <sup>6</sup>		●				
		Sherman Flail (8201-2)	2	Four M4 Sherman tanks equipped with flail mine clearing devices.	A	●		●			A			●			●	
		Tank Bridge	1								NA		● <sup>7</sup>					
		Truck Bridge	1								NA		●					
AIRCRAFT (9000's)		L-5	1								NA							
		Fighter-Bomber	5		5 A/H	●					NA							

# GERMAN

CLASSIFICATION DATA					COMBAT						MOVEMENT				OR	EXP				
CAT	SYMBOL	NAME AND CODE GROUP	#	COMPOSITION	WEAPON	ATTACK MODES					TARGET	CAR	PASS	STACK	QM	TUR	AFV	ARTY	FOF	SSC
						DF	IF	OR	CAT	AA										
TOWED GUNS (0000's)		75mm (0221-3)	3	Four 75mm anti-tank guns, 45 men.	A	●					NA		● 1/2	●						
		88mm (0231-4)	4	Four 88mm anti-tank guns, 111 men.	A	●					NA		●	●				C		
		20mm (0311-4)	4	Six 20mm anti-aircraft guns, 40 men.	H	●				●	NA		● 1/2	●						
		20mm Quad (0321-2)	2	Three quadruply mounted 20mm anti-aircraft guns, 45 men.	H	●				●	NA		● 1/2	●						
		37mm (0330)	1	Six 37mm anti-aircraft guns, 42 men.	H	●				●	NA		● 1/2	●						
		75mm IG (0411-4)	4	Two 75mm infantry guns, 36 men.	H	●					NA		● 1/2	●						
		75mm HOW (0421-3)	3	Six 75mm leFK 18 howitzers, 67 men	(H)	●	●				NA		● 1/2	●						●
		105mm HOW (0441-2)	2	Six 105mm leFH 18 howitzers, 112 men.	(H)	●	●				NA		●	●					C	●
		150mm IG (0431-2)	2	Two 150mm infantry guns, 39 men.	H	●					NA		●	●					C	
		150mm HOW (0451-3)	3	Six 150mm sFH 36 howitzers, 120 men.	(H)	●	●				NA		●	●					C	●
		170mm (0471-2)	2	Six 170mm k 18 guns, 139 men.	(H)	●	●				NA		●	●					C	●
		81mm (0521-3)	3	Six 81mm mortars, 66 men.	M	●	●				NA		● 1/2	●						●
	120mm (0541-3)	3	Four 120mm mortars, 47 men.	M	●	●				NA		●	●						●	
	Nebelwerfer (0001-2)	2	Six 150mm Nebelwerfer rocket launchers, 86 men.	(H)	●	●				NA		● 1/2	●					●		
INFANTRY (1000's)		Engineer (1121-3)	3	Sixty-three men, ten SMG, 9 MG's, 8 flamethrowers, demolition and mine clearing equipment.	I	●				●	NA		● 1/2	●	●					
		Security (1300)	1	Forty-six men, 12 SMG, 4 MG's.	I	●				●	NA		● 1/2	●	●					
		Rifle (1511-9/1521-9)	18	Fifty-nine men, 11 SMG, 6 MG's.	I	●					NA		● 1/2	●	●					
		Submachinegun (1541-9)	9	Fifty-two men, 30 SMG, 4 MG's.	I	●					NA		● 1/2	●	●					
TRANSPORT (2000's)		Wagon (2101-6)	6	Four horse-drawn vehicles, six men.							NA	●		●						
		Truck (2201-6)	6	Five 3-ton trucks, five drivers.							NA	●		●						
		Halftrack Sdkfz 251 (2401-9/2411)	10	Five Sdkfz halftracked vehicles, 5 MG's, ten men.	I	●		ona			A	●		●						
ARMORED CARS (3000's)		Sdkfz 234/1 (3501-3)	3	Seven 234/1 armored cars, (20mm), 38 men.	H	●		●			A	● 8		●						
		Sdkfz 234/2 (Puma) (3200)	1	Seven 234/2 armored cars, (50mm), 38 men.	A	●		●			A	● i		●						
		Sdkfz 234/4 (3600)	1	Seven 234/4 armored cars, (75mm), 38 men.	A	●		●			A	● i		●						

CAT	SYMBOL	NAME AND CODE GROUP	#	COMPOSITION	WEAPON	ATTACK MODES					TARGET	CAR	PASS	STACK	QM	TUR AFV	ARTY FOF	SSC
						DF	IF	OR	CAT	AA								
SP ARTILLERY (4000's)	 40 <sup>12</sup> 32 5 8	Wespe (4201-2)	2	Six PzFH 18 (Wespe) self-propelled howitzers, (105mm), 125 men.	(H)	●	●				A			●				●
	 50 <sup>12</sup> 12 4 10	Maultier (4300)	1	Six Maultier self-propelled rocket launchers, (150mm), 126 men.	(H)	●	●				A			●				
	 60 <sup>12</sup> 24 6 8	Hummel (4400)	1	Six PzFH 18M (Hummel) self-propelled howitzers, (150mm), 131 men.	(H)	●	●				A			●				●
ASSAULT GUNS (5000's)	 10 <sup>12</sup> 12 5 6	Gw 38(M) (5201-3)	3	Two SIG 33/1 self-propelled guns, (150mm), 26 men.	H	●		●			A	●i		●				
	 14 <sup>12</sup> 10 6 8	Wirbelwind (5300)	1	Three FlakPanzer IV tanks, (quad 20mm), 40 men.	H	●		●		●	A	●i		●		●		
TANK DESTROY (6000's)	 12 <sup>12</sup> 8 12 6	Hetzer (6101-2)	2	Six Jgpz 38 guns, (75mm), 31 men.	A	●		●			A	●i		●				
	 12 <sup>12</sup> 8 12 8	StuG-III (6200)	1	Six StG III self-propelled guns, (75mm), 31 men.	A	●		●			A	●i		●				
TANKS (7000's)	 2 <sup>12</sup> 4 6 10	Lynx (7100)	1	Five PzKw II (L) tanks, (20mm), 25 men.	A	●		●			A	●i		●		●		
	 8 <sup>12</sup> 6 7 9	PzKw-III (7301-2)	2	Four PzKw III (J) tanks, (50mm), 20 men.	A	●		●			A	●i		●		●		
	 11 <sup>12</sup> 8 7 8	PzKw-IV (W) (7711-2)	2	Four PzKw IV (H) tanks, (75mm), 20 men.	A	●		●			A	●i		●		●		
	 14 <sup>12</sup> 8 8 8	PzKw-IV (SS) (7721-6)	6	Five PzKw IV (H) tanks, (75mm), 25 men.	A	●		●			A	●i		●		●		
	 13 <sup>12</sup> 12 11 10	PzKw-V (W) (7811-6)	6	Four PzKw V (Panther) tanks, (75mm), 20 men.	A	●		●			A	●i		●		●		
	 16 <sup>12</sup> 12 12 10	PzKw-V (SS) (7821-6)	6	Five PzKw V (Panther) tanks, (75mm), 25 men.	A	●		●			A	●i		●		●		
	 15 <sup>12</sup> 12 12 8	PzKw-VIa (7911-3)	3	Five PzKw VIa (Tiger) tanks, (88mm), 25 men.	A	●		●			A	●i		●		●		
	 20 <sup>12</sup> 12 16 6	PzKw-VIb (7921-3)	3	Five PzKw VIb (King Tiger) tanks, (88mm), 25 men.	A	●		●			A	●i		●		●		
POSITIONAL DEFENSES	 40	Fortifications	6								A			●				
	 2-1	Mines	6		9	●	10											
	 X	Blocks	10											●				
	 1	Wrecks	20											●	11			

The Unit Function Table lists all of the unit-types contained in the game and presents their game-relevant characteristics in a tabular format:

#### KEY

**CAT**—category of units by function and type. **SYMBOL**—unit counter representing that particular unit. **NAME AND CODE GROUP**—name of unit and its PICS number. **COMPOSITION**—types and numbers of manpower and weaponry found in a full strength unit of a particular type. **WEAPON**—unit's weapon type (I,A,H,(H),M). **ATTACK MODE**—dot under any of following types of attack means the unit in question may execute those types of attacks: **DF**—direct fire; **IF**—indirect fire; **OR**—over-run attack; **CAT**—close assault tactics; **AA**—anti-aircraft attack. **TARGET**—type of target (regardless of weapon-type): **A**—armored target; **NA**—non-armored target. **CAR**—dot indicates unit may transport other units. **PASS**—dot indicates unit may be transported. **STACK**—dot indicates unit counts for stacking purposes. **QM**—dot indicates unit may use optional Quick March rule. **EXP**—experimental rules: **TUR AFV**—dot indicates unit may use turreted AFV rule. **ARTY FOF**—'C' indicates unit must have carrier in same hex to change field-of-fire. **SSC**—dot indicates unit may fire smoke shell concentrations.

**NOTES:** 1) Dot followed by 'na' means unit may only overrun non-armored target types. 2) MG units may only close assault in conjunction with rifle, engineer, scout units. 3) Scout Car moves with the same movement allowance costs as a truck. 4) Dot followed by '1/2' means carrier expends only half MA in loading/unloading. 5) FB units may be either A or H units depending on armament. 6) Valentine Bridgelayer may only carry Tank Bridge. 7) Tank Bridge may be carried by Valentine Bridgelayer only. 8) Dot followed by 'i' means unit may only transport infantry-type units. 9) Mines attack all types of targets in the same fashion. 10) All Mine attacks are 2-1, regardless of terrain, etc. 11) No more than 3 wrecks are ever placed in a hex; each wreck counts one for stacking purposes.

# THE MACRO GAME

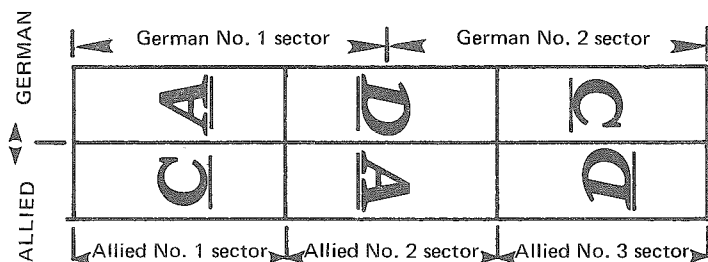
## I. INTRODUCTION

The following rules system is an example of what can be done to expand the basic components and rules of PANZER LEADER to re-create large scale encounters. Essentially, two sets of mapboards and three sets of counters are required to play. The macro-game is a twenty-turn, multi-player game. It portrays a fictional, non-historical situation. Maximum emphasis has been placed on playability. The game is best played with five players, three Allied and two German, although the system can accommodate more or less. For ease of play, it is suggested that Optional and Experimental rules be kept to a minimum.

## II. SECTOR BOUNDARIES AND RESTRICTIONS

### A. THE MAPBOARD

Six mapboard sections are required. Arrange them in the configuration illustrated below:



### B. SECTOR BOUNDARIES

1. Players may only set up their units within their own assigned sectors:

a. Allied—Each of the three Allied players is assigned a 'sector of operations' (see diagram, above) before picking their Orders of Battle.

The sectors of operation are as follows:

Sector No. 1 —board C and German board A.

Sector No. 2 —board A and German board D.

Sector No. 3 —board D and German board C.

b. German—Each German player is assigned a sector in the same manner as the Allied players, as follows:

Sector No. 1 —board A and part of D (A thru Q) and Allied board C and part of A (Q thru GG).

Sector No. 2 —board C and part of D (Q thru GG) and Allied board D and part of A (A thru Q).

2. Restrictions:

a. Players may set up their Orders of Battle only in their assigned sectors.

b. Players may move their units only in their assigned sectors. They may, however, attack targets within range regardless of sector boundaries. SPECIAL: See 'Entry Hexes' section for exception.

c. Players may move their units into those hex rows which constitute the boundaries of each sector. *EXAMPLE: Both German players may move their units into the boundary hex row 'Q' on boards A-D.*

## III. AVAILABLE FORCES

A. SELECTION—Each side secretly selects OB's as follows:

1. Allied: Write numbers 1 through 6 on six slips of paper and place in a container. Each of the three Allied players selects one without returning it to the container.
2. German: Write numbers 1 through 4 on four slips of paper. Each German player selects one in the same manner as the Allied players.
3. The numbers selected are each player's OB, as outlined under the Order of Battle section, below.

### B. OB HANDICAPS

1. Near the bottom of each OB is a handicap number. This represents the strength of an OB; the higher the number, the weaker the OB, the lower the number (including zero values), the stronger the OB. The handicaps serve two purposes; they help to reduce play balance inequities due to OB selections and they can be used to 'purchase' reserve battalions.

2. After selecting OB's, each side adds its handicaps together to obtain a net Handicap number. This net figure can be used in either of two ways:

a. As an augmentation of Victory Point totals: The net handicap is simply added to the Victory Point total at the end of the game.

*EXAMPLE: A handicap of 22 added to a Victory Point total of 90 yields a final total of 112.*

b. As a means of purchasing reserve units: Handicap points may be expended to obtain additional units as follows: Each OB lists a unit (or units) which may be added to the game by expending the number of handicap points listed in parentheses to the right of the reserve unit. Reserve units may only be selected from those made available by the OB selections. They may only be added if the side in question has sufficient handicap points to 'purchase' them. The 'cost' of such reserve units is subtracted from the handicap total and cannot be used again. Un-expended handicap points are added to the Victory Point total at the end of the game, as usual.

c. *EXAMPLE: The Allied players chose OB's No. 1, No. 2, and No. 4 for a total of 14 handicap points. During the course of the game, they 'purchase' a towed AT battal-*

ion (90mm) at a cost of 9 points. They then have 5 handicap points remaining which is insufficient to purchase any of the other available reserve units (in this example, the tank battalion and the engineer battalion). Thus, they are added to the Allied Victory Point totals at the end of the game.

#### IV. DEPLOYING RESERVES

A. Reserves may not enter the game until AFTER the fifth game-turn.

B. Before they may enter the game, however, reserves must be 'committed', in writing, at least TWO turns in advance. (A unit entering the game in turn 6 must be committed no later than turn four).

C. To commit a unit, the following information must be recorded:

1. The name or type of unit.
2. The sector in which it will be committed.
3. The turn it will enter the game.

D. Units committed MUST enter the game at the time and place specified.

E. All units of a reserve formation must enter the board during the same turn of arrival.

#### V. ENTRY HEXES

A. There are six 'entry hexes' on the mapboard corresponding to the six roads leading off of the long edges of the mapboard:

- |             | German | Allied |
|-------------|--------|--------|
| 1. Board A- | Q-1    | Q-1    |
| 2. Board B- | Q-10   | Q-10   |
| 3. Board D- | Q-10   | Q-10   |
4. The German entry hex at D-Q-10 may be used by reserve units to enter either sector.

B. Reserve units enter the game only through the entry hexes of their assigned sectors. If enemy units control an entry hex, reserve units cannot enter it, but must be re-committed to another sector or wait until the entry hex is again under friendly control.

C. **CAPTURE AND CONTROL**—Enemy entry hexes may be CAPTURED in the following manner:

1. If friendly units control an enemy entry hex at the beginning of two consecutive friendly combat phases in an UNDISPERSED condition, that entry hex is considered CAPTURED.

2. **EFFECTS:** Whenever friendly forces capture an enemy entry hex in their sector, they are free to move into ONE adjacent sector. In other words, friendly units that capture an enemy entry hex (or hexes) in their sector may ignore the sector boundary restrictions and may operate normally in any one adjacent sector. Any reserves that subsequently enter through that sector may also move into the same adjacent sector.

#### VI. VICTORY CONDITIONS

A. Victory is dependent on the number of Victory Points accumulated at the end of the game:

1. **ALLIED:** The Allied players win by accumulating more Victory Points than the German players at the end of the game.

2. **GERMAN:** The German players win by accumulating as many as or more Victory Points than the Allied players at the end of the game.

B. **VICTORY POINTS**—Each side is awarded Victory Points as follows:

- |  | German receives: | Allied receives: |
|--|------------------|------------------|
| 1. For each TOWN HEX controlled:   | 2 points         | 2 points         |
| 2. For each enemy entry hex controlled:  | 9 points         | 6 points         |
| 3. <b>PLUS:</b> Each side's OB HANDICAP (if NOT used to 'purchase' reserve units). |                  |                  |

#### VII. PREPARE FOR PLAY

A. Assign each player a specific sector.

B. Each player picks his OB secretly, which must be committed to its assigned sector.

C. Both sides set-up their units on the mapboard at the same time. Use spare mapboards to screen unit placement from opposing players.

D. **NEITHER SIDE MAY SET-UP IN THE HALF HEXES DIVIDING THE GERMAN SIDE OF THE BOARD FROM THE ALLIED SIDE.** All units must start on their own side of the mapboard.

E. The game is 20 turns long.

F. The Allied players move first. (OPTIONAL: Flip a coin to determine which side moves first.)

#### VIII. THE ORDERS-OF-BATTLE (OB's)

A. **OB NOTES**

1. Those battalions with an asterisk (\*) may begin the game off-board. They may enter the game at any time if their sector entry hex is uncontrolled by enemy units. They are NOT reserve units and do not have to be committed prior to entry.

2. Battalions are composed of lower-echelon units as illustrated in the Unit Composition Table section of the rule book. If certain unit types are exhausted before all of the required battalions are formed, use equivalent units of a lesser strength. *EXAMPLE: SMG units can be replaced with infantry, security, etc. An 88mm AT gun can be replaced with a 75mm AT gun.*

3. All German infantry-type formations are composed using a 2-1 ratio of infantry units to SMG units. A typical infantry battalion would consist of six infantry units and three SMG units.

4. Divisional artillery units are not required to conform to the sector placement and movement restrictions.

## B. ALLIED

### No. 1 (I)

two infantry battalions.  
one tank battalion.\*  
one engineer battalion.

HANDICAP: 4.

Reserves Available:

one towed AT battalion (90mm). (9)

### No. 5 (I)

two infantry battalions  
six blocks.  
four mines.

HANDICAP: 9.

Reserves Available:

one towed AT battalion (57mm). (8)

one infantry battalion. (6)

(PLUS: 12 trucks)

one SPAT battalion (M-10). (10)

### No. 2 (I)

two infantry battalions.  
one towed AT battalion  
(57mm).\*

one cavalry recon sqd.\*

HANDICAP: 8.

Reserves Available:

one tank battalion. (12)

### No. 6 (A)

one tank battalion.\*

two infantry battalions.

one armored recon battalion.\*

HANDICAP: 0.

Reserves Available:

one cavalry recon sqd. (3)

### No. 3 (A)

one tank battalion.\*

two armored inf. battalions.

one armored recon battalion.\*

one light AA battalion.

HANDICAP: 0.

Reserves Available: NONE.

### No. 4 (A)

one tank battalion.\*

one armored inf. battalion.

one light AA battalion.

HANDICAP: 2.

Reserves Available:

one engineer battalion. (6)

### PLUS:

If TWO or more A-type OB's chosen: one armored artillery brigade.

### OR

If TWO or more I-type OB's chosen: one infantry artillery brigade.

## C. GERMAN

### No. 1 (A)

one tank battalion (Pz-V(W)).\*

one mobile AT battalion.

one motorized inf. battalion.

HANDICAP: 7.

Reserves Available:

two '44 infantry battalions. (4 ea.)

(PLUS: 9 trucks for each battalion.)

### No. 2 (I)

two '44 infantry battalions.

one infantry AT battalion.

six blocks.

six mines.

six forts.

HANDICAP: 9.

Reserves Available:

one Army FLAK battalion. (5)

one infantry recon battalion. (2)

### No. 3 (I)

one '44 infantry battalion.

one Army FLAK battalion.\*

one assault gun battalion.\*

one infantry recon battalion.

HANDICAP: 5.

Reserves Available:

one heavy (Tiger) battalion

(Pz-VIa) (12)

### No. 4 (A)

one tank REGIMENT (SS).

one mobile recon battalion.\*

one armored infantry battalion.

HANDICAP: 2.

Reserves Available:

NONE.

### PLUS:

If at least one A-type OB's chosen: one mobile division artillery regiment.

### OR:

If NO A-type OB's chosen: one '44 infantry division artillery regiment.

## IX. DISCUSSION

While not historical, the macro-game illustrates what can be accomplished using large-scale game formats. This particular system places special emphasis on unpredictability. The ten OB's provided combine to make games with limitless possibilities. Depending on the particular combination of OB's selected, either side can be on the offensive or defensive. A strong and weak sector depends on the combination of at least three sector OB's, not just one. This 'limited intelligence' aspect requires each side to assess its strengths and weaknesses and hold something back for the unexpected. Too-early commitment of reserves could prove disastrous in a 20 turn game. Players should find that this macro-game will provide distinctly different games every time it is played.

With a few good reference sources, players will find that they can easily re-create almost any type of action that occurred on the Western Front. Care must be taken, however, to keep the game size in manageable proportions. Bigger is not always better. Initial design attempts should be on the conservative side. In constructing macro-games, observe these suggestions:

1. Aim for playability rather than historical precision. Otherwise, the macro-game could grow into an unplayable monster.

2. Keep the size of macro-games within limits. Rule Of The Thumb: Games bigger than twice the board area of the one presented here are going to require about three times more time to play.

3. Let the uniqueness of the game be derived from the tactical situation and balance of forces, NOT from the sheer bulk of unit counters within a given area. Extreme unit density is a no-no.

4. Keep special rules and conditions to an absolute minimum. The game will be complex enough by its very size without adding a lot of 'excess baggage' to the game system.

5. Design the game with multi-player potential. Create special roles and functions for individuals.

6. Set strict time-limits for movement and combat.

7. Maintain play-balance. Make both sides challenging and fun to play. Being on the tactical defensive for eight hours can be a drag.

Finally, Avalon Hill has available blank, Panzer Leader-size, map sheets, mounting boards, and counters. Historical/realism addicts can try their hand at producing actual terrain and special units. A little time and effort can yield excellent results in constructing homemade components.

THE UNIT COMPOSITION TABLES

AMERICAN

										LOWER ECHELON UNITS DIRECTLY										ATTACHED TO DIVISIONAL UNITS																										
'42 ARMORED DIVISION																																														
'43 ARMORED DIVISION																																														
'43 INFANTRY DIVISION																																														
AIRBORNE DIVISION																																														
1	3	1	Infantry Recon Company																																										107	11
			Infantry Battalion																																										95	10
			Infantry Regiment																																										125	
			Armored Infantry Battalion																																										74	
			Armored Infantry Regiment																																											3
			Airborne Battalion																																											
			2+ Parachute Regiment																																											
			1+ Glider Regiment																																											
			Engineer Battalion																																											
			Armored Engineer Battalion																																											
1	1	1	Armored Cavalry Squadron																																											
			Armored Recon Battalion																																											
			Reconnaissance Regiment																																											
			'42 Light Tank Battalion																																											
			'42 Medium Tank Battalion																																											
			'42 Tank Regiment																																											
			'43 Tank Battalion																																											
			CCA and CCB (composite) <sup>c</sup>																																											
			CCR (composite)																																											
			Self-propelled AT Battalion																																											
			Towed AT Battalion																																											
1	1	1	Light AA Battalion																																											
			Heavy AA Battalion																																											
			4.2" Chemical Mortar Battalion																																											
			Infantry Artillery Brigade																																											
			Armored Artillery Brigade																																											

## GERMAN

## LOWER ECHELON UNITS DIRECTLY

## ATTACHED TO DIVISIONAL UNITS

MIDDLE ECHELON UNITS COMPOSING DIVISIONAL UNITS

LOWER ECHELON UNITS COMPOSING MIDDLE ECHELON UNITS

SS PANZER DIVISION (SS PZ)		1	1																	1	1					3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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MIDDLE ECHELON UNITS  
 LOWER ECHELON UNITS

A-one company bridge construction.  
 B-two tank bridges in SS units.

C-SMG units represent approx. number of automatic weapons in unit. Actual number varied considerably below TO & E number.

# DESIGNER'S NOTES

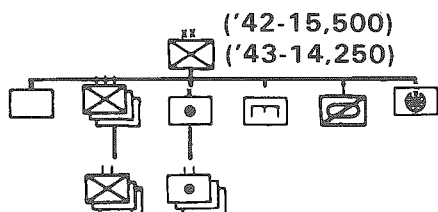
To assist players in understanding the relationships between the various units, echelon levels, and organizations, the following capsule summary of each side's unit organization and equipment is provided. The composition of entire divisions (in terms of the unit counters used in *Panzer Leader*) can be more easily understood from the schematic diagrams than from the layout in the Unit Composition Tables.

## THE AMERICAN ARMY

The U.S. Army in World War II was the product of hasty expansion from a small peacetime force into a global war machine. Its success is attributable mostly to massive production of equipment and adaptability to new situations. There were only four basic divisional types in the U.S. Army: infantry, armored, airborne and mountain. The mountain division is not included here since it had no role in Europe except in Italy. The armored and infantry divisions were reorganized in 1943 as a result of lessons learned from the German Army.

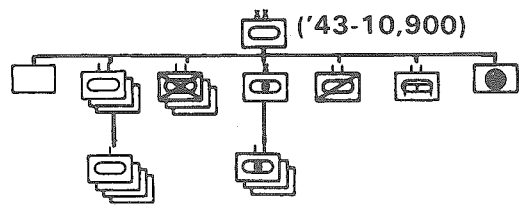
U.S. organizations are unique in one respect: the TO&E of American units usually corresponded to the ACTUAL strength, except for units in prolonged combat. As a matter of fact, it was not unheard of for American units to be overstrength, since it was common practice to hoard unauthorized weapons. There is at least one case on record where an infantry company had an unauthorized platoon of Sherman tanks attached!

### U.S. INFANTRY DIVISION



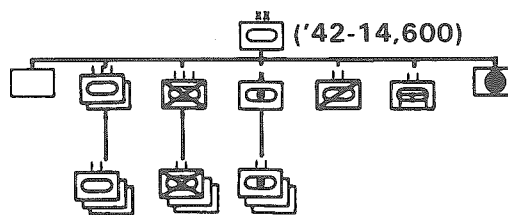
The 1943 armored divisions included three "Combat Commands" in their TO&E. These brigades had, in theory, little fixed organization, since they were to be ad hoc "task forces" composed of the separate battalion of the division. In practice, the organization for each combat command was usually standardized. The armored division commanders disliked separating units which had experience fighting together, thus the combat command structure tended to work more rigidly than was set down on paper. This is in direct contrast to the German Army's organization of their panzer divisions. Organizational TO&E was fairly rigid, but operationally the Germans embraced the task force concept wholeheartedly.

### 1943 U.S. ARMORED DIVISION



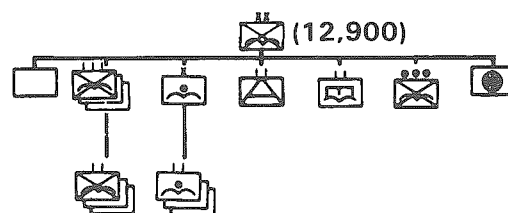
After the reorganization in 1943, two divisions, 2nd and 3rd Armored, retained their old organization.

### 1942 U.S. ARMORED DIVISION



The airborne division did not originate until after the war started, thus it remained fairly standard throughout the war. Since U.S. airborne units engaged in only two division-size combat drop operations (D-Day and Market-Garden), the organizations as such did not have a substantial test. Weaponry for airborne and infantry platoons was only marginally different. Normally, a higher number of automatic weapons would be found in airborne units, particularly in veteran formations which had time to "scrounge." The biggest difference in weaponry was the 75mm pack howitzer, which replaced the 105mm howitzer in divisional artillery. This gun was air transportable.

### U.S. AIRBORNE DIVISION

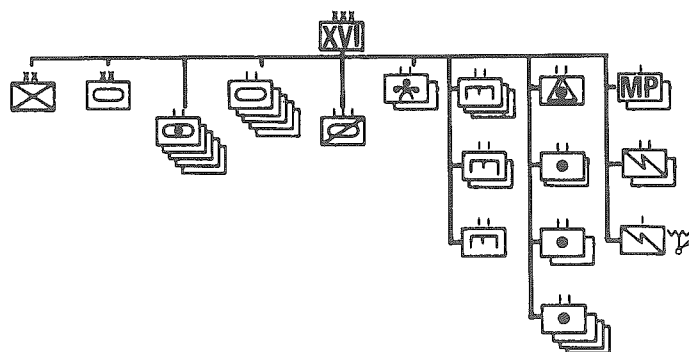


In ground operations, such as the Battle of the Bulge actions of the 82nd and 101st, 105mm howitzers were allotted from army headquarters along with such support units as were available. For all intents and purposes, once the airborne divisions linked up with their rear areas, they fought like infantry until relieved. In this sense, they were not that different from German parachute divisions in that they were used all too often as elite infantry formations and not for the specialized tasks for which they were created.

### U.S. CORPS LEVEL OPERATIONS

The U.S. combat division, as a rule, was not organized as a completely self-contained fighting unit, although many were in actual practice. Technically, the U.S. Army was very much tied to corps and army support organization:

### U.S. CORPS



As can be seen from this typical U.S. corps organization chart, there were a great number of combat units attached directly to corps. While nominally under control of that headquarters, these units were nearly always attached to the various divisions. Armor and tank destroyer battalions were generally assigned to particular divisions, which accounts for the large number of U.S. infantry divisions possessing their "own" armor battalion or two. The recon, engineer and artillery elements of the corps were usually employed as reserve units, being committed only for specific tasks. It is easy to see why the German attacks in the Battle of the Bulge ran into such hard going around Elsenborn Ridge and Bastogne. Not only were there rough terrain and stubborn resistance (as elsewhere), but each of those areas contained a corps headquarters. The power of such reserves made itself felt.

The chart shows primarily combat units. Some of the less important supply and maintenance units have been left out. While substantial, this was not the corps' primary function. It was the mission of corps to direct the operations of the divisions assigned to it, and to allocate such forces to each divisional sector so as to insure that each division could accomplish its objectives. Its primary concern was with combat operations. Support operations were the responsibility of Army.

### U.S. ARMY LEVEL OPERATIONS

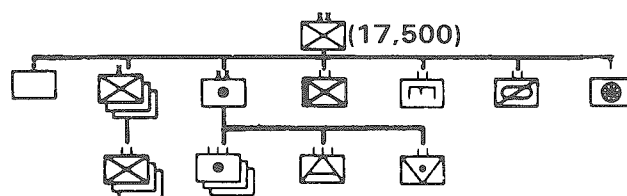
The army level headquarters, which coordinated the operations of two to four corps, was the center of most maintenance and supply activity. A comparison of the organization of German, American and British divisions will reveal that U.S. divisions had less transport. Yet the U.S. Army in World War II was the most highly motorized army ever. The "missing" transport shows up in Army. A glance at the ordnance and maintenance sections in the army level chart tells the story. Each truck company contained about 100 vehicles; a regiment had over 1,000. By 1944, there were even more vehicles running about. In the German and British armies, many supply functions were the responsibility of their divisional-level transport units which, in the U.S. Army, was the responsibility of army headquarters. Also, if full motorization was required for any division, enough vehicles could be pulled out of Army motor pools to provide the necessary lift.

## THE BRITISH ARMY

The British Army in World War II suffered from bad organization, mediocre equipment, and, in 1944, a serious lack of replacements. Its good points included excellent leadership and enough material, both British and American, to make up for technical deficiencies. Significantly, by 1944, the Germans were no longer in a position to exploit the weaknesses of their enemies, so many faults in Allied organization and strategy went unnoticed because they were never put to the test.

By 1944, British Army had developed three basic types of combat divisions. The British armored, infantry and airborne formations had remained fairly stable since 1942. British TO&E strengths were usually always higher than actual strengths. Armored divisions in particular suffered from a lack of trained crews. Of course, the British replacement problems were not as great as those faced by the Germans, yet somehow the British were unable to use what they had as effectively as their enemy. Perhaps the tendency of "keeping up with the Joneses" was a factor, since any manpower cut-backs in the British Army tended to give more prestige to the American role in the conflict.

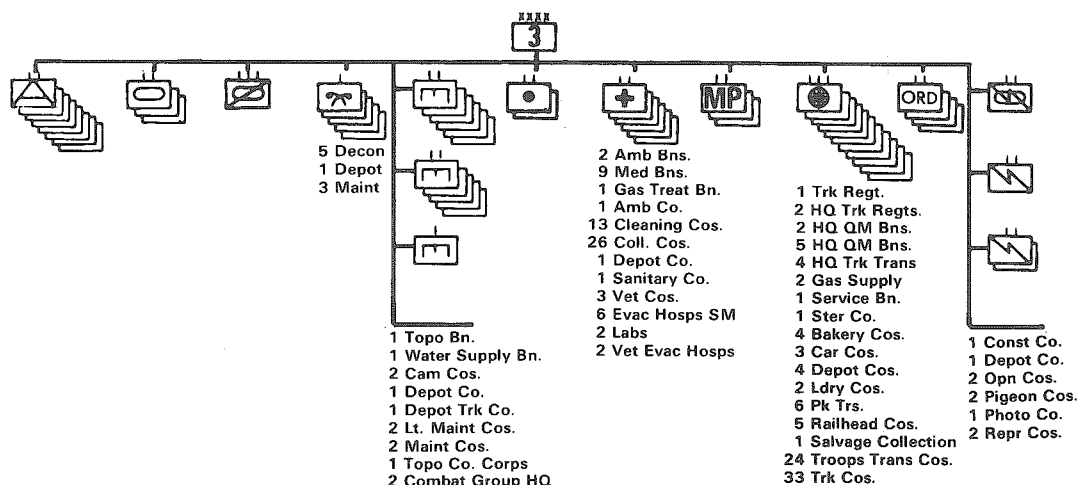
### BRITISH INFANTRY DIVISION



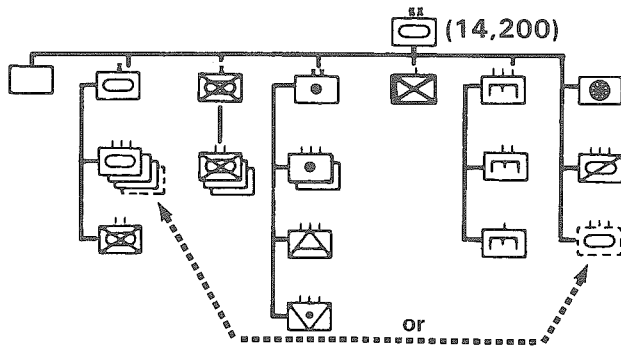
The British armored division in 1944 was a tank-heavy, infantry-poor organization. Despite the lessons learned in the desert, the British never incorporated them into their armored divisions until after the war. The British division was very similar to the 1942 U.S. armored division. It had only 4,700 infantry, which necessitated the practice of "pairing" infantry and armored divisions to get the proper balance of infantry and tanks.

Topo = Topographical, or mapmaking. Cam = Camera. Trk = Truck. Amb = Ambulance. Med = Medical. Gas Treat = Gas Treatment. Coll = Collecting; that is, transportation of wounded to army hospitals. Vet = Veterinary. Evac = Evacuation. Am = Ammunition. Ord = Ordnance. Hv = Heavy. Mdm = Medium. QM = Quartermaster. Ldry = Laundry. Pk Trs = Park Trucks (Truck parks). Const = Construction. Opn = Operations.

### U.S. ARMY

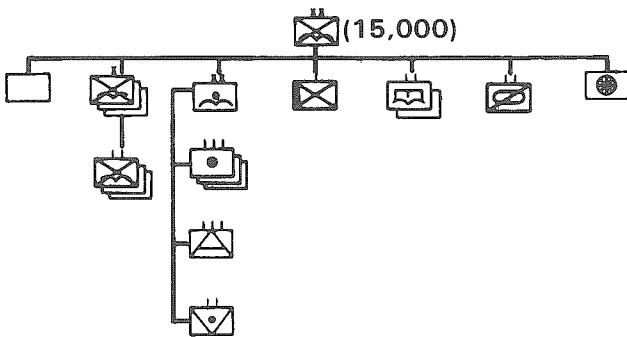


## BRITISH ARMORED DIVISION



The British airborne division was similar to the U.S. airborne division, although it had a stronger reconnaissance element. The biggest difference between it and the infantry division, besides airborne training, was that the artillery sections had the 75mm pack howitzer instead of the 25-pounder howitzer. The airborne division was usually organized differently when sent into a combat drop.

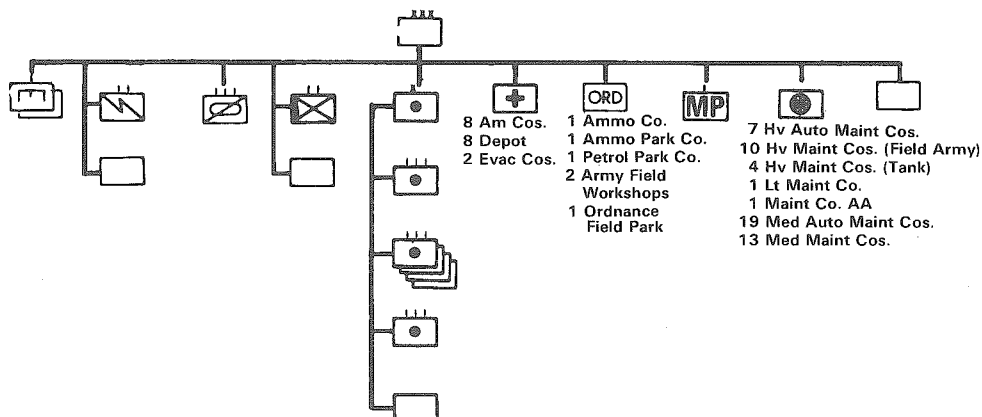
## BRITISH AIRBORNE DIVISION



## BRITISH CORPS AND ARMY LEVEL ORGANIZATION

Higher echelon organization in the British Army paralleled the U.S. Army closely, with the exception that many service and transport functions were part of divisional structure instead of corps or army. Therefore, British rear echelons could be considered more streamlined, according to the TO&E. Of course, with the U.S. practice of "assigning" high echelon units to divisional level, this was not actually the case. A typical British corps level unit chart is shown. The army level organization is not illustrated here, but is generally similar to its American counterpart.

## BRITISH CORPS



**GENERAL NOTE:** British organization is exceedingly difficult to represent in the Panzer Leader format, since there is a scarcity of easily-obtainable, complete works on orders of battle and unit organizations. The British tended to mix in various types of vehicles and weapons without regard for homogeneous mixtures, especially in the reconnaissance units. Many representations have been approximations only, based on the parameters forced by the game limitations. The number of weapons represented by the counters may be off one or two guns in total for a unit because of the undesirability to have fractions of counters. Of the three armies discussed here, the information on the British Army is the least reliable.

## THE GERMAN ARMY

By the time the Allied armies landed in Normandy in June of 1944, the German military establishment was in decline. The Kriegsmarine was all but impotent, the Luftwaffe was offensively neutralized, and the Wehrmacht was being ground to pieces in the jaws of a two front war. The only thing staving off defeat was the quality of the individual German soldier and the excellence of his small unit leaders.

In June, 1944 there were three different organizations fielding ground fighting units; the Wehrmacht, the Waffen-SS, and the Luftwaffe. This duplicity of effort resulted in a serious, if not decisive, weakening of Germany's limited war potential.

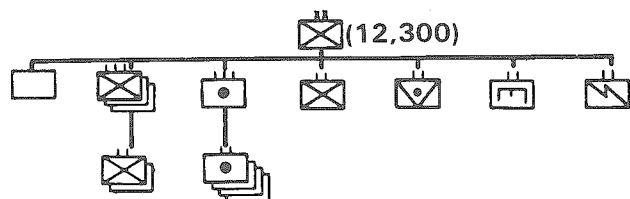
## THE REGULAR ARMY

Even within the regular army, there existed a bewildering number of different unit organizations. Some, like the mountain and light divisions, saw little service in western Europe after 1943. Others, like the infantry division, underwent numerous reorganizations throughout the war.

The 1944 infantry division created in the fall of 1943, developed directly from the 1939 'standard' infantry division. The '44 division was a reorganization that attempted to relieve the ever-

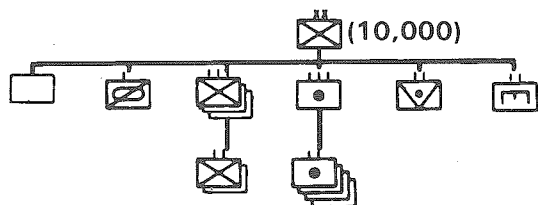
tightening manpower squeeze by reducing the amount of 'excess' personnel in each division with the minimum curtailment of offensive capabilities. The salient changes in this respect was the deletion of one battalion from each of the three infantry regiments (reducing the divisional total from ten to seven) and one platoon from each rifle company. This reduction amounted to about 25% of the divisional manpower with little actual reduction in combat effectiveness:

#### 1944 INFANTRY DIVISION



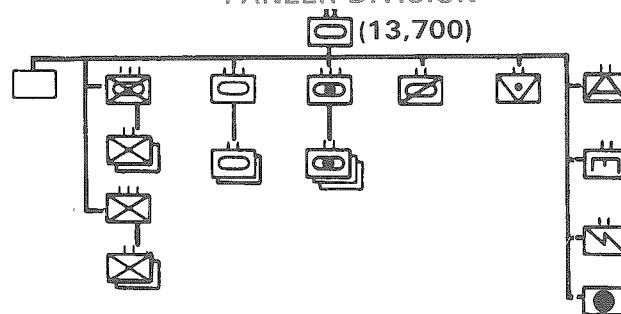
The severe manpower losses sustained on both fronts in the summer of 1944 required another reorganization in the Table of Organization and Equipment of the infantry division which produced the Volksgrenadier division in the fall of 1944. The major changes consisted of the replacement of the reconnaissance battalion with a recon company, and another overall 20% reduction in manpower. The effectiveness of the division was also reduced by about the same amount. At this point the cumulative reduction of divisional service and supply personnel began to tell thus contributing further to the decline in efficiency. The most damaging aspect of this reorganization was the drastically reduced training period allowed these units before being placed into front-line duty. Some Volksgrenadier divisions had as little as two months training before being committed to action. This re-organization marked the steepest decline in the quality of German ground forces:

#### VOLKSGRENADIER DIVISION



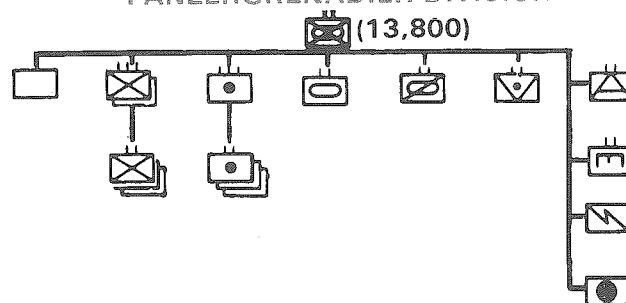
The panzer and panzergrenadier divisions represented the only truly mobile formations in the regular German army. The large number of specialists and technicians marked nearly all of these units as the elite of the regular army. There were never enough of them. Both types of divisions had similar TO&E's, differing only in the numbers of infantry battalions (six in two regiments for panzergrenadier and four in two regiments for panzer) and the addition of the tank regiment for the panzer division (the PG divisions had a tank battalion which was usually replaced by an assault gun battalion later in the war.) Operationally, both types of divisions were used for the same tasks. With tank regiments chronically understrength, there were few differences in the combat performance. By 1944, the panzer division had achieved the optimum German tank-infantry ratio (short of the never-tested '45 panzer ratio of almost 1:1) of one tank battalion to every two infantry battalions:

#### PANZER DIVISION



With one more maneuver battalion, and less heavy equipment to maintain, the panzergrenadier divisions were every bit as useful as the panzer divisions. More infantry 'up front' meant they were more able to sustain themselves in extended defensive actions than the panzer formations:

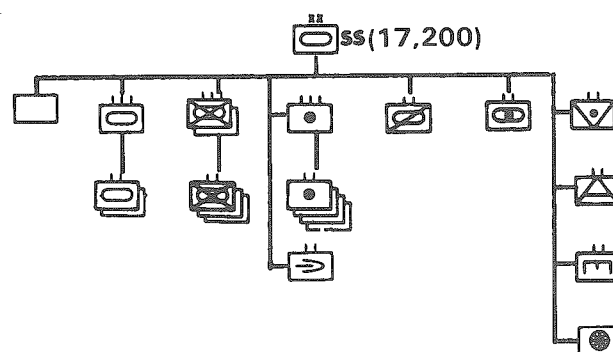
#### PANZERGRENADIER DIVISION



#### THE WAFFEN-SS

The politics of dictatorship in Nazi Germany required the development of non-regular fighting units within the German military establishment. While some enjoyed reputations as 'elite' formations, by and large these fighting units proved a detriment and a hindrance to coordination of resources within the army. The Waffen-SS divisions are perhaps the best known and most successful of these 'private armies within armies.' Nominally 'elite' formations, in point of fact only the SS-panzer divisions enjoyed material and manpower advantages to differentiate them from their regular Wehrmacht counterparts. These units were copiously supplied with tanks (each platoon contained five instead of four), transportation (half-tracked vehicles), artillery (an extra battalion of 170mm artillery, Nebelwerfer rocket launchers, and assault guns), and infantry (six battalions instead of the usual four). These 'extras' provided the SS-panzer division with almost 50% more fire power than regular panzer divisions. This material advantage, more than anything else, contributed to the Waffen-SS elite image on the western front:

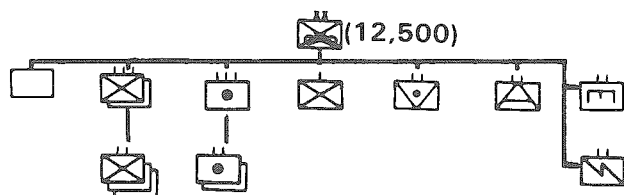
#### SS-PANZER DIVISION



## THE LUFTWAFFE GROUND FORCES

By the end of 1942, manpower shortages dictated that excess Luftwaffe personnel be absorbed into the regular army. Instead of directly transferring these men, training them, and turning them into first-class soldiers (the average Luftwaffe enlisted man was better motivated and more intelligent than the average army private), the Luftwaffe attempted to turn their own personnel into infantry soldiers. It didn't work. The Luftwaffe mobilized over 200,000 men into fighting units, forming 22 Luftwaffe field divisions. Originally intended to fill occupation and rear-area duties, the LW divisions were very often placed in front line positions. Lacking sufficient infantry training and adequate small-unit leadership, these formations all but dissolved in combat. While the artillery, signal, and technical services were excellent, the infantry battalions could not survive more than a few days in heavy combat. Most of these divisions simply ceased to exist after being committed to fluid battle situations. By 1945, barely half a dozen of the original 22 divisions were still active:

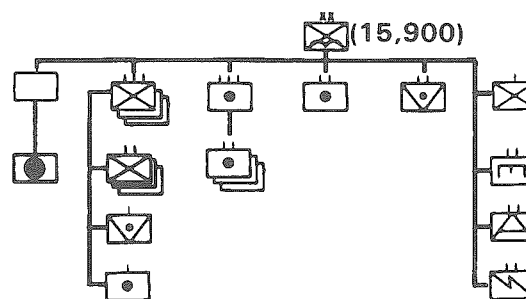
### LUFTWAFFE FIELD DIVISION



Luftwaffe Field Divisions were 'six battalion' divisions. Unlike other infantry divisions, however, they were organized into two regiments of three battalions each. In place of an infantry reconnaissance battalion, they were provided with only a company. Artillery, engineer, signal, and other support elements were smaller than in other divisions because they were supporting only two regiments instead of three (although the number of infantry battalions was the same). An organic flak battalion, reflecting the parent service branch, somewhat offset the effects of the reduced artillery support.

Not all Luftwaffe ground forces were failures, however. The Fallschirmjäger (Parachute Infantry) divisions were perhaps the most elite infantry formations in the German armed forces. In training, personnel, and equipment, the parachute divisions were unequalled. Most parachute divisions retained organic transportation superior even to many panzergrenadier divisions. While the quality of all German fighting units declined during 1944, many parachute units still retained the pick of the replacements. Parachute units displayed amazing resiliency. Some formations were decimated in combat, rebuilt with surviving cadre, and resumed their former fighting proficiency again and again. While nominally considered airborne units, most parachute divisions were not even equipped with parachutes after the fall of 1943. Still, by the time of the Normandy landings nearly all of the personnel in these divisions were jump-trained and thus represented at least a token airborne capability:

### FALLSCHIRMJÄGER DIVISION



Fallschirmjäger divisions were similar to the 1939 infantry division TO&E in that they contained nine infantry battalions and a recon company as opposed to the seven-battalion '44 and VG divisions. The addition of a heavy mortar battalion contributed significantly to the divisions's firepower. Complete motorization made them more like tank-less panzergrenadier divisions than infantry divisions.

In retrospect, the concept of Luftwaffe-controlled ground forces was but another example of the confusion in the German command structure. There was NO REASON for an air force to retain its own ground army. That these resources could have been more effectively maintained and controlled under the regular army organization is beyond question. Likewise, the Waffen-SS represented the same duplicity of effort. Nowhere can the confused state of the German command organization be more vividly exemplified than in the Cotentin Peninsula defenses in June, 1944. The defenses included Kriegsmarine-controlled coastal artillery, Luftwaffe-controlled anti-aircraft artillery, and army-controlled ground support artillery which were all attempting to defend the same real estate in a totally uncoordinated fashion against a combined air-sea invasion. The effect was total chaos.

At the small-unit level, the German infantry platoon and company was superior to anything fielded by the Allied regular forces. They were competently led, adequately equipped, and superbly trained (when time allowed). On higher levels, the German organization was basically sound and flexible when required. It almost won the war for them; it certainly wasn't responsible for their defeat.

## DISCUSSION

It is necessary in the design of any game that the large masses of data, required for accurate information and background, be reduced into a simplified and workable form. In the process of such reduction, it is frequently necessary to compromise on small points to increase the playability of the game. Many such small compromises were required in the design of PANZER LEADER. While there is a reason for every rule and variation in the game, some are not readily apparent, and others could be considered outright arbitrary decisions. The notes and comments that follow are meant to point out the more important elements of the game and give the player a feel for the actual combat situations from which the game is drawn.

An early prototype of the game encompassed a rules subsystem for conducting parachute landings. This framework was dropped from the final

version due to compromises that just couldn't be overlooked. The original rules for actual paratroop drops were rather simple. The design problems arose after the units landed. Pre-1945 parachute drops were conducted at night (notable exception: Market Garden) and were inherently loaded with intelligence problems. A German area commander would be fortunate if he even had reliable information that a drop had actually occurred. Locating the enemy drop zone was another matter. Short of sending out blind patrols, the German commander found it difficult to move large bodies of men around in the dark on the proverbial wild goose chase. The paratroop commander had additional problems. While his intelligence of installations was probably good, he was similarly ignorant of the enemy's deployment (not to mention his own). Either complicated restrictions would have to be designed into the rules to reconstruct this confusion, or it would have to be ignored, allowing highly unrealistic situations in the drop zone. In retrospect, the final design solution was unavoidable. All paratroopers have one objective in mind after extricating themselves from the trees—find friendly faces. With this idea firmly fixed, the parachute scenarios begin several hours after the drop and have allowed both sides to organize.

Even the concept of "platoon" caused problems. In the various nationalities, platoons tended to be of different sizes, were differently equipped, and of disproportionate values when translated into unit counters. American and German SS tank platoons contained five armored fighting vehicles, while German Wehrmacht platoons had only four AFVs during this period of the war. In each case, organization was in companies of three platoons. The British, on the other hand, organized in squadrons of four troops; a troop containing four AFVs. To complicate things, the British troop of Shermans contained three standard Shermans and one Firefly Sherman, equipped with the British 17-pounder gun. There were many ways to approach this problem, but only two were viable from a physical standpoint. The first option based all PANZER LEADER counters on five AFVs and structured the attack and defense strengths and the number of counters per scenario around that base. Option two kept the table of organization intact and varied the attack and defense ratings according to the established number of tanks in the platoon or troop. After much testing with both systems, the second option was selected for the finished product.

Calculation of the four characteristics assigned to a unit, (attack, range, defense, and movement allowance), encompassed a great deal of research and cross-checking. By far the easiest movement allowances were calculated by dividing road speed in MPH by 3. This gave an allowance in hexes (250M) per hour against turn length (six minutes). This works well unless a vehicle has an unusual horsepower/weight ratio or is not fully tracked. Adjustments were made for such vehicles. The marching speed of infantry was treated differently. A movement allowance of one hex per turn clocks out at 1.5 MPH—a bit slow, particularly on the assault or when trying to keep up with an armored advance. Conversely, two hexes per turn (3 MPH) is

a bit strenuous for six minutes off of the road and would be difficult to maintain. A compromise solution of allowing infantry to "double-time" at the risk of dispersal was devised.

Ranges for "A" class weapons are based largely on the optics of the sighting equipment, with the Germans holding an edge. Ranges for "H" and "M" class weapons are based on the maximum "effective" range of the weapon, not the extreme distance that a shell could be hurled. It was assumed that due to terrain restrictions, most of these weapons will be used for indirect fire called in by an observer (spotter).

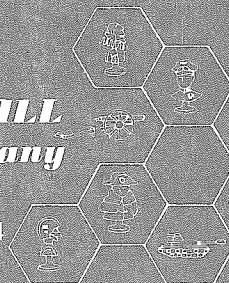
Defensive strengths were based on the amount of fire power necessary to put a unit out of action, without necessarily destroying it. For purposes of the game design and length of a scenario, a unit which is not a fighting force is removed from the board, even though remnants might remain. An artillery weapon, with its exposed ammunition supply, was easily put out of action, while an infantry platoon could sustain casualties and still remain a potent force. The defense strengths are balanced accordingly. It is also necessary to carefully balance attack strengths against defense strengths in order to obtain a proper kill/survival ration which may be converted into a Combat Results Table.

Aircraft played a major part in support of ground units at this point in the war, but until now have been sadly neglected in tactical level simulation. As this game is already rather complex, it seemed undesirable to add additional complexity through an involved application of airpower. To avoid this, the aircraft rules are purposely abstract in definition, but still allow a realistic application to battlefield situations. By 1944, the Luftwaffe had been withdrawn from France to participate in the defense of the fatherland, so German aircraft have not been included in any of the scenarios. For simplicity, air-to-air combat was avoided. It was found that most Allied attack aircraft of the period carried similar weaponry and had similar speeds, so it was unnecessary to introduce different types of aircraft. As the speed equivalency was 200+ hexes per turn, aircraft were given unlimited movement on the board. The German anti-air defense centered around his quick-traverse 20mm and 37mm guns. Then-current air tactics, coupled with the quick traverse guns made for an equitable addition of air power and is included despite its oversimplification.

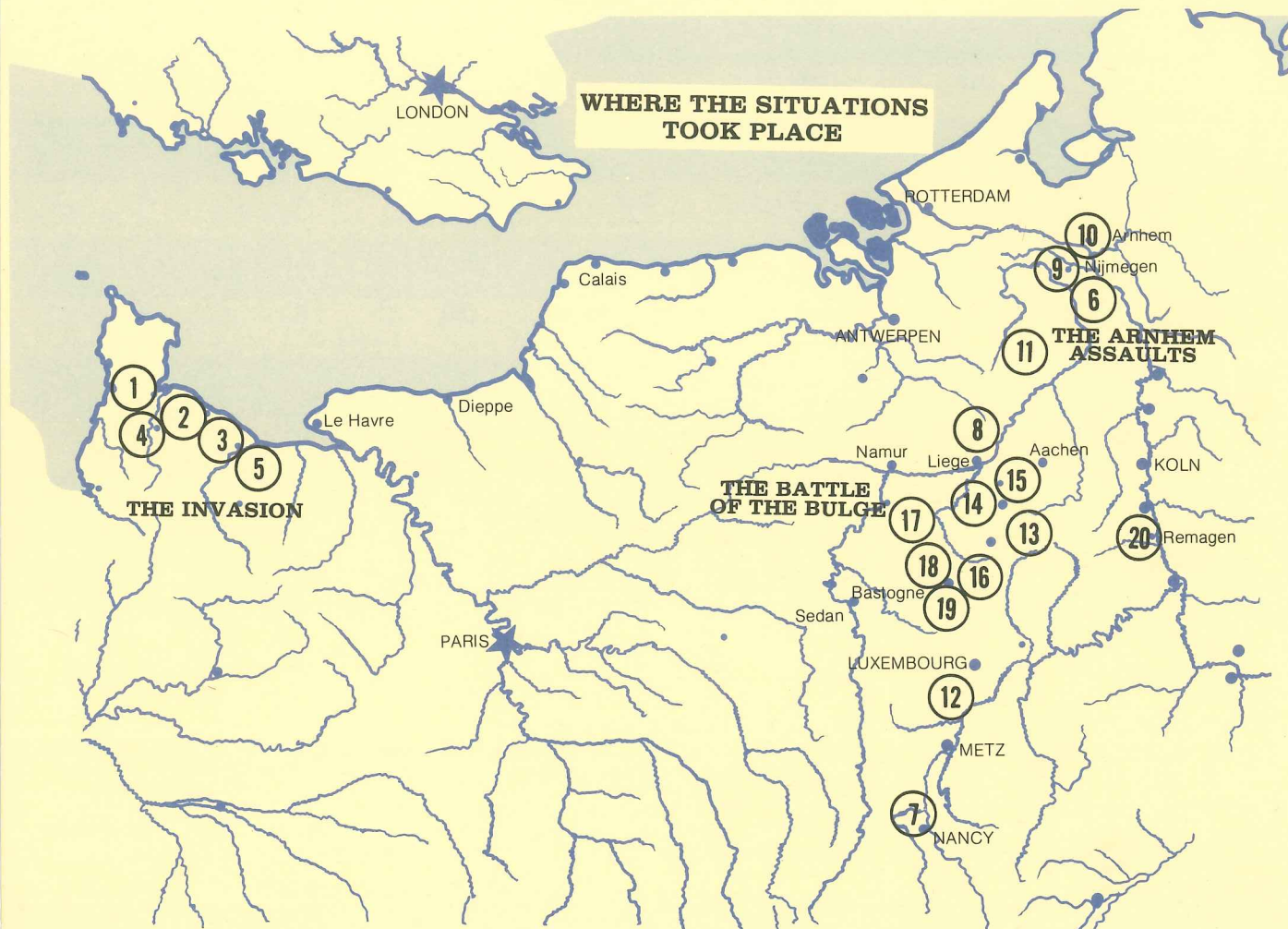
The above comments should give some insight into what was available and the frustration faced in trying to present a realistic conflict that does not produce lopsided contests. Some decisions are open to debate or criticism depending on what school of thought or research data is considered. On the whole, PANZER LEADER is an accurate, fast-moving, representation of tactical combined arms combat in Western Europe during World War II. Enjoy it.

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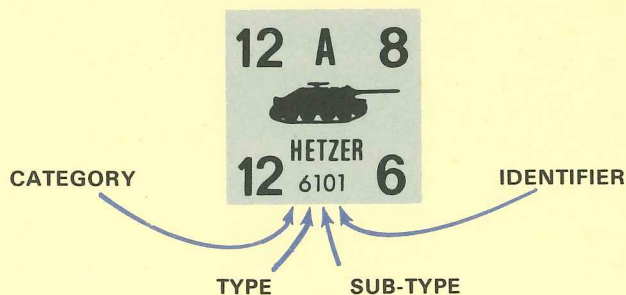


# SITUATION MAP



## THE PROGRAM IDENTITY CODE SYSTEM (PICS)

Each specific unit counter has been assigned a specific code number (EXAMPLE: the Wirbelwind is 5300). Each category of units is assigned a common first digit. (EXAMPLE: All towed guns have a '0' first digit). Each type of unit within that category is assigned a common second digit. Each sub-type of a category (if there is more than one) is assigned a third, non-zero, digit. The last digit identifies each unit counter of the same exact type. Note that if there is only one of that type of unit, the last two digits will be zero. If there is only one sub-type in that type of unit, the third digit will be zero. The PICS code system is simply a shorthand method of positive unit identification for use in play-by-mail games or those games which must be interrupted and re-started.



## FUNCTION READOUT 'Z'

It is sometimes more convenient to describe a unit by its capabilities, rather than by name. When describing a unit in this fashion, read the unit's combat strengths, range, etc. in a 'Z' pattern. EXAMPLE: 14 H 10/6 8 describes a German Wirbelwind counter in terms of its capabilities rather than by its name.



## COMBAT RESULTS TABLE

DIE ROLL	COMBAT ODDS						
	1-4	1-3	1-2	1-1	2-1	3-1	4-1+
-2	DD	DD	X	X	X	X	X
-1	D	DD	DD	X	X	X	X
0	D	D	DD	DD	X	X	X
1	*	D	D	DD	X	X	X
2	*	*	D	DD	DD	X	X
3	*	*	*	D	DD	DD	X
4	*	*	*	*	D	DD	X
5	*	*	*	*	D	D	X
6	*	*	*	*	*	D	DD
7	*	*	*	*	*	*	D
8	*	*	*	*	*	*	*

### KEY:

- X — Target unit eliminated and removed from the mapboard.
- D — Target unit DISPERSED. Unit is immediately inverted. Dispersed units may not attack, move, load, or unload. Unit is turned face-up and becomes undispersed at the end of its own player segment. **NOTE:** Subtract 1 from the die roll of all subsequent attacks against it during the current player segment.
- DD — Special Dispersal. If target unit was already dispersed by a previous attack during the current player segment, unit is eliminated. If unit was previously undispersed, treat as a normal dispersal.
- \* — No Effect.

### NOTES:

1. Odds worse than 1-4 not allowed. Odds greater than 4-1 are treated as 4-1.
2. Odds are always simplified and rounded off in DEFENDER'S favor. Thus, odds of 10 to 11 (attacker to defender) round off to 1-2, odds of 11 to 10 round off to 1-1, odds of 19 to 10 round off to 1-1, etc., etc.
3. Die roll additions or subtractions due to terrain, type of attack, previous dispersal, etc., are combined into one net figure. **EXAMPLE:** -2 (for a CAT attack) and a +1 (for defender in woods hex) are combined for a net die roll change of -1.
4. A unit could conceivably be attacked as many as four times in one player segment: a) by a minefield 'attack'; b) by a regular direct or indirect fire attack in the combat phase; c) by an aircraft attack in the air phase; and d) by a CAT attack in the close assault phase. (\*NOTE: if the target unit is not on a minefield, it could also be attacked by an over-run attack during the movement phase. In this case the sequence would be: direct/indirect attack — air attack — over-run attack — CAT attack.)

## ANTI-AIRCRAFT TABLE

DIE ROLL	STRENGTH POINTS FIRING AT AIRCRAFT						
	4-7	8-11	12-15	16-19	20-25	26-35	36+
1	D	X	X	X	X	X	X
2	NE	D	D	X	X	X	X
3	NE	NE	D	D	D	X	X
4	NE	NE	NE	D	D	D	X
5	NE	NE	NE	NE	D	D	D
6	NE	NE	NE	NE	NE	D	D

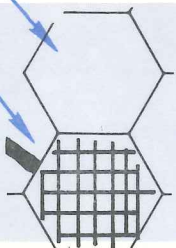
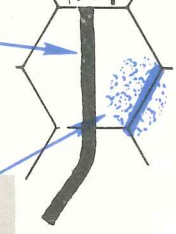
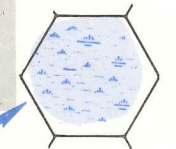


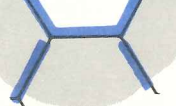
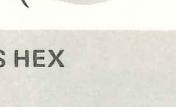
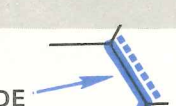




### KEY:

- NE — No effect, aircraft undamaged.
- D — Aircraft Damaged: aircraft may execute attack in current air phase, but is removed at end of air phase. Does not count as unit destroyed for victory purposes, if applicable.
- X — Aircraft Destroyed: aircraft counter is immediately removed from mapboard; may not execute any attacks in current air phase. Counts as unit destroyed for victory purposes, if applicable.

### PROCEDURE:

1. Each aircraft unit is attacked individually, regardless of the actual number in a single hex. Not all aircraft need be attacked.
2. A single AA unit may not fire at more than one aircraft unit. Each aircraft unit may be attacked only once per phase.
3. All AA units firing at an aircraft unit are totalled into one combined attack strength. Combat odds are not calculated; simply locate the total number of AA strength points firing, roll the die, and cross-index to find the result.
4. AA units DOUBLE attack strength when firing at targets at half range or less; remains normal at greater than half range. Ranges are always rounded DOWN.

# TERRAIN EFFECTS CHART

TERRAIN TYPE	EFFECTS ON: MOVEMENT	COMBAT	OTHER
<b>CLEAR HEX</b> (ground or hilltop) 	1) Cost trucks two MP to enter. 2) Cost others one MP to enter.	Overrun attacks possible in clear terrain hexes only.	
<b>TOWN HEX</b> 	Cost one-half MP to enter.	1) Units in towns treated as armored targets. 2) Units in town hex must be treated as one combined defensive strength for direct fire attacks. 3) Add 1 to attacker's die roll for all attacks. 4) Units must be spotted.	LOS/LOF obstruction; see section VII., J., 1.
<b>ROADS</b> 	1) Cost one-half MP to enter from another road hex of same road. 2) No road rate movement if more than two other units in hex.	1) No overrun attacks may be executed at the road movement rate. 2) Other terrain in road hex has whatever effect it would have had without the road.	
<b>WOODS HEX</b> 	1) Cost trucks two MP to enter. 2) Cost others one MP to enter. 3) Vehicular units may not cross green hexsides.	1) Add 1 to attacker's die roll for all attacks. 2) Units must be spotted.	Green hex sides are LOS/LOF obstructions; see section VII., J.
<b>SWAMP HEX</b> 	1) Vehicular units may not enter. 2) Cost non-vehicular units one MP to enter.	Add 1 to attacker's die roll for all direct or indirect fire attacks.	
<b>HILLTOP HEX</b> 	Cost as per other terrain in hex.	One half attack strength for direct fire attacks except when on another hilltop hex	Orange hex sides are LOS/LOF obstructions; see section VII., H. & J.
<b>SLOPE HEX</b> 	1) Cost trucks 5 MP to enter. 2) Cost others 3 MP to enter	One half attack strength for direct fire attacks except when adjacent, via non-brown hex side.	Brown hex sides are LOS/LOF obstructions, see sections VII., H. & J.
<b>SLOPE/WOODS HEX</b> 	1) Cost same as slope hex. 2) Vehicular units may not cross green hex sides.	Same effects as both woods and slope hexes.	Green hex sides obstruct LOS/LOF in same manner as non-slope woods hex.
<b>CLIFF HEX SIDE</b> 	No units except infantry and engineers may cross cliff hex sides. These units must roll a 1 on the die to cross. If unsuccessful, they may not move in that movement phase.	No CAT attacks across cliff hex sides.	Orange hex sides are LOS/LOF obstructions, see section VII., J.
<b>STREAM HEX</b> 	1) Vehicular units may not enter except at bridges. 2) Other units may only enter on a die roll of 1, 2, or 3. If unsuccessful, they may not move in that movement phase.	No attacks of any kind allowed from stream hexes except at bridges.	Stream hexes are special LOS/LOF obstruction; see section VII., K.
<b>BEACH HEX</b> 	1) Cost vehicular units two MP to enter. 2) Cost other units one MP to enter.	Add 1 to attacker's die roll for all direct or indirect fire attacks.	See Amphibious Landing rules.
<b>SEA HEX</b> 	Units may only enter during initial placement as outlined in Amphibious Landing rules.	1) Non-DD units have defensive strength of 8 as armored targets. 2) DD units retain normal defensive strength and attacker adds 2 to die roll.	Units may remain on sea hexes for only one turn.

## TARGET ELEVATION TABLE

	TARGET HEX											
FIRING HEX	Ground				Slope				Hilltop			
	G	B	O	T	G	B	O	T	G	B	O	T
GROUND	●	●	●	●	★ ★ ★ ★	●	●	★	★	★ ★	●	★
	ALL				*-see VIII, J., 3. **-see VII., J., 11., c.				*-see VII., J., 3. **-see VII., J., 5.			
SLOPE	★ ★ ★ ★	●	●	★	★	●	●		★		●	
	*-see VII., J., 2. **-see VII., J., 11., c.				*-see VII., J., 11., c.				*-see VII., J., 11., c.			
HILLTOP	★	★ ★	●	★	★		●		★			★
	*-see VII., J., 2.				*-see VII., J., 11., c.				*-see VII., J., 9.			
G=green (woods) hex side; B = brown (slope) hex side; O = orange (hilltop) hex side; T = town hex.												

### KEY:

- = Hex side type ALWAYS obstructs LOS/LOF.
- ★ = Conditional obstruction; see referenced section for details.
- = Hex side type does not obstruct LOS/LOF.

### NOTES:

- Hilltop or slope to stream is treated as hilltop/slope to ground level.
- Cliff hex sides are exactly equivalent to orange hex sides for LOS/LOF.
- For further explanations of the unusual terrain on mapboard section 'B', see section VII., J., 11., d. Failing that, use common sense to ascertain the 'lay of the land' and what would constitute an obstruction in the 'real world.'
- As a last resort to resolving LOS/LOF problems, use a friendly roll of the die.

## WEAPONS EFFECTIVENESS CHART

FIRING weapon type	TYPE OF TARGET		
	ARMORED		NON-ARMORED
	at half range or less	at greater than half range	at all ranges
I	CAT attacks only, otherwise, not allowed.	Attacks not allowed.	1) Normal AS. 2) Units with '**' after range may fire up to twice printed range at HALF AS.
A	DOUBLE AS.	NORMAL AS.	HALF AS.
H (and (H) used as DF)	Normal AS at ranges of six or less.	HALF AS at ranges greater than six hexes.	Normal AS.
(H) (used as IF)	HALF AS.	HALF AS.	Normal AS.
M	HALF AS.	HALF AS.	Normal AS.
AS = attack strength; DF = direct fire; IF = indirect fire.			

### NOTES:

- When halving attack strengths, do not round off; retain fractions.
- H-type weapons used in an AA role: DOUBLE attack strength at half range or less, normal attack strength at greater than half range.
- (H)-type weapons used in a direct fire role function exactly like regular H-type.
- Naval (H)-type used in a direct fire role is always halved at armored targets.
- The actual printed range on H-type units does not disturb the halving of attack strengths. EXAMPLE: An H-type weapon with a range of '5' firing at a target five hexes away still fires at normal attack strength. **Ranges are rounded DOWN.**
- See the UNIT FUNCTION TABLE for further clarifications on individual units.

# SITUATION NO. 1

## UTAH BEACH

*June 6, 1944: U.S. 101st Airborne Division attacks elements of the German 709th Division behind the Utah Beach.*

## MAPBOARD ORIENTATION

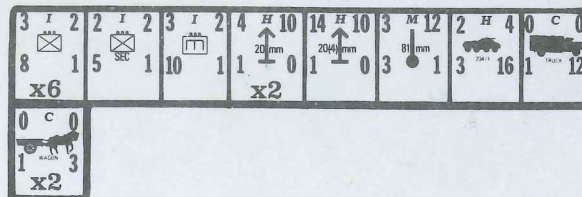


## AVAILABLE FORCES

## ALLIED



## GERMAN



## SET-UP

GERMAN: Set up first, anywhere on board D.

ALLIED: Set up second; anywhere on mapboard, but not within THREE hexes of any of the objectives listed below.

## SPECIAL RULES

Allied player must secretly record his objective ( any one of the three listed below) before German player sets up.

## VICTORY CONDITIONS

**ALLIED:** Allied player wins by controlling all of the hexes (if more than one hex) in one of the following objectives at the end of the game:

- 1) Bridge hex at D-BB-6 (outside ARTAIN). OR:
- 2) Town hex at D-T-4 (within NECE). OR:
- 3) Both town hexes of MERDEN.

GERMAN: Avoid Allied victory conditions.

## TURN RECORD TRACK



## SITUATION NO. 2

### OMAHA BEACH

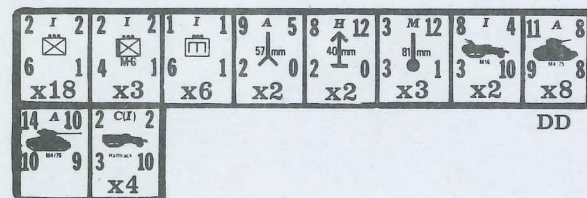
**June 6, 1944:** Reinforced elements of the U.S. 1st and 29th Infantry Divisions attack elements of the German 352nd Division on Omaha Beach.

## MAPBOARD ORIENTATION

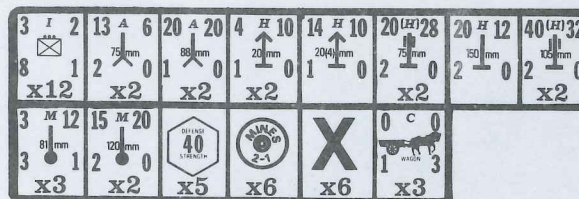


## AVAILABLE FORCES

## ALLIED



## GERMAN



## SET-UP

As per the Amphibious Landing Rules. NOTE: Neither side may set up or move units EAST of hex row 'J' (inclusive) on both boards. German player may set up units on both board sections within the above restrictions.

## SPECIAL RULES

1. **DD TANKS:** Use regular M4/75 counters. Roll one die for each DD unit at beginning of turn after placement: 1, 2, or 3 means DD unit lands normally (unless dispersed by fire or stacking); 4, 5, or 6 means DD unit is sunk and removed from play. Do not place any wreck counters.
2. **NAVAL FIRE:** Use optional Naval Support Fire rule. Allied player receives naval attack strength points (NASP's) according to the following schedule. They may NOT be accumulated from turn to turn.

TURN #1— 320 NASP's

TURN #2- 10      240 NASP's

TURN #11-15 220 NASP's

## VICTORY CONDITIONS

Victory conditions are dependent on control of towns on board  
B. All town hexes in a town must be controlled:

Allied player controls four towns: DECISIVE Allied victory.  
Allied player controls three towns: TACTICAL Allied victory.  
Allied player controls two towns: MARGINAL Allied Victory.  
Allied player controls one town: TACTICAL German victory.  
Allied player controls no towns: DECISIVE German victory.

## TURN RECORD TRACK



# SITUATION NO. 3

## GOLD BEACH

June 6, 1944: Elements of British 79th Armoured Division attack elements of the German 716th Division on Gold Beach.

### MAPBOARD ORIENTATION



NORTH



### AVAILABLE FORCES

#### ALLIED

2 I 2	3 I 2	9 A 5	3 M 8	10 A 8	9 A 8	1 I 2	0 - 0
6 x12	1 x4	2 x2	2 x2	8 x6	8 x2	10 x6	32 0
40 H 1	0 C 0	DD					
11 x5	1 x4						

#### GERMAN

3 I 2	13 A 6	20 A 20	4 H 10	14 H 10	40 (H) 32	60 (H) 36	3 M 12
8 x8	2 x2	1 x0	2 x2	1 x0	2 x2	2 x2	3 x2
40 H 1	0 C 0						
11 x5	1 x4						

### SET-UP

As per Amphibious Landing Rules. German player may set up units on both boards. NOTE: Neither side may set up or move units WEST of hex row 'X' (hex row 'J' on board D), inclusive.

### SPECIAL RULES

1. DD TANKS: Use regular British Sherman counters. Roll one die for each DD unit at beginning of turn after placement: 1-5 means DD unit lands normally (unless dispersed by fire or stacking); 6 means DD unit is sunk and removed from play. Do not place any wreck counters.
2. NAVAL FIRE: Use optional Naval Support Fire rule. Allied player receives naval attack strength points (NASP's) according to the following schedule. They may NOT be accumulated from turn to turn:
  - TURN #1- 240 NASP's.
  - TURN #2-5 - 160 NASP's.
  - TURN #6-15 - 100 NASP's.
3. Consider the bridge in hex D-BB-6 demolished, and therefore impassable.

### VICTORY CONDITIONS

ALLIED: Allied player wins by controlling the following objectives at the end of the game:

Four towns and bridge (at B-H-9) controlled: DECISIVE Allied victory.

Three towns and bridge controlled: TACTICAL Allied victory.

Three towns controlled: MARGINAL Allied victory.

GERMAN: German player wins (DECISIVE) if Allied player controls fewer than three towns at the end of the game.

### TURN RECORD TRACK

ALLIES move first	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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# SITUATION NO. 4

## ST. LO

June 29, 1944: Elements of the U.S. 116th Infantry Regiment, supported by elements of the 737th Tank Battalion, attack towards St. Lo against units of the German 3rd Fallschirmjaeger (Parachute) Division and the 12th Sturmgeschutz (Assault Gun) Brigade.

### MAPBOARD ORIENTATION



NORTH



### AVAILABLE FORCES

#### ALLIED

2 I 2	2 I 2	9 A 5	3 M 12	14 H 10	5 A 5	11 A 8	14 A 10
6 x18	1 x3	2 x2	3 x3	9 x8	5 x3	11 x3	10 x3
2 C(I) 2	0 C 0						
3 x10	1 x5						

#### GERMAN

3 I 2	3 I 2	13 A 6	4 H 10	3 M 12	15 M 20	12 A 8	12 A 8
8 x10	1 x0	2 x2	2 x2	3 x2	2 x2	12 x2	12 x8
2 C(I) 2	0 C 0						
4 x10	1 x6						

### SET-UP

GERMAN: Set up first, anywhere on board A.  
ALLIED: Set up second, anywhere on board C.

### SPECIAL RULES

NONE

### VICTORY CONDITIONS

ALLIED: Allied player wins by fulfilling one of the following conditions at the end of the game:

1. Control ALL town hexes in GRANCELLES. OR:
2. Control all town hexes in GRANCELLES that are EAST of the stream, and control all town hexes in the towns of KUHN, SAMBLEU, and CAVERGE.

GERMAN: German player wins by avoiding Allied victory conditions.

### TURN RECORD TRACK

ALLIES move first	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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## SITUATION NO. 5

### OPERATION GOODWOOD

July 18, 1944: Elements of the British 11th and Guards Armoured Divisions encounter remnants of the German 1st SS and 21st Panzer Divisions during Operation Goodwood.

#### MAPBOARD ORIENTATION



#### AVAILABLE FORCES

##### ALLIED

2 I 2	3 I 2	35 I 35	35 I 35	16 A 10	9 A 8	10 A 8	
6 x12	10 x2	2 x3	7 x3	6 x2	8 x4	8 x20	8 x8
2 C 2							
2 x14							

Typhoon rocket armed

##### GERMAN

3 I 2	13 A 6	20 A 20	4 H 10	14 H 10	3 M 12	60 H 16	40 H 32
8 x15	2 x3	1 x4	1 x3	1 x2	3 x2	1 x2	5 x8
50 H 12	60 H 24	11 A 8	14 A 8	13 A 12	16 A 12	15 A 12	2 C 2
4 x10	6 x8	7 x2	8 x3	11 x10	12 x4	12 x3	4 x10

#### SET-UP

GERMAN: Set up first on boards A and C; may set up anywhere on board C, but must set up SOUTH of major stream on board A. German units may not begin in any town hexes of GRANCELLES.

ALLIED: Set up second on boards A and B; must set up NORTH of the major stream on both boards. All armored-type units must begin on board A.

#### SPECIAL RULES

1. Use M4/75 and M4/76 counters to fill out British Shermans (use British values).
2. Use M3 halftrack counters to fill out Bren counters.
3. No more than five aircraft counters may be on the mapboard at any one time.

#### VICTORY CONDITIONS

ALLIED: To win, Allied player must control ALL town hexes and bridge hexes on board A, while maintaining LESS than a 3-2 ratio of units eliminated, as compared to the German player, at the end of the game.

GERMAN: German player wins by avoiding Allied victory conditions.

#### TURN RECORD TRACK

ALLIES move first	1	2	3	4	5	6	7	8	9	10
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## SITUATION NO. 6

### THE REICHSWALD

September 7, 1944: Elements of the 2nd Canadian Infantry attack the German 84th Infantry Division near the Reichswald.

#### MAPBOARD ORIENTATION



#### AVAILABLE FORCES

##### ALLIED

2 I 2	2 I 2	1 I 2	3 I 2	9 A 5	35 I 35	3 M 8	10 M 17
6 x18	14 x2	3 x3	10 x2	2 x3	2 x3	3 x2	12 x0
0 C 0	2 C 2						
1 x6	2 x4						

##### GERMAN

3 I 2	3 M 12	15 M 20	20 H 28	0 C 0	2 C 2	2 X
8 x9	1 x2	1 x2	2 x2	1 x2	4 x2	

#### SET-UP

GERMAN: Set up first, anywhere on mapboard NORTH of hex row H.

ALLIED: Set up second, anywhere on the mapboard SOUTH of hex row I.

#### SPECIAL RULES

NONE

#### VICTORY CONDITIONS

ALLIED: Allied player wins by controlling all four town hexes of the town of NECE, AND not losing more than 10 Allied units at the end of the game:

0-3 Allied units eliminated: DECISIVE Allied victory.

4-6 Allied units eliminated: TACTICAL Allied victory.

7-10 Allied units eliminated: MARGINAL Allied victory.

GERMAN: German player wins by controlling at least one town hex of NECE (Decisive victory), OR by eliminating more than 10 Allied units (Tactical victory) at the end of the game.

#### TURN RECORD TRACK

ALLIES move first	1	2	3	4	5	6	7	8	9	10
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## SITUATION NO. 7

### ENCIRCLEMENT OF NANCY

September 14, 1944: Elements of the American 4th Armored Division attack the German 553rd Volksgrenadier Division and attached units during the encirclement of Nancy.

#### MAPBOARD ORIENTATION



#### AVAILABLE FORCES

##### ALLIED

2 I 2	9 A 5	3 M 12	40 L 32	5 A 5	11 A 8	14 A 10	2 C 2
6 1	57 mm 0	81 mm 1	7 MT 8	5 NO STUART 11	9 MT 8	10 MT 9	3 TRUCK 10
x9	x3		x3	x3	x6	x3	x13

##### GERMAN

6 I 1	3 I 2	13 A 6	2 H 12	3 M 12	10 H 12	12 A 8	0 C 0
6 SMC 1	8 1	75 mm 0	75 mm 0	81 mm 1	5 GWR 6	12 MT 6	1 TRUCK 12
x6	x3	x3	x2		x2		x3
0 C 0							
1 1							
3 3							
x2							

#### SET-UP

GERMAN: Set up first on board D, EAST of hex row H.

ALLIED: Set up second on board D, WEST of hex row H.

#### VICTORY CONDITIONS

ALLIED: Allied player must control all town hexes in GRANCELLES at end of game.

GERMAN: German player wins by controlling at least one hex of GRANCELLES without losing 12 or more combat units.

ANY OTHER OUTCOME IS A DRAW.

#### SPECIAL RULES

NONE

#### TURN RECORD TRACK

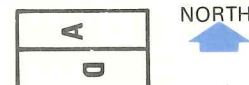
ALLIES move first	1	2	3	4	5	6	7	8	9	10
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## SITUATION NO. 8

### MARIEULLES

September 16, 1944: Elements of the U.S. 7th Armored Division engage a mixed force of German officer trainees at Marieulles.

#### MAPBOARD ORIENTATION



#### AVAILABLE FORCES

##### ALLIED

4 I 2	9 A 5	3 M 12	40 L 32	11 A 8	2 C 2
10 1	57 mm 0	81 mm 1	7 MT 8	9 MT 8	3 TRUCK 10
x9	x3			x3	x13

##### GERMAN

3 I 2	6 I 1	20 A 20	0 C 0
8 1	6 SMC 1	88 mm 0	1 TRUCK 12
x6	x3	x3	x3

#### SET-UP

GERMAN: Set up first in town of GRANCELLES on board A.

ALLIED: Set up second anywhere on board D.

#### VICTORY CONDITIONS

Victory conditions are dependent on control of all town hexes in town of GRANCELLES:

Allies control all town hexes at end of turn five: TACTICAL Allied victory.

Allies control all town hexes at end of turn six: MARGINAL Allied victory.

Allies control all town hexes at end of turn seven: DRAW

Allies control all town hexes at end of turn ten: MARGINAL German victory.

Allies DO NOT control all town hexes at end of turn ten: TACTICAL German victory.

NOTE: Victory level increases by one step (ie. Tactical becomes Decisive) if winning side has lost less than 50% of its combat units.

#### SPECIAL RULES

NONE

#### TURN RECORD TRACK

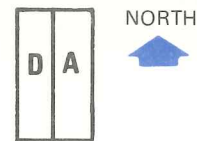
ALLIES move first	1	2	3	4	5	6	7	8	9	10
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## SITUATION NO. 9

### OPERATION MARKET: NIJMEGEN

September 20, 1944: Elements of the U.S. 82nd Airborne Division and the Irish Guards assault units of the German 9th SS Panzer Division at Nijmegen.

#### MAPBOARD ORIENTATION



#### AVAILABLE FORCES

##### ALLIED

2 I 2	2 I 2	3 M 12	35 (H) 35	10 A 8	1 I 2	0 - 0	2 C(I) 2
6	1 4	1 3	2 2	8	10	(32)	2
x9	x3	x2	x3	x8	6	0	x3

0 C 0	1	14
x6		

##### GERMAN

3 I 2	20 A 20	4 H 10	14 H 10	3 M 12	15 M 20	10 H 12	12 A 8
8	1 1	1 0	1 0	3 1	2 0	5 6	12 8
x9	x2	x2	x2			x3	

2 C(I) 2	0 C 0	4	1	12
x10	x6			

#### SET-UP

GERMAN: Set up first, NORTH of major stream.

ALLIED: Set up second, SOUTH of major stream.

#### VICTORY CONDITIONS

ALLIED: Control two bridge hexes (including tank bridge if emplaced and intact) NORTH of hex row Q at the end of the game.

GERMAN: Avoid Allied victory condition.

#### SPECIAL RULES

NONE

#### TURN RECORD TRACK

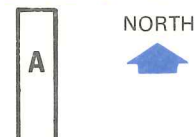
ALLIES move first	1	2	3	4	5	6	7	8	9	10
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## SITUATION NO. 10

### OPERATION MARKET: ARNHEM

September 22, 1944: Kampfgruppe Harzer attacks elements of the 1st British Parachute Brigade at Arnhem.

#### MAPBOARD ORIENTATION



#### AVAILABLE FORCES

##### ALLIED

2 I 2	3 I 2	9 A 5	3 M 12
6	1 10	1 2	3 1
x9	x3	x2	x2

##### GERMAN

3 I 2	20 A 20	4 H 10	20 H 12	3 M 12	10 H 12	8 A 6	14 A 8
8	1 1	1 0	2 0	3 1	1 5	7 9	8 8
x12	x2	x2	x2	x2	x2	x2	

15 A 12	2 C(I) 2	0 C 0	12	8	4	10	1	3
x2		x5						

#### SET-UP

ALLIED: Set up first, in town of GRANCELLES.

GERMAN: Set up second, at least three hexes away from nearest Allied unit.

#### SPECIAL RULES

NONE

#### VICTORY CONDITIONS

Victory conditions are dependent on control of all town hexes in GRANCELLES:

Germans control all at end of turn 5: DECISIVE German victory.  
Germans control all at end of turn 7: TACTICAL German victory.  
Germans control all at end of turn 8: MARGINAL German victory.  
Germans control all at end of turn 9: MARGINAL British victory.  
Germans control all at end of turn 10: TACTICAL British victory.  
Germans fail to control all at end of game: DECISIVE British victory.

#### TURN RECORD TRACK

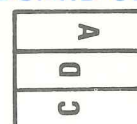
GERMAN move first	1	2	3	4	5	6	7	8	9	10
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## SITUATION NO. 11

### OPERATION GARDEN: ANTICLIMAX

September 29, 1944: Elements of the 113th U.S. Cavalry Group and the 1st Belgian Brigade engage units of the German 176th Infantry Division, Division Erdmann and Kampfgruppe Walther.

#### MAPBOARD ORIENTATION



NORTH



#### AVAILABLE FORCES

##### ALLIED

##### Belgian Brigade

2 I 2	3 I 2	35 (H) 35	3 M 8	3 A 5	16 A 10	2 C(I) 2	0 C 0
6	1	10	1	2	3	2	1
x9	x3	x2					

##### 113 Cavalry Group

2 I 2	1 I 2	2 I 4	3 A 5	5 A 5	11 A 8	2 C(I) 2
6	1	3	1	3	15	3
x6	x3	x3	x3	x3	x3	x9

##### GERMAN

3 I 2	2 I 2	3 I 2	13 A 6	2 H 12	40 (H) 32	3 M 12	15 M 20
8	1	5	1	10	1	2	0
x18			x3	x3		x4	x2

#### SET-UP

GERMAN: Set up first, anywhere EAST of major stream.

ALLIED: Set up second. Belgians set up on board A, WEST of major stream. Americans set up on board D, WEST of major stream.

#### SPECIAL RULES

Belgian units must remain on board A, and American units must remain on boards C and/or D, until one of the two groups outnumbers the German units on their respective board sections by at least a 3-1 ratio. When this occurs, both groups may operate anywhere on the mapboard.

#### TURN RECORD TRACK

ALLIES move first	1	2	3	4	5	6	7	8	9	10	11	12
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## SITUATION NO. 12

### PRELUDE: THE SAAR

November 25, 1944: The German Panzer Lehr counterattacks elements of the American 106th Cavalry Group and the 114th Infantry Regiment near the Saar.

#### MAPBOARD ORIENTATION



NORTH



#### AVAILABLE FORCES

##### ALLIED

2 I 2	2 I 2	2 I 2	9 A 5	40 (H) 32	3 M 12	2 I 4	3 A 5	5 A 5
6	1	4	1	2	0	2	3	15
x12	x3	x3			x3	x3	x3	x3

11 A 8	2 C(I) 2	0 C 0
9	3	1
x3	x3	x4

##### GERMAN

3 I 2	3 I 2	4 H 10	3 M 12	15 M 20	2 H 4	6 A 5	13 A 8
8	1	10	1	1	0	3	14
x12		x2	x3		x3		

12 A 8	12 A 8	2 A 4	14 A 8	16 A 12	2 C(I) 2	0 C 0
12	6	12	8	6	10	1
x2			x3	x4	x10	x6

#### SET-UP

ALLIED: Set up first on board D.

GERMAN: Set up second on board C.

#### SPECIAL RULES

German units may leave the mapboard by moving off the west edge of board A during any friendly movement phase. They may only exit the mapboard from hexes P-1, Q-1, R-1, or S-1, however.

#### VICTORY CONDITIONS

Victory conditions dependent on the number of German units that exit off the west edge of the mapboard and/or the number of units eliminated at the end of the game:

Less than 10 German units exited, OR more than 15 German units eliminated: DECISIVE Allied victory.  
10-20 German units exited: TACTICAL Allied victory.  
21-25 German units exited: MARGINAL Allied victory.  
26-30 German units exited: MARGINAL German victory.  
31-35 German units exited: TACTICAL German victory.  
More than 35 German units exited, OR more than 18 Allied combat units eliminated: DECISIVE German victory.

#### TURN RECORD TRACK

GERMAN move first	1	2	3	4	5	6	7	8	9	10
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ALLIED: Allied player wins by avoiding German victory conditions.

## SITUATION NO. 15

### ELSENBORN RIDGE

December 18, 1944 Elements of the 12th SS Panzer Division and the 276 Volksgrenadier Division attack remnants of the American 2nd Division holding an emergency line near the villages of Krinkelt and Rocherath.

### MAPBOARD ORIENTATION



NORTH



### AVAILABLE FORCES

#### ALLIED

2 I 2 2 I 2 9 A 5 40 (H) 32 3 M 12 14 A 10 3 A 5 11 A 8
6 1 4 12 57 mm 0 2 12 mm 3 81 mm 1 6 9 3 15 9 8
x18 x3 x3 x2 x3 x3 x3 x2
2 C(I) 2 0 C 0 X
3 10 1 14
x2 x6

#### GERMAN

Group A

12 ss Panzer

6 I 1	3 I 2	3 I 2	4 H 10	14 H 10	14 A 8	16 A 12	15 A 12
6 SMG 1	8 1	1 10 1	1 20 mm 1	6 8	8 8	12 8	12 8
x3	x6		x2			x6	x3
20 A 12	2 C(I) 2	0 C 0					
16 1	6 4	10 1					
x3	x9	x6					

276 VG

Group B

6 I 1	3 I 2	3 I 2	6 H 12	3 M 12	15 M 20	0 C 0	0 C 0
6 SMG 1	8 1	1 10 1	1 37 mm 0	3 81 mm 1	2 120 mm 0	1 12 1	1 12 1
x6	x12	x2		x2			x4

### SET-UP

ALLIED: Set up first, anywhere on board C.

GERMAN: Set up second on board D; Group A sets up SOUTH of hex row Q, Group B sets up NORTH of hex row Q.

### SPECIAL RULES

NONE

### TURN RECORD TRACK

GERMAN move first	1	2	3	4	5	6	7	8	9	10
-------------------------	---	---	---	---	---	---	---	---	---	----

### VICTORY CONDITIONS

GERMAN: German player wins by controlling all town hexes on board C AND exiting at least ten combat units off the west edge of the board between J-10 and X-10, inclusive, at the end of the game.

ALLIED: Allied player wins by avoiding German victory conditions.

## SITUATION NO. 16

### BASTOGNE: PRELUDE

December 19, 1944: Elements of the American 101st Airborne Division and its support units engage elements of the German Panzer Lehr Division probing east of Bastogne.

### MAPBOARD ORIENTATION



NORTH



### AVAILABLE FORCES

#### ALLIED

2 I 2 3 M 12 40 (H) 32 5 A 5 0 C 0
6 1 3 81 mm 1 7 8 5 11 1 14
x18 x2 x2 x3 x2

#### GERMAN

3 I 2 3 I 2 3 M 12 2 H 4 6 A 5 13 A 8 2 A 4 12 A 8
8 1 10 1 3 81 mm 1 3 16 3 14 3 14 6 10 12 8
x15 x3 x3 x3 x3 x3 x3 x3

### SET-UP

GERMAN: Set up first, on roads, EAST of the north-south stream, at least one hex away from ARTAIN.

ALLIED: Set up second, on road running west from ARTAIN.

### VICTORY CONDITIONS

ALLIED: Allied player wins by controlling at least two town hexes in ARTAIN at the end of the game.

GERMAN: German player wins by avoiding Allied victory conditions.

### SPECIAL RULES

Allied mortar units must be loaded in trucks at start of game.

### TURN RECORD TRACK

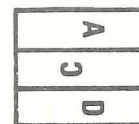
ALLIES move first	1	2	3	4	5	6	7	8	9	10
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## SITUATION NO. 17

### TURNING POINT: CELLES

December 25, 1944: Elements of the U.S. 2nd Armored Division and a British support unit attack the German 2nd Panzer Division strung out near Celles, at the tip of the "bulge."

### MAPBOARD ORIENTATION



NORTH



### AVAILABLE FORCES

#### ALLIED

American: Elements/CCB

4 I 2	2 I 2	9 A 5	60 LEF 36	3 M 12	2 I 4	3 A 5	40 LEF 32
10 I 1	16 I 1	1 2	57 I 0	2 I 0	81 I 1	3 M 15	3 A 15
x9	x3	x3	x2	x2	x3	x3	x3
14 H 10	5 A 5	11 A 8	14 A 10	2 C 2	2 C 2		
9 M 10	8 M 10	11 M 10	9 M 10	9 M 10	10 M 10		
x3	x6	x3	x17				

British: Elements/29 Armored Bde.

1 I 2	35 LEF 35	2 C 2	2 A 5	4 H 12	10 A 8	2 C 2
3 I 1	2 I 0	2 M 14	3 M 16	4 M 10	8 M 8	2 M 10
x3	x3	x5	x8			

#### GERMAN

Elements/Recon Batt.

6 I 1	3 I 2	3 M 12	15 M 20	2 H 4	6 A 5	13 A 8	40 LEF 32
6 I 1	10 I 1	3 M 1	2 I 0	3 M 16	3 M 14	3 M 14	8 M 8
x3		x2		x3			
12 A 8	12 A 8	2 A 4	2 C 2				
12 M 6	12 M 6	8 M 6	10 M 10	x3			

Elements/304 (PG) Reg. & 3 (PZ) Reg.

3 I 2	4 H 10	14 H 10	3 M 12	15 M 20	60 LEF 16	40 LEF 32	10 H 12
8 I 1	1 I 0	1 I 0	3 M 1	2 I 0	1 M 5	8 M 5	6 M 6
x18	x2	x2		x2			x3
13 A 12	2 C 2	0 C 0					
11 M 10	4 M 10	1 M 12					
x10	x7	x6					

### SET-UP

GERMAN: Set up first. Group A sets up within one hex of ST. ATHAN. Group B sets up within two hexes of WILN.

ALLIED: Set up second. Americans set up on board A, WEST of north-south stream. British set up on board D, WEST of north-south stream.

### SPECIAL RULES

Use PZKW-V(SS) counters to fill out PZKW-V(W) units (use lower value).

### VICTORY CONDITIONS

Victory conditions dependent on control of town hexes on board C and/or elimination of enemy combat units, at end of game:

ALLIED:

Completely control all town hexes AND eliminate 25 or more German units: DECISIVE Allied victory.  
Completely control all town hexes: TACTICAL Allied victory.  
Completely control all hexes of one town: MARGINAL Allied victory.

GERMAN:

Completely control all town hexes OR eliminate 32 or more Allied units: DECISIVE German victory.  
Completely control all hexes of one town: TACTICAL German victory.  
Contest control of BOTH towns (i.e., control at least one town hex in each town: MARGINAL German victory.

### TURN RECORD TRACK

ALLIES move first	1	2	3	4	5	6	7	8	9	10	11	12
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## SITUATION NO. 18

### BASTOGNE: SIEGE

December 26, 1944: Elements of the German Panzer Lehr Division and units of the 326th Volksgrenadier Division try a last-ditch offensive against Bastogne, battling the U.S. 101st Airborne Division and attached units.

### MAPBOARD ORIENTATION



NORTH



### AVAILABLE FORCES

#### ALLIED

2 I 2	1 I 2	60 LEF 36	3 M 12	2 I 4	3 A 5	40 LEF 32	14 H 10
6 I 1	1 I 1	1 I 0	3 M 1	3 M 15	3 M 15	7 M 7	9 M 8
x18	x3		x2	x3	x3	x3	x2
14 A 10	14 A 10	5 A 5	2 C 2	0 C 0	0 C 0		
6 M 9	4 M 12	5 M 11	11 M 10	1 M 14			
x2	x3	x3	x7	x5	x5		

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#### GERMAN

6 I 1	3 I 2	4 H 10	20 H 28	40 LEF 32	3 M 12	15 M 20	2 H 4
6 I 1	8 I 1	1 I 0	2 I 0	2 I 0	3 M 1	2 I 0	3 M 16
x9	x9	x4	x2	x2	x2	x2	x3
6 A 5	13 A 8	14 H 10	12 A 8	2 A 4	14 A 8	0 C 0	0 C 0
3 M 14	3 M 14	6 M 8	12 M 6	6 M 10	8 M 10	1 M 12	3 M 3
			x2	x5	x6	x6	

### SET-UP

ALLIED: Set up first, anywhere on boards A and C.

GERMAN: Set up second on board D.

### SPECIAL RULES

- Allied aircraft may not enter until after the end of turn three.
- Fighter-bombers must be split into two flights of five aircraft each. No more than one flight may be on the board at any one time; mixing of flights or re-runs not allowed.

### TURN RECORD TRACK

GERMAN move first	1	2	3	4	5	6	7	8	9	10	11	12
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### VICTORY CONDITIONS

Victory conditions are dependent on the number of German combat units on board A at the end of the game:

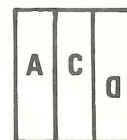
More than 30 German units: DECISIVE German victory.  
21-30 German units: TACTICAL German victory.  
16-20 German units: MARGINAL German victory.  
11-15 German units: MARGINAL Allied victory.  
6-10 German units: TACTICAL Allied victory.  
5 or fewer German units: DECISIVE Allied victory.

## SITUATION NO. 19

### PATTON'S COUNTER OFFENSIVE

December 31 through January 1, 1945: Patton's Third Army offensive to relieve Bastogne. Elements of the U.S. 11th Armored Division and 35th Infantry Division attack the 326th Volksgrenadier Division and elements of the Panzer Lehr.

#### MAPBOARD ORIENTATION



NORTH



#### AVAILABLE FORCES

##### ALLIED

4 I 2	2 I 2	2 I 2	1 I 1	9 A 5	15 A 20	8 H 12	40 (H) 32
10 I 1	6 I 1	4 I 1	6 I 1	57 I 0	50 I 0	40 I 0	10 I 0
x9	x18	x3	x3	x3	x2	x2	x6
60 (H) 36	80 (H) 40	3 M 12	2 I 4	3 A 5	40 (H) 32	14 H 10	5 A 5
2 I 0	2 I 0	8 I 1	3 I 1	3 I 15	7 I 15	8 I 8	5 I 11
x2		x3	x3	x3	x3	x2	x3
11 A 8	14 A 10	2 C (I) 2	0 C 0				
9 I 8	10 I 9	3 I 10	1 I 14				
x9	x9	x17	x6				

P-47

##### GERMAN

6 I 1	3 I 2	3 I 2	13 A 6	20 A 20	4 H 10	14 H 10	20 (H) 28
6 I 1	8 I 1	10 I 1	7 I 0	8 I 0	20 I 0	20 I 0	7 I 0
x6	x12		x3	x3	x4	x2	x3
60 (H) 36	50 (H) 80	3 M 12	15 M 20	14 A 8	16 A 12	2 C (I) 2	0 C 0
2 I 0	2 I 0	3 I 1	2 I 0	8 I 8	12 I 8	4 I 10	1 I 12
x2	x2	x3	x2	x5	x5	x10	x6
0 C 0							
1 I 3							
x6							

#### SET-UP

GERMAN: Set up first on board C, at least four hexes away from board A.

ALLIED: Set up second on board A.

#### SPECIAL RULES

Use British Sherman counters to fill out M4/76 units (use M4/76 values).

#### VICTORY CONDITIONS

Victory conditions are dependent on the ratio of Allied units to German units on the C and D boards at the end of the game:

3-1 ratio: DECISIVE Allied victory.

2-1 ratio: TACTICAL Allied victory.

Less than a 2-1 ratio: TACTICAL German victory.

Less than a 3-2 ratio: DECISIVE German victory.

#### TURN RECORD TRACK

ALLIES move first	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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## SITUATION NO. 20

### REMAGEN BRIDGE

March 7, 1945: Elements of the U.S. 9th Armored Division try to surprise the Ludendorf Bridge at Remagen, defended by a mixed German garrison force.

#### MAPBOARD ORIENTATION



NORTH



#### AVAILABLE FORCES

##### ALLIED

4 I 2	1 I 1	14 A 10	15 A 12	11 A 8	2 C (I) 2
10 I 1	6 I 1	6 I 9	6 I 9	7 I 11	3 I 10
x3	x2	x2			x5

##### GERMAN

3 I 2	2 I 2	3 I 2	4 H 10	3 M 12	2 C (I) 2	0 C 0	X
8 I 1	5 I 1	10 I 1	1 I 0	3 I 1	4 I 10	1 I 3	
x3					x2		

#### SET-UP

GERMAN: Set up first, NORTH of east-west river AND directly in the town of ARTAIN.

ALLIED: Set up second, SOUTH of east-west river, at least three hexes away from ARTAIN.

#### SPECIAL RULES

- German block counter must be placed on bridge hex in east-west river.
- Stream cannot be crossed by any type of units (including infantry type).
- Allied vehicular units may not enter bridge hex until block counter has been removed by engineer units.
- German engineer unit does not require accompanying vehicular unit to perform demolition function.

#### TURN RECORD TRACK

ALLIES move first	1	2	3	4	5	6	7	8
-------------------------	---	---	---	---	---	---	---	---

#### VICTORY CONDITIONS

ALLIED: Allied player wins by controlling bridge hex and clearing block counter off of the bridge by the end of the game.

GERMAN: German player wins by avoiding Allied victory conditions, or by destroying bridge.

9 A 5 2 57mm 0 0211 0	9 A 5 2 57mm 0 0212 0	9 A 5 2 57mm 0 0213 0	12 A 10 2 76mm 0 0220 0	15 A 20 1 90mm 0 0231 0	15 A 20 1 90mm 0 0232 0
14 A 10 2 17pdr 0 0240 0	8 H 12 2 40mm 0 0331 0	8 H 12 2 40mm 0 0332 0	35(H) 35 2 25pdr 0 0431 0	35(H) 35 2 25pdr 0 0432 0	35(H) 35 2 25pdr 0 0433 0
40(H) 32 2 105mm 0 0441 0	40(H) 32 2 105mm 0 0442 0	40(H) 32 2 105mm 0 0443 0	40(H) 32 2 105mm 0 0444 0	40(H) 32 2 105mm 0 0445 0	40(H) 32 2 105mm 0 0446 0

60(H) 36 2 155mm 0 0461 0	60(H) 36 2 155mm 0 0462 0	80(H) 40 2 8mm 0 0480 0			
3 M 8 3 76mm 1 0511 1	3 M 8 3 76mm 1 0512 1	3 M 12 3 81mm 1 0521 1	3 M 12 3 81mm 1 0522 1	3 M 12 3 81mm 1 0523 1	10 M 17 2 107mm 0 0530 0

2 C(I) 2 3 Halftrack 10 2401 10	2 C(I) 2 3 Halftrack 10 2402 10	2 C(I) 2 3 Halftrack 10 2403 10	2 C(I) 2 3 Halftrack 10 2404 10	2 C(I) 2 3 Halftrack 10 2405 10	2 C(I) 2 3 Halftrack 10 2406 10
2 C(I) 2 3 Halftrack 10 2407 10	2 C(I) 2 3 Halftrack 10 2408 10	2 C(I) 2 3 Halftrack 10 2409 10	2 C(I) 2 3 Halftrack 10 2411 10	2 C(I) 2 3 Halftrack 10 2412 10	2 C(I) 2 3 Halftrack 10 2413 10
2 C(I) 2 3 Halftrack 10 2414 10	2 C(I) 2 3 Halftrack 10 2415 10	2 C(I) 2 3 Halftrack 10 2416 10	2 C(I) 2 3 Halftrack 10 2417 10	2 C(I) 2 3 Halftrack 10 2418 10	2 C(I) 2 3 Halftrack 10 2419 10

2 I 2* 6 1511 1	2 I 2* 6 1512 1	2 I 2* 6 1513 1	2 I 2* 6 1514 1	2 I 2* 6 1515 1	2 I 2* 6 1516 1
2 I 2* 6 1517 1	2 I 2* 6 1518 1	2 I 2* 6 1519 1	2 I 2* 6 1521 1	2 I 2* 6 1522 1	2 I 2* 6 1523 1
2 I 2* 6 1524 1	2 I 2* 6 1525 1	2 I 2* 6 1526 1	2 I 2* 6 1527 1	2 I 2* 6 1528 1	2 I 2* 6 1529 1

4 I 2* 10 ARM 1531 1	4 I 2* 10 ARM 1532 1	4 I 2* 10 ARM 1533 1	4 I 2* 10 ARM 1534 1	4 I 2* 10 ARM 1535 1	4 I 2* 10 ARM 1536 1
4 I 2* 10 ARM 1537 1	4 I 2* 10 ARM 1538 1	4 I 2* 10 ARM 1539 1	2 I 2* 4 MFG 1401 1	2 I 2* 4 MFG 1402 1	2 I 2* 4 MFG 1403 1

1 I 1 6 1111 1	1 I 1 6 1112 1	1 I 1 6 1113 1	1 I 1 6 1114 1	1 I 1 6 1115 1	1 I 1 6 1116 1
3 I 2 10 1121 1	3 I 2 10 1122 1	3 I 2 10 1123 1	3 I 2 10 1124 1	0 - 0 (32) 0	0 - 0 (23) 0
1 I 2 3 SCOUT 1201 1	1 I 2 3 SCOUT 1202 1	1 I 2 3 SCOUT 1203 1	2 C(I) 2* 2 M3 SCOUT 2221 14	2 C(I) 2* 2 M3 SCOUT 2222 14	2 C(I) 2* 2 M3 SCOUT 2223 14

0 C 0 1 TRUCK 2201 14	0 C 0 1 TRUCK 2202 14	0 C 0 1 TRUCK 2203 14	0 C 0 1 TRUCK 2204 14	0 C 0 1 TRUCK 2205 14	0 C 0 1 TRUCK 2206 14
0 C 0 1 TRUCK 2207 14	0 C 0 1 TRUCK 2208 14	0 C 0 1 TRUCK 2209 14	2 C(I) 2* 2 BREN 2301 10	2 C(I) 2* 2 BREN 2302 10	2 C(I) 2* 2 BREN 2303 10
2 C(I) 2* 2 BREN 2304 10	2 C(I) 2* 2 BREN 2305 10	2 C(I) 2* 2 BREN 2306 10	2 C(I) 2* 2 BREN 2307 10	2 C(I) 2* 2 BREN 2308 10	2 C(I) 2* 2 BREN 2309 10

14 A 10 6 M10 6401 9	14 A 10 6 M10 6402 9	14 A 10 6 M10 6403 9	14 A 10 4 M18 6500 12	15 A 12 6 M18 6600 9	11 A 8 7 M24 7100 11
5 A 5 5 M3 STUART 7201 11	5 A 5 5 M3 STUART 7202 11	5 A 5 5 M3 STUART 7203 11	11 A 8 9 M475 7521 8	11 A 8 9 M475 7522 8	11 A 8 9 M475 7523 8
11 A 8 9 M475 7524 8	11 A 8 9 M475 7525 8	11 A 8 9 M475 7526 8	11 A 8 9 M475 7527 8	11 A 8 9 M475 7528 8	11 A 8 9 M475 7529 8

3 A 5 3 M8 3301 15	3 A 5 3 M8 3302 15	3 A 5 3 M8 3303 15	2 I 4 3 M20 3201 15	2 I 4 3 M20 3202 15	2 I 4 3 M20 3203 15
3 A 5 3 DAIMLER 3401 16	3 A 5 3 DAIMLER 3402 16	3 A 5 3 DAIMLER 3403 16	3 A 5 3 DAIMLER 3404 16	3 A 5 3 DAIMLER 3405 16	1 I 2 10 VALENTINE 8100 6

14 A 10 10 M476 7531 9	14 A 10 10 M476 7532 9	14 A 10 10 M476 7533 9	10 A 8 8 SHERMAN 7511 8	10 A 8 8 SHERMAN 7512 8	10 A 8 8 SHERMAN 7513 8
10 A 8 8 SHERMAN 7514 8	10 A 8 8 SHERMAN 7515 8	10 A 8 8 SHERMAN 7516 8	10 A 8 8 SHERMAN 7517 8	10 A 8 8 SHERMAN 7518 8	10 A 8 8 SHERMAN 7519 8

40 H 1 11 CHURCHILL 5500 5	14 H 10 9 M4105 5401 8	14 H 10 9 M4105 5402 8	9 A 8 8 SHERMAN FLAM 8201 8	9 A 8 8 SHERMAN FLAM 8202 8	8 I 4 3 M16 5101 10
8 I 4 3 M16 5102 10	16 A 10 6 ACHILLES 6301 9	16 A 10 6 ACHILLES 6302 9	35(H) 35 7 SEXTON 4101 8	35(H) 35 7 SEXTON 4102 8	35(H) 35 7 SEXTON 4103 8
	4 H 12 4 RECON HQ 4600 10		40(H) 32 7 M7 4201 8	40(H) 32 7 M7 4202 8	40(H) 32 7 M7 4203 8

9 A 8 8 CROMWELL 7401 7	9 A 8 8 CROMWELL 7402 7	9 A 8 8 CROMWELL 7403 7	9 A 8 8 CROMWELL 7404 7	NORTH	TURN NOW
L5 9100	F16 9201	F16 9202	F16 9203	F16 9204	F16 9205
MINES 2-1	MINES 2-1	MINES 2-1	MINES 2-1	MINES 2-1	MINES 2-1

13 A 6 75mm 2 0221 0	13 A 6 75mm 2 0222 0	13 A 6 75mm 2 0223 0	20 A 20 88mm 1 0231 0	20 A 20 88mm 1 0232 0	20 A 20 88mm 1 0233 0
20 A 20 88mm 1 0234 0	4 H 10 20mm 1 0311 0	4 H 10 20mm 1 0312 0	4 H 10 20mm 1 0313 0	4 H 10 20mm 1 0314 0	14 H 10 20(4)mm 1 0321 0
14 H 10 20(4)mm 1 0322 0	6 H 12 37mm 1 0330 0	2 H 12 75mm 2 0411 0	2 H 12 75mm 2 0412 0	2 H 12 75mm 2 0413 0	2 H 12 75mm 2 0414 0

20(H) 28 75mm 2 0421 0	20(H) 28 75mm 2 0422 0	20(H) 28 75mm 2 0423 0	40(H) 32 105mm 2 0441 0	40(H) 32 105mm 2 0442 0	60(H) 36 150mm 2 0451 0
60(H) 36 150mm 2 0452 0	60(H) 36 150mm 2 0453 0	50(H) 80 170mm 2 0471 0	50(H) 80 170mm 2 0472 0	3 M 12 81mm 3 0521 1	3 M 12 81mm 3 0522 1

3 M 12 81mm 3 0523 1	15 M 20 120mm 2 0541 0	15 M 20 120mm 2 0542 0	15 M 20 120mm 2 0543 0	60(H) 16 150mm 1 0001 0	60(H) 16 150mm 1 0002 0
0 C 0 WAGON 1 2101 3	0 C 0 WAGON 1 2102 3	0 C 0 WAGON 1 2103 3	0 C 0 WAGON 1 2104 3	0 C 0 WAGON 1 2105 3	0 C 0 WAGON 1 2106 3
0 C 0 TRUCK 1 2201 12	0 C 0 TRUCK 1 2202 12	0 C 0 TRUCK 1 2203 12	0 C 0 TRUCK 1 2204 12	0 C 0 TRUCK 1 2205 12	0 C 0 TRUCK 1 2206 12

3 I 2* 1511 1	3 I 2* 1512 1	3 I 2* 1513 1	3 I 2* 1514 1	3 I 2* 1515 1	3 I 2* 1516 1
3 I 2* 1517 1	3 I 2* 1518 1	3 I 2* 1519 1	3 I 2* 1521 1	3 I 2* 1522 1	3 I 2* 1523 1
3 I 2* 1524 1	3 I 2* 1525 1	3 I 2* 1526 1	3 I 2* 1527 1	3 I 2* 1528 1	3 I 2* 1529 1

6 I 1 SMG 6 1541 1	6 I 1 SMG 6 1542 1	6 I 1 SMG 6 1543 1	6 I 1 SMG 6 1544 1	6 I 1 SMG 6 1545 1	6 I 1 SMG 6 1546 1
6 I 1 SMG 6 1547 1	6 I 1 SMG 6 1548 1	6 I 1 SMG 6 1549 1	3 I 2 10 1121 1	3 I 2 10 1122 1	3 I 2 10 1123 1

2 I 2 SEC 5 1300 1	50(H) 12 MAULTIER 4 4300 10	20 H 12 150mm 2 0431 0	20 H 12 150mm 2 0432 0		
15 A 12 PZKW-VII 12 7911 8	15 A 12 PZKW-VII 12 7912 8	15 A 12 PZKW-VII 12 7913 8	20 A 12 PZKW-VII 16 7921 6	20 A 12 PZKW-VII 16 7922 6	20 A 12 PZKW-VII 16 7923 6
DEFENSE 40 STRENGTH	DEFENSE 40 STRENGTH	DEFENSE 40 STRENGTH	DEFENSE 40 STRENGTH	DEFENSE 40 STRENGTH	DEFENSE 40 STRENGTH

2 C(I) 2 HALF TRACK 4 2401 10	2 C(I) 2 HALF TRACK 4 2402 10	2 C(I) 2 HALF TRACK 4 2403 10	2 C(I) 2 HALF TRACK 4 2404 10	2 C(I) 2 HALF TRACK 4 2405 10	2 C(I) 2 HALF TRACK 4 2406 10
2 C(I) 2 HALF TRACK 4 2407 10	2 C(I) 2 HALF TRACK 4 2408 10	2 C(I) 2 HALF TRACK 4 2409 10	2 C(I) 2 HALF TRACK 4 2411 10	2 H 4 234/1 3 3501 16	2 H 4 234/1 3 3502 16
2 H 4 234/1 3 3503 16	6 A 5 PUMA 3 3200 14	13 A 8 234/4 3 3600 14	40(H) 32 WESPE 5 4201 8	40(H) 32 WESPE 5 4202 8	60(H) 24 HUMMEL 6 4400 8

10 H 12 GW8 5 5201 6	10 H 12 GW8 5 5202 6	10 H 12 GW8 5 5203 6	14 H 10 WIRBELWIND 6 5300 8	12 A 8 HETZER 12 6101 6	12 A 8 HETZER 12 6102 6
12 A 8 SG-III 12 6200 8	2 A 4 LYNX 6 7100 10	8 A 6 PZKW-III 7 7301 9	8 A 6 PZKW-III 7 7302 9	11 A 8 PZKW-III 7 7711 8	11 A 8 PZKW-III 7 7712 8

14 A 8 PZKW-III 8 7721 8	14 A 8 PZKW-III 8 7722 8	14 A 8 PZKW-III 8 7723 8	14 A 8 PZKW-III 8 7724 8	14 A 8 PZKW-III 8 7725 8	14 A 8 PZKW-III 8 7726 8
16 A 12 PZKW-V 12 7821 10	16 A 12 PZKW-V 12 7822 10	16 A 12 PZKW-V 12 7823 10	16 A 12 PZKW-V 12 7824 10	16 A 12 PZKW-V 12 7825 10	16 A 12 PZKW-V 12 7826 10
13 A 12 PZKW-V 11 7811 10	13 A 12 PZKW-V 11 7812 10	13 A 12 PZKW-V 11 7813 10	13 A 12 PZKW-V 11 7814 10	13 A 12 PZKW-V 11 7815 10	13 A 12 PZKW-V 11 7816 10

X	X	X	X	X	X
X	X	X	X		


OPPORTUNITY FIRE	OPPORTUNITY FIRE	OPPORTUNITY FIRE	OPPORTUNITY FIRE	OPPORTUNITY FIRE	OPPORTUNITY FIRE
OPPORTUNITY FIRE	OPPORTUNITY FIRE	SPOTTED	SPOTTED	SPOTTED	SPOTTED
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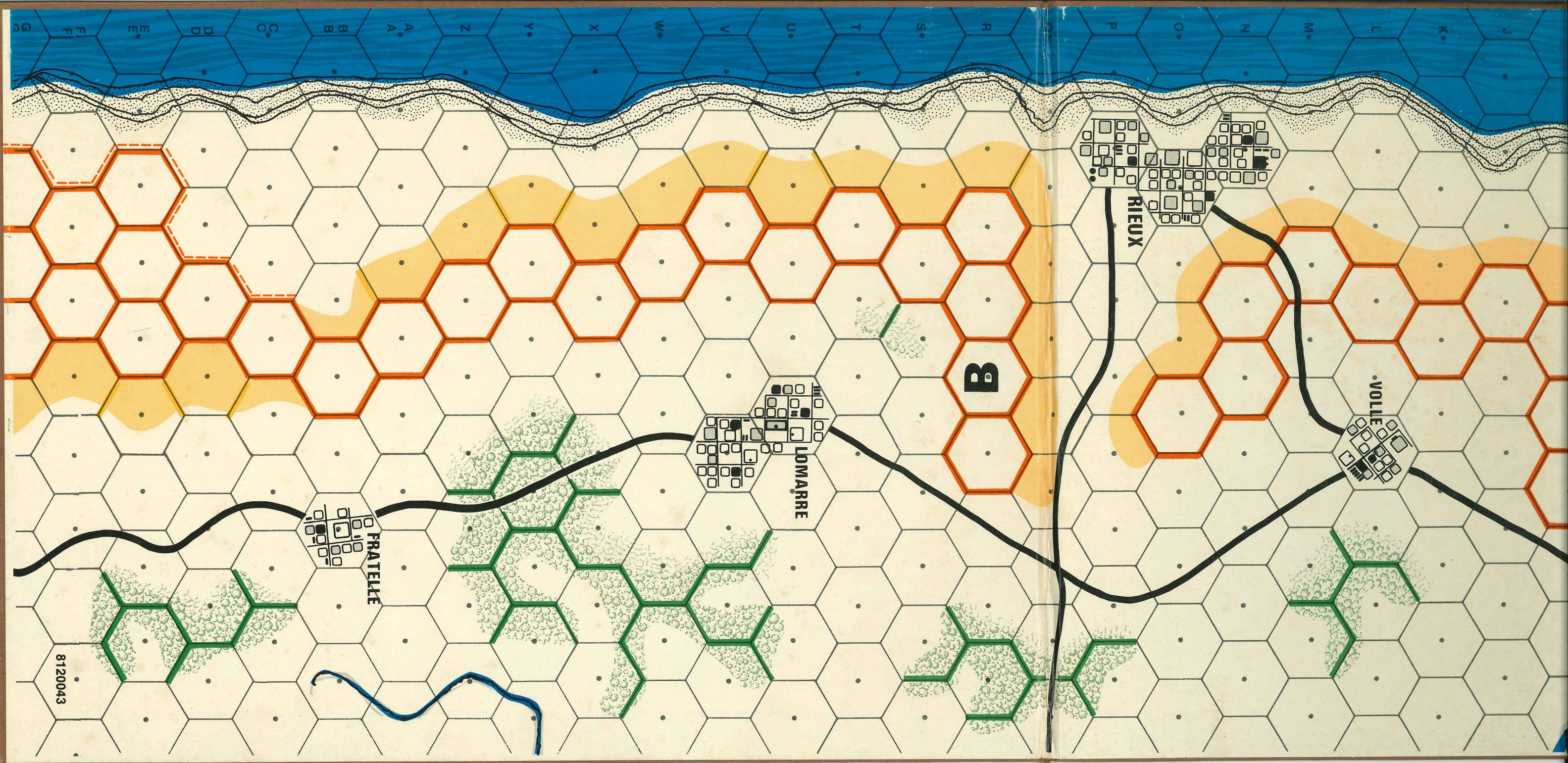
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# Panzer Leader

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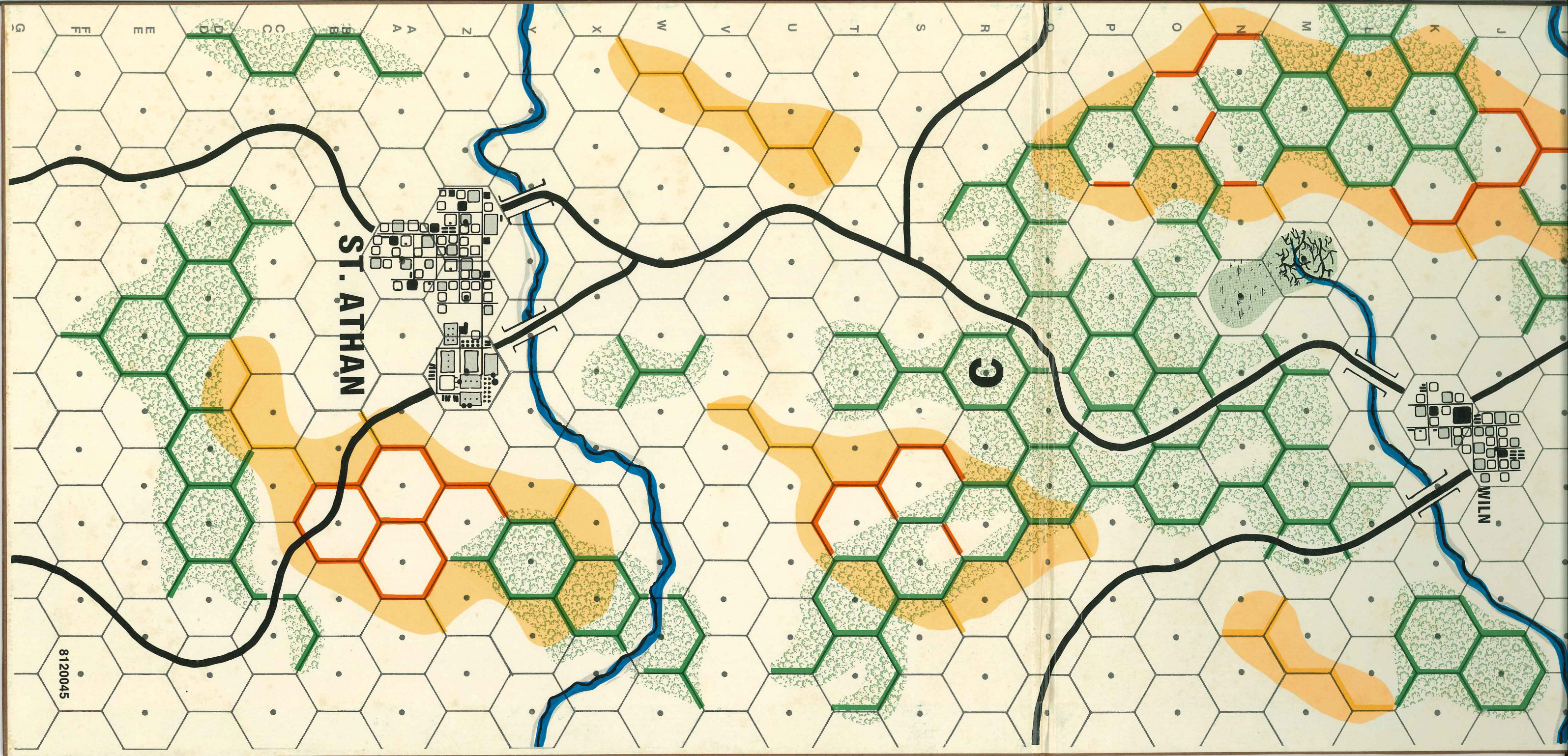
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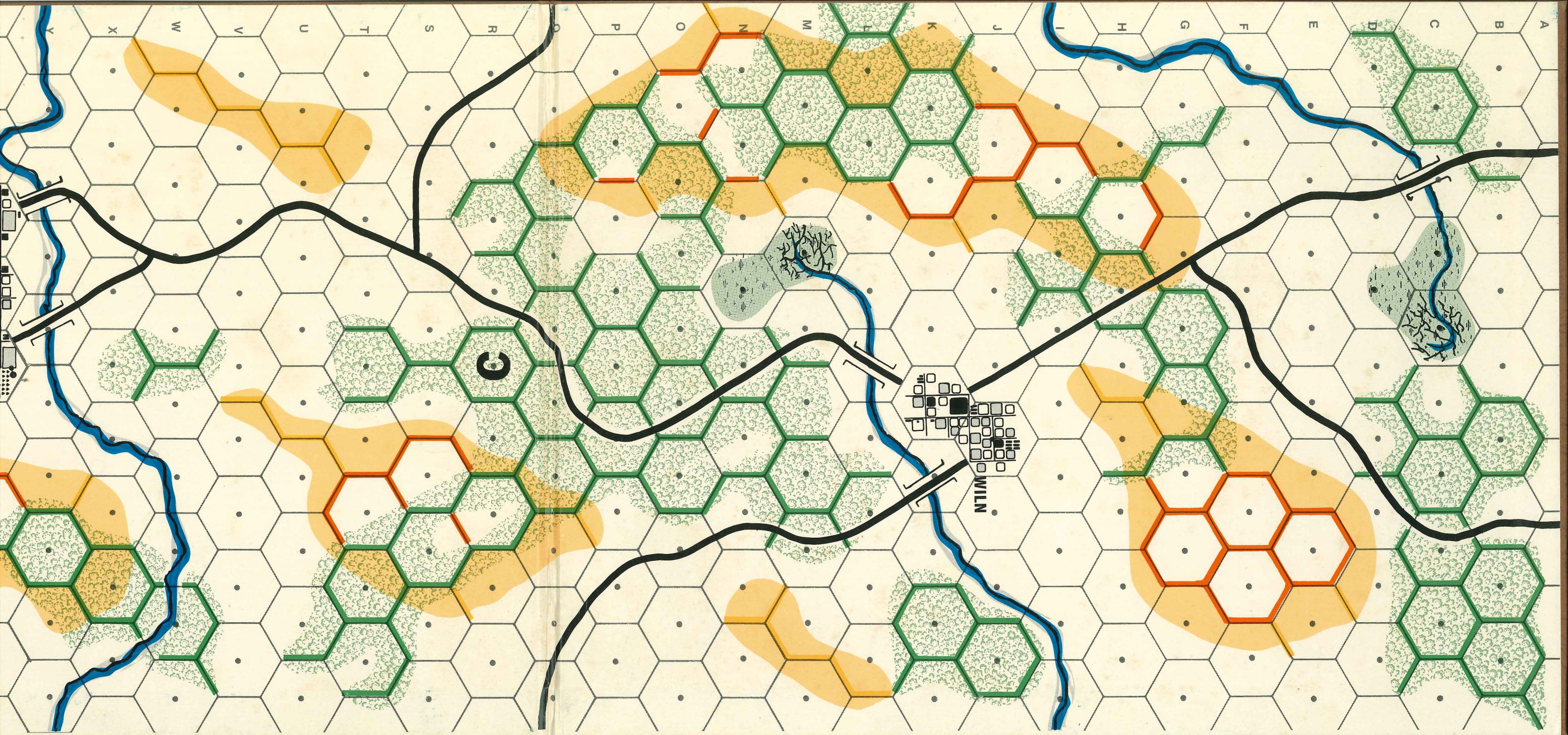


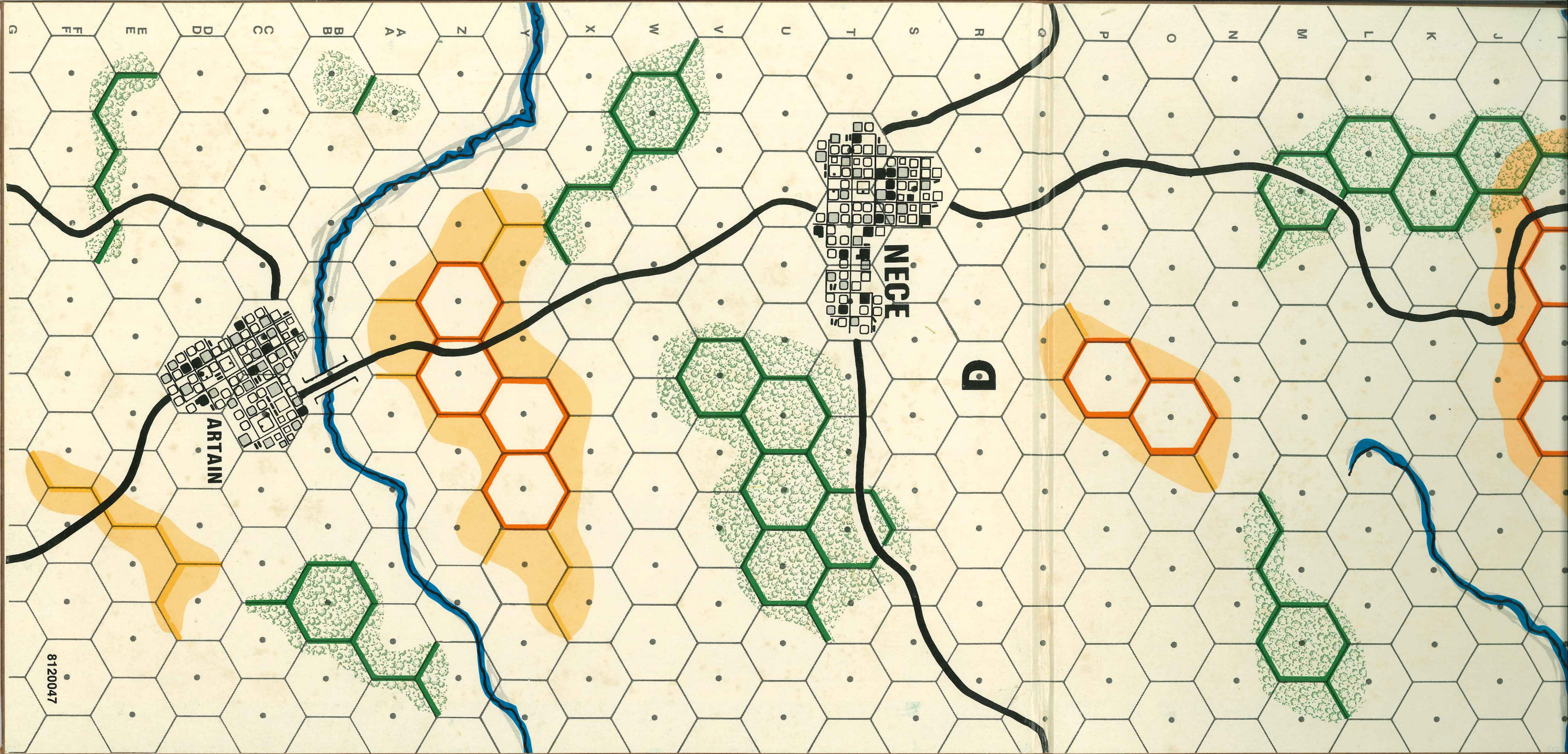
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