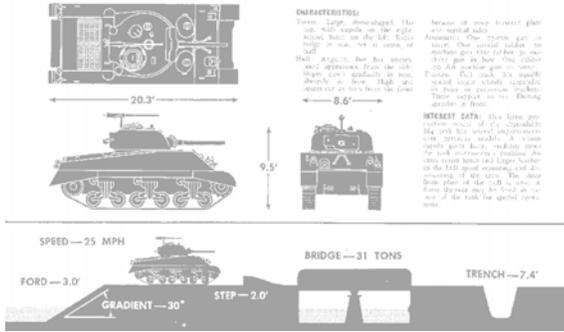
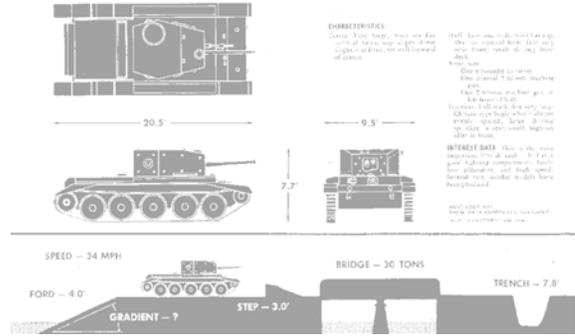


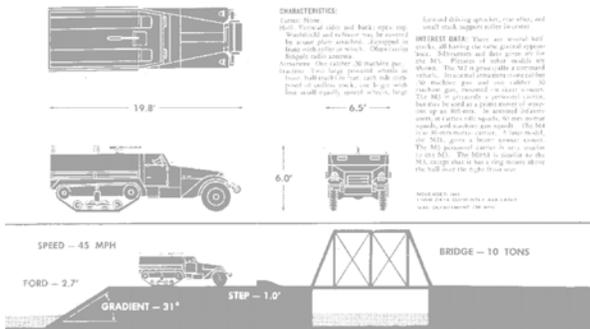
U.S. ☆ **MEDIUM TANK, M4A3 (75-MM GUN)**



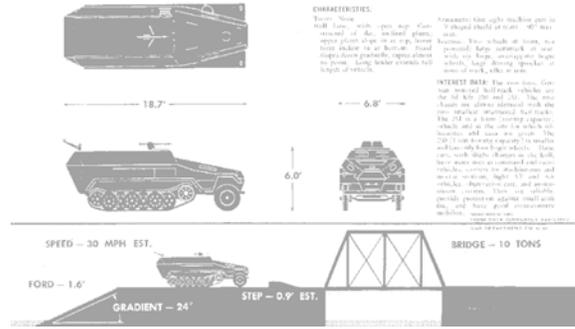
BRITISH **CROMWELL TANK**



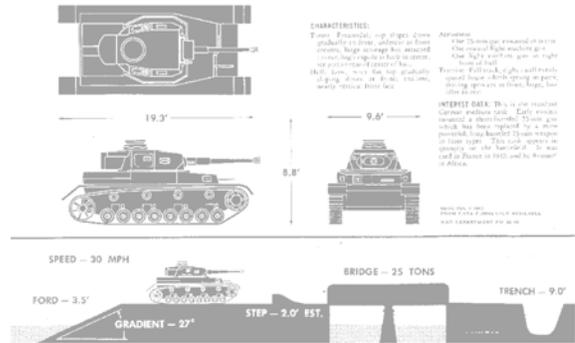
U.S. ☆ BRITISH **HALF-TRACK CAR, M3**



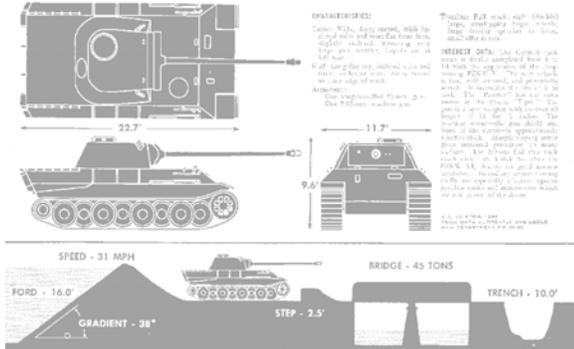
GERMAN + **ARMORED HALF-TRACK VEHICLES**



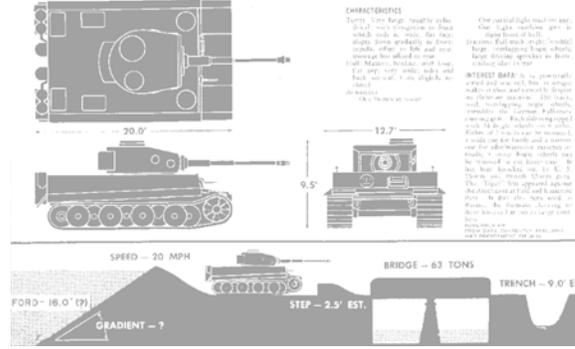
GERMAN + **PZKW IV TANK**



GERMAN + **PZKW V TANK "PANTHER"**



GERMAN + **PZKW VI TANK "TIGER"**



Panzer Leader

RULES AND ERRATA

Images from: FM 30-40, Recognition Pictorial Manual on Armored Vehicles, U. S. War Department, 3 November 1943

DESIGN CREDITS

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THE GENERAL

Selected articles from *The General* [v Volume, n Number, (A) analysis, (E) errata, (S) situation/s, (V) variant/s]:

v12n1 (S) Battle for Berlin (R. Easton)
v12n1 (A, E, V) Design Analysis (R. C. Reed)
v12n2 (A, V) Design Analysis (R. D. Harmon), Opportunity fire
v12n3 Letters (R. Easton), Corrections to Easton v12n1
v12n4 (V) The Rest of the Battle: Artillery in Panzer Leader (R. Easton)
v12n6 (V) Weather or Not? (R. Easton and N. Kluksdahl)
v12n6 Letters (I. L. Straus), Comments on v12n2
v13n1 (A) Series Replay: Situation 15
v13n2 (V) Letters (R. Bostwick), Situation 3
v13n4 (V) Increasing Infantry Firepower (N. Beveridge, Jr.)
v13n5 (S) Battles in Germany, 1948 (R. Easton)
v14n1 (S) The Red Ball Express (E. Carlson)
v15n2 (V, S) Panzer Leader, 1940 (R. Cruz)
v15n5 Letters (R. Cruz), Corrections to v15n2
v15n6 (A, V) Further Considerations for Panzer Leader, 1940 (R. A. Bell)
v16n3 (A) Panzer Leader: An Overview (J. P. Jones)
v17n5 (A) The Evolution of Strategy (D. S. Bieksza)
v20n2 (V, S) Para-Leader (O. Oates)
v20n4 Letters (O. Oates), Corrections to v20n2
v21n3 (S) Dieppe: Canadians Under Fire (M. L. Shannon)
v22n3 (S) The Paths of Rommel (D. Helmbrecht)
v23n2 (A) The Pieces of Panzer Leader (R. C. Clark)
v23n2 (V) Letters (M. Anchors)
v23n4 Letters (C. Schwamberger), Corrections to Clark v23n2
v23n6 Letters (K. Ramstead), Corrections to Clark v23n2
v24n2 (A, V) Fighting the Panzer Leader (S. B. Wheeler)
v24n4 Letters (S. B. Wheeler), Corrections to v24n2
v24n4 Letters (D. Bieksza), Comments on v24n2
v25n3 (A, V) The King of Battle (C. Schwamberger)
v25n3 (A) A Rock and a Hard Place (S. B. Wheeler), Situation 12
v28n3 (V) Panzer Hunters (C. Schwamberger)
v28n4 (S) The Battle of Arracourt (A. R. Arvold)
v30n3 (A) The Panzer Leader at Arracourt: Part One (S. B. Wheeler)
v30n4 (A) The Panzer Leader at Arracourt: Part Two (S. B. Wheeler)
v31n1 (A) The Panzer Leader at Arracourt: Part Three (S. B. Wheeler)
v31n4 (S) Tournament Scenarios for Panzer Leader (B. Scott)
v31n6 (V, S) Operation Rescue (F. P. Eichelberger)

“There have been many people writing to us pleading for permission to use *PANZER LEADER* rules with their *PANZERBLITZ* games, asking whether this or that *PL* rule could be applied to *PB*, whether *PL* rules supersede, blanket-fashion, *PB* rules, etc., etc., etc. Sometimes I could quietly scream . . . Once and for all, *PB* and *PL* are two different games. The games have their own rules and stand or fall by those rules. What a gamer cares to do between the two sets of rules in the privacy of his own home is his business. A word of caution: Simply because a rule changed in *PL* does not mean it was wrong in *PB*. The two games cover two different conflicts, locales, and adversaries.”

— Randall C. Reed,
The General, Vol. 12, No. 1, p. 16.

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, and 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:

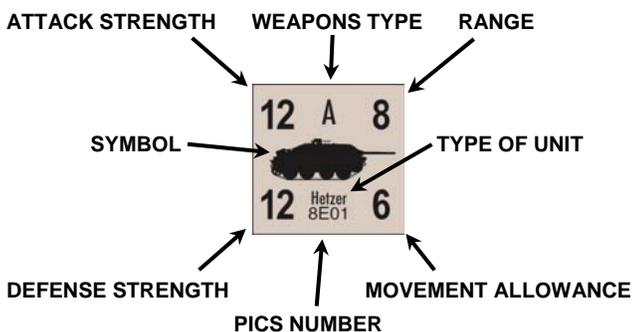
1. Mapboard consisting of four sections which can be joined together in a variety of ways to form many different terrain configurations.
2. German die-cut counter sheet (192 pieces).
3. Allied die-cut counter sheet (192 pieces).
4. Set of Situation and Player Aid Cards (seven cards).
5. Rules of Play 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 an enemy unit's defensive 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 antiaircraft 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. The 'TURN NOW' counter is moved one box on the Situation Card 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 effects 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 play 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 a 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 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 pdr), the Nebelwerfer, 25 pdr, 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'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 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 on 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 my 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 a 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.

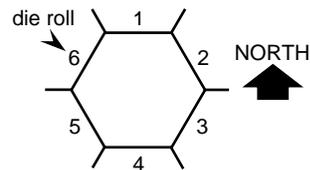
9. Direct fire attacks are resolved on the Combat Results Table using the procedure outlined in 'A' above.

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 pdr (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 attacks 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 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 the 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 6 1/2).

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.

g. 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-Site. 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 unit's 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 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 made 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 on 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.) Such enemy units may still be attacked. Note, however, that in cases where the enemy unit cannot be attacked individually (DF into town hexes or CAT) two attacks using normal AS for each are required; one against the enemy unit’s DS and one against the fort’s DS. For IF attacks, merely treat the fort as another unit in the stack.

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 trucks or wagons) may never spot for other units.

X. ENGINEERS

Engineers may also 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. DEMOLITION 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 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 Armored 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 Bridgelay: 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 the 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 the 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. 'P'-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 coordinate 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 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 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 units, 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 (FBs) have three different types of direct fire weapons systems: machine guns, air-to-ground rockets, and 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 (x2 1000 lb)	30(H)	30(H)
Rockets (x8-10 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.

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.

5. 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 XII.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 orders 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 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 play 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 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 overrun attacks may not be fired upon while in the hex occupied by the friendly unit being overrun.
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 AFVS:

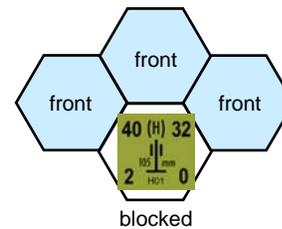
To further differentiate the mechanical and operational advantages of the turreted tank versus assault guns and other self-propelled weapons, employ the following rules:

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 overrun or ‘panzer 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 weapon-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 pdr) 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 pdr) 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 (SSCs) in order to obstruct the LOS/LOF traced through certain target hexes.
 - a. SSCs 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. SSCs may not be fired into hexes occupied by friendly units.
 - c. SSCs may not be fired into sea, stream (including those crossed by bridges), or swamp hexes.
 - d. SSCs have no effect on enemy units that may be in the target hex.
 - e. SSCs may not be fired as part of an opportunity fire attack.
 - f. SSCs 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 SSCs by placing a HEADS-UP coin in each one of 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. SSCs 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.

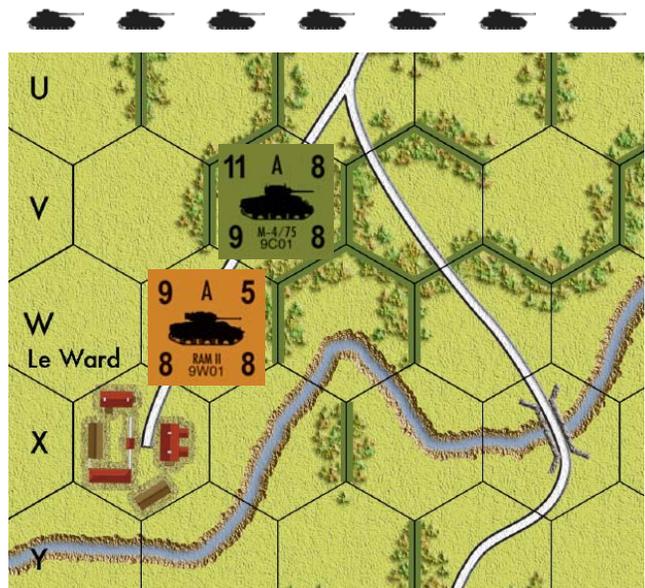
c. The LOS/LOF is not blocked for units firing into or out of hexes containing SSCs, but such hexes must be spotted to be fired upon. (In effect, for LOS/LOF purposes, SSC hexes function like 'unusually tall' town hexes.)

4. Firing SSCs 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. SSCs 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 SSCs, they may be fired directly or indirectly.



Let them be together one more time, our Hector, our Achilles, while they still can shake their spears, and run their watches backward round the walls of Troy. — Ward McBurney.

ERRATA

Avalon Hill published these official *PANZER LEADER* errata in: Randall C. Reed, "Design Analysis," *The General*, Vol. 12, No. 1, pp. 16-17.

AVAILABLE FORCES:

Situation 13: One German 37mm, instead of x2

Situation 14: One German 37mm, instead of x2

Situation 15: 1. One German 37mm, instead of x2
2. 276 VG – Change x4 trucks and one wagon to one truck and x4 wagons

Situation 18: x6 German trucks, instead of x7

Situation 20: x2 German halftracks, instead of x3

A later printing of the situation cards made these corrections.

EXAMPLES OF PLAY:

The Hetzer in the Direct Fire illustration is NOT doubled in its present location.

The Examples of Play section is omitted from this document.

DIRECT FIRE:

In rule IX.C.10.a, replace the third sentence:

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.

with this correction:

Such enemy units may still be attacked. Note, however, that in cases where the enemy unit cannot be attacked individually (DF into town hexes or CAT) two attacks using normal AS for each are required; one against the enemy unit's DS and one against the fort's DS. For IF attacks, merely treat the fort as another unit in the stack.

This change has been implemented in rule IX.C.10.a on p. 10 of this document.

TERRAIN EFFECTS CHART:

The Hilltop Hex entry, under Combat, should read:

One half attack strength for direct fire attacks except when on another hilltop hex.

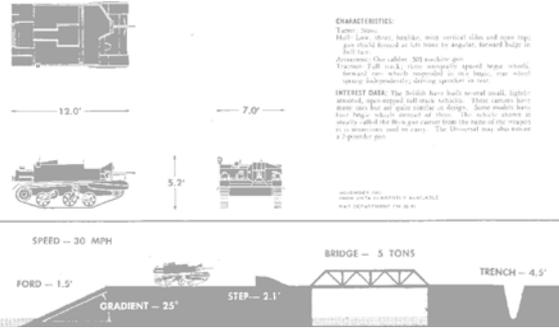
A later printing of the TEC made this correction.

UNIT FUNCTION TABLE:

For the Nebelwerfer, under Arty FOF, replace the ● with 'C'.

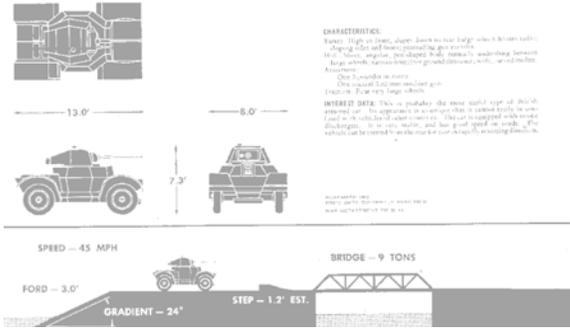
BRITISH

UNIVERSAL CARRIER



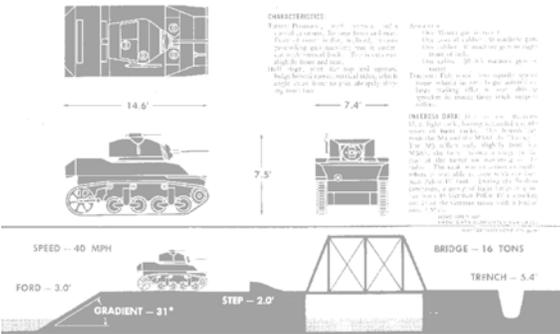
BRITISH

DAIMLER ARMORED CAR



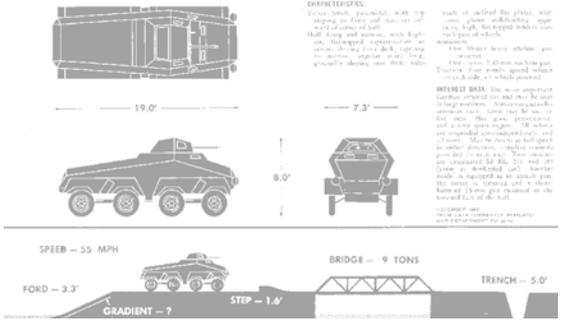
U. S. BRITISH RUSSIAN

LIGHT TANK, M5A1



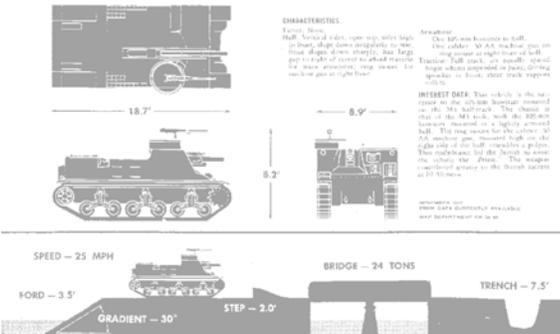
GERMAN

8-WHEELED ARMORED CAR



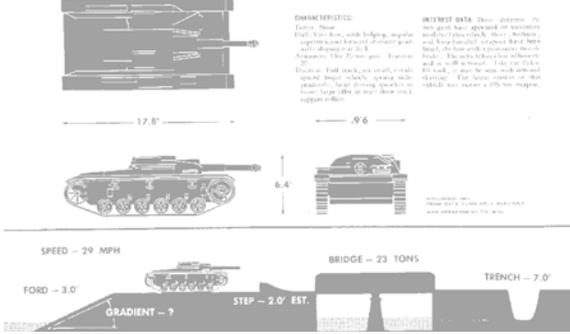
U. S.

105-MM HOWITZER MOTOR CARRIAGE, M7



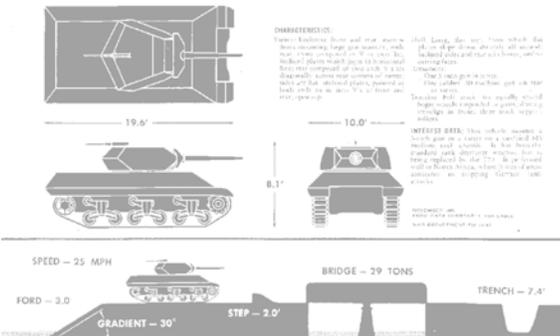
GERMAN

75-MM SP GUN (ON PZKW III TANK CHASSIS)



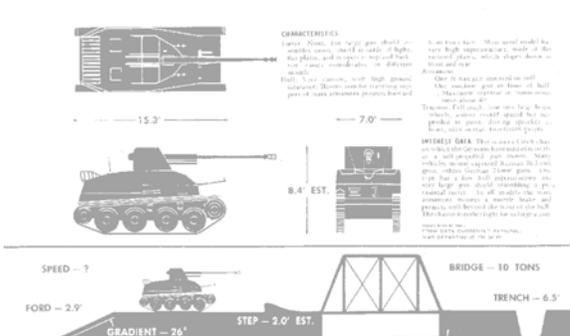
U. S.

3-INCH GUN MOTOR CARRIAGE, M10



GERMAN

76-MM SP GUN (ON PZKW 38 TANK CHASSIS)



Images from: FM 30-40, Recognition Pictorial Manual on Armored Vehicles, US War Department, 3 November 1943