

ADVANCED SQUAD LEADER STARTER KIT RULES

*through ASLSK #4 Pacific Theatre of Operations
with subsequent errata, updated through 3 September 2021*

Introduction:

Welcome to the 4th Core Module in the Advanced Squad Leader Starter Kit (ASLSK). This module features the Pacific Theater of Operations (PTO) and will introduce you not only to the primary material necessary for the ASLSK experience but also to the Japanese and U.S. Marine Corps forces as well. Advanced Squad Leader (ASL) is a detailed wargaming system that can simulate any company level ground action from any theater of World War II. Playing pieces represent squads, half-squads, leaders, crews, Guns, and vehicles from every major and minor combatant of World War II. The battlefields are represented by geomorphic mapboards upon which the counters are maneuvered. Starter Kits provide the new player with an easy method of becoming familiar with the basics of the ASL system using entry-level scenarios, counters, boards, and rules. Abbreviations have been used for many of the terms presented in the rules. While you will become familiar with them through use, the Definitions section provided in the rules can be a helpful reference to this special terminology.

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Squad counters represent approximately 9-15 men, depending on nationality and type. Individual leader counters represent combat leaders historically present at the battle and also help represent the overall combat independence of the unit to which they are attached. Each squad and each leader is given a morale level on its counter; the higher the morale level, the better it can stand up in combat and the quicker it can recover from setbacks. Support weapon, Gun, and vehicle counters represent individual weapons beyond the organic small arms that are already included in the firepower values given each squad and half-squad counter. Firegroups for attacking enemy units are put together from the combined firepower of individual units and weapons. After totaling the firepower of the attack, two six-sided dice are rolled and that result (modified by various factors) is cross-referenced with the applicable firepower column of the Infantry Fire Table to determine the result of the attack. Ordnance, including vehicular Main Armaments, must first secure a hit before checking for results. Results range from no effect, to causing the enemy to check his morale level to see if it breaks, to outright elimination of one or more enemy units. Units also use their firepower in close combat, usually in an all-or-nothing fight to the death.

Each ASLSK scenario simulates a historical battle by providing both the Attacker and the Defender with an order of battle containing specific units and weapons with which to maneuver in an effort to achieve specified victory conditions. The geomorphic mapboards can be arranged in numerous combinations to represent the varied battlefields of World War II.

ASLSK Pacific Theater of Operations is a complete game that introduces the player to a new nationality and theater of combat. It includes mapboards and scenarios, and counters representing squads, half-squads, leaders, support weapons crews, crew-served ordnance weapons, and vehicles as well as simplified rules and terrain to use them with. You may use this material to expand your ASLSK options or it may tempt you to enter the fantastically detailed world of tactical wargaming by venturing into ASL. In either case, the material presented herein—rules, mapboards, and counters—is designed to be fully compatible with previous installments of ASLSK and with ASL. You will not need any other product to play this game, it is completely self-contained; however, you can find additional material for ASL and many other fine products at www.multimanpublishing.com. Additional ASLSK scenarios are available in SPECIAL OPS magazine.

These rules have been color-coded to show what has been revised from the initial printing of ASLSK #4. Any rules or wording in salmon have been revised to correct errata from previous ASLSK rulebooks. This rule booklet takes precedence over the rulebooks found in ASLSK #1, 2, 3, EP #1, and Historical Module #1. Finally note that ASLSK PTO contains all the counters needed to play the eight scenarios under *average* circumstances. ASLSK is a game of wide possibilities,

however, and exceptional circumstances in a given playing may result in a shortage of a particular counter.

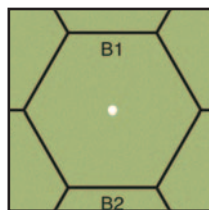
1.0 Game Components

1.1 Mapboard:

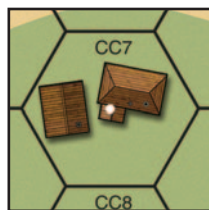
This ASLSK module contains three geomorphic mapboards (m, n, and o). These represent the battlefield and can be butted end-to-end or side-to-side together with others to form different playing areas. Superimposed over each map is a hex grid used to measure distance. Each hex contains a specific type of terrain. Different types of terrain have different effects on movement and combat. Each hex also contains its own grid coordinate that indicates its location on the map (e.g., hex K2). Listing the mapboard in front of the coordinate (e.g., mK2) provides a unique identifier for any hex in the system. Each hex contains a white dot that marks the center of the hex. This is used in determining Line of Sight (LOS). Half hexes along the board edge are the equivalent of hexes, although the grid coordinate and white center dot may be missing.

1.1.1 Terrain Types:

For aesthetic purposes, terrain symbology may extend marginally out of a hex into an adjacent hex of another terrain type, but most hexes are dominated by one specific terrain type and are governed by the rules for that specific terrain type. Usually the dominant terrain type includes the hex center dot, but occasionally non-Open Ground hexes have a hex center dot in Open Ground. Some terrain is harder to move through than other terrain; movement costs are expressed in Movement Factors (MF) for Infantry and in Movement Points (MP) for vehicles. Terrain can also block or hinder Line of Sight (LOS) and can provide some cover by modifying fire attacks with its Terrain Effects Modifier (TEM).

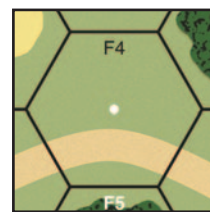


Open Ground: Open Ground is any hex devoid of other printed terrain features, generally covered uniformly in light green such as hex mB1. Open Ground presents no obstruction or Hindrance to LOS, and the only TEM for Open Ground is the -1 First Fire Movement in Open Ground (FFMO) Dice Roll Modifier (DRM) vs moving Infantry. Open Ground costs Infantry 1 MF to enter. Open Ground costs a Fully Tracked vehicle 1 MP and an Armored Car 3 MP.

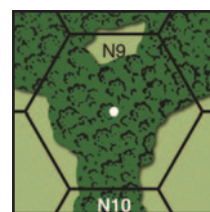


Buildings: Buildings represent man-made dwellings of various sizes. Any hex that contains a gray or brown rectangular overhead building depiction is a building, such as mCC7. If the LOS between two units crosses the building depiction then the building hex

is an obstacle to both units if they are on the same level as the building. The building depiction is also a LOS obstacle between two units at different levels. A building costs Infantry 2 MF to enter. A Mortar may not fire from a building. An Armored Car may not set up in or enter a building. A Fully Tracked Armored Fighting Vehicle (AFV) that is Buttoned Up (BU; 7.7) may enter a building at half its total MP allotment while taking a Bog Check (7.6). The TEM for a stone (gray) building is +3 and for a wooden (brown) building is +2.



Roads: Roads represent either paved or dirt surfaces. A road represented by a brown stripe, such as nF4, is a dirt road while one represented by a gray stripe, such as sP6, is a paved surface. A road is considered Open Ground for all purposes. Additionally, Infantry that crosses only road hexsides throughout its entire MPh is entitled to one extra MF (the road bonus) unless it claims the protective benefits of a Woods-Road hex or the non open ground of an Orchard-Road hex, or has to pay the extra movement costs for entering Smoke (1.2.5). Crossing a road hexside costs both Armored Cars and Fully Tracked vehicles ½ MP if Crew Exposed (CE; 7.7) or 1 MP if Buttoned Up (BU).

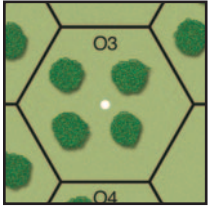


Woods: Woods represent a forested area with dense undergrowth, such as oN9. If the LOS between two units crosses the woods depiction then the woods hex is an obstacle to both units if they are on the same level as the Woods depiction. Woods are also a LOS obstacle to the LOS between two units at different levels. Woods cost Infantry 2 MF to enter. Woods cost an Armored Car all its MP while taking a Bog Check (7.6). A Fully Tracked vehicle may choose to spend either half or all its total MP to enter a woods hex while taking a Bog Check (7.6). A vehicle spending all its MP to enter a woods hex may still spend 1 MP to start and 1 MP to stop. The severity of the Bog Check DRMs depends on how many MP the vehicle expended to enter the woods hex. The TEM for woods is +1. Mortar fire vs Infantry or CE vehicles in a woods hex instead receives a -1 TEM due to Air Bursts.



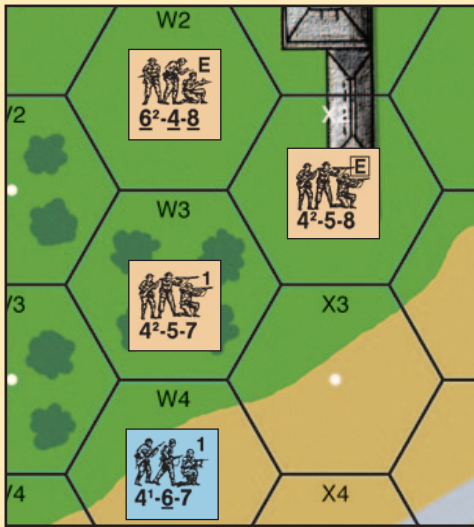
Woods-Road: A moving unit in a Woods-Road hex, such as nX7, is not eligible for the +1 Woods TEM during Defensive First Fire (and is subject to FFMO or Interdiction) if the LOS does not cross a green woods symbol and the moving unit entered the hex at the road movement rate. Otherwise normal Woods TEM is in effect; an Infantry unit may always choose to utilize the

woods movement rate and receive resultant TEM benefits. The road portion does not block LOS. A unit using a road through a woods hex pays the normal road movement rate rather than the woods movement rate. A vehicle in a Woods-Road hex is always considered to be on the road.



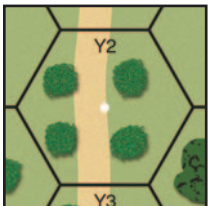
Orchard: An Orchard represents a thinly wooded area devoid of undergrowth such as mO3. An orchard is a Hindrance to same level LOS and therefore adds a +1 Hindrance DRM for every orchard hex between the target and the firer. Orchards cost Infantry 1 MF to enter. Orchards cost an Armored Car 3 MP and a Fully Tracked vehicle 1 MP to enter. There is no TEM for Orchard but because it is not Open Ground it negates FFMO and Interdiction.

Orchards are in season during the months of April through October. An in-season orchard is an obstacle to any LOS drawn between units at different elevations. Each out-of-season orchard hex (November through March) adds a +1 Hindrance DRM to any LOS drawn between units at different elevations. An Orchard hex is considered Inherent Terrain (3.2.1) so the entire hex including hexsides affect LOS drawn through an Orchard hex.



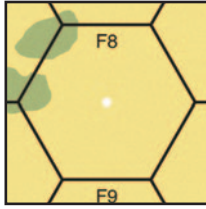
Orchard Example

The orchards are in season. The German 4-6-7 is on the level one hill while the British units are all at level zero. The orchard in wW3 blocks LOS between the 4-6-7 at level one and the 6-4-8 and 4-5-8 at level zero. If the orchards were not in season the W3 orchard would provide a +1 Hindrance instead. The German 4-6-7 and the British 4-5-7 in hex W3 have an unhindered LOS to each other regardless of the season.

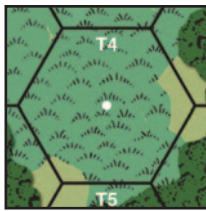


Orchard-Road: A hex containing both orchard and road symbols such as oY2 is actually a tree-lined road. Entrance of such a hex through a road hexside is identical to movement along any

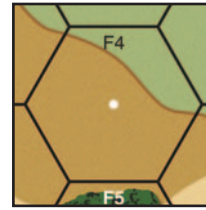
road. Hindrances do not apply to such hexes if that portion of the LOS from firer to target never leaves the confines of the road depiction regardless of elevation differences. In such cases, the -1 FFMO DRM applies to Infantry using the road to move. Otherwise, orchard-roads are identical to orchards in every respect.



Grain: While in season, Grain represents a cultivated field of a variety of standing crops such as mF8. Grain is a LOS Hindrance between units on the same level as the Grain feature and therefore adds a +1 Hindrance DRM for every grain hex between the target and the firer in which the LOS crosses the Grain depiction. Grain is in season during the months of June through September. Outside this season grain hexes are treated as Open Ground instead. Grain costs Infantry 1 1/2 MF to enter when in season. Grain costs an Armored Car 4 MP to enter and a Fully Tracked vehicle 1 MP. There is no TEM for Grain but because it is not Open Ground (unless out of season) it negates FFMO and Interdiction.



Brush: Brush represents a thinly wooded area with dense undergrowth such as nT4. Brush is a LOS Hindrance between units on the same level as the Brush feature and therefore adds a +1 Hindrance DRM for every brush hex between the target and the firer in which the LOS crosses the Brush depiction. There is no TEM for Brush but because it is not Open Ground it negates FFMO and Interdiction. Brush costs Infantry 2 MF to enter, costs an Armored Car 4 MP, and costs a Fully Tracked vehicle 2 MP.



Hills: Hills represent terrain elevations that rise a full level above ground level, and any terrain on them rises normally from this new level to form new height equivalents. All hills are terrain obstacles

to LOS involving a unit not on a hill. A hill mass is depicted in a brown shade such as oF4; however for aesthetic purposes some hexes may contain both the color of the hill mass and the color of the ground level. Hexes, units, and terrain (including Inherent Terrain) are always considered to be at the elevation level containing the hex center dot. Any hill hex devoid of other terrain is also an Open Ground hex. FFMO and Interdiction will not apply if a moving/routing unit is eligible for Height Advantage (see below). A one-level (building/woods/orchard) obstacle on a level-one hill hex becomes a two-level obstacle.

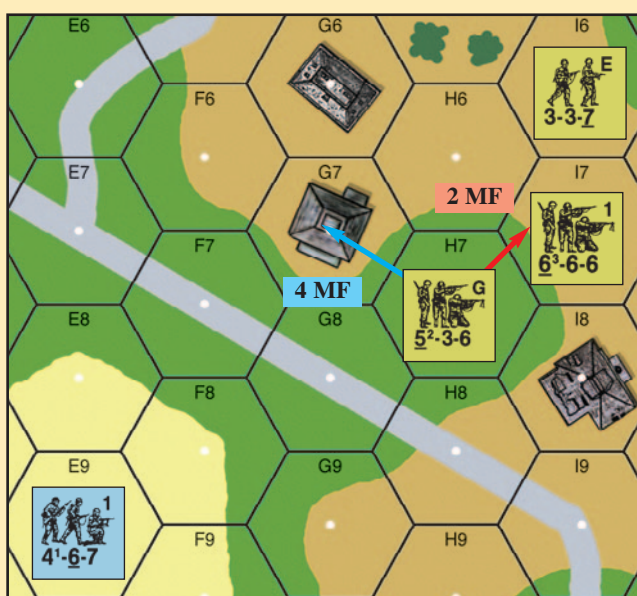
Two units on hill hexes will have LOS to each other unobstructed by any terrain that is not also on a hill. Neither ground level grain nor brush will hinder LOS between one unit on a hill and another that is not.

A Crest Line is formed in every hex where two different full level elevations meet, such as oF4. Crest Lines are important both for determining movement costs and defining the slope of the hill for possible LOS obstructions. When Infantry crosses a Crest Line into higher terrain the unit must expend double the Cost of Terrain (COT) of the hex entered. Vehicles pay the cost of the terrain in the hex plus an additional 4 MP to cross a Crest Line into higher terrain or an additional 2 MP if crossing the Crest Line via a road hexside.

Any unit receiving non-mortar fire from a lower elevation is entitled to a +1 Height Advantage TEM, provided that unit is not eligible to receive any other positive TEM. In addition, a unit eligible for the +1 Height Advantage TEM is not sub-

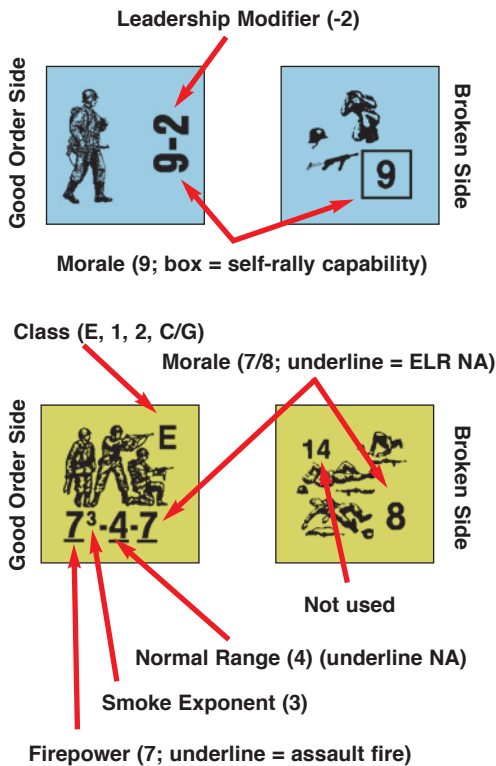
Height Advantage and Hill LOS Example

The German 4-6-7 in wE9 can see the American 6-6-6 in hex I7 unhindered by the grain in F8, although such an attack by the 4-6-7 against the 6-6-6 would qualify for the +1 Height Advantage TEM. It costs the



5-3-6 in H7 2 MF to move to I7 (Open Ground 1 MF doubled for crossing the Crest Line uphill). The 5-3-6 would not qualify for Height Advantage TEM for attacks from the 4-6-7 during the MPH because the moving unit crossed a Crest Line that is intersected by the firer's LOS. The 4-6-7 has no LOS to the 3-3-7 in I6 (and vice versa). If the 3-3-7 moves from I6 to I7 (1 MF), then LOS would exist with the 4-6-7, and the 3-3-7 would receive Height Advantage TEM versus an attack by the 4-6-7. If the 5-3-6 in H7 were instead to move to G7, the cost would be 4 MF (building COT of 2 doubled for crossing a Crest Line uphill, requiring the Green 5-3-6 to first declare Double Time), and the 5-3-6 would receive building TEM rather than Height Advantage.

ject to Interdiction or FFMO from an attack to which that +1 TEM applies. As an exception, a unit is not eligible for the Height Advantage TEM during the MPh or RtPh if in entering the target hex it crosses a Crest Line through the same hex-side that is intersected by the firer's LOS.



1.2 Counters:

There are five types of counters used in this game: informational markers, personnel markers, support weapons (SW), Guns, and vehicles. Informational markers are used by both sides and are generally memory devices. These include such counters as Prep Fire, First Fire, Pin, Desperation Morale, Smoke, and Crew Exposed. Informational counters will be described during the discussion of the Sequence of Play. Personnel counters come in two main types: Single-Man Counters and Multi-Man Counters.

1.2.1 Single-Man Counters (SMC):

SMC (or leaders) are *elite* units, which bear a single silhouette and represent just one man. Leaders have a two number strength factor, which consists of the leader's morale (on the bottom), and his leadership DRM (on the top). The latter is expressed as a negative number or a zero, or occasionally a +1. An unbroken, unpinned leader may use his leadership DRM to affect the performance of other personnel in his location (unless they are moving separately). Leadership modifiers are not cumulative. A leader may attempt only one action per phase, but may use his leadership modifier (even if 0 or +1) more than once in the same phase only to attempt to rally more than one unit in a RPh, to direct ROF and/or Defensive Fire attacks, and to assist units with Morale Checks (MC).

1.2.2 Multi-Man Counters (MMC):

MMC are units that bear the silhouette of more than one man. There are three types of MMC used in this game: squad, half-squad (HS), and crews. A squad bears the silhouette of three men, a HS that of two men, and a crew that of two men kneeling. Crews are always elite. The squads and HS counters are defined as either E (Elite), 1 (1st Line), 2 (2nd Line), G (Green), or C (Conscript) which is noted in the upper right hand corner of the counter. Two HS or crew counters equal one squad in size.

Each MMC contains a three-digit number called its strength factor that quantifies its capabilities in the game. Firepower (FP) is the left-most factor and represents the FP the MMC can attack with prior to any modification. The middle number (its normal range) is the number of hexes away that it can reach with its full FP. The third strength factor is its Morale, the relative rating of a unit's ability to withstand punishment before breaking. Some squads have a Smoke Exponent as a superscript to their FP strength to indicate they can attempt to place Smoke grenades.

1.2.3 Broken Side:

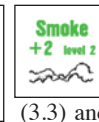
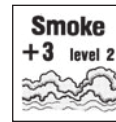
The reverse side of each SMC and MMC is its broken side. The large number in the lower right corner is its broken morale level. If the broken morale level is encased in a square, that unit is capable of self-rally.

1.2.4 Support Weapons (SW):

These ½" counters represent weapons that must be possessed by MMC or SMC to be used (4.0). These include Machine Guns (MG), Flamethrowers (FT), Demolition Charges (DC), Light Mortars, and Light Anti-Tank Weapons (LATW). These SW are possessed by the unit stacked immediately beneath them. A SW must be possessed to be fired or moved. SW have a portage requirement (Portage Points or PP) listed on the counter. SW have both a range and a FP that is utilized like that of an MMC. Some SW (e.g., MG) may malfunction, in which case they are flipped over to their broken side. The repair number is shown in the upper left corner. The "6" in the lower right corner indicates permanent removal if the original repair dr is 6.

1.2.4.1 Rate of Fire (ROF):

Some weapons have multiple Rate of Fire (ROF) shown by a number encased in a square. If the colored die roll in a fire attack DR is less than or equal to the ROF, such an unpinned SW or Gun or vehicle Main Armament (MA) may fire again in that phase (except the AFPh) until the ROF is exceeded by the colored die roll or the Weapon or its manning Infantry is marked with a Final Fire counter (e.g., uses Subsequent First Fire). The normal ROF indicated on a counter can be decreased due to certain circumstances listed on the Quick Reference Data Card (QRDC). See also the Area Target Type (ATT) discussion in 3.2.4.



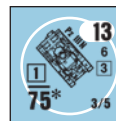
1.2.5 Smoke:

½" Smoke is placed by Infantry during the MPh (3.3) and is removed at the end of that MPh. ¼" Smoke lasts longer and is placed by Ordnance at the start of the PFPh or DFPh by securing a hit with the Area Target Type (ATT). Vehicles may also dispense Smoke during the MPh (7.5). If done in the PFPh, place a +3 full Smoke counter or +2 if White Phosphorus (WP); if done in the MPh or the DFPh, place a +2 Dispersed Smoke counter (+1 if WP). At the start of the placing player's next PFPh, remove all Dispersed Smoke counters and flip all full Smoke counters to the Dispersed side. Smoke represents an inherent LOS Hindrance; any fire traced through or into a Smoke hex is subject to an additional Hindrance DRM per hex (+3 for full ¼" Smoke; +2 for ½" Smoke, Dispersed Smoke, or WP; +1 for Dispersed WP and up to a maximum of +3 per hex); fire traced *out of* a Smoke hex incurs an additional +1 DRM. Any movement during the MPh/RtPh into (but not out of) Smoke costs one additional MF/MP.



1.2.6 Guns:

Any ordnance-capable non-vehicular weapon depicted on a ¼" counter is termed a Gun (6.0). A Gun must be manned by a crew counter to fire without the +2 Non-Qualified Use penalty. Guns are possessed, transferred, recovered, and destroyed as if a SW (4.0). There are five types of Guns. The type is depicted on the counters in abbreviated form. They are: MTR = Mortar, AT = Anti-Tank Gun, INF = Infantry Howitzer, ART = Artillery, and AA = Anti-Aircraft Gun. These roles should not be taken literally. An Anti-Tank Gun is free to fire at Infantry, etc. The Gun counter front will also indicate its caliber size (in mm), its target size (6.7), its manhandling number (6.5) and, if any, its ROF, its Infantry Firepower Equivalent (IFE; 6.8), and its 360 degree status (3.2.4). Some Guns are Quick Set Up (QSU on back of counter), and thus able to move via manhandling. Other Guns cannot move during the course of an ASLSK scenario because they must be limbered to move (as indicated by Limbered on the back of the counter). Only small target Guns and AT/INF Guns that are not large targets may occupy a building hex.



1.2.7 Vehicles:

All vehicles (7.0) are represented by ¼" counters. ASLSK contains two types of Armored Fighting Vehicles (AFV). An Armored Car is recognizable by the white circular background behind its MP number. Fully Tracked vehicles (e.g., tanks, tankettes, assault guns, etc.) are recognizable by the white oval background behind the MP number. The front of a vehicle counter will also indicate its Main Armament type, its ground pressure, its target size, its ROF (if any), its Armor Factors (AF), its Turret Type, and its vehicular MGs.

1.3 Scenario Cards:

Each game begins with the scenario card which depicts the information and components required to play the game: the board(s), the units, and Weapons (with the quantity of each printed beneath its depiction), where the units set up or enter, game length, the victory conditions, the historical setting, and any scenario special rules (SSR) required to play the scenario. Note that when a specific board is identified as qualifying for Victory Conditions or the only board on which a unit may set up, the partial hexes of that board that mate to another board do not qualify for Victory Conditions or setup.

1.4 Dice:

One six-sided white die and one six-sided colored die. Sometimes a dice roll (DR) of both is required; sometimes a die roll (dr) of just one is required. The colored die is also used for determining ROF, backblast, vehicular hit location, and Bog removal.

2.0 Definitions:

A#: APCR (Armor Piercing Composite Rigid) Depletion Number.

AAMG: Anti-Aircraft Machine Gun; must be CE to use, range is 8 hexes.

AC: Armored Car; recognizable by the white circle behind its MP allowance.

Acquired Target: A TH DRM of either -1 or -2 gained by a vehicle Main Armament, Gun, or Mortar that fires at the same target again. Infantry and Vehicle Target Type use a ½" Acquisition counter, and Area Target Type uses ⅜" Acquisition counters (6.10 and 6.11).

AF: Armor Factor (7.1).

AFPh: Advancing Fire Phase (3.5).

AFV: Armored Fighting Vehicle; any vehicle that has an Armor Factor.

Air Burst: Mortar fire vs Infantry or CE vehicle in a woods hex receives a -1 (instead of a +1) TEM (1.1.1).

Ambush: When units advance into CC while concealed (8.3), or vs concealed units, or into certain terrain, ambush might occur (3.8). The ambushing side receives a -1 DRM to its CC attacks and a +1 DRM to CC attacks against it; it resolves all its CC attacks first, and only surviving enemy units may attack back.

AP: Armor Piercing (6.2). AP can be used on the VTT and the IIT (with reduced effectiveness) but cannot be used on the ATT.

Aph: Advance Phase (3.7).

Area Fire: The firepower of a non-ordnance attacking unit is halved for each case of Area Fire (3.2.2, 3.2.3, 3.3.2.2, 3.3.3, 3.4, 3.5, 4.1, and 6.4).

Area Target Type (ATT): One of three general target types used by Ordnance. Must be used by Mortars and whenever Ordnance fires Smoke; cannot be used by LATW or when firing other than HE or Smoke/WP (3.2.4).

Aspect: Location of a vehicular hit divided between turret and hull as well as front, side, or rear facing (3.2.4 and 7.1).

Assault Fire: An attack in the AFPh available to MMC that have underscored firepower factors (3.5).

Assault Movement: A type of Infantry movement (3.3.1).

ATR: Anti-Tank Rifle (4.4.4).

ATTACKER: The player whose Player Turn is currently being played.

B#: Breakdown number of a Weapon or vehicle MA (Weapon or MA is repairable) (4.0 and 6.12).

Backblast: A condition of firing a BAZ, PSK, or PF from inside a building (4.4.3).

Banzai Charge: Japanese units during their MPH can charge into an enemy-occupied hex under certain circumstances (8.1.8.6).

BAZ: Bazooka, an American Light Anti-Tank Weapon (4.4.1).

Blind Hex: A hex that cannot be seen due to LOS obstacles.

BMG: Bow Machine Gun; range is 8 hexes.

Bog: A vehicle's temporary immobilization due to failing a Bog Check caused by environmental or terrain constraints (7.6).

Bounding Fire: Fire by a vehicle in the AFPh after movement to a new hex during the MPH (3.3.2.2 and 3.5).

Bounding First Fire: Fire by a vehicle during its own MPH before or after moving (3.3.2.2).

BU: Buttoned Up (7.7).

Casualty Reduction: A combat result that eliminates a HS or crew or wounds a SMC. A squad is reduced to a HS (3.2.3).

CA: Covered Arc, the direction a Gun is facing as depicted by the gun barrel (3.2.4).

CC: Close Combat (3.8).

CCPh: Close Combat Phase (3.8).

CCT: Close Combat Table.

CCV: Close Combat Value.

CE: Crew Exposed (7.7).

Center Hex Dot: The white dot in the middle of the hex from which LOS is determined (1.1).

CH: Critical Hit (6.1).

Close Combat Reaction Fire: Also known as CC Reaction Fire, this is a form of Defensive First Fire available to Infantry in the same hex as an enemy AFV (3.3.4).

CMG: Coaxial Machine Gun, range is 12 hexes.

Concealment: An application of "fog of war" to limit knowledge about opposing forces by placing units under a concealment ("?") counter. Concealed units gain certain advantages as specified in the rules (e.g., Area Fire, +2 TH DRM, -2 ambush drm). Available when PTO Terrain is specified or by SSR (8.3).

Control: A Good Order Infantry MMC gains control of the hex or building it occupies without the presence of an enemy unit. This is often required for purposes of victory determination. Not all hexes of a building need to be occupied for a unit to Control a building if there are no enemy units in the building at the time a friend-

ly unit enters the building. An AFV Controls the hex it presently occupies if that hex is devoid of Good Order enemy units; Control reverts immediately to its former condition when the AFV leaves the hex. At scenario start a side gains Control of all hexes/buildings within its set-up area (except for those within both sides' set-up areas), as well as all hexes/buildings on a board if that side is the only side which may set up on that board at scenario start.

COT: Cost of Terrain; the cost in MF/MP to enter a hex of a given type. The actual cost to enter a hex may be higher (e.g., crossing a Crest Line to a higher elevation).

Covering: The penalty for MMC rolling doubles on an IFT attack without leader direction (3.2.2). Does not apply to Ordnance, IFE, or any vehicle fire.

CX: Counter Exhausted; the status of a unit after it declares Double Time (3.3.1) or uses all its MF in the APh (3.7).

D#: APDS (Armor Piercing Discarding Sabot) Depletion Number.

DC: Demolition Charges (4.3).

DEFENDER: The player whose Player Turn is not presently being played.

Defensive First Fire: Firing at moving units in the MPH (3.3.3).

Depletion Numbers: Numbers on the back of Ordnance or vehicle counters that represent its supply of Special Ammo (6.2).

DFPh: Defensive Fire Phase (3.4).

Direct Hit: A KIA/K final DR (prior to Gunshield DRM) result on the IFT after an Ordnance hit against a Gun (6.7).

DM: Desperation Morale (+4 DRM on rally attempts) (3.1, 3.2.3, and 3.6).

Double Time: An Infantry unit may add 2 MF to its MPH by becoming CX (3.3.1).

dr: die roll; a roll of just one die (1.4).

DR: dice roll; a roll of two dice (1.4).

drm/DRM: Die roll (or Dice roll) modifier; a mathematical adjustment either positive or negative to the original die roll or dice roll.

Emplaced Gun: A Gun that was not set up on a paved road and has not moved receives a +2 Emplacement TEM (6.3).

FFMO: First Fire Movement in Open Ground; a -1 DRM vs moving Infantry in Open Ground; does not apply if there is a LOS Hindrance (3.3.1).

FFNAM: First Fire Non Assault Movement; a -1 DRM vs moving Infantry provided the target is not using Assault Movement (3.3.1).

FG: Fire Group; two or more units and/or MG/ATR joining together to make a combined fire attack (3.2.2). Ordnance may not combine. A vehicle's MG/IFE may not combine with other units.

FP: Firepower; the strength with which a unit (or FG) attacks (1.2.2 and 3.2.2).

FPF: Final Protective Fire (3.3.3).

FT: Flamethrower (4.2).

- Full-Strength:** A Japanese squad/crew has no Broken side; it starts as Full-Strength (no red stripe) but can become Reduced-Strength (with a red stripe) via Step Reduction (8.1.2).
- Fully Tracked:** A vehicle that is identified by a white oval behind its MP number.
- Good Order:** An Infantry unit that is neither broken nor marked with a Melee counter. A vehicle that is neither Shocked (including UK) nor Stunned.
- Ground Pressure:** A DRM for Bog Checks (7.6).
- Gun:** Any non-vehicular Weapon on a $\frac{3}{4}$ counter (1.2.6 and 6.0).
- Gunshield:** Protection (usually +2 IFT DRM) sometimes available for a crew manning an AT or INF Gun (6.6).
- H#:** HEAT (High Explosive Anti-Tank) Depletion Number.
- Hazardous Movement:** Type of movement used by units manhandling a Gun (6.5).
- HE:** High Explosive (6.2); default Ordnance ammunition when using the ITT and ATT. Can be used on the VTT with own To Kill (TK) Table.
- HEAT:** High Explosive Anti-Tank; used by BAZ, PF, PSK, and PIAT and as Special Ammo by some Guns/MA (4.4 and 6.2).
- Height Advantage:** Protective TEM for units at a higher elevation (1.1.1).
- Hindrance:** Some terrain types (orchard, grain, brush) as well as vehicles/wrecks that are not moving targets and Smoke are not substantial enough to completely block Line of Sight (LOS). These are LOS Hindrances and each one hinders same level fire traced through it (but not into) and does not block it completely. Each Hindrance hex adds a +1 DRM to any same level IFT or TH DR traced through it.
- HIP:** Hidden Initial Placement for Guns (6.4).
- Hit:** Ordnance must secure a hit (via the To Hit process; 3.2.4) prior to resolving an attack via the IFT or To Kill Tables.
- HS:** Half-squad.
- IFE:** Infantry Firepower Equivalent.
- IFT:** Infantry Firepower Table.
- Immobilized:** A vehicle that, due to combat effects (including Shock or Stun results), the effects of Bog, or Mechanical Reliability may not change hexes, turn its VCA, or start.
- Inexperienced:** Green MMC not stacked with a Good Order leader and Conscript MMC suffer Inexperienced penalties: 3 MF; B# or X# lowered by one; cower two columns, +1 ambush drm (5.4).
- Infantry:** All SMC and MMC.
- Infantry Target Type (ITT):** One of the three general target types used by Ordnance. Not available to Mortars or LATW. All types of ammo other than Smoke/WP are allowed (3.2.4).
- Inherent Terrain:** Certain terrain depictions (orchards) and counters (Smoke/wreck/AFV) designate the entire hex including the hexsides as having the characteristics of that hex. A LOS that enters such a hex (even if traced along such a hexside) is affected by its Inherent Terrain (3.2.1).
- Intensive Fire:** After losing ROF a Gun or vehicle MA may make one final attack (3.2.4); adds a +2 TH DRM and lowers the B# by 2 (6.12).
- Interdiction:** A NMC suffered by a unit that routs without using Low Crawl through Open Ground in LOS of an enemy unit in normal range if FFMO could hypothetically apply (3.6).
- IPC:** Inherent Portage Capacity (4.0).
- Known Enemy Unit (KEU):** Any unconcealed (8.3) enemy unit to which the friendly unit in question currently has LOS.
- LATW:** Light Anti-Tank Weapon; a type of non-MG SW, BAZ, PSK, PF, ATR, and PIAT.
- LLMC:** Leader Loss Morale Check; an additional MC caused at any time by the loss of a leader with higher morale than the unit(s) he is stacked with (3.2.3).
- LLTC:** Leader Loss Task Check; caused by the breaking of a leader with higher morale than the unit(s) he is stacked with (3.2.3).
- LOS:** Line of Sight (3.2.1).
- Low Crawl:** A rout of one hex during the RtPh; avoids Interdiction in Open Ground (3.6).
- M#:** Manhandling number; a DR required when attempting to move a Gun (6.5).
- MA:** Main Armament of a vehicle (7.2). This is considered Ordnance unless it is MG/IFE firing on the IFT.
- Mandatory Fire Group:** Infantry and MG/ATR in the same hex that desire to fire at the same target (or moving stack on the same expenditure) must fire as a FG rather than separately (3.2.2). Ordnance may not combine. A vehicle's MG/IFE would have to combine to fire on the same target.
- Melee:** A condition existing between opposing units in the same hex after being attacked in Close Combat (3.8).
- MF:** Movement Factor; a measure of movement capability for Infantry units (3.3.1).
- MG:** Machine Gun; a type of SW designated as light (LMG), medium (MMG), or heavy (HMG) (4.1). Vehicles may also be equipped with MGs.
- Mired:** A more severe form of Bog (7.6).
- MMC:** Multi-Man Counter (1.2.2); squad, half-squad, or crew.
- Mobile:** A Good Order vehicle that is neither bogged nor Immobilized.
- Mortars:** An indirect fire type of Ordnance that must use the ATT. Light Mortars (60mm or less) are SW and can be manned by any Infantry, while all other Mortars are Guns and must be manned by a crew to fire without penalty (4.5 and 6.9).
- Motion Fire:** Fire by a vehicle that is Non-Stopped or while still in Motion. The MG/IFE firepower of such a vehicle is halved while still in Motion. In addition there are certain TH penalties (3.3.2.2).
- Motion Status:** A vehicle that has started since the last time it stopped.
- Motion Status Attempt:** An attempt by a vehicle, during the opposing player's MPh, to gain Motion status or change VCA (3.3.2.1).
- Moving Target:** A vehicle/wreck that has moved into a new hex this Player Turn, or that is in Motion, or that started its MPh in Motion.
- MP:** Movement Point; a measure of movement capabilities for vehicles (3.3.2).
- MPh:** Movement Phase (3.3).
- Near Miss:** Any hit vs a Gun not resulting in a KIA/K result prior to Gunshield modification (6.7).
- NMC:** Normal Morale Check; requires a DR less than or equal to the current morale level of the unit to avoid breaking. Leadership modifiers can apply (3.2.3).
- NTC:** Normal Task Check; requires a DR less than or equal to the current morale level of the unit to perform certain tasks. Leadership modifiers can apply (3.2.3).
- NT:** Non-Turreted weapon including all Guns except those with a 360-degree mount (3.2.4). Also includes turretless vehicular MA.
- Non-Qualified Use:** The use of a Gun by units other than a crew (1.2.6); adds a +2 TH DRM and lowers the B# by 2 (6.12).
- Non-Stopped:** During the MPh, a vehicle that has not expended a stop MP since its last start MP (3.3.2).
- OB:** Order of Battle; the forces which compose one side in any scenario as defined by the scenario card.
- Ordnance:** A Gun, SW (Mortar or LATW), or vehicle MA that must first secure a hit via the To Hit process prior to resolving an attack via the IFT (6.0) against Infantry or prior to the To Kill process against a vehicle (7.9).
- OT:** Open-Topped (7.13).
- PAATC:** Pre-AFV Advance/Attack Task Check (3.3.4 and 3.7).
- PBF:** Point Blank Fire; fire at a target in an adjacent hex. Total firepower is double the normal firepower (3.2.2).
- PF:** Panzerfaust (4.4.2).
- PFPh:** Prep Fire Phase (3.2).
- PIAT:** Projector Infantry Anti-Tank (4.4.5).
- Player Turn:** The eight consecutive phases that is half of one game turn and during which the ATTACKER can move his forces.
- PP:** Portage Points represent how difficult a SW is to carry, and are assessed vs a unit's IPC (4.0).
- PSK:** Panzerschreck, a German Light Anti-Tank Weapon (4.4.1).
- PTC:** Pin Task Check (3.2.3).
- PTO:** The Pacific Theater of Operations (PTO) is where both the Japanese (8.1) and the U.S. Marine Corps (8.4) fought. The terrain (8.2) was different, and concealment (8.3) was an integral part of combat.

PTO Terrain: The terrain specific to the PTO, using rules different from the European Theater of Operations. Invoked only by SSR, PTO Terrain transforms woods, brush, orchards, certain buildings, and grain into (respectively) jungle, bamboo, palm trees, huts, and kunai (8.2).

QRDC: Quick Reference Data Card; the card containing the tables needed to play the game.

QSU: Quick Set Up Gun. This Gun may be moved during play via the manhandling process (6.5).

Recall: The condition of an AFV that must exit a friendly board edge as soon as possible (7.10). May be caused by suffering a STUN result, a second Stun result (one Stun if a 1MT), or permanently disabling its MA.

Reduced-Strength: A Full-Strength Japanese squad/crew that fails a MC usually undergoes Step Reduction and becomes a Reduced-Strength squad/crew as signified by a horizontal red stripe on the reverse of a Full-Strength squad/crew (8.1.1 and 8.1.6).

Residual FP: Firepower left in a hex as a result of Defensive First Fire (3.3.5).

RMG: Rear Machine Gun; range is 8 hexes.

ROF: Rate of Fire; a MG, Mortar, Gun, or vehicle MA may be able to attack more than once in a turn. The ROF number is encased in a square (1.2.4.1).

RPh: Rally Phase (3.1).

RtPh: Rout Phase (3.6).

s#: Smoke Depletion Number.

Self-Rally: The capability of a unit to rally itself without a Good Order leader present as indicated by a broken side morale encased in a square (3.1).

Shock: One of the possible results following a To Kill attempt (7.10).

SMC: Single-Man Counter (1.2.1).

Smoke: Smoke grenades placed by an Infantry squad ($\frac{1}{2}$ " counter; 3.3.1) or smoke shells placed by Ordnance or dispensed by an AFV ($\frac{1}{2}$ " counters; 6.2 and 7.5), which provide protective cover (1.2.5).

Smoke Exponent: A superscript to a unit's FP strength indicating the ability to attempt to place Smoke grenades (3.3.1).

Squad Equivalent: Two HS or crews are equivalent in size to one squad (1.2.2). A crew or HS manning a Gun is equivalent to one squad (for stacking purposes only).

SSR: Scenario Special Rule (1.3).

Stacking Limits: Each side may have up to three MMC squad equivalents per hex plus up to four SMC (3.3.1). Each side may also have up to one vehicle in a hex.

Step Reduction: When failing a MC, a Japanese squad/crew undergoes Step Reduction rather than breaking. A Full-Strength squad/crew becomes Reduced-Strength, and a Reduced-Strength squad becomes a HS (8.1.3). A Reduced-Strength crew is replaced with a broken reduced-quality (1-2-7) crew (8.1.6).

Stun: A vehicle condition that follows a failed MC, or a MG Final TK DR equal to the Final TK number (7.10).

STUN: A vehicle condition that follows a KIA, K, or a second Stun result (first for a 1MT) or rolling a 12 on a MC (7.10); also results in Recall.

Subsequent First Fire (SFF): Firing again in Defensive First Fire, but as Area Fire (3.3.3).

SW: Support Weapon (1.2.4 and 4.0).

Target Size: A Gun's size as indicated by the color of its M# (6.7). A vehicle's size as indicated by the color of its various armor factors.

TEM: Terrain Effects Modifier; an IFT or TH DRM caused by the terrain of the unit being attacked (3.2.3 and 3.2.4).

TH: To Hit; Ordnance must secure a hit (via the To Hit process) prior to resolving an attack on a unit via the IFT or TK Tables (3.2.4).

TK: To Kill; having secured a hit on the Vehicle Target Type (VTT) table, the To Kill number is used to determine the effect on the vehicle (7.9).

TPBF: Triple Point Blank Fire; fire at a target in the firer's hex; total FP is triple the normal firepower (3.2.2.1).

Turret Covered Arc (TCA): Defined either by the front of the vehicle or by the direction of the Turret counter if different than the vehicle front.

Vehicle: A motorized unit that expends MP, depicted on a $\frac{1}{2}$ " counter.

Vehicle Covered Arc (VCA): Defined by the front of the vehicle.

Vehicle Target Type (VTT): One of the three general target types used by Ordnance. Not available to Mortars or most LATW. All types of ammo other than Smoke/WP are allowed (3.2.4).

Weapon: Either a support weapon (1.2.4), a Gun (1.2.6), or an AFV's MA (7.2) or MG (7.8).

WP (White Phosphorous): a type of Smoke limited to certain nationalities and Weapons that provides lessened cover (1.2.5) and also inflicts a NMC when it hits (6.2).

WP#: White Phosphorous Depletion Number.

Wreck: A vehicle that has been destroyed is flipped over to its wreck side.

X#: Breakdown number of a FT, DC, BAZ, or PSK (weapon is not repairable) (4.0).

3.0 Sequence of Play:

There are eight distinct phases in each Player Turn that are resolved in the following order: Rally Phase, Prep Fire Phase, Movement Phase, Defensive Fire Phase, Advancing Fire Phase, Rout Phase, Advance Phase, and Close Combat Phase. A full turn is recorded when both players have run through the entire sequence as the ATTACKER.

3.1 Rally Phase (RPh):

During the RPh both players attempt to rally their eligible broken units, fix broken equipment, or transfer equipment to another unit in the same location. Other than leaders rallying (themselves and other units) each unit may undertake only one action per RPh. These actions must be done in order:

a) Reinforcements: ATTACKER rolls for any provisional (SSR) reinforcements and sets up offboard all forces due to enter this Player Turn.

b) Recovery: Good Order units may attempt to recover an unpossessed SW/Gun in the same hex by making a dr less than 6 (+1 drm if CX) (ATTACKER first).

c) Repair of Broken Weapons: A Good Order unit possessing a Weapon of its own nationality (i.e., color) may attempt to repair the Weapon by making a dr less than or equal to the repair number on the back of the counter (ATTACKER first). A dr of 6 eliminates the Weapon permanently. A Good Order vehicle may attempt to repair each broken MG or MA; a dr of 1 repairs the Weapon and a dr of 6 eliminates it permanently.

d) Transfer of Weapons: Stacks may be freely rearranged to change possession of all Weapons between Good Order units in the same location (ATTACKER first).

e) Self-Rallies: Both sides may attempt to self-rally (ATTACKER first) eligible units (those with a box around their broken side morale level, e.g., leaders and crews). The ATTACKER only may attempt to self-rally one additional MMC without a box around its broken side morale. A leader attempting to self-rally may not apply his leadership modifier, and any unit attempting to self-rally also suffers a +1 DRM.

Russian Rally Phase Example

The broken 5-2-7 in yQ6 attempts an MMC self-rally. It must add 1 to its rally attempt for self-rally, but may subtract 1 for being in a building. The original DR is a 7, with the modifiers negating each other. Since this is less than or equal to the 5-2-7's broken morale level of 7, the 5-2-7 rallies and is flipped to its unbroken side.



Illustration before any results

Next, the leader attempts to rally both broken squads. The broken 5-2-7 must add 4 to its DR because it is currently under DM. The leader's -1 DRM applies, as does the -1 for being in a building. The broken 4-4-7 is not under DM and does not have to apply the additional +4 for DM. The total DRM for the 5-2-7 is +2 and for the 4-4-7 is -2.

The original DR for the 5-2-7 is 6; after adding the +2 DRM the final DR is 8. Since this is greater than the 5-2-7's broken morale level of 7, the squad does not rally. The original DR for the 4-4-7 is 9; after adding -2 the final DR is 7. Since this is less than or equal to the 4-4-7's broken morale level of 7, the 4-4-7 rallies and is flipped over to its unbroken side.

f) Unit Rallies: Both sides (ATTACKER first) may attempt to rally broken units stacked with a Good Order leader. To rally, a unit must make a DR \leq the morale number on its broken side. There is a +4 DRM if the unit is suffering from Desperation Morale (DM), a -1 DRM if the unit is in woods or a building, and a DRM equal to the leadership modifier of the leader attempting to rally the broken unit. If the only leader present in a stack of broken units is broken, he may attempt to rally the other units only if he self rallies first. There is no penalty for failing a rally attempt, unless the unit rolls an original 12, in which case it suffers Casualty Reduction. No unit may attempt to rally more than once per Player Turn; however, a Good Order leader may attempt to rally all the units he is stacked with.

g) Vehicle Shock: Both sides roll for Shock/Unconfirmed Kill (UK) AFV recuperation. Remove or flip marker or eliminate vehicle as appropriate.

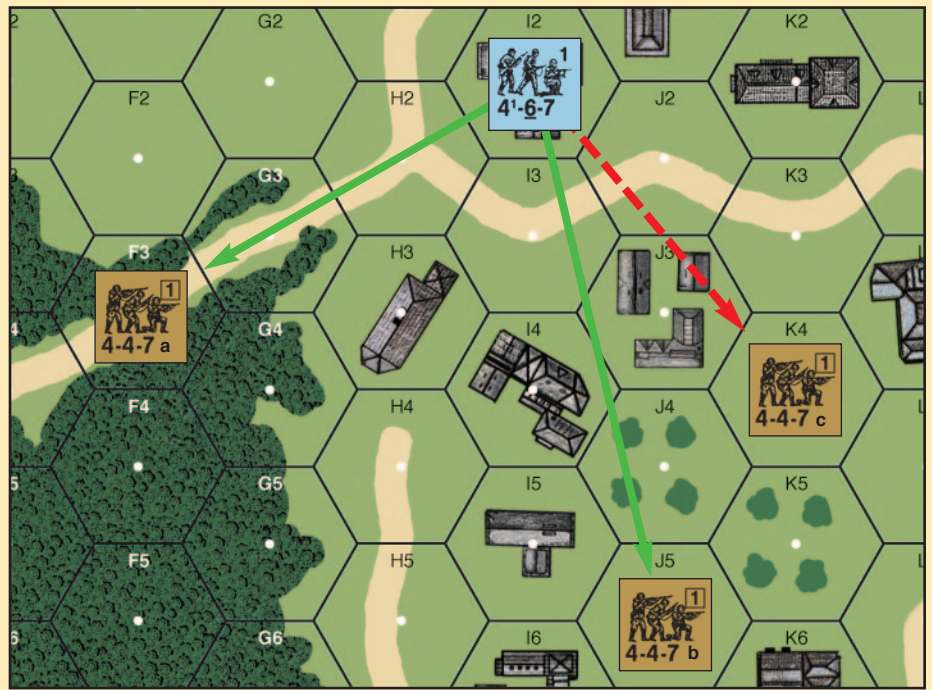
h) Marker Removal: All DM counters are removed at the end of the RPh unless the DM unit is adjacent to a Known Enemy Unit. A broken unit may opt to keep its DM status unless in woods or building.

3.2 Prep Fire Phase (PFPh) and Fire Attacks:

Fire attacks are the main process by which a unit attacks enemy units. No unit may fire at full strength more than once per Player Turn, except with weapons maintaining ROF. Otherwise a player may fire all, some, or none of his units in any applicable fire phase. Fire attacks ordinarily affect all units in the target hex, except during the MPH when a Defensive First Fire attack only affects units moving together.

Line of Sight Example

The 4-6-7 can see 4-4-7a in yF3 because a string drawn from the center dot in I2 to the dot in F3 does not hit any woods depiction (it goes “down the road”) and can see 4-4-7b in J5 with a +1 Hindrance due to the orchard in J4; it cannot see 4-4-7c in K4 due to the building in J3.



3.2.1 Line of Sight (LOS):

A unit may only fire at an enemy unit if it has a Line of Sight (LOS) to it. Units at the same level can trace a LOS to each other barring intervening LOS obstacles. This can be determined by stretching a sewing thread taut between the center of the firing hex and the center of the target hex, and cannot apply to offboard units. If the thread does

not cross the depiction of a LOS obstacle (building, woods, or hills) with the obstacle visible on both sides of the string there is a LOS between the two hexes. Similarly, if the thread does not cross a LOS Hindrance depiction (e.g., grain) or intersect an inherent Hindrance hex (e.g., orchard or Smoke), the LOS is unhindered. The terrain in the firer's hex or the target hex does not block LOS to

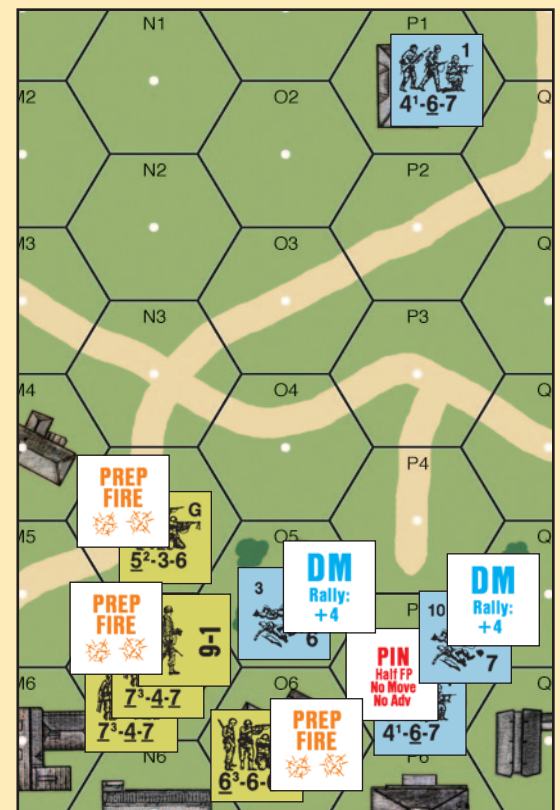
Prep Fire Phase Example (assuming German ELR of 3)

During the American PFPh one 7-4-7 in hex yN5 forms a multi-hex Fire Group with the 6-6-6 in hex O6 to fire at the German units in hex P5. The total firepower is 19 (6 FP for 6-6-6 in O6 is doubled for Point Blank Fire plus 7 FP from 7-4-7 in N5), and the attack occurs on the 16 FP column of the IFT. The DRMs include a +3 for the TEM of the stone building and a +1 for the orchard Hindrance for a total DRM of +4. The original DR is 6; after adding 4 the final DR is 10. Cross-referencing 10 on the 16 column of the IFT results in a Normal Morale Check (NMC). Thus, each unit in hex P5 undergoes a NMC. One 4-6-7 rolls an original 9 and the other rolls a 7; neither DR is modified. The 4-6-7 that rolled a 9 is flipped to his broken side with a DM counter is placed on top. The 4-6-7 that rolled a 7 has a Pin counter placed on top since it rolled equal to its morale on a morale check. Finally, the American units have a Prep Fire counter placed on them.

Next the remaining American 7-4-7 and 9-1 in N5 attack the 4-6-7 in P1 with 2 FP (7 FP at Long Range Fire is 3.5 FP, use the 2 FP column) and a +2 DRM (+3 stone building, -1 leadership modifier). The original DR is a 2 (“snake eyes!” double ones), the attack does not cover because it was directed by a leader) and the final DR is a 4. Cross-referencing 4 on the 2 column of the IFT results in a 1 Morale Check (1MC). The 4-6-7 makes an original DR of 5, modified to a 6, so the 4-6-7 is unaffected. The American units have a Prep Fire counter placed on them.

The American player then elects to fire the 5-3-6 in hex N4 at hex O5. The total firepower is 10, and the attack occurs on the 8 FP column. The DRM is +0, as orchard is a +1 Hindrance but is +0 as a Terrain Effects Modifier. The original DR is a 4 (double twos so the attack covers two columns since the unit is Inexperienced) and the final DR is a 4. Cross-referencing a 4 on the 4 FP column (two shifts to the left of the 8 FP column) results in a 1MC. The 4-6-7 makes an original DR of 12 (boxcars) with a final DR of 13. The 4-6-7 is Casualty Reduced for rolling an original 12 and replaced with a 2-4-7. That 2-4-7 is replaced by a 2-3-7 half-squad as the final DR was greater than the morale of the unit plus that unit's ELR, so it experiences unit substitution. The 2-3-7 is flipped to its broken side and marked with a DM counter. The 5-3-6 has a Prep Fire counter placed on it.

Illustration after all results



the center dot (although Smoke in the firer's hex or the target hex does hinder LOS). Attacks may be traced through units in intervening hexes without affecting them. Neither player may make a LOS check until after an attack has been declared. Should a LOS check reveal that a LOS obstacle blocks the fire, the fire attack is not resolved, but the units that declared the attack have fired for all purposes, including possible breakdown. Any combination of Smoke or terrain LOS Hindrance DRM greater than or equal to +6 blocks that LOS completely.

A unit may trace a LOS to a lower elevation (and vice versa) only if the higher unit traces its LOS through a Crest Line as it leaves its hex and this LOS never crosses another Crest Line. A unit on a higher elevation may not see past LOS obstacles although it may see into them. A unit on a higher elevation may see over lower level Hindrances (grain/brush) without Hindrance.

3.2.2 Fire Attacks:

A fire attack by a unit or Fire Group uses the firepower (FP) strength of the unit(s). The printed FP strength can be modified under some conditions. The FP of an attacking Infantry unit/ATR/MG (including vehicular MG/IFE) is doubled for Point Blank Fire (PBF), which occurs when an Infantry unit fires at an adjacent hex and tripled vs units in the same hex for Triple Point Blank Fire (TPBF). An MMC/MG/IFE/FT may attack beyond normal range, as Area Fire (and thus with half FP), at a distance up to and including double that range. Fractions of halved FP totals are not dropped, but rather retained and subject to further modification, or added to the FP totals of other units involved in the same attack. FP modifications are cumulative; attacker's FP can be both doubled and halved and can be halved again several times. A unit may not split its FP between different targets but a squad may opt to fire its own FP at one target and any possessed Weapon at a different target. Whenever a non-leader-directed MMC attack rolls original doubles as the IFT resolution DR, it covers and is resolved on the next lower column on the IFT and results in the cowering unit being marked with a Prep Fire or Final Fire counter (as appropriate). If an Inexperienced MMC is involved in such an attack, the attack shifts two columns to the left rather than just one. Any shift below the lowest column results in an attack that has no effect. Cowering does not affect Ordnance, vehicles, CC, DC, or Residual FP attacks.

Two or more units may join together to make a combined fire attack and are termed a Fire Group (FG). A FG may consist of units from more than one hex only if each participating unit occupies a hex in or adjacent to another participating unit of the same FG. A leader alone cannot be a FG link. Ordnance and FT may not form a FG. A vehicle's MG/IFE may FG only with themselves. All members of the FG must be able to trace a LOS (3.2.1) to the target. A multi-hex FG that discovers that part of the FG does not have a LOS to the target forfeits the participation of that unit. The units in the FG with valid LOS must still attack the target but as a smaller FG (if adjacent) or as separate

attacks at the firer's option. If Infantry in the same hex are going to attack the same unit, they must do so as a Mandatory FG; they may not make separate attacks unless using FT, Ordnance, or subsequent ROF attacks.

A leader may use his leadership DRM to modify the IFT DR of any one attacking Infantry unit (except a FT) or FG per Player Turn, provided all units of the FG are in the same hex. A leadership DRM may be applied to a multi-hex FG only if a leader directing that attack is present in every hex; the leadership DRM in effect in this condition is that of the lowest quality participating leader. A leader directing fire is treated as if he were attacking.

3.2.2.1 Triple Point Blank Fire (TPBF):

MG/ATR/IFE and MMC's firepower are tripled for fire attacks vs targets in the firer's hex on those rare occasions when they can occur (an enemy vehicle moves into your hex or Infantry advances into a hex with enemy vehicle that is or becomes in Motion/Non-Stopped). BU AFV are safe from TPBF, but CE AFV are not, although the +2 CE DRM applies normally. A unit may not fire outside its hex when an enemy unit is in its hex.

3.2.3 Effects:

Fire attacks are resolved by cross-referencing the combined FP total of the attacking unit(s) with a DR on the Infantry Firepower Table (IFT). The attacker uses the rightmost column of the IFT whose listed FP does not exceed the total adjusted FP of the attack (thus an attack total of 9 is resolved on the 8 column); excess FP factors have no effect. The DR is modified by adding any applicable DRM such as leadership, Terrain Effects Modifier (TEM), or LOS Hindrance between (but not in) the firer's hex and the target hex. The results are applied as follows vs Infantry and CE AFV crews:

#KIA: As many targets as the number indicated (#) are eliminated (randomly determined); all remaining targets are automatically broken and DM, or suffer Casualty Reduction (below) if already broken. If a CE AFV crew suffers a KIA result, the AFV and crew are STUNNED (7.10).

K/#: One unit suffers Casualty Reduction and all other target units (including any just reduced HS) must take a morale check (MC) adding the indicated number (#) to the MC DR. Which of multiple targets suffers Casualty Reduction is randomly determined. Casualty Reduction eliminates a HS or a crew, reduces a squad to a HS, and wounds a SMC. A wounded SMC must immediately make a wound severity dr; a 1-4 indicates a light wound (place a Wound counter) and a 5-6 eliminates the SMC.

A wounded SMC is reduced to three MF, has an IPC of zero, and cannot Double Time. If wounded again he must add a single +1 drm to his wound severity dr—the only penalty for being wounded more than once. His morale level and leadership

modifier are reduced by one, e.g., a wounded 8-0 leader has a morale level of 7 and a leadership modifier of +1. If the CE crew of an AFV suffers a K result, the AFV and crew are STUNNED (7.10).

NMC: Each target unit must attempt to pass a Normal Morale Check (NMC) by making a DR less than or equal to the unit's morale level. The best leader in a hex must check first. Units that fail are broken and inverted and have a DM counter placed on them; remove any Pin or CX counters. A unit that rolls an original 12 on a MC suffers Casualty Reduction in addition to breaking. An already broken unit that fails a MC suffers Casualty Reduction; an already broken unit that rolls an original 12 on a MC is eliminated. An unbroken unit that fails a MC by more than its ELR (see 5.1) might be replaced by a lesser quality unit.

Broken units use the morale level printed on their broken side for all MC and rally attempts until they are rallied and returned to their normal side. Broken units may only rout and attempt to rally. An unpinned, Good Order leader will apply his leadership DRM to other units (including lower morale leaders) in the target location if he passes his MC unharmed, but not to himself.

Furthermore, if a leader is eliminated, all units with a lower current morale level stacked with him and not in CC must take a NMC after resolving the initial attack, with any negative leadership DRM added to the DR rather than subtracted from it. This is a Leader Loss Morale Check (LLMC).

If a leader breaks, all Good Order units with a lower current morale level stacked with him and not in CC must take a PTC after resolving the initial attack, with any negative leadership DRM added to the DR rather than subtracted from it. This is a Leader Loss Task Check (LLTC).

If an unbroken unit passes a required MC by exactly the highest number by which that unit could pass the MC (after all modification), then that unit is pinned, and a Pin counter is placed on that unit. (See PTC below.)

If a CE AFV crew fails its MC, that crew is Stunned (7.10) and marked with a Stun counter. If a CE AFV crew rolls a 12 on a MC then the AFV is STUNNED (7.10) and marked with a STUN counter.

#MC: The number before the MC is a positive DRM that must be applied to the MC DR.

PTC: Pin Task Check; each unbroken and unpinned target unit must roll less than or equal to its current morale level or be pinned. Leadership DRM may apply if the leader that is part of the target group first passes his own PTC. Units that fail their PTC have a Pin counter placed on them;

during that turn they may not move or change the CA of a Gun, their FP is halved, ROF is lost, and a pinned leader may not use his leadership DRM. Units cannot be pinned more than once per Player Turn.

A Pin result vs the crew of a CE non-OT AFV forces the crew to become Buttoned Up (BU) for the remainder of that Player Turn. A vehicle itself can never be pinned and therefore may still move.

A broken unit not under DM that becomes adjacent to a Known Enemy Unit or is attacked by enough FP (taking the possibility of Covering into account) to possibly inflict a NMC is placed under DM.

3.2.4 To Hit Process:

Ordnance (Guns, SW Mortars, and LATW; 6.0) and non-MG vehicular MA must first secure a hit on either the Infantry Target Type (ITT), the Area Target Type (ATT), the Vehicle Target Type (VTT), or (if applicable) its own TH Table by using the To Hit procedure (see 4.1 for MG). If a hit is secured against Infantry or a Gun, roll for an effect on the IFT or on the To Kill (TK) Tables if the target is a vehicle. Not all the occupants of the hex will always be hit. Some units may not be hit because they are not moving during Defensive First Fire, because of relevant DRM that may not affect all targets equally, or because a non-relevant Target Type was used.

Infantry Target Type:

Shots using the Infantry Target Type typically use High Explosive (HE) ammo but can also use HEAT or AP ammo. All enemy targets except for BU AFV in the target hex can be affected by a hit including any Crew Exposed (7.7) units. TEM applies to the TH DR but not the IFT DR.

Area Target Type:

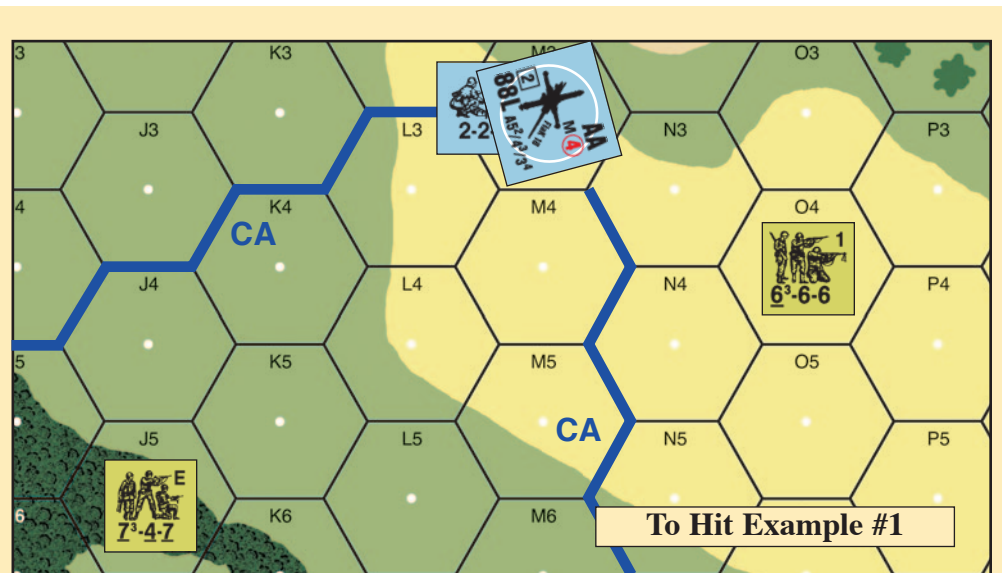
The Area Target Type is always used by Mortars and whenever Ordnance attempts to fire Smoke; otherwise, it may be selected whenever firing HE ammo, but not HEAT or AP ammo. Fire on the Area Target Type by other than a Mortar consumes all of the Gun's/MA's ROF for that turn, thus non-mortars cannot fire again after using the Area Target Type. TEM does not apply to the TH DR but will apply to the IFT DR. A hit can potentially affect all units in the hex. The Area Target Type cannot be used in the firer's own hex (range 0), as Bounding First Fire, or by a Motion vehicle.

Vehicle Target Type:

The Vehicle Target Type is used when firing at a specific vehicle. A hit on the Vehicle Target Type cannot cause damage to any other unit in the targeted hex.

To Hit Procedure:

Ordnance may fire during the Prep Fire, Defensive First Fire, Final Fire, or Advancing Fire Phases, but must be possessed by Infantry manning it or be a vehicular MA. A MA may also be fired during the vehicle's MPh (3.3.2.2). The firing player must declare both a target and a Target Type. Determine the range to the target and find the To Hit number (TH#) on the To Hit



In its PFPH the German 88mm AA Gun fires at the 7-4-7 in xJ5 (within its Covered Arc) using the Infantry Target Type. The range to the target is 4 hexes, and grain is in season. Cross-referencing the Target Type, range, and Gun Type on the To Hit Chart gives us the TH# of 8. This is a black TH#. None of the grounds for using red TH#s apply to this shot; furthermore, at range 6 on the Infantry Target Type there are only black TH#s to consider. The dice roll is modified as follows: Woods TEM is +1, and the grain Hindrance of L3 is +1, so the total To Hit (TH) dice roll modifier (DRM) is +2. The German player rolls a 7 (colored die of 1) and adds the +2 DRM for a final DR of 9. This is > 8, so the shot misses; place a 1/2 -1 Acquired Target counter on the target unit in J5.

The German has kept Rate of Fire (ROF) on the 88 and decides to fire again. In addition to the previous DRM a -1 Acquired Target DRM also applies for a total DRM of +1. The German player rolls a 3 (colored die of 1) and adds the +1 DRM for a final DR of 4, which is ≤ 8, resulting in a hit. The German now rolls on the IFT column appropriate for an 88mm Gun; the 16 FP column applies to weapons of at least 80mm but less than 100mm. No DRM apply (TEM was applied to the TH DR). The German rolls a 7 which becomes the final IFT DR and results in a 2MC. The 7-4-7 takes a 2 Morale Check (2MC), fails, and breaks; the -1 Acquired Target counter is flipped to its -2 side.

The German has kept ROF with the 88 again and now attacks the 6-6-6 in O4, but must first change its Covered Arc (CA). The Gun changes its CA to M4/N3, a 1 hexspine change. The range is 2 hexes, and the TH# is now 9. The DRM are grain Hindrance of +1 in N3 and a 1 hexspine CA change of +1 (for 360° Gun) for a DRM total of +2. The DR is 8 (colored die of 5) and adding the +2 DRM provides a final DR of 10, a miss. The Gun has lost ROF and is marked with a Prep Fire marker. The -2 Acquired Target counter is removed from J5 and a -1 Acquired Target counter is placed on the 6-6-6 in O4.

The Gun now intensive fires at the 6-6-6. The CA change DRM no longer applies. There is a +2 DRM for Intensive Fire, a -1 Acquired Target DRM, and the grain Hindrance for a total DRM of +2. The German rolls another 8 (colored die of 2) for a final DR of 10 and another miss. ROF was previously lost, and the Gun is marked with an Intensive Fire counter and has no more attack opportunities this Player Turn. The Acquired Target counter is flipped to its -2 side.

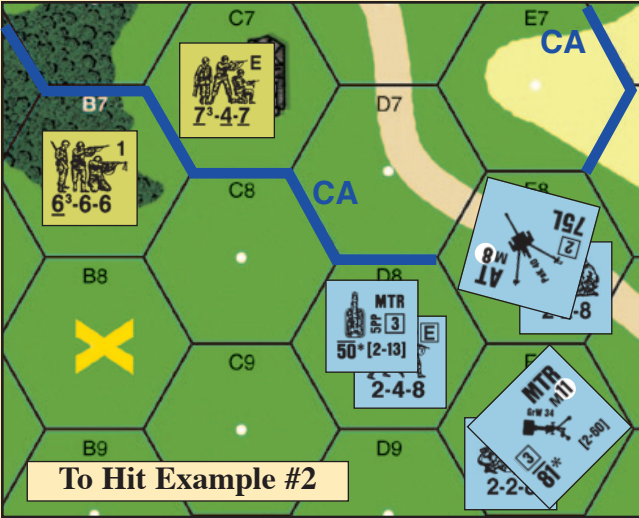
The 88 could have originally fired at the 7-4-7 on the Area Target Type instead, and may have done so if the 7-4-7 were in a stone building, even though at range 4 the TH# is lower on the Area Target Type than it is on the Infantry Target Type. On the Area Target Type the TEM does not modify the TH DR but instead modifies the IFT DR after a hit, thus making the 7-4-7 easier to hit on the Area Target Type, but at reduced effect.

Chart on the QRDC by cross-referencing the Ordnance type, the Target Type, and the range. This number is the maximum number on two dice that can be rolled to obtain a "hit." Each TH entry has a black #, a red #, or both. Fire on the Area Target Type always uses red TH#s. Fire on the Infantry and Vehicle Target Type uses black TH#s unless firing a Russian, Italian, Polish, Slovak, or pre-1944 American MA/Gun, or if subject to Non-Qualified or Captured Use. If the entry has no red TH#, use the black TH#. Add to the DR both the Firer Based To Hit DRMs (such as CX status, Covered Arc change, and Non-Qualified Use) and the Target Based To Hit DRMs (such as FFMO, FFNAM, Target Acquisition, Hindrances, and if not using the Area Target Type, TEM) found on the QRDC for the Target Type being used. If the DR is equal to or less than the TH# then a hit has been achieved on the target. If firing in the ATTACKER's MPh, Defensive First Fire principles apply and only moving targets may be affected.

Some Guns and MAs have a ROF indicated by a number encased in a square (1.2.4.1). There are some instances however in which this ROF can be lowered. These are: Infantry Firepower Equivalence (IFE) use, Captured/Non-Qualified Use, and a Non-Turreted Gun changing its Covered Arc (NA for 76mm-82mm Mortars) during the phase. Each of these applicable instances cumulatively reduces the normal ROF by one for that shot. Most Guns/MA do not list a range limit; however, if two numbers appear, the first is its minimum range and the second is its maximum range.

A Gun/MA/BMG/CMG has a facing that is determined by its Covered Arc (CA). A Covered Arc is indicated by placing the Gun/Turret counter with the depicted Gun barrel pointing directly at one of the six hexspines of its hex. The Covered Arc comprises the Gun's own hex, the two hexes joined by that hexspine, all the hexes and hexspines of the two diagonal rows of hexes that pass through those hexes while converging on the unit's hex, and all the hexes between those

The 75mm AT Gun in xE8 has the 7-4-7 in its CA but not the 6-6-6. During the Gun's PFPh it fires on the 7-4-7 using the Infantry Target Type (ITT) at a range of 2. Cross-referencing the Target Type, range, and Gun Type on the To Hit Chart gives us the black TH# of 9. (No red TH# applies at range 2 on the ITT even if there were a cause for using the red TH#s.) The dice roll is modified only by the +3 TEM of the stone building. The German rolls a 7 (colored die of 1) and adds the +3 DRM for a final TH DR of 10. This is higher than 9, so the attack misses. A 1/2 -1 Acquired Target counter is placed on C7. The AT Gun kept Rate of Fire (ROF) and fires again. In addition to the +3 TEM, the -1 Acquired Target DRM applies for total DRM of +2. The German rolls a 7 (colored die of 2) and adds the +2 DRM for a final TH DR of 9, resulting in a hit with ROF. The German now rolls on the IFT column appropriate for a 75mm Gun; the 12 FP column applies to weapons of at least 70mm and less than 80mm. No DRM apply to the IFT DR (TEM was applied to the TH DR). The German rolls a 7, which becomes the final DR and results in a 1MC. The 7-4-7 takes a 1MC, fails, and breaks; the -1 Acquired Target counter is flipped to its -2 side. The AT Gun could have fired on the 7-4-7 using the Area Target Type (ATT) with a TH# of 7 (red, since it is on the ATT). The TEM would not modify the TH DR, making the 7-4-7 slightly easier to hit on the ATT than the ITT, although foregoing any chance for ROF. The results after a hit would be less effective than on the ITT, however, since the FP would be halved and the +3 TEM would apply to the IFT DR. Having kept ROF again, the AT Gun now fires on the ITT at the 6-6-6 in B7, changing its CA to D7/D8, a 1 hexspine change. The range is 3 hexes, so the TH# is 8. The TH DRM are +3 for the first hexspine change and +1 for the woods TEM for a total of +4. (The Acquisition in C7 does not apply.) The Gun's ROF is reduced by 1 due to its changing of its CA. The German rolls a 4 (colored die of 2) and adds the +4 DRM for a final DR of 8, a hit. The resulting attack on the 12 FP column has no DRM and the IFT DR of 7 results in a 1MC on the 6-6-6 that the squad passes. The -2 Acquired Target counter is removed from C7 and a -1 is placed on B7. The AT Gun, having lost ROF, declines to Intensive Fire at this time.



The 81mm MTR in E9 now fires on the 7-4-7 in C7, changing its CA 2 hexspines to D8/E8. Because it is a Mortar, it must use the ATT, and its ROF is not reduced due to changing its CA. The TH# at range 3 is 7. The TH DRM are +3 for changing CA 1 hexspine and +1 for changing CA another hexspine for a total of +4. The German rolls a 4, resulting in a final TH DR of 8, a miss, and placing a 1/2 -1 Acquired Target counter. Having kept ROF the 81mm MTR fires at the 7-4-7 again, this time with a total DRM of -1. A DR of 8 (colored die 3) results in a final DR of 7, a hit, with ROF. The IFT attack occurs on the 8 FP column (half of the 16 FP column) with +3 DRM for the TEM of the stone building. The German rolls a 7, modified to a 10, for no effect. The 81mm MTR now changes target to the 6-6-6 in B7. The TH# remains 7, but there are no DRM. The German rolls a 6 (colored die 4), resulting in a hit (but no ROF), and an attack on the 8 FP column, this time with -1 DRM for Air Bursts. The German rolls an 8, modified to 7, resulting in a 1MC on the 6-6-6 (which passes). Having lost ROF, the 81mm MTR declines to Intensive Fire.

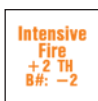
The 50mm MTR now fires at the 6-6-6 in B7. Being a SW, the 50mm MTR does not have a defined CA and need not worry about changing CA. At range 2 on the ATT its TH# is 7. (Note that if this were the American 60mm Mortar firing, it could not attack B7 at range 2.) No TH DRM apply, and the MTR hits when the German rolls a 6, losing ROF with a colored die of 4, and placing a second 1/2 -1 Acquired Target counter. The MTR attacks on the 2 FP column (half of 6 FP) with a -1 DRM for Air Bursts. An original DR of 2 is modified to 1, resulting in a 1KIA, eliminating the 6-6-6. Since the 50mm MTR is a SW, it cannot Intensive Fire.

two converging diagonal hexrows. A Gun/MA/BMG/CMG may only fire within its CA but may if not a Pinned Gun change its CA prior to firing (and suffer the resulting To Hit [or IFT if using MG/IFE] Firer Based penalties).

These penalties apply only to the first shot after the CA change. The Case 8 DRM will not apply to another shot from that weapon unless the weapon changes its CA again. Case 8 is never applicable to Bounding First Fire. A Gun may also change its CA without firing at the end of a friendly fire phase (not MPh) but only if it can fire without using Intensive Fire and its manning Infantry has not fired its inherent firepower; both the Gun and its manning Infantry then cannot move that Player Turn. If a Gun counter has a white circle around the Gun depiction, it is a 360-degree mount and has reduced To Hit penalties when changing its CA before firing. All other Guns are Non-Turreted (NT) weapons.

Each vehicle has a Vehicular Covered Arc (VCA) based on the front of the vehicle which should always point towards one of the 6 hexspines of its hex as it expends MP to change its hex or VCA. Turreted vehicles (with a circle or square around the vehicle depiction) have a Turret Covered Arc (TCA), which may be different than the VCA; if different, this is represented by a Turret counter. Both the VCA and TCA are defined in the same manner as, and operate similar to, a Gun's CA. Bow mounted weapons (e.g., BMG) always fire through the VCA and turret mounted weapons (e.g., CMG) always fire through the TCA, except for rear CMG which fire through the rear TCA.

A unit's own hex is considered part of its CA/VCA/TCA during the enemy MPh only if an entering unit enters through a hexside of the appropriate weapon's CA or if the weapon changes its CA to encompass the hexside as the unit enters. An immobile vehicle's own hex is not considered part of the VCA of its bow mounted weapons otherwise.



Intensive Fire:

A Gun/MA (not SW) that has fired and lost ROF can still fire again once in the same phase by using Intensive Fire.

Mark it with an Intensive Fire counter to indicate that it cannot fire again that Player Turn. There is a +2 TH DRM for Intensive Fire, and the Gun's/MA's B# is reduced by two. An original TH DR equal to the original B# for a Gun/MA using Intensive Fire results in permanent removal of the Gun and Recall (7.10) for the vehicle. A non-vehicular Gun with no ROF shown on its counter that changes its CA is marked with an Intensive Fire counter after that shot and cannot fire again that Player Turn. A Gun/MA cannot Intensive Fire if pinned, Shocked, or Stunned. Intensive Fire cannot be used in the AFPh and only vs adjacent (or same) hex during the DFPh. If a Weapon has "No IF" listed on its counter then it may not use Intensive Fire.

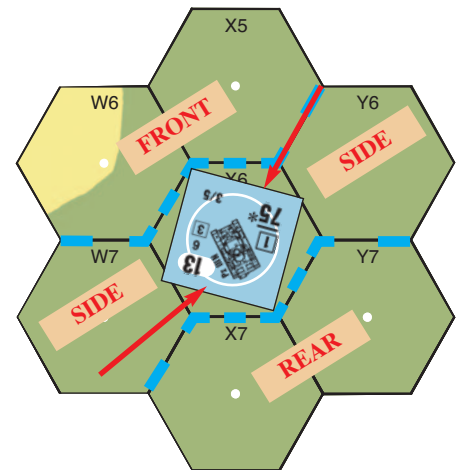
Non-Qualified Use:

A Gun (not SW) fired by a squad or HS must add a +2 TH DRM, has its B# reduced by 2, and is permanently removed on an original TH (or IFT if using IFE) DR ≥ the Gun's original B#.

Effect:

If a hit is secured (i.e., a final DR less than or equal to the TH#) against Infantry, a CE crew, or

on the Area Target Type vs a vehicle, a new DR is made on the IFT to determine the effect. Use the FP column for the ordnance's caliber size if using the Infantry Target Type or the column representing half of that FP if using the Area Target Type (see 6.2 if using AP, HEAT, or WP). When using the Infantry Target Type, TEM does not modify the IFT DR. The Area Target Type must apply the TEM to the IFT DR. Ordnance does not double its IFT FP for PBF, has no long range fire, and is not halved when firing in the AFPh.



If a hit is secured when firing on the Vehicle Target Type or using a LATW against an AFV, it will be necessary to determine the appropriate target facing, aspect, and Armor Factor (AF) and then use the appropriate To Kill (TK) Tables to determine if an AFV's armor has been penetrated. Target facing is determined as depicted in the

accompanying diagram; if the LOS runs directly along a hexspine of the target hex that determines target facing, use the target facing least favorable to the attacker. If the fire originates from within the target hex, target facing is determined by the colored die of the TH DR: 1-2 rear; 3-4 side; 5-6 front; a FT would strike the rear facing. A vehicle is hit in the Turret aspect if the colored dr of the original TH DR is less than the white dr. The Hull aspect is hit if the colored dr of the original TH DR is greater than or equal to the white die. For a turreted vehicle, determine the facing (front, side, rear) when hit in the turret based on the TCA, while the facing of a hull hit is determined based on the VCA. Then determine the TK number (TK#) of the weapon prior to resolving the effect of the hit by using the TK Table for the type of Ammo used. The TK Tables list each weapon's TK number based on Weapon caliber and length. The *final* TK number is derived by subtracting the appropriate Armor Factor (AF). If the DR was less than the *final* TK number then the target vehicle is eliminated. Flip it over to its wreck side. There are potentially additional results if the DR equals or even exceeds the Final TK# (7.10).



3.2.5 Prep Fire Phase (PFPh):

The ATTACKER conducts fire attacks in the PFPh. After resolving each attack during the PFPh, the firing unit (and Weapon) is marked with a Prep Fire marker (remove CX counter [if any] from firing unit). A Motion vehicle may not fire in the PFPh; it must wait until the Movement Phase.

3.3 Movement Phase (MPh):

During the MPh the ATTACKER may move all, some, or none of his units provided they did not fire during the PFPh and are not broken, held in Melee, or immobile. Units can be moved in any direction or combination of directions up to the limit of their Movement Factor (MF) allotment for Infantry or Movement Point (MP) allotment for vehicles. When moving, units move from hex to hex and may not skip hexes. Units may move over and stack on top of friendly units but may not move into a hex that would violate stacking limits at any time during the move. Non-vehicular units may not move into a hex containing enemy units during the MPh. Units enter from offboard—either at the start of a scenario or as reinforcements—as directed by the scenario card, including turn and location of entry. Units are set up offboard along the specified edge(s) of the map at the start of their RPh in the Player Turn of entry. They may not perform any action while offboard except move during the MPh per normal Open Ground movement costs. They must enter during the MPh or APh of their turn of entry or be eliminated. Roads are considered to extend offboard for purposes of road bonus. A unit may not voluntarily leave the map unless it is in Good Order and exits as part of the Victory Conditions, doing so as if the offboard hex were Open Ground. Any unit otherwise forced to exit the map is eliminated.

3.3.1 Infantry Movement:

A SMC has 6 MF (or 3 MF if wounded) and an MMC has 4 MF (or 3 MF if Inexperienced). A MF bonus of one can be earned if the unit travels along a road throughout the MPh. Any MMC that begins and ends its MPh stacked with a leader receives a 2 MF bonus during the MPh, provided it moves with the leader in a combined stack. MF cannot be transferred between units nor accumulated between turns. Units expend MF based on the terrain that is entered, subtracting that amount from their remaining total until they reach zero or choose not to move further. Whenever a player moves a unit he states the MF expended by that unit in entering each hex or in performing any other activity in that hex. If a unit is going to end its MPh there he must state so before moving another unit. The player is not allowed to take the unit back to a previously occupied hex and begin again unless it does so as part of its movement. Once a unit moves, stops, and another unit moves, the original unit may not move again in that MPh.

For each side, up to three MMC squad equivalents and 4 SMC may be in a hex at a time. A crew or HS possessing a Gun is equivalent to a full squad for stacking purposes.

Units are usually moved one at a time unless an MMC is using bonus MF gained by moving with a leader. Units *may* choose to move as a stack and may break up the stack during the MPh to continue to move separately, but all members of that moving stack must end their MPh before a unit not in that stack may move.

A unit that moves no more than one hex during the MPh may use Assault Movement if the player declares that he is using Assault Movement and the move does not take all of the unit's MF. Assault Movement reduces the unit's vulnerability to Defensive First Fire by avoiding the First Fire Non Assault Movement (FFNAM) -1 DRM.

Any Infantry capable of movement and neither broken, pinned, wounded, using Assault Movement, nor already Counter Exhausted (CX) may Double Time if the player announces the option at the beginning of that unit's MPh and places a CX counter on it. Double Time increases the unit's MF by two. CX units must add one to any attack (IFT, TH, CC) DR (maximum +1) they make or direct and to the dr for recovery, ambush, and smoke grenade checks. A CX unit has its IPC reduced by one and any unit making a CC attack against a CX unit has its CC DR reduced by one. A CX counter is removed at the start of the unit's next MPh and does not affect that unit during that MPh other than prohibiting its use of Double Time during that MPh.

A unit with a Smoke Exponent (1.2.2) may check for ½" Smoke grenade placement during the MPh by declaring so, expending one MF to place Smoke in its own hex or two MF to place Smoke in an adjacent hex, and making a dr less than or equal to its Smoke Exponent number. A CX unit must add a +1 drm. No unit may attempt to place Smoke grenades more than once per MPh. If the original smoke placement dr is a 6, the unit must immediately end its MPh in its current location.

To Hit and To Kill vs Vehicle Summary

- 1) Select Ammo and Target Type (ATT or VTT).
- 2) Select target and calculate range.
- 3) Cross-reference range and Target Type with firing weapon gun size and length.
- 4) Roll dice and add appropriate To Hit DRMs.
- 5) If hit occurs, determine location of hit: hull/turret and front/side/rear.
- 6) Determine TK# by cross-referencing Ammo and gun size, length, and range.
- 7) Roll dice and subtract the AF of location hit from the TK# to obtain the final TK# and then compare that to the DR, consult appropriate AFV Destruction Table based on ammo type (AP, HEAT, APCR/APDS, HE, MG).

See 1.2.5 for the effect of Smoke; however, recall that any movement during the MPh/RtPh into (but not out of) Smoke costs one additional MF. A ½" Smoke grenade counter is removed at the end of the MPh.

A moving unit may attempt to recover an unpossessed Weapon in the same hex by expending one MF and making a dr less than 6 (+1 drm if CX); one attempt per unit per Weapon.

3.3.2 Vehicle Movement:

A mobile vehicle must expend its full Movement Point (MP) allotment during its own MPh in accordance with the Cost of Terrain (COT) entered although it can declare it is spending additional MP to enter a hex. MP cannot be transferred between units or accumulated between turns. A vehicle may enter one or more enemy occupied hexes. A vehicle which ends its MPh with MP remaining is assumed to have spent all remaining MP in that hex. Once a vehicle has moved to a new hex, it is considered to be a moving target to any Defensive Fire that turn. A CE AFV entering a hex along a road hexside may do so using the road rate of ½ MP per hex.

A VCA can be changed at the cost of 1 MP per hexspine change or at the risk of Bog for 2 MP per hexspine if in woods or a building. A vehicle must move within its VCA in order to enter a new hex. To move to a hex not within its VCA, it must first change its VCA in the hex it occupies. A TCA/VCA may also be changed without MP expenditure as a result of firing outside the CA during any fire phase (other than its own MPh) or at the end of any fire phase in which it is still eligible to fire a turret/bow mounted weapon without using Intensive Fire (bow mounted NA for TCA). The Turret Covered Arc (TCA) may change freely with each MP expended during the MPh, there is no extra cost for changing TCA. Do this by placing a Turret counter on the vehicle (as either BU or CE) and moving the Turret counter (place one first if necessary, BU or CE as appropriate) so that it is pointing in the desired direction. If the TCA and

the VCA are pointing in the same direction, no Turret counter is needed (unless the vehicle is CE). The TCA change must be announced as MP are expended and can be done with Start, Stop, or Delay MP expenditure. At least two MP must be expended in order to change TCA in a woods or a building.

A vehicle that wishes to move in the MPh and that did not start that turn under a Motion counter, must expend one MP to start before entering a new hex or changing VCA. This start MP is considered to take place in the currently occupied hex and so the unit is subject to Defensive First Fire in that hex although not as a moving target. A vehicle must spend one additional MP in its current hex to stop movement unless it is ending its MPh under a Motion counter. If it stops, it may begin to move again in the same MPh if it has sufficient MP, but must pay the start MP again to do so. Even though stopped, the vehicle is a moving target if it entered a new hex during that Player Turn or if it began or ended its MPh in Motion.

A vehicle must pay one additional MP per wreck or other vehicle in a hex it is going to enter regardless if the vehicle already in the hex is friendly or enemy, but each side may have only one non-wrecked vehicle in each hex at the end of the MPh; this movement penalty is doubled to 2 MP per wreck or vehicle if the hex is entered via a road hexside while using the road rate and this penalty is doubled in woods. If two friendly AFV occupy the same hex at the end of the MPh, the owner must flip one over to its wreck side.

The expenditure of MP without moving is termed Delay and can only be used if the vehicle is stopped. A vehicle is not prohibited from expending more MP to enter a hex than the minimum required and may declare, as it enters a new hex, a higher than necessary MP expenditure.

Any mobile vehicle that has used its entire printed MP allotment during its MPh without expending a MP to stop or Delay at the end of that MPh is in Motion and has a Motion counter placed on it. A vehicle may end its MPh in Motion without using all its MP only if it has insufficient MP remaining to enter the next hex it wishes to enter. A vehicle that starts its Player Turn in Motion may not Prep Fire and must expend MP even if it is just to stop and Delay. All vehicles that start offboard start in Motion. No vehicle may set up onboard in Motion. A vehicle may enter a hex occupied by an enemy unit, however, it cannot voluntarily stop or end its MPh in Motion in an enemy AFV's hex unless it is, at the moment of entry and position of entry into that hex, capable of destroying or shocking the AFV with an original TK or IFT DR of 5 while using a non-depletable ammo type available to the attacking vehicle.

Any Motion vehicle is eligible for the Motion Target Based TH DRM when fired upon in any fire phase and includes any attack by a DC, or when in CC. A Motion vehicle is never a LOS Hindrance/TEM.

Vehicles with red MP numbers suffer from Mechanical Reliability. Each time a vehicle with a red MP number expends a start MP or makes a successful Motion Attempt, its owner must make a DR. If a 12 is rolled (or an 11 for some Russian vehicles; see vehicle notes), the AFV has suffered a mechanical breakdown and is Immobilized (7.10).

When entering woods by expending all its MP a vehicle may first spend 1 MP (if necessary) for starting and may spend 1 MP to stop. A vehicle that enters a woods or building hex must take a Bog Check (7.6).

A mobile vehicle may always move one hex (no VCA change) by expending all its MP (not including the 1 MP to start) to do so and then remaining in Motion (unless it bogs).

3.3.2.1 Motion Status Attempt:

A Motion Status attempt may be made during the MPh of an enemy ground unit by any defending mobile vehicle. The AFV must make a dr less than or equal to the number of MF/MP expended by the enemy unit while in the LOS of the AFV making the Motion Status attempt. The enemy unit must not have been in the LOS of the AFV making the attempt at the beginning of that Player Turn. An AFV may only make a Motion Status attempt once per enemy MPh and may not make the attempt at all if marked with a First/Final/Intensive Fire counter. There is no penalty for failing the attempt, but if successful, place a Motion counter on the AFV and the AFV may freely change its VCA/TCA except that if required to by terrain restrictions, it must first pass a Bog Check (7.6). Mechanical Reliability still applies and if the vehicle stalls, the attempt has failed. A vehicle already in Motion may also attempt to change VCA/TCA.

3.3.2.2 Bounding First Fire:

A vehicle may move and fire in the MPh including vs units in the AFV's own hex. This is termed Bounding First Fire. Place a Bounding Fire counter on the firing vehicle. There are various Firer Based TH DRM based on the amount of MP the vehicle has expended with a LOS to the target. Covered Arc change DRM (Case 8) never apply to a Bounding First Firing unit. A vehicle may expend Delay MP while stopped to increase the amount of MP spent in the LOS of a target in order to reduce the DRMs but must announce these Delay MP individually and suffer any Defensive Fire that is triggered by those Delay MP. A vehicle may move again in the MPh after

firing provided it has sufficient MP. A vehicle that did not exhaust its ROF may fire again as Bounding First Fire after expending another MP but all other Weapons must be fired from the same hex as the first MA shot. MG/IFE have their FP halved in the MPh and quartered if Non-Stopped. Vehicular FT are not halved for firing in the MPh but are halved if Non-Stopped. The only way a vehicle may fire in both the MPh and the AFPh is if it fires only its MA in the MPh and retains ROF; such a vehicle may fire once again in the AFPh (3.5).



3.3.3 Defensive First Fire:

Defensive Fire can occur during the enemy MPh and DFPh. The portion occurring during the enemy MPh is called Defensive First Fire and can be used only versus a moving unit(s). Defensive First Fire attacks affect only the moving unit(s) regardless of other units that occupy the same hex at the instant of attack. Any time a unit or stack expends MF or MP in the LOS of a Good Order DEFENDER unit, the DEFENDER has the option to temporarily halt movement while he fires at it in that location with as many attacks as he can bring to bear. The DEFENDER must place a First Fire counter on top of any unit or Weapon that has fired and exhausted its ROF. Defensive First Fire must be resolved before the moving unit or stack leaves the intended target hex or expends another MF/MP. The DEFENDER may not request that a moving unit or stack be returned to a previous position to undergo attack, however, the ATTACKER must give the DEFENDER ample opportunity to declare his fire before moving on, and must declare the end of that unit's movement before moving another unit. Once another unit begins movement or the MPh is declared over, previously moved units are no longer subject to Defensive First Fire attacks. Any action that requires a unit to expend a MF or MP in a hex qualifies the unit as a target for Defensive First Fire even though the unit might not have entered that hex during the MPh. Examples of such expenditures include Smoke grenade attempts, Weapon recovery, start or stop MP expenditure, VCA changes, and DC placement.

Defensive First Fire attacks are resolved in the same manner as other fire attacks. Defensive First Fire attacks can also benefit from a -1 First Fire Non Assault Movement (FFNAM) DRM against Infantry moving without using Assault Movement, and a -1 First Fire Movement in Open Ground (FFMO) DRM if the Infantry unit is moving in Open Ground. Note that FFMO DRM is not applicable to a unit that has a LOS Hindrance in the LOS between the target and the firer, even if the moving unit is in Open Ground.

A DEFENDER Infantry unit already marked with a First Fire counter may Defensive First Fire again with its own FP and/or MG during that MPh provided that the target is not at a range greater than that of the closest Known Enemy Unit, nor outside the firer's normal range. A unit thus using Subsequent First Fire (SFF) has its FP

Unit Movement Factor Chart				
Unit	Base MF	MF w/Leader	Double Time No Leader	Double Time w/Leader
Elite/First/Second MMC	4	6	6	8
Inexperienced (Conscript) MMC	3	6 (5)	5	8 (7)
SMC (wounded)	6 (3)	6 (NA)	8 (NA)	8 (NA)

halved. If using a MG during Subsequent First Fire, the B# is lowered by 2 and permanently removed on an original IFT DR \geq to the original B#. After the attack is resolved, flip the First Fire counter over to its Final Fire side for the unit and all its Weapons (whether or not they all fired).

A DEFENDER Gun/MA already marked with a First Fire counter may Defensive First Fire again as Intensive Fire (3.2.4) regardless of the presence of a closer enemy unit. Flip the First Fire counter to its Final Fire side for the manning unit and all its Weapons. See 6.8 if using IFE. Place an Intensive Fire counter on the unit in this case.

Final Protective Fire (FPF):

FPF is an option available to a DEFENDER Infantry unit already marked with a Final Fire counter which wishes to fire at adjacent or same hex moving units during the MPh. FPF is treated as Subsequent First Fire (with the FP also doubled due to the effects of PBF) with an additional penalty; immediately after normally resolving the attack, the original IFT DR (modified only by applicable leadership DRM) is used as a NMC against the units using FPF (including any directing leader). Provided it does not break, there is no limit to the number of FPF attacks a unit may make, other than the number of moving units and the MF/MP they expend in the adjacent or the firer's hex. A unit using FPF must use all its FP and usable MG (or IFE) and may form a FG with units not using FPF, but only those units using FPF are affected by its adverse effects.

A unit that survives a Defensive First Fire attack can be fired upon again in that same location during its MPh before expending additional MF/MP, but only by different attackers or if it expended at least 2 MF/MP in that hex. The same unit or Weapon can never Defensive First Fire or Subsequent First Fire or Final Protective Fire on a moving unit in the same location more times than the number of MF/MP expended in that location during the MPh.

A unit broken or pinned by Defensive First Fire can be fired upon again in its current location by other Defensive First Fire attacks but is attacked in its broken or pinned state. A moving unit subject to FFNAM or FFMO that breaks is still subject to those DRM in that location for subsequent attacks until its MPh ends. A unit that is pinned is not subject to any further FFNAM or FFMO while pinned; however if Subsequent First Fire or other Defensive First Fire vs the pinned unit breaks that unit, it loses that pinned status and is again subject to FFNAM or FFMO DRMs (if previously applicable) for further Defensive First Fire attacks against it during that MPh (keeping in mind that its MPh ends as soon as another unit moves). A unit using Assault Movement which breaks is no longer using Assault Movement and is subject to the -1 FFNAM DRM for the remainder of its MPh.

3.3.4 Reaction Fire:

Any Good Order unpinned Infantry unit may attack in its hex a moving vehicle as CC Reaction Fire using normal DFF/SFF/FPF procedures; mark

it and its Weapons as fired. An MMC must first pass a Pre-AFV Attack Check (PAATC; 3.7). Failure of the PAATC pins the unit and prohibits any Reaction Fire, but only one PAATC is required per unit per AFV. Use the normal CC vs AFV rule (3.8) except that the vehicle may not attack back via CC. The Infantry unit's CCV is reduced by 1 if it already fired (including firing a SW).

3.3.5 Residual Fire:

When a unit is attacked by Defensive First Fire, Subsequent First Fire, or PPF, the location in which the attack is resolved is marked with a Residual FP counter equal to half (up to a maximum of 12; round fractions down) of the highest IFT FP column used for that attack (including an Ordnance hit), although a Weapon that malfunctions, uses Intensive Fire (3.2.4), or chooses to retain ROF leaves no Residual FP. A To Kill attempt will leave Residual FP in the same manner except when using AP (unless fired by an MG), ATR, APCR, or APDS. After the amount of Residual FP left by any attack has been determined, it is reduced by one IFT column for each positive IFT or TH DRM *caused solely by conditions outside the target hex (including TH DRM)*. This could include positive leadership modifiers, CX status, and LOS Hindrances. Height Advantage and negative leadership DRMs never affect Residual FP. Air Bursts increase the amount of Residual FP by one column. Thereafter, any unit entering (or expending MF/MP including a CE AFV) in that same location in the same MPh is attacked on the IFT with the FP represented by that counter, by a new IFT DR. The TEM/Smoke of the target location, and any FFNAM or FFMO apply as a DRM. A unit expending MF/MP to leave a location is not subject to Residual FP attack in the location it is leaving.

Residual FP can never form a FG; it must always attack alone. Residual FP is always the first Defensive First Fire attack allowed against a moving unit in its current location during its MPh and is resolved before the DEFENDER has to declare an attack. No more than one Residual FP counter can be placed in a location, but a larger Residual FP counter subsequently earned from a larger qualifying IFT attack will replace a smaller Residual FP counter; thus Residual FP counters from different qualifying attacks are not combined.

A unit can ordinarily be attacked by Residual FP only once per location; MF/MP expended simultaneously (e.g., two MF to enter a building) do not cause multiple Residual FP attacks. A unit can be attacked by Residual FP again in the same location if the unit expends additional MF/MP in that location *and* by so doing the unit is subject to more negative DRM or less positive DRM.

Remove all Residual FP counters at the end of the MPh.

3.4 Defensive Fire Phase (DFPh):

That portion of Defensive Fire that occurs strictly during the DFPh is called Final Fire. During Final Fire any of the DEFENDER's units, Weapons, and vehicles that are not marked with a First or Final



Fire, or Intensive Fire counter may fire (including MG/Weapon/vehicle MA that maintained ROF in the MPh). Any of the DEFENDER's units and non-vehicular MG (or IFE Gun/MA) marked with a First Fire counter may also fire again, but only at units in the same or an adjacent hex, and they must then flip the First Fire counter to its Final Fire side. A unit marked with First Fire has its and its Weapon's FP halved (and doubled due to the effect of PBF). A Gun/MA marked with a First Fire counter may Intensive Fire (3.2.4) at units in an adjacent (or same) hex. A unit already marked with Final Fire cannot fire during Final Fire. Final Fire attacks affect all enemy units in a target location, not just those that have moved, but FFNAM and FFMO do not apply.

Leader direction used during Defensive First Fire can be used again in Subsequent First Fire, PPF, or Final Fire, but only for one firing unit or FG, and that unit or FG cannot include different firers than those he directed during First Fire. If forming a new FG during that Player Turn, the leader cannot direct its fire (even during PPF).

Remove all First and Final Fire counters at the end of the DFPh.

See page 15 for a comprehensive example.

3.5 Advancing Fire Phase (AFPh):

The ATTACKER's units and Weapons that did not fire in the PFPh may fire at half FP; Ordnance instead adds a +2 TH DRM. A squad with an underlined FP factor may use Assault Fire. Assault Fire capability allows any squad using its own FP during the AFPh to add one FP to its attack *after* all modification to the squad's own FP; any fraction is then rounded up. The assault fire bonus is not applicable to any fire beyond a unit's normal range. Medium machine guns (MMG), heavy machine guns (HMG), Mortars, and Guns may not fire in the AFPh if they moved in the MPh. Weapons may not fire more than once in the AFPh. A vehicle that has moved uses Bounding Fire to fire in the AFPh. If a vehicle fired in the MPh as Bounding First Fire but did not lose ROF and did not fire any other weapon, it may fire that multiple ROF weapon once more in the AFPh using the appropriate TH DRM or halved MG/IFE FP if the multiple ROF weapon is IFE capable or an MG. If a vehicle fires any weapon other than the MA during the MPh it may not then fire in the AFPh.

Remove all Prep Fire and Bounding Fire counters at the end of the AFPh.

3.6 Rout Phase (RtPh):

During the RtPh a broken unit not in Melee may not end a RtPh adjacent to or in the same location as an unbroken Known Enemy Unit and may not remain unemplaced in the same Open Ground location in the normal range and LOS of a Known Good Order enemy unit that would be able to interdict it if it were routing in that hex (see below). Such a unit is placed under a DM counter and if not in Melee must rout away (ATTACKER first—one unit at a time) during that RtPh or be eliminated



Movement Phase (MPH) Example (fig 1)

In the Russian MPH, the 4-4-7 in zI5 spends two MF to enter J5; because this is a move of only one hex that does not require all the 4-4-7's MF allotment, it may Assault Move. The 4-4-7 in H3 spends two MF to enter I3 and another two MF to enter J2; because the LMG's PP (1) does not exceed the squad's IPC (3), the LMG does not affect movement. The 5-2-7 in F3 declares Double Time and spends one MF to enter G3, one MF to enter H2, two MF to enter I3, and then 2 MF to enter J3 for a total of six MF, ending CX. The 9-1 and 4-4-7 in F4 move together and spend two MF to enter G4, then H4, then I4 for a total of six MF using the leader bonus. The 8-1 and 4-4-7 in E3 declare Double Time and spend two MF to enter E4, then E5, then F5, then G5 for a total of 8 MF, ending CX.

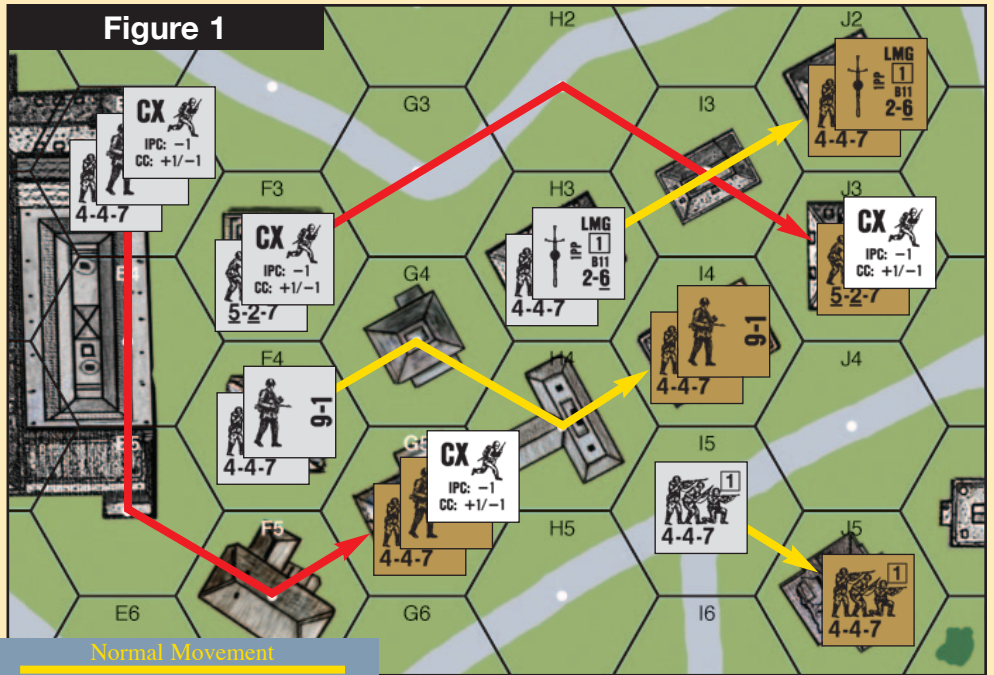
Movement Phase and Defensive First Fire Example (fig 2)

The 4-4-7 with MMG in zI4 spends 2 MF to enter J3; because the five-PP MMG reduces the squad's MF by two, the squad cannot Assault Move to J3. The 4-4-7 could declare Double Time which would increase its MF by two but reduce its IPC by one for a net of one extra MF allowing it to enter K3 after J3. Assume this is the move the Russian player makes. The German 4-6-7 with MMG in K5 fires only the 4-6-7 at the moving unit in J3 on the 4 FP column with a +2 DRM (+3 stone building, -1 FFFAM), does not cover (i.e., doesn't roll "doubles"), leaves 2 Residual FP in hex J3, and the squad (only) is marked with a First Fire counter. When the Russian 4-4-7 continues moving to K3, the German player then fires the K5 MMG on the 4 FP column with a -2 DRM (-1 FFFMO, -1 FFFAM). Assuming the MMG neither malfunctions, covers, nor retains Rate of Fire (i.e., the original DR is neither 12 nor doubles and the colored die is 3 or more), the MMG is marked with First Fire counter (use the same marker covering the 4-6-7 to cover the whole German stack) and leaves 2 Residual FP in hex K3.

Now the Russian player moves on to the next unit, the 5-2-7 in hex G5, with the intention of using 4 MF to get to K4. Note road bonus would not apply as the entire move isn't across road hexsides. The 5-2-7 enters H5 and I5. At this point, the German player declares that he will Subsequent First Fire with the 4-6-7 (already marked First Fire) since the Russians are within normal range and no Known Enemy Unit is closer. The squad also uses the MMG (although its B# will be lowered by 2) because the MMG will be marked with a Final Fire counter regardless of whether or not it fires. The 9 FP of the 4-6-7 and MMG is halved and they attack on the 4 FP column with -2 DRM (-1 FFFMO, -1 FFFAM). The attack will leave 2 Residual FP unless the shot covers or the MMG malfunctions (in which case it leaves 1 Residual FP) or it covers *and* the MMG malfunctions (in which case it leaves 0 Residual FP). Assume the 5-2-7 breaks and 2 Residual FP are left in the hex. Flip the First Fire counter on the German stack to a Final Fire counter.

The Russian player then moves the 4-4-7 in hex F6. It moves G6, H5, and I5 where it undergoes a 2 Residual FP attack with a -2 DRM (-1 FFFMO, -1 FFFAM), assume this attack has no effect. The German player would like to shoot again with the units in K5, but under a Final Fire marker they can only fire at adjacent units. The 4-4-7 continues to move to I6 for 4 MF and uses the road bonus to move to I7.

The Russian 9-2 and 4-4-7 with MMG in hex F5 moves to G6, H5, I6, and J5 for 5 MF. The leader's one IPC is added to the MMC's three IPC for a total of four IPC which is subtracted from the MMG's 5 PP. The difference is subtracted from the 6 MF provided by the leader bonus. Upon entering J5, the German player declares Final Protective Fire. The FG's FP is halved (due to Subsequent First Fire), halved again (due to being pinned), and doubled due to Point Blank Fire and



Normal Movement
 Double Time Movement
 Road Bonus Movement

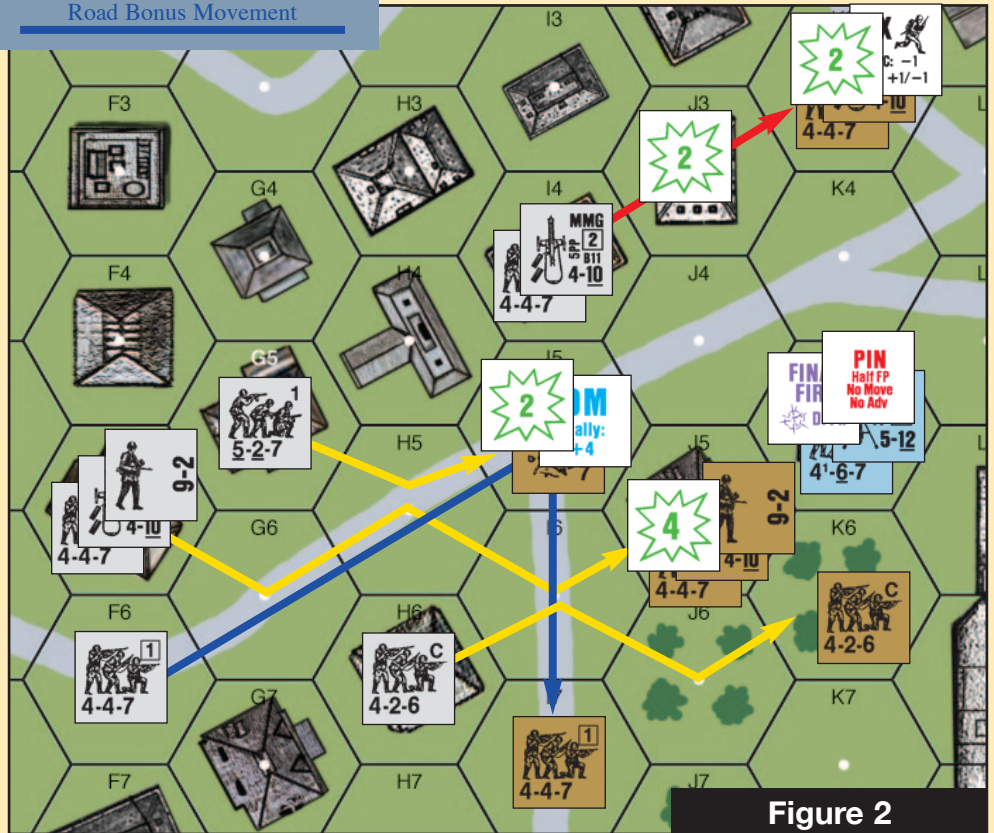


Figure 2 after all results *except* FPF attack versus 4-2-6 moving into hex K6.

must attack with the 4-6-7) is halved (due to Subsequent First Fire) and doubled due to Point Blank Fire and attacks on the 8 FP column with a +2 DRM (+3 stone building, -1 FFFAM). On an original DR of 7 the 4-6-7 passes its FPF NMC by the highest possible amount, so it Pins, and the Russians must take a PTC (a 9 on the 8 FP column), with the attack leaving 4 Residual FP.

Finally, the Russian 4-2-6 in H6 moves I6, J6, and K6 where the German player again declares Final Protective Fire. The FG's FP is halved (due to Subsequent First Fire), halved again (due to being pinned), and doubled due to Point Blank Fire and

attacks on the 4 FP column with a -1 DRM (-1 FFFAM). The German's luck runs out, however, as they roll the original DR of a non-doubles 10 which means the 4-6-7 fails its FPF NMC by 3 (becoming replaced by a 4-4-7 2nd Line unit if the German ELR is 2 or less) and is flipped to its broken side and marked with a DM counter. Additionally, the MMG malfunctions and is flipped to its malfunctioned side. The shot still occurs, however, but results in no effect as the final result is a 9 on the 4 FP column. A 1 Residual FP marker is placed (the MMG malfunctioned so it leaves no Residual FP).

for failure to rout. All broken units, except wounded SMC, have 6 MF for use in the RtPh; this amount can never be increased. A broken unit may rout into an Open Ground hex in the LOS and normal range of a Known Enemy Unit without Interdiction (see below) only if it has used Low Crawl, but it still may not be adjacent to an unbroken Known Enemy Unit at the end of the RtPh or it will be eliminated for failure to rout. Low Crawl is a rout of one hex that requires the entire MF allotment of the routing unit. A routing unit using Low Crawl cannot be interdicted. All other rout provisions apply unchanged to Low Crawl.

A routing unit must move to the nearest (in MF, along a legal rout path) building or woods hex within 6 MF. In so doing, a routing unit may not rout toward an enemy unit (even if it is broken) while in that enemy's LOS, in any way which decreases the range in hexes between the routing unit and the Known Enemy Unit, nor may it move towards such a unit after leaving its LOS during that RtPh; nor if adjacent to an enemy unit may it move to another hex adjacent to that same enemy unit, unless in doing so it is leaving that enemy unit's location. Otherwise a routing unit may move towards an enemy unit.

Defensive Fire Summary

Defensive First Fire:

- Occurs during opponent's MPH.
- Affects only moving unit(s).
- Can leave Residual FP.
- Place First Fire counter.

1a. Subsequent First Fire (half FP):

- Occurs during opponent's MPH.
- Affects only moving unit(s) within normal range.
- Can leave Residual FP.
- Available to units that have already been marked with First Fire counter but have no closer target.
- Flip counter to Final Fire side.
- Lowers B# of MG by 2 with removal on the IFT DR \geq to original B#.

1b. Final Protective Fire (half FP):

- Occurs during opponent's MPH.
- Affects only adjacent moving unit(s).
- Can leave Residual FP.
- Available to units that are already marked with a Final Fire counter and acts as a NMC vs firing unit.
- Lowers B# of MG by 2 with removal on the IFT DR \geq to original B#.

Final Fire:

- Occurs during DFPh.
- FFNAM and FFMO do not apply.
- Affects all units in target location.
- Available to units already marked with a First Fire counter only if they are firing at an adjacent (or same) hex (which affects MG per 1a. above) at half FP.
- Place (or flip to) Final Fire counter.

Upon reaching the nearest legal woods or building hex not adjacent to an enemy unit, a routing unit must stop and end its RtPh in that building or woods hex unless the unit can immediately enter another building or woods hex. A broken unit may always rout out of a building in which it begins its RtPh. A routing unit must ignore any building or woods hex that it cannot enter due to stacking limits and may also ignore a building or woods hex if that hex is no further away from a Known Enemy Unit than its starting hex.

If no building or woods can be reached during that RtPh, a broken unit may rout to any hex consistent with the above restrictions.

A broken unit may rout if under DM. An unpinned leader already stacked with a broken unit before it routs may elect to rout with the broken unit even though he is not broken. If the leader does so, he is eliminated if the broken unit he is stacked with fails an Interdiction NMC. He must remain with the unit throughout the RtPh but is not considered broken and may add his leadership DRM to its Interdiction NMC.

Interdiction occurs whenever a routing unit enters an Open Ground hex without using Low Crawl while in the normal range and LOS of an unbroken, unpinned enemy unit capable of firing on it in that hex with at least one FP or hitting it via the TH process at under 17 hexes. A unit in Melee cannot interdict, nor can a unit/Weapon which has any form of halved FP or positive DRM (e.g., a CX unit, a lone leader with a MG, a BU vehicle's MA, a Motion vehicle or a Gun/MA that must change its CA). If Interdiction occurs, then the routing unit is subject to a NMC and everything that normally entails. A routing unit that fails its Interdiction NMC suffers Casualty Reduction, although any remaining HS may continue to rout thereafter. Interdiction does not affect other units in the hex and units are capable of Interdiction even if they have exhausted all other fire options for that Player Turn. An interdicted unit that suffers a pin result on its NMC may not rout further that RtPh and, if still adjacent to a Known Enemy Unit, is eliminated for failure to rout. A broken unit may not be interdicted more than once per Open Ground hex entered, regardless of the number of enemy units that can claim Interdiction.

An Open Ground hex for purposes of Interdiction is any Open Ground hex that any interdictor could apply, during a hypothetical Defensive First Fire opportunity, the -1 FFMO DRM (thus excluding units benefiting from Emplacement TEM). The FFMO DRM is negated if there is a Hindrance between the routing unit and the interdictor. Note that First Fire does not actually occur during the RtPh.

3.7 Advance Phase (APh):

The ATTACKER may transfer SW/Guns between Good Order, unpinned units and move any of his Good Order, unpinned Infantry units to an adjacent hex (even if enemy units occupy the hex moved into).

A unit advancing into a hex that requires all its MF must become CX. For example, a Russian squad carrying a five-PP MMG has only two MF and therefore must become CX to advance into a hex requiring two MF to enter during the MPH (brush, hills, woods, or building), unless accompanied by a leader who adds two MF and one IPC to the squad, thereby leaving it with five MF. A CX unit may not advance into a hex that would cost all its MF to enter. For example, a CX German squad possessing a four-PP HMG would have only two MF left after deducting for two excess PP (its IPC is reduced to two due to being CX) and cannot advance into a building hex, unless it is accompanied by a leader.

In order for an MMC to advance into a hex with an enemy AFV, it must first pass a Pre-AFV Advance/Attack Task Check (PAATC). It must roll equal to or less than its morale to advance into that hex. Failure of the PAATC results in the unit being pinned. Leaders are not required to take a PAATC and may modify the PAATC of units they are stacked with even if they themselves do not enter the hex. All Inexperienced Infantry, non-elite Italian, Allied Minors, or Axis Minors must add +1 to the DR. A unit that passes a PAATC must immediately enter the hex; it may not wait for the results of another unit's PAATC before deciding to enter the hex, however, PAATC need not be predesignated.

An AFV may change to become Crew Exposed (CE) or may Button Up (BU).

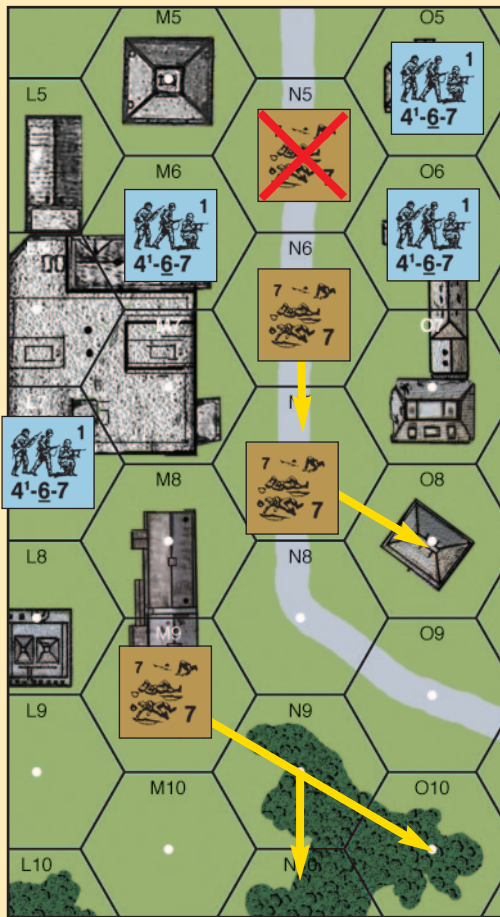


3.8 Close Combat Phase (CCPh):

Close Combat is a type of attack that occurs during the CCPh between opposing units in the same hex. There are no TEM modifications to a CC attack DR, and neither Weapons nor PBF apply. Unlike fire attacks, CC is simultaneous so both sides attack the other even if one or both is thereby eliminated, unless an ambush occurs or one or both sides have vehicles present in the hex.

The ATTACKER specifies the order in which multiple hexes containing CC situations are to be resolved; each hex's CC for that turn must be completely resolved before resolving CC in another hex. Each side must designate all of its attacks in that hex prior to the resolution of any of them (ATTACKER designating his first). The DEFENDER then designates all of his attacks, after which the ATTACKER resolves all of his previously declared attacks. The DEFENDER then resolves all of his attacks—even if those units have been eliminated or reduced. Units may attack any unit or combination of units in the same hex, so long as no unit attacks or is attacked more than once per CCPh. All units in the hex do not have to be attacked, nor do all units have to make an attack. Only unbroken units may attack, but even broken units defend, although they suffer a -2 DRM to CC attacks against them.

The FP of attacking units is compared to the FP of those enemy units being attacked in order to achieve a ratio of attack to defense FP strength called odds. Once odds have been determined, a



Route Phase Example

It is the RtPh and each of the broken units is under DM and therefore eligible to rout. The zM9 unit may opt to remain stationary or rout to the woods in N9 (and then possibly to O10 or N10); it cannot rout to L8 or M8 as doing so would take it closer to a Known Enemy Unit; it could ignore the woods in N9 (which are no farther from O6 than M9 is) and rout instead to N10 or L10.

The N7 unit must rout; it cannot stay in Open Ground within normal range of the possible interdiction in O6, M6, or L7 and would automatically become DM at the start of the RtPh. It can rout to O8 or it can ignore O8 (which is no farther from O6 than N7 is) and rout towards N9 (or M9), either Low Crawling to N8 or suffering Interdiction therein on the way to N9 (or M9).

The N6 unit must rout to N7. It can Low Crawl safely, or it can suffer Interdiction in N7 and continue routing to O8. If the 4-6-7 in M6 were in M5 instead, the N6 unit could rout to M7 but could not stay there and would then have to suffer Interdiction on its way to O8 where it would have to stop.

The N5 unit is eliminated for failure to rout (and would be even if the 4-6-7 were in M5 instead of M6).

DR is made for each attack. If the final DR is less than the number listed on the Close Combat Table (CCT) under the applicable odds column, the attacked units are eliminated. A final DR that equals the Kill number listed on the CCT results in Casualty Reduction of one of the attacked units (randomly determined). A final DR greater than the Kill number has no effect.

Any SMC in CC has an attack and defense FP strength of one. A SMC may attack alone but if it does it must also defend alone. Any number of SMC may combine with MMC or other SMC to make a CC attack by adding their FP together. A SMC defends in CC as part of the group it attacks with by adding its one FP to the FP of the unit it is stacked on top of (players are free to rearrange the leaders in their stacks prior to the commencement of the CCPh). A leader may direct the CC of the MMC it attacks and defends with (and any other unit which joins that MMC in a combined CC attack) by applying his leadership DRM to modify the CC DR, in addition to adding his FP to the strength of the attack. A leader may not use his leadership DRM to modify an attack he makes alone.

Whenever Infantry advances into CC in a woods or building hex (unless reinforcing a Melee), an ambush can conceivably occur. Prior to declaring CC attacks in such a case, each player makes one dr. If either player rolls at least three less than the other, he has succeeded in ambushing his opponent. The side that has the ambush status in a CC is entitled to a -1 DRM to its CC attacks and a +1 to CC attacks against it until that

CC becomes a Melee at the end of the CCPh. Ambush dr are subject to drm even if only a portion of a player's CC force is qualified to use it; drm include +1 for being CX, +1 for being pinned, +1 for being Inexperienced, and any leadership dr (unless the leader is alone); see also the QRDC. The ambushing side resolves all of its attacks in that CCPh first; only surviving enemy units may attack back after being ambushed.

All CC attacks in a hex containing a vehicle must be declared sequentially even if the vehicle neither attacks nor is attacked. The non-vehicular player makes one attack first and then the vehicular player may make one attack. Thereafter, each side alternates until all units have attacked once, been eliminated (meaning that they will not have an opportunity to attack if they have not already by the time of their elimination), or pass. When a CC location has a vehicle from both sides, the ATTACKER goes first, followed by the DEFENDER. Should a hex with a vehicle in it also have an ambush, then the ambushing side makes all of his attacks first.

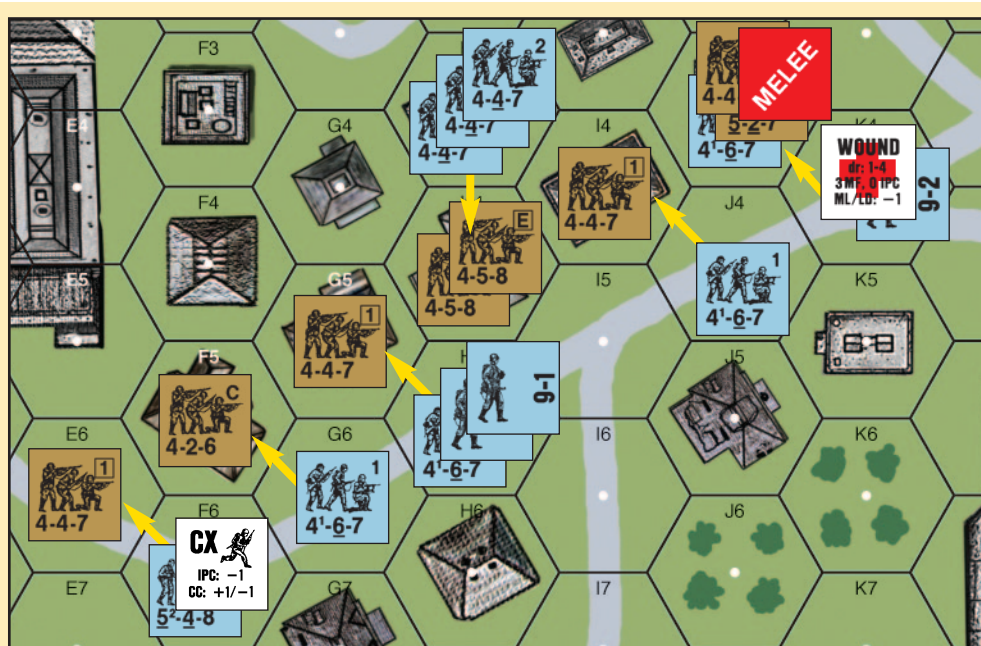
Infantry attack a vehicle in CC by using their Close Combat Value (CCV). The CCV of a squad is 5, crew is 4, half-squad is 3, and SMC is 2. If a SMC combines with another unit add 1 to its CCV instead. A CCV subject to any form of Area Fire (such as pinned) is reduced by 1 for each such reason. If the CC DR is less than the CCV, then the vehicle is eliminated. If the CC DR is equal to the CCV, then the vehicle is Immobilized. Although multiple attacks can be

made, no more than two units may combine to make a single CC attack vs a vehicle and one of those units must be a SMC. A single CC attack cannot be made against a vehicle and personnel in the same location. An original 2 always results in the chance of success even if the CC DRM or a small CCV make it otherwise impossible. If the odds of eliminating a vehicle after the addition of all CCV DRMs is less than a 2, and the attacker rolls a 2, then the attacker rolls a third die. On a 1-2 the vehicle is eliminated and on a 3, the vehicle is Immobilized. A 4-6 results in no effect. Anytime a unit attacks a vehicle in CC that is neither Shocked nor Stunned and rolls an original 12, the attacking unit suffers Casualty Reduction. Randomly determine which unit is affected if a SMC and MMC attack together.

A vehicle may attack Infantry in CC with its AAMG (if the vehicle is CE), its CMG (unless that CMG may fire through the VCA only), a RMG, close defense weapons, and/or the IFE FP of a turreted MA ≤ 15 mm. A vehicle may combine any IFE, CMG, RMG, or AAMG FP into one combined attack or use them separately in different CC attacks. All such FP are used to form odds ratios vs the defender's CCV and are never increased by any condition although they may be halved for Motion Fire and can be negated by a Shock or Stun result. Note that while BMGs may not be used in a CC, it negates the DRM for a vehicle defending without an MG.

Route Phase Summary

- Routing may use 6 MF (wounded SMC only have 3 MF).
- Must rout if adjacent to an unbroken enemy unit.
- Must rout from its starting hex if a hypothetical unit routing through that hex would be subject to Interdiction.
- May rout only if under a DM counter.
- When routing, must rout towards the nearest building or woods that is not closer to a Known Enemy Unit. The routing unit may ignore any building hex that is part of a building they are already in.
- Interdiction can occur if routing in Open Ground, normal range, and unhindered LOS of enemy unit without using Low Crawl.
- Low Crawl is a rout of one hex consistent with above rules that protects against Interdiction.
- Units that must rout but cannot be eliminated.
- If woods/building cannot be reached in a single RtPh, (i.e., more than 6 MF away) unit may rout to any terrain consistent with all other requirements.
- A routing MMC possessing a SW must carry as close to its IPC as it can. A SW exceeding the PP allowance is dropped (as is a Gun) before a unit routs.



Close Combat Phase Example

All Advances (shown by yellow arrows) have been completed. The close combats are resolved in the order chosen by the ATTACKER (German).

When the German 4-6-7 in zG6 advances into CC with the Russian 4-2-6 in F5, ambush can occur because it is a building location. The ambush drm of the 4-2-6 is +1 (Conscript) while the German drm is zero. No ambush occurs when the Russian dr is a 3 and the German dr is a 2. The German attacks at 1:1 odds, as does the Russian. The DRM for both attacks is zero. The German DR of 5 causes Casualty Reduction but does not change the odds. The Russian DR of 9 has no effect. The Russian 4-2-6 is replaced with a 2-2-6 and the location is marked with a Melee counter.

The German 9-1, 8-1, and 4-6-7 in H5 advance into G5 with the Russian 4-4-7. Ambush is possible with a German drm of -1 (one leader's modifier) and a Russian drm of zero. The German dr is 6; the Russian 3 so no ambush occurs. The 4-6-7 contributes four FP factors and each of the leaders contributes one FP factor for odds of 6:4 or 3:2. The Russian must attack at 1:2; because the leaders are attacking with the squad, they cannot be attacked separately. The Germans have -1 DRM (one leader's modifier), and the Russian DRM is zero. The German DR of 6 is modified to a 5 and eliminates the Russian 4-4-7. The Russian DR is a 3 and all the Germans are eliminated as well. The hex is now empty and no informational markers are placed.

The three German 4-4-7s advance into the H4 building location with the two Russian 4-5-8s. Both sides have ambush drm of zero, and their respective ambush drs of 3 for the German and 5 for the Russian result in no ambush. The German must declare all his attacks first. Each of his squads may only attack once and each of the Russian squads may only be attacked once. The German options are: one big attack of 12 to 8 (3:2); two squads on one Russian and one squad on the other for one attack at 2:1 and one attack at 1:1; or all three squads on one of the Russian squads, this is one attack of 3:1 without an attack on the second Russian squad. The German announces two attacks; one at 2:1 and one at 1:1. The Russian must now announce attacks. The options are: one big attack of 8 to 12 (1:2); one 4-5-8 attacks two 4-4-7s (1:2) and the other 4-5-8 attacks the third 4-4-7 (1:1); the two 4-5-8 attack two 4-4-7s as one 1:1 attack while the third 4-4-7 is not attacked; each 4-5-8 attacks one 4-4-7 (two 1:1 attacks) while the third 4-4-7 is not attacked; or both 4-5-8s attack one 4-4-7 (2:1) while the other two 4-4-7s are not attacked. The Russian announces two attacks: one 4-5-8 attacks two 4-4-7s (1:2) and the other 4-5-8 attacks the remaining 4-4-7. All the attacks have zero DRM. The German rolls a 6 on the 2:1 attack, eliminating the squad, and rolls a 9 on the 1:1 attack for no result. The Russians roll a 4 on the 1:2 attack (Casualty Reduction) and a 7 on the 1:1 attack for no result. Randomly determine which 4-4-7 suffers Casualty Reduction. After the attacks the location contains two German 4-4-7 squads, one German 2-3-7 half-squad, and one Russian 4-5-8, all marked with a Melee counter.

In J3 the German 4-6-7 is in Melee with the Russian 4-4-7 and 5-2-7 from the previous turn, and the wounded German 9-2 leader in K4 advances in to reinforce the Melee. There is no ambush possibility since Melee already exists. The German declares a 1:1 attack against the 5-2-7. The 4-4-7 is not being attacked. The Russian attacks at 3:2 against both the squad and the leader. The German attack has a DRM of -1 (leadership one less than normal due to the wound). The Russian attack DRM is zero. The German CC DR is 7, as is the Russian CC DR. Both result in no effect, and the Melee continues.

The German 4-6-7 advances into the I4 building location with the Russian 4-4-7. Ambush is possible. The drms are zero for both sides. The German dr is 4 and the Russian dr is 1 which results in the Russians ambushing the Germans. Close Combat in this location is now sequential. The Russian will declare and resolve his attack(s). The German will declare and resolve attacks with his survivors. The Russian declare a 1:1 attack. The DRM is -1 (ambush). The DR of 6 results in Casualty Reduction and the 4-6-7 is replaced by a 2-4-7. The Germans now declare a 1:2 attack. The DRM is +1 (being ambushed). The DR of 5 is no effect. The location is marked with a Melee counter. The Melee will continue next Player Turn, but the CC DRM caused by the ambush will no longer be applicable.

The CX German 5-4-8 advances into E6 with the Russian 4-4-7. There is no possibility of ambush. The German attacks at 1:1 with a +1 DRM, and the Russian attacks at 1:2 with a -1 DRM, with the DRM due to the 5-4-8 being CX. The German DR is a 9 and the Russian DR is a 2, invoking the possibility of Field Promotion (5.3). The Russian makes a dr on the Leader Creation Table with a net 0 drm (+1 drm/Russian, and -1 drm/odds < 1:1). His original dr of 2 creates an 8-0 Russian leader. The CC odds are then recalculated. The German attack remains at 1:1 (5:5) with no effect. The Russian attack changes to 1:1, although the CC DR of 2 kills the 5-4-8 at either 1:2 or 1:1 odds.

Beginning in July 1944, certain German AFV are equipped with a close defense weapon system (Nahverteidigungswaffe). It can be used to make an HE attack on the IFT if the AFV is BU, but only during the CCPh after the AFV has been attacked in that CCPh (or if the AFV is the ambusher). If fired, it attacks all Infantry units (including friendly ones) in the hex with 16 FP on the IFT. It cannot be combined with any other attack and no TH roll is needed, however, if the original IFT roll is greater than the usage number (do not add +1 for being BU) there is no effect. No TEM/Smoke or other LOS Hindrances apply to this attack.

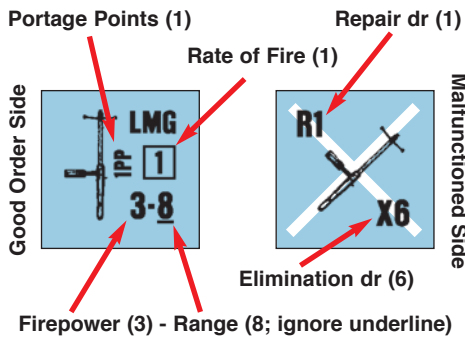
If Infantry from both sides (any of which is unbroken) remain in the same location after all initial CC attacks have been resolved at the end of the CCPh, they are considered to be locked in Melee and may not conduct any activity other than CC, (e.g., leave that location, make a fire attack, interdict routing units, etc.). Place a Melee counter on such a stack. New units may advance into a Melee hex but must engage in CC. Non-Melee units may attack the Melee units during a fire phase but all friendly and enemy Melee units in the hex must be attacked. Remove the Melee counter as soon as no unbroken unit remains.

A vehicle is never held in Melee and if mobile, may exit a Melee hex during its next MPH. An immobile vehicle, or ones that opts to stay in the Melee hex, may only fire its weapons at enemy (and Melee) units in that hex. A vehicle however, does hold all enemy Infantry units in that hex in Melee for as long as the vehicle stays in that location unless it is in Motion/Non-Stopped. AFVs may not attack each other in CCPh.

Remove all Pin counters at the end of the CCPh. Flip any stun counters placed this Player Turn to their reverse side.

3.9 Turn Record Chart:

The previous DEFENDER now becomes the ATTACKER and inverts the turn counter and, if he was already the ATTACKER this game turn, advances the turn counter one box on the Turn Record Chart. When the turn counter is placed on the END box the scenario is over. If a Turn Box is halved diagonally and printed in red, it indicates that only the first side to move has a Player Turn that final game turn. Nationality symbols in a Turn Box are reminders to check for reinforcements that game turn.



4.0 Weapons and Support Weapons (SW):

A unit can possess any number of Weapons (SW/Guns). A Weapon may not move by itself; a SW must be carried by a unit at some cost in PP (see 1.2.4); a QSU Gun must be manhandled (6.5). An unbroken unit may pick up and drop a Weapon at any point in its move provided it has sufficient MF to do so, although no Weapon can be moved more than once per MPh. An unbroken unit may drop possession of a Weapon at no MF cost during its MPh or APH. If a unit drops possession of a SW/Gun at the start of an allowed phase prior to expending MF, that Weapon is assumed to have been unpossessed (and hence not moved by any unit) at the start of that phase. Units must drop Guns and SW in excess of their IPC before they can rout. If a unit drops possession or is eliminated, its Weapon is left unattended in the same location and must be recovered to be possessed. Good Order Infantry may claim possession of an unpossessed Weapon in their hex at the start of the RPh as their sole action during that RPh, provided they make a recovery dr of less than 6 (+1 drm if CX). A Weapon cannot be transferred during the same phase it is recovered. Moving Infantry may also make a recovery attempt at a cost of 1 MF.

Portage is assessed per item carried against the Inherent Portage Capacity (IPC) of an MMC or SMC. Weapons may be dropped at any time during the MPh. No item can be portaged more than once per MPh. An MMC has an IPC of three PP, and a SMC has an IPC of one PP. An Infantry unit loses one MF for each PP carried in excess of its IPC, and a SMC may never carry more than two PP. One Good Order SMC may add its IPC to that of one Good Order MMC to increase the MMC's IPC by one if they start the MPh together and move as a stack.

Weapons may be voluntarily destroyed by their possessing unit during PFPH or DFPH, but such an action counts as use of a Weapon. Weapons may also be destroyed when a final IFT DR results in a KIA of the possessing unit (see 6.7 for Ordnance hits). Make a subsequent dr on the same column as the IFT attack for each Weapon possessed by that unit. If the dr is a KIA, that Weapon is destroyed; if it is a K then that Weapon is malfunctioned. A captured Weapon has its ROF lowered by one and its B# or X# lowered by two, and a SW used by an Inexperienced MMC has its B# or X# lowered by one (both effects cumulative with other penalties).

A squad may fire any one Weapon at no cost to its own FP. A squad may fire two Weapons (and a HS/crew fire one Weapon) but forfeits its own FP for the current and any remaining fire phases in that Player Turn (except for SFF, PPF, and Final Fire vs adjacent units). CCPh is not considered a fire phase. A SMC may use one SW, but he loses any leadership DRM he may have otherwise exerted during that fire phase. SW/Guns may not set up unpossessed.



4.1 Machine Guns (MG):

Each MG has a two-number hyphenated strength factor; the number on its left is its FP and the number on its right is its normal range as measured in hexes. A single SMC may fire one MG as Area Fire, while two SMC stacked together may fire any one MG at full FP. If a squad is going to fire its own FP and a MG at the same target (at both the same hex and the same unit) during the same phase, they must form a FG; they may not attack separately unless the MG retains ROF (or the squad attacks in Subsequent First Fire without using the MG).

SW MG fire is limited to a 16 hex maximum range unless directed by a leader. Such attacks at a range greater than 16 hexes are halved as Area Fire vs unbroken Infantry (in addition to the effects of firing at long range).

A MG with no B# shown on the counter has an inherent B# of 12. If the original IFT/TH DR of any attack using a MG is greater than or equal to its B#, one MG is malfunctioned and flipped over after making its attack. Randomly determine which MG malfunctions if using multiple MGs in a FG. The B# of a MG using Subsequent First Fire or Final Fire when marked with a First Fire counter is lowered by two, and one MG is removed if the original IFT DR is \geq the original B#.

A non-vehicular MG (or vehicular MA MG) can attack an AFV as Ordnance (3.2.4) using the APTK Table after securing a hit on the VTT. Such an attack must be made within normal range of the MG, without any form of halved FP penalty.



4.2 Flamethrowers (FT):

A FT is a SW with a normal range of one hex and a FP factor of 24. A pinned unit cannot fire a FT. A FT may attack at long range (two hexes) at half FP. A FT is never increased for PBF/TPBF. FT FP is not halved during the AFPh but is affected by Covering. FT attacks are resolved on the IFT but receive no DRM for leadership or TEM. Applicable DRM for Hindrances (including Smoke) and the +1 DRM for CX may apply. A unit may not use two FT, but a full squad may make a separate attack with its own FP. A FT may not combine with any other attack, nor may it form a FG. Any unit possessing a FT must deduct one (per FT possessed) from the IFT resolution DR of any attack against it. If the original IFT resolution DR of any attack made by a FT is greater than or equal to 10 (its X#), the FT is removed from play after making its attack. Non-elite MMC that use the FT lower its X# by two.

For a FT to attack an AFV it must predesignate the AFV as the target before making the attack. The

attack is made on the HE and Flame TK Table. Armor Factors do not affect this attack but the TK number is halved for long range fire. A FT TK number is increased by one if the AFV is CE.



4.3 Demolition Charges (DC):

A DC is a SW that attacks in the target location in the AFPh with 30 FP factors on the IFT. It is not subject to FP modification due to PBF or AFPh use. The defender's TEM does apply to the resolution of the attack, as does the CX status of the placing unit, but leadership does not. A squad may not use two DC but a squad attacking with a DC may use its own FP in the AFPh. Non-elite MMC using a DC lower its X# by two.

An Infantry unit possessing a DC attempts to place it on an adjacent target during its MPh by expending extra MF (in the hex the DC is placed from) equal to the number of MF it would require that unit to enter that target location were it to do so in that MPh. The act of placing the DC is considered movement in the location occupied by the placing unit, not in the location in which the DC is actually placed. A unit may not place a DC if it prep fired, was pinned or broken prior to completing the placement attempt. Should the placing unit survive (unbroken and unpinned) all resultant Defensive First Fire, Subsequent First Fire, and PPF, then the DC is operably placed. If the placing unit was CX, the CX +1 DRM is applied to the DC attack resolution DR. A DC that is operably placed during the MPh attacks in the AFPh on any original IFT DR less than 12 (its X#; 10 for non-elite use) and is removed from play.

In order for a DC attack to affect an AFV, it must be predesignated as being placed against the AFV. An MMC must first pass a PAATC. If the attacker places the DC on the AFV it will attack on the HE TK Table (TK# 16) but only after a special DC position DR. Consult the DC Position Chart for results. The DC position DR also serves as the hit location DR (hull/turret). The target facing is based on the hexside through which the DC was placed, even if the AFV changes its CA prior to the detonation of the DC in the AFPh.



4.4 Light Anti-Tank Weapons (LATW):

LATWs are Ordnance SW, including Bazooka (BAZ), Panzerfaust (PF), PIAT, Anti-Tank Rifle (ATR), and Panzerschreck (PSK). These SW must secure a hit on the TH Table either on the back of the counter if they have one or on the VTT if not. Upon securing a hit, effects are resolved on the IFT if the target is Infantry or Gun. PF, BAZ, PIAT, and PSK are Shaped Charge Weapons (SCW) firing HEAT (High Explosive Anti-Tank), not HE. Thus, these weapons may only be fired at Infantry if the target can receive building TEM benefits. SCW may also be fired at Guns. If firing at an AFV the effects of a SCW hit are resolved on the HEAT TK Table. The weapon's FP, range, B#/X#, and PP values are shown on the front of the counter. All LATW TH DR are modified normally for TEM, etc.



4.4.1 Bazooka (BAZ) and Panzerschreck (PSK):

Bazookas are only available beginning in November 1942 (use BAZ 43 counters). Better models are available in 1944 (BAZ 44) and 1945 (BAZ 45). Any unbroken Infantry MMC can fire a BAZ and such use constitutes the use of a SW. Any two SMC may fire a BAZ at full effect; however, a single SMC may not fire a BAZ. A BAZ is permanently removed from play if its original TH DR is greater than or equal to its X#. A leader can modify the TH DR if he is directing that attack; however, a leader cannot modify his own attack. A BAZ attacks on the 8 FP column of the IFT if it obtains a hit against Infantry in a building. If a hit is secured against a vehicular target, it is resolved on the HEAT TK Table (TK# 13 for a BAZ 43; 16 for a BAZ 44+).

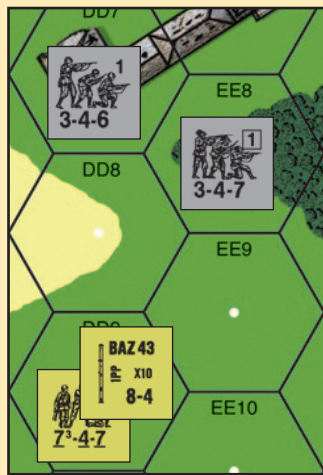
All BAZ rules apply to the PSK except that the PSK has its own TH Table, attacks Infantry in a building on the 12 FP column of the IFT, has its own column on the HEAT TK Table (TK# 26), and is available from September 1943 on.

4.4.2 Panzerfaust (PF):

The PF is potentially an inherent SW of every German Infantry unit beginning October 1943 in any scenario with an enemy AFV or by SSR. Hits vs vehicles are resolved on the HEAT TK Table (TK# 31). Beginning October 1943 all Good Order German Infantry units which can still fire (e.g., a leader, crew, or half-squad that has not fired or a squad that can still fire a SW at full strength) during their current fire phase can possibly fire a PF. A unit fires a PF by making a PF check dr. If the final PF check dr is 1-3 the unit has a PF and is in a position to fire it and must attempt a TH DR vs either a vehicle or Infantry in a building. If the final PF check dr is 4 or greater, the unit may not make a TH DR (it may have a PF but no opportunity to use it). If the original PF check dr is a 6, then the unit has no PF and is pinned. Place a Pin counter on this unit. If already pinned, it is broken instead. There is a +1 drm if the PF is fired at other than an AFV, a +1 drm if the unit is CX, +1 if the unit is a HS/crew, a +2 if the unit is a SMC, and a -1 if the scenario is set in 1945.

A unit may not make a PF check as Subsequent First Fire or FPF regardless of whether it made a PF check as First Fire. Provided a squad has not yet fired its inherent FP, it can attempt to fire a second PF in the same phase even if its first check did not yield a shot, but that would constitute the use of two SW and the squad would lose its inherent FP. Even if a PF check fails to result in a shot, the PF check constitutes the use of a SW.

PF range is determined by the scenario date. Prior to June 1944, PF range is one hex. From June 1944 through December 1944, the range is 2 hexes. Beginning 1945, the range is 3 hexes. The basic TH# of a PF is 10 and is reduced by two for each hex of the target. A leader may apply his leadership modifier to one PF TH DR but such use would constitute his sole fire direction capa-



LATW To Hit Example

The 7-4-7 cannot fire its BAZ 43 at the Italian squad in wEE8 because the 3-4-7 is not in a building. Instead, the 7-4-7 fires the BAZ 43 at the 3-4-6 in the stone building in DD7. The TH Table on the back of the BAZ 43 shows that at a range of 2 a final DR of 8 or less is needed for a hit. The TH DRM are +3 TEM and +1 Hindrance in DD8 (grain is in season) for a total of +4, so an original DR of 4 or less will hit the 3-4-6. A hit is resolved on the 8 FP column with no DRM. An original TH DR of 2 would result in a CH, which would be resolved on the 16 FP column with -3 TEM. Having used its SW, the 7-4-7 can then use its inherent PF to attack the 3-4-7—or even the 3-4-6 again, since Mandatory Fire Group does not apply to Ordnance. If DD9 were a building hex, the 7-4-7 would have to add +2 to its TH DR or instead suffer a Backblast attack on the 1 FP column using the colored die roll of the TH DR to determine the result.

bilities for that phase. A PF is a one shot weapon and therefore is unaffected by breakdown rules. However, an original 12 PF TH DR (11 or 12 for Inexperienced Infantry) is not only a miss but results in Casualty Reduction for the firer. An original 12 on the TK or IFT Table is a dud. A PF attacks on the 16 FP column of the IFT if it obtains a hit against Infantry in a building but does not leave Residual FP. When a PF obtains a hit, it may only affect one unit in the hex. However, prior to any target random selection, the firer may instead choose to pick the target to be selected provided that the target is manning a Gun/SW. The total number of PF shots taken in a scenario may not exceed the number of German squads in the OB prior to 1944, 1.5 times the number (rounded down) during 1944, and 2 times the number in 1945.

4.4.3 Backblast:

A BAZ, PSK, or PF may be fired from inside a building under one of two conditions. An unpinned firer may choose to use a +2 TH DRM penalty to protect against the attendant backblast of these weapons. A firer may instead subject all the occupants of the building hex from which the weapon is being fired to a backblast attack on the 1 FP column of the IFT using only the colored dr of that TH DR; no TEM applies.



4.4.4 Anti-Tank Rifles (ATR):

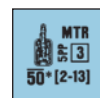
An ATR is a SW that uses the VTT table and the AP TK Table to attack vehicles. Any unbroken Infantry unit can use an ATR. An ATR has a maximum range of 12 hexes and does not have long range fire capabilities. An ATR is used on the IFT vs Infantry as a 1 FP SW (which can FG). Normal breakdown and repair rules apply to an ATR. Leadership modifiers can apply to any ATR use. An ATR does not leave Residual FP.



4.4.5 PIAT:

First available in April 1943, the PIAT has its own TH Table on the back of the counter and resolves vehicular hits on the PIAT column of the HEAT TK Table (TK# 15). A PIAT may not fire at a unit one level lower and in an adjacent hex. The PIAT can be used by a SMC at full effect although no leadership benefit would apply

unless another leader were directing. A PIAT attacks on the 8 FP column of the IFT if it obtains a hit against Infantry in a building. A PIAT has a B10 instead of an X#, is repaired on a dr of 1-2, and removed on a dr of 6.



4.5 Light Mortars:

Mortars are classified as either a Gun or a SW depending on size. Any Mortar of a caliber size less than or equal to 60mm is a Light Mortar and is represented as a SW on a 1/2" counter. As a SW it has no CA and can be fired by any squad/HS (or two SMC) with no detriment and with normal leadership To Hit modification. Should a lone SMC fire a Light Mortar, it loses its ROF capability. Even though a Light Mortar is a SW it can use and lose Target Acquisition as a Gun. See 6.9 for the general rules for Ordnance Mortars.

5.0 ELR and Unit Distinctions:

5.1 Experience Level Rating (ELR):

Each force in each scenario will be given a specific number of leaders, SW, and Elite, 1st Line, 2nd Line, Green, or Conscript squads or HS. However, during the course of play, leaders and MMC are subject to possible replacement by poorer quality units. Each OB will list an ELR for that group of units. This number represents the maximum amount by which an unbroken unit may fail any MC (after modification) without being replaced by a lower quality unit. Should a unit that cannot be replaced by a lower quality unit fail a MC by more than its ELR, it suffers no additional penalty.

If an unbroken unit fails a MC by more than its ELR, it is immediately replaced by a broken unit of the same size but one step lower in quality as per the Nationality Chart on page 33. Crews and MMC with underlined morale are not subject to ELR.

5.2 Nationality Distinctions:

Units of different nationalities have different capabilities. In this game these distinctions are reflected by the MMC. Each major nationality and its units and Weapons are indicated by a common color distinct from those of other nations. In some instances, minor nations are generically represented by the same color.

5.3 Field Promotions:

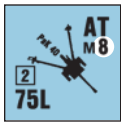
Whenever a non-Japanese MMC rolls an original 2 DR as the first self-rally attempt of a RPH or in a CC attack, it may create a leader. The quality of the leader is based on a dr on the Leader Creation Table (using the morale level of the unit at the time of the original 2 DR). If more than one type of MMC made the CC attack, use the best one to base the dr on.

5.4 Inexperienced MMC:

Green MMC not stacked with a Good Order leader and all Conscript MMC suffer Inexperienced penalties. They have 3 MF (not 4); they cover two columns (not one); the B# or X# of a SW they use is lowered by one. Their CCV is lowered by one, and they suffer a +1 ambush drm.

5.5 Captured Equipment:

Any Weapon that has been recovered by an enemy unit may be used by its new owner subject to certain penalties. Its ROF is reduced by one, the B#/X# are decreased by two, and all attacks by captured Ordnance use red TH#s and add +2 to the TH DR.

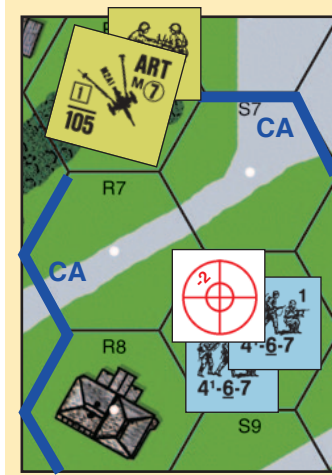


6.0 Ordnance:

Any Weapon that must secure a hit on a target using the To Hit process (3.2.4) before resolving the effect of that hit on the IFT (or a TK Table) is Ordnance (Gun, MA, LATW, or SW). A Gun is a non-vehicular weapon on a 1/2" counter which usually fires as Ordnance. The Ordnance Weapon's caliber (in mm) is shown on the counter. If the weapon caliber size is overscored, the Gun may not fire AP ammo. If the caliber size is underscored, the Gun may not fire HE ammo. If the scoring is accompanied by a star, that ammo may be available in limited quantities after a certain date (6.2).

6.1 Critical Hits (CH):

An original DR of 2 that secures a hit for a LATW or for a Gun/MA on the Area/Vehicle Target Type is a Critical Hit. On the Infantry Target Type Table, each Gun/MA has a Critical Hit possibility listed in parenthesis next to the TH# (in red for red TH#s). The *final* DR must be less than or equal to this number in order to achieve a Critical Hit. A Critical Hit vs an Infantry target is resolved on the IFT with the attacking Weapon's standard HE FP equivalent *doubled* (with no prior halving if using the Area Target Type). Furthermore, any positive TEM that the target would normally be entitled to for TH or IFT purposes is *reversed* and applies as a negative DRM to the IFT DR. Air Burst, FFMO/FFNAM still apply as negative DRM (if applicable) in addition to the effects of the CH. A Critical Hit against a Gun automatically destroys the Gun and its manning Infantry. A CH on the Vehicle Target Type, doubles the TK number of that weapon. Regardless of the number of targets in a location hit by a Critical Hit, the special provisions of a Critical Hit apply only to one randomly determined target.



Critical Hit Example

The American 105mm in wR6 fires at the two German squads in S8 on the Infantry Target Type. Since it is 1943, red TH#s would apply for an American Gun, but at range 2 on the Infantry Target Type there is only the black TH# of 9. DRM of +3 TEM for the stone building and -2 for the Acquired Target counter apply. The American rolls a 3 and adds the modifiers for a final TH DR of a 4, equaling the 4 in parentheses after the TH# of 9 and achieving a Critical Hit (CH). One 4-6-7 is randomly chosen to receive the Critical Hit, while the other squad suffers a normal 105mm attack. The American rolls for an effect on the IFT with the same DR applying to both squads. The normal hit uses the 20 FP column with no DRM; the CH uses the 36 FP column (double 20) with a -3 DRM (reversed TEM). If the range had instead been 7, the red TH#s would apply. The American would need a final TH DR of 6 for a hit at range 7 and would need a final DR of 2 for a CH.

6.2 Special Ammo and Depletion Numbers:

Guns/MA have unlimited AP (except Mortars or if overscored) and HE ammo (unless the Gun size is underscored) unless one of these ammo types is listed on the back of the counter which indicates limitations to availability. If such unlimited ammo is available, it is assumed that ITT attacks use HE and VTT attacks use AP unless otherwise announced prior to the attack. Some Weapons have the possibility of Special Ammo, as designated on the back of the counter by a Special Ammo symbol followed by a Depletion Number. If the Depletion Number has a superscripted date (e.g., 4 = 1944, J4+E = June 1944 in Europe), then such possibility is date dependent. An attempt to fire Special Ammo must be announced prior to making the TH DR. If the original TH DR is less than the Depletion Number, the Weapon has that Special Ammo, uses it to resolve any hit from that DR, and may try for that Special Ammo again when firing. If the original TH DR equals the Depletion Number, the Weapon has that Special Ammo for that shot only, uses it to resolve any hit from that DR, but may not try for that Special Ammo again. If the original TH DR is higher than the Depletion Number, the Weapon never had that Special Ammo and has not fired. If the TH DR results in a malfunction (or Low Ammo; 7.2.1), however, the Weapon has fired and is malfunctioned (or under Low Ammo) and out of that Special Ammo. Annotate depletion on a side record. HEAT is only available to the Germans beginning on 5/42, the Italians on 9/42, and all others on 1/43.

AP (Armor Piercing): If firing at an Infantry Target, Ordnance less than 37mm in size firing AP use the 1 FP column on the IFT. Ordnance greater than or equal to 37mm firing AP use the 2 FP column; AP ammo does not leave any Residual FP.

APCR (A)/APDS (D) (Armor Piercing Composite Rigid/Armor Piercing Discarding Sabot): If available it is listed on the back of the counter as 'A' or 'D' respectively and always uses the 1 FP column on the IFT vs Infantry.

HE (High Explosive): standard anti-personnel ammo.

HEAT (High Explosive Anti-Tank):

HEAT can only be used against Infantry in buildings or against Guns and vehicles. It has its own To Kill Table, and it attacks on the IFT column one lower than normal for HE. LATW show their FP on the counter. If available for other than SCW, it is listed on the back of the counter as 'H'.

s (Smoke): Ordnance Smoke (1.2.5) on a 1/2" counter is placed at the *start* of the PFPh or DFPh by securing a hit on the Area Target Type. If done in the PFPh place a +3 Smoke counter; if done in the DFPh, place a +2 Dispersed Smoke counter. Once the firer has fired anything other than Smoke during that PFPh/DFPh no more Smoke may be fired in that phase.

WP (White Phosphorous): WP may only be fired on the ATT and at the start of the PFPh or the DFPh or as Defensive First Fire. A unit hit with WP must take a NMC, with the TEM subtracted from the NMC DR; Mortar Air Bursts from WP add a +1 to the DR. A WP CH adds the positive TEM to the DR. Treat WP as Ordnance Smoke, except that full WP is a +2 counter and Dispersed WP is a +1 counter.

6.3 Emplacement:

Any Gun that has not been moved during the scenario is Emplaced unless set up on a paved or paved orchard road. If Emplaced, a Gun and its manning crew are entitled to a +2 Emplacement TEM. This Emplacement TEM cannot be used in conjunction with any other TEM or Gunshield DRM (6.6) (the owner may choose one or the other but not both) nor may it be used if the Gun is manned by a non-crew unit. The negative DRM from an Air Burst does apply cumulatively with Emplacement TEM. If a Gun moves it loses its Emplaced status.

6.4 Hidden Initial Placement (HIP):

An Emplaced Gun and its crew may always set up using Hidden Initial Placement (HIP) unless on a paved road. The Gun owner records the Gun's location and CA during setup. The Gun and crew counters are then placed to the side and not placed onboard until the Gun loses HIP. A HIP Gun in Open Ground (including unpaved

road) loses HIP when a Good Order enemy unit within 16 hexes has LOS to the Gun.

A Gun that fires, changes CA, or attempts to move or whose crew moves loses HIP. In addition, if an enemy Infantry unit attempts to enter a hex that contains a HIP Gun during the MPh, the unit is returned to its prior hex, its movement ends, and the Gun loses HIP. When a unit attempts to enter during the RtPh, place the Gun and its manning Infantry on board and the broken unit ends its RtPh, where it will be eliminated for failure to rout. A Gun will also lose HIP status if an enemy AFV enters its hex. A Gun that loses its HIP status for any reason is placed onboard in its recorded location. Any DFF/SFF/FPF by the HIP Gun against the Infantry unit entering its hex is done in the hex the Infantry unit was in as it tried to enter the Gun's hex. FFMO and FFNAM penalties apply if applicable. A HIP Gun that attempts to fire at a vehicle in its hex does so with the in-hex penalties (Case 10). An Infantry unit that enters a hex that contains a HIP Gun during the APh, remains in that hex for CC; place the Gun and its manning Infantry on board in the CCPh, where they qualify for a -2 ambush drm.

An attack against a HIP Gun is resolved as Area Fire with half FP on the IFT or for Ordnance by adding a +2 TH DRM. Any TEM or Gunshield benefit is applied. If the attack results in an effect, the Gun loses HIP and the attack is resolved.

6.5 Gun Movement:

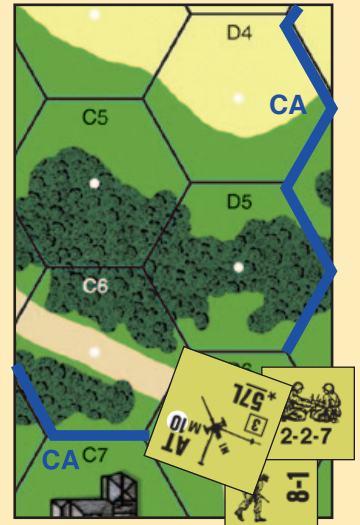
A QSU Gun (1.2.6) may be manhandled by an MMC during the game into a new location. Each Gun has a manhandling number in the upper right hand corner that begins with an "M". To move it to a new location in the MPh, the owner must roll less than or equal to the manhandling number modified by the appropriate DRM found on the QRDC. The MF cost to manhandle a Gun is double the normal MF for the terrain type entered. A manhandling unit cannot use Assault Movement nor carry any PP. Double Time can be used but road bonus cannot. If the final manhandling DR is less than the manhandling number, the Gun has been successfully moved to the new location, and if the manhandling unit(s) has enough remaining MF, they may continue to attempt to manhandle the Gun to another hex. If the final manhandling DR is equal to the manhandling number, the Gun and those pushing it can enter the new hex but may not move any farther that turn. If the final manhandling DR is greater than the manhandling number, neither the Gun nor those pushing it may move that turn. A Gun may not move in the APh nor can any unit that attempted to manhandle a Gun that turn. A Gun or unit that attempts to move via manhandling may not fire in the AFPh. Manhandling is Hazardous Movement and any unit involved in manhandling a Gun receives a -2 DRM to any fire attack directed at it that Player Turn *regardless of fire phase* until it is pinned. Neither FFMO nor FFNAM apply to Hazardous Movement. Non-QSU Guns (i.e., Guns that must be unlimbered to fire; 1.2.6) cannot move during the course of an ASLSK

Emplacement and Manhandling Example

The 57mm AT Gun in xD6 manned by the 2-2-7 crew started the scenario Emplaced and HIP; it would be neither Emplaced nor HIP if it were manned by a non-crew. Because it is in an Open Ground/unpaved Road hex, it lost HIP as soon as a Good Order enemy unit within 16 hexes had LOS to it. Because it is Emplaced it receives a +2 TEM to all attacks. Thus any Ordnance shot would add +2 to the TH DR. If hit by Ordnance, an original IFT DR resulting in a KIA eliminates the crew and Gun (or if a K, eliminates the crew and malfunctions the Gun). If the original IFT DR is not an original KIA or K, and if the hit occurs through the Gun's CA, the crew adds the +2 Gunshield modifier (available to AT Guns) to the IFT DR.

The American player wants to move the Gun, crew, and the 8-1 leader to D5, so rather than fire in PPh he attempts to manhandle the Gun in the MPh (losing HIP now if it hadn't previously); if successful this will cost 4 MF (double the normal cost). The manhandling number is 10 as shown on the counter. The applicable DRM (listed on the QRDC) are +1 for the TEM and +4 for MF cost for a total of +5. If the American rolls a 4 or lower, the Gun, crew, and leader move to D5, and he may try to manhandle the Gun again this turn. If he rolls a 5 (for a final DR of 10), he moves the Gun and units to D5 and stops. In both cases the American can change the Gun's CA. If he rolls a 6 or more, he cannot move this turn nor change its CA. Having rolled less than a 5 and moved to D5 he can attempt to manhandle the Gun again into D4 for a cost of 2 more MF (Grain is not in season). He still needs a final DR less than 11 to get there, but the DRM are +2 for MF for a total of +2. If, instead of moving to D5 he wanted to move to C6 that would cost 2 MF and incur DRM of +2 for MF, +1 for TEM, and -2 for crossing a road hexside for a total of +1. If a squad possessed the Gun instead of the crew there would be an additional -1 DRM. If an extra squad were part of the manhandling stack there would be an additional -2 DRM. In all cases, any attack against the manhandling stack would receive the -2 Hazardous Movement DRM and no Gunshield DRM. In all cases, none of the manhandling units could fire in AFPh or advance in the APh.

Having moved, the Gun is no longer Emplaced. Any Small Arms, MG, or DC attack through the CA will receive the +2 Gunshield DRM available to AT Guns, as will any IFT DR after an Ordnance hit through the CA that does not result in an original KIA or K.



scenario. If successfully manhandled, a Gun may simultaneously change its CA.

6.6 Gunshield:

All AT and INF Guns have a gunshield to help protect their crews. The gunshield protects its Good Order manning crew (only) from most attacks that originate through the Gun's Covered Arc. Infantry manhandling a Gun may not benefit from a gunshield. The manning crew protected by a gunshield may add +2 to the IFT DR (+1 vs Mortar fire; 0 vs FT). The Gunshield DRM is never cumulative with other TEM (including Emplacement) but can modify an IFT DR after TEM including Emplacement has been used to modify a TH DR. The Gunshield DRM never applies to a Direct Hit (6.7).

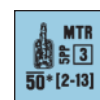
6.7 Guns as Targets:

The color of the M# (6.5) indicates the Gun's target size. If the M# is printed on a white circular background, the Gun is a small target. If it is printed in red, the Gun is a large target. A CH automatically destroys both the Gun and its manning Infantry. Once a hit (other than a CH) is achieved on a Gun via the To Hit process, the firer rolls on the IFT to determine the effect on the Gun and the crew. If the final DR (prior to any Gunshield DRM) results in a KIA the Gun is destroyed along with its manning Infantry. A K result causes the Gun to become malfunctioned and causes Casualty Reduction to the manning Infantry. These results are considered Direct Hits. If the IFT DR does not result in a Direct Hit, then the result is considered a Near Miss and any applicable Gunshield DRM is applied to the

same DR to determine the effect on the manning Infantry.

6.8 Infantry Firepower Equivalent (IFE):

Any single number appearing in parenthesis beside a Gun/vehicle caliber size is that weapon's IFE. Not all Weapons have this option. The IFE is used directly on the IFT without using the To Hit process, as if the weapon were a MG, although it would still apply CA change DRM as necessary. A Gun/MA using IFE has its ROF lowered by one and may not form a FG with other units, nor use, gain, or retain any form of Target Acquisition. IFE has a normal range of 16 hexes, is not considered Ordnance, and is subject to neither Covering nor leadership. Like a MG, an IFE Gun/MA may use Subsequent First Fire and Final Protective Fire in the MPh, and if marked with a First Fire counter in DFPh may fire at an adjacent unit, all at half fire and with its B# lowered by 2 and suffering permanent removal on an original IFT DR \geq the original B#.



6.9 Mortars:

Mortars are classified as either a Gun ($\frac{3}{4}$ counter) or a SW ($\frac{1}{2}$ counter).

Mortars with a caliber greater than 60mm are Guns. Mortars may not fire from a building hex. Mortars must use the Area Target Type, but do not give up ROF by doing so. Mortars may not fire at targets closer than the minimum range or farther than the maximum range. Those ranges are printed in brackets on the front of the counter. Any original DR of 2 that secures a hit for a Mortar is a Critical Hit (6.1).



6.10 Target Acquisition:

When a Gun/MA makes a TH DR using the Infantry Target Type or Vehicle Target Type it may place a ½" -1 Acquired Target counter on its target (or flip a -1 counter to the -2 side). This Acquired Target counter applies as a TH DRM for subsequent shots by that Ordnance Weapon. A target can be acquired by more than one Weapon but never more than at the -2 level. The target remains acquired until the Weapon or its manning Infantry leaves its present location, changes CA without firing, attacks a different target, malfunctions, fires Smoke, uses IFE, or until its manning Infantry is eliminated, is not in Good Order, no longer possess the Weapon, fires its inherent FP, uses Interdiction, or an AFV fires its CMG at a different hex, or until the target leaves the LOS after entering a new hex. However, in this last case, the last hex the target was in prior to leaving the LOS will retain the Acquisition. If another enemy unit enters that hex, it then receives the Acquisition. Change the ½" Acquired Target counter to a ⅜" counter if the Gun/MA later fires at the target using the Area Target Type.

If a stack of acquired units scatter and enter different hexes the firer may retain a ½" Acquired Target counter of his choice on one of the previously Acquired Targets. If an Acquired Target appears to leave the LOS of the Gun/MA, a free LOS check may be made. If the LOS check reveals that there is no LOS to that hex, the ½" Acquired Target counter is returned to the last hex to which the Gun/MA had LOS. Smoke may take advantage of Target Acquisition but does not gain Target Acquisition and once a Smoke shot is taken, Target Acquisition is lost. Target Acquisition may not be gained for Bounding First Fire or by an AFV that is in Motion.



6.11 Area Acquisition:

Acquisition gained while using Area Target Type is marked by using the ⅜" Acquired Target counter. All principles of ½" Acquisition apply except that the Acquisition belongs to the hex rather than the target. A ⅜" Acquisition cannot track a target; the firer would have to reacquire the target in the new hex it moves into. Mortars always utilize Area Acquisition. Smoke may take advantage of Area Acquisition if firing at a hex that has been acquired, but, Smoke shots do not gain Acquisition and once taken lose whatever Acquisition there may have been. Change the ⅜" Acquired Target to a ½" counter if the Gun/MA later fires into the hex using the Infantry or Vehicle Target Type. Empty hexes may be fired at but must use the Area Target Type to do so and would gain Area Acquisition.

6.12 Ordnance Breakdown:

A Gun or SW Mortar with no B# shown has an inherent B# of 12. If the original TH DR is greater than or equal to its B#, that Gun/SW is malfunctioned. A Gun fired by a squad or HS has its B# lowered by 2, as does a captured Gun or a

The Vehicles section (7) employs a lot of acronyms that are defined in the glossary on pages 5-7. For ease of reference this table includes some of the more common acronyms in section 7.

AAMG: Anti-Aircraft Machine Gun
AF: Armor Factor
AFV: Armored Fighting Vehicle
B#: Breakdown Number
BMG: Bow Machine Gun
BU: Buttoned Up
CE: Crew Exposed
CMG: Coaxial Machine Gun
DR: Dice Roll
DRM: Dice Roll Modifier
FT: Flamethrower
HE: High Explosive
IFT: Infantry Fire Table
ITT: Infantry Target Type
LATW: Light Anti-Tank Weapon

LOS: Line of Sight
MA: Main Armament
MG: Machine Gun
MP: Movement Point
NT: Non-Turreted weapon
Turret Types:
 • **T:** Fast Turret Traverse
 • **ST:** Slow Turret Traverse
 • **RST:** Restricted Slow Traverse
TEM: Terrain Effects Modifier
TH: To Hit
TK: To Kill
TCA: Turret Covered Arc
VCA: Vehicle Covered Arc
VTT: Vehicle Target Type

Gun/MA using Intensive Fire (or IFE if already marked as First Fire) while a SW fired by an Inexperienced MMC has its B# lowered by 1. In either case, an original To Hit (or IFT) DR ≥ the original B# results in its permanent removal. If a QSU Gun or SW Mortar malfunctions flip the counter to its back; place a Malfunction counter for a non-limbered Gun that malfunctions. Guns and SW Mortars repair on a dr of "1" and both are permanently removed on a dr of "6".

7.0 Vehicles:

Vehicles are represented by ⅜" counters with overhead depictions of a vehicle. Armored Fighting Vehicles (AFV) have Armor Factors (AF) and two AFV types are included; Fully Tracked and Armored Cars. The shape of the white symbol behind the large Movement Point (MP) allowance in the upper right of the counter identifies the type of vehicle and its movement type. A white circular background behind the MP allowance identifies an Armored Car (AC) while a white oval behind the MP allowance identifies a Fully Tracked vehicle. Any MP number listed in red means the vehicle is prone to mechanical failure upon starting. Black MP numbers are standard. See the accompanying Vehicle and Ordnance Historical Notes booklet.

7.1 Armor Factors (AF):

Each AFV has two Armor Factors (AF) listed; one above the other. The top AF is for the vehicle front facing aspect while the bottom AF is for the vehicle side/rear facing aspect. Note that 0 is considered an AF. Each listed AF also represents the AF for both the hull and the turret. The hull/turret AF are only different if the aspect is encased in a circle or a square, which will decrease or increase the AF of the turret in relation to the hull AF. A circle represents inferior turret armor in the facing and therefore the AF for the turret is decreased to the next lower AF rating. A square represents superior turret armor in that facing and therefore the AF for the turret is increased to the next higher AF rating. The AF ratings are as follows: 0, 1, 2, 3, 4, 6, 8, 11, 14, 18, and 26.

7.2 Main Armament (MA) and Turret Types:

Each armed vehicle has one Main Armament (MA) inherent weapon. The MA is shown as a large number to the lower left of the center representing the MA caliber size and barrel length. The MA is either turreted or bow mounted. Any vehicle with a thin white circle surrounding the vehicle depiction has a Fast Turret Traverse (T) MA. Any vehicle with a thin white square around the vehicle depiction has a Slow Turret Traverse (ST) MA. Any vehicle with a thick white square around the vehicle depiction has a Restricted Slow Traverse (RST) MA. An RST MA AFV is considered a ST MA AFV for TH DRMs except that it cannot fire its MA/CMG while the AFV is Crew Exposed (CE). A vehicle with a thick white square with no corners has a One Man Turret (1MT). A 1MT AFV is considered a RST AFV and cannot fire its MA or CMG while CE. Finally, any vehicle with no such circle or square on the counter is considered Non-Turreted (NT) and thus bow mounted. A MA with no B# shown has an inherent B# of 12; MA breakdown and repair as if a Gun (6.12) except the MA is marked with a "Malfunctioned" counter and is marked with a permanent "Disabled" counter instead of being removed if the repair attempt is a 6. Vehicle MA and MGs cannot be repaired when Shocked or Unconfirmed Kill (UK).

7.2.1 Low Ammo:

A MA with a circled B# malfunctions on an original 12 TH DR and suffers Low Ammo on any other TH DR greater than or equal to the circled B#. A Low Ammo result includes all ammo types the vehicle is allowed to use. A vehicle suffering from Low Ammo is marked with a Low Ammo counter, which creates a new B# one less than the original circled B# and causes the MA to be permanently disabled on any TH DR greater than or equal to the original circled B#.

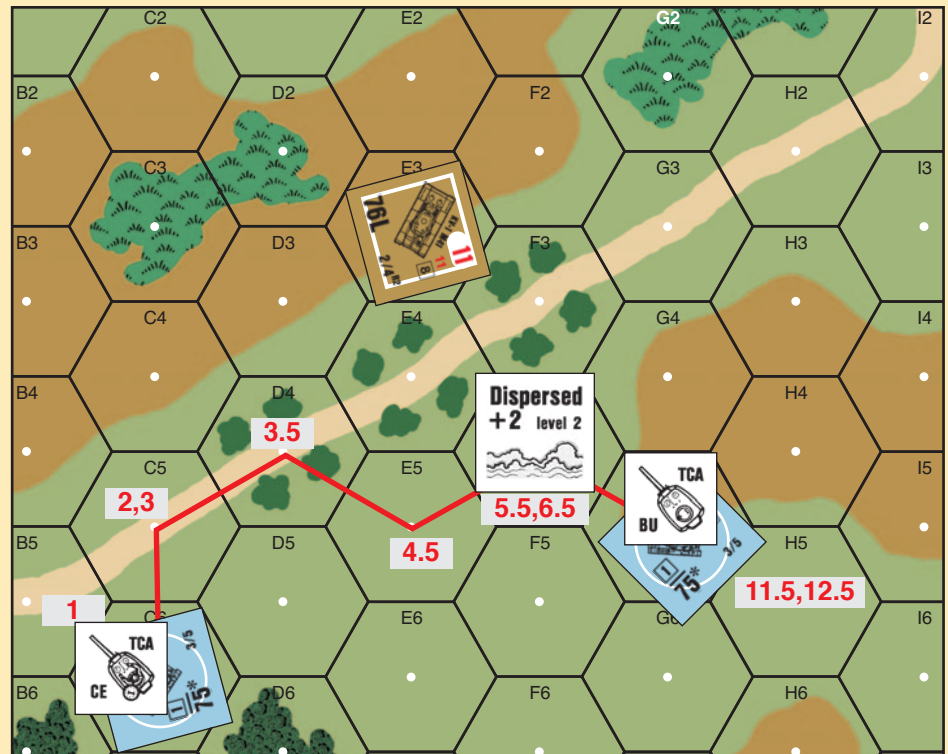
7.3 Vehicle Target Size:

All vehicles are rated for one of five possible target sizes which serve as TH DRM for that vehicle. A Very Large target (-2 TH) has both its upper and lower AF printed in red. A Large target (-1 TH) has the upper AF printed in red. An

Vehicle Movement and Smoke Dispenser

Usage Example

It's June 1943 and the PzKpfw IIIN in vC6 begins its MPh by spending 1 MP to start. It then spends 1 MP (2) to enter C5, 1 MP (3) to change its VCA and TCA to D4/D5, ½ MP (3.5) to enter D4, 1 MP (4.5) to enter E5, 1 MP (5.5) to enter F4 where it attempts to fire its Smoke Discharger (sD7)—needing a DR ≤ its usage number of 7. It rolls a 7 (this does not affect possible future attempts) and successfully dispenses Smoke (since it is CE, no DRM apply), spending 1 MP (6.5) to do so and placing a +2 Smoke counter in F4. If it had failed to dispense Smoke, it would not have expended the MP. It then Buttons Up, removing the CE counter, and spends 5 MP (11.5) to enter G5—1 MP for entering Open Ground and 4 MP for crossing a Crest Line into higher terrain—while changing its TCA to F4/G4, placing a BU TCA counter. It then spends 1 MP (12.5) to stop, with its remaining one-half MP considered spent there also.



Average target (0 DRM) has both AF printed in black. A Small target (+1 TH) has the upper AF printed on a white dot. A Very Small target (+2 TH) has both AF printed on white dots.

7.4 AFVs as Cover and Wrecks:

All Infantry in the same location as a wreck/friendly AFV are entitled to a +1 TEM (negating FFMO) unless the wreck/AFV is a Moving Target. If it is a Moving Target, then there is no TEM until it stops and then only after the AFPh. This TEM is applicable only if the unit can claim no other positive TEM, but it is cumulative with Smoke or Hindrance DRM applicable to the firer. Infantry are not affected by the elimination of a vehicle in their hex.

A wreck is created whenever a vehicle is eliminated. This is done by flipping the vehicle counter over to its white side. Each wreck/AFV increases the cost to enter that hex for other vehicles by 2 MP if entering via a road hexside or 1 MP otherwise; the road penalty is doubled in woods. Wrecks do not contribute to overstacking.

7.4.1 AFV/Wreck LOS Hindrance:

There is a +1 LOS Hindrance DRM to same level LOS for firing through (not into or out of) a hex containing a wreck/AFV unless the wreck/AFV is a Moving Target. If it is a Moving Target, there is no Hindrance until it stops and then only after the AFPh. The Hindrance does not apply if the wreck/AFV hex cannot be seen by both the firer and the target.

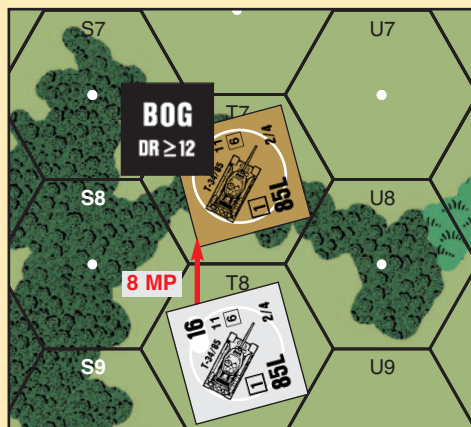
7.5 Vehicular Smoke Dispensers:

Smoke Dischargers (sD), Smoke Mortars (sM), Smoke Pots (sP), and the Nahverteidigungswaffe (sN) are all vehicular smoke dispensers. An AFV is equipped with such a smoke dispenser if the reverse side of the counter contains the appropriate abbreviation and a usage number. An AFV

may attempt to dispense smoke once per Player Turn in the MPh but only if the crew is not Stunned or Shocked and the AFV has not yet fired any weapon (including Bounding First Fire or Defensive First Fire) during that Player Turn. Using a smoke dispenser costs 1 MP during an AFV's own MPh but there is no MP expenditure for an unsuccessful usage attempt. During an opponent's MPh a smoke dispenser usage attempt can be made following any MP/MF expenditure by an opposing unit in the vehicle's LOS as if it were intervening with Defensive First Fire. The use of a smoke dispenser does not constitute the use of a Weapon; therefore, a vehicle may still fire after the use of the smoke dispenser. Even an immobile vehicle may attempt to dispense Smoke.

Bog Example

At the start of its MPh, the T-34/85 enters vT7 at a cost of 8 MP—half its MP—and takes a Bog Check with +4 DRM: +1 for Normal Ground Pressure and +3 for entry of woods at half its MP. The Russian DR is 9 which results in a final



When a player wishes to attempt a smoke dispenser he makes a DR. If that final DR is less than or equal to its usage number, a Smoke counter is placed per the applicable smoke dispenser type. If the final DR is greater than the usage number, it was not successful but the player is free to have the vehicle try again in another Player Turn. An AFV must add +1 to its usage DR if BU.

Smoke Discharger (sD) places dispersed smoke (+2, ¼" counter) in the AFV's own hex.

Smoke Mortar (sM) places dispersed smoke (+2, ¼" counter) in any hex of the firer's choice that is at a range of 1-3 hexes from the AFV within its LOS and TCA. If the AFV changes its TCA to fire a sM, a DRM will apply to the usage DR as if it were fir-

DR of 13. The T-34/85 bogs in hex T7, stops immediately, its MPh is finished, and a Bog counter is placed on it. In his next MPh, the Russian player declares a Bog removal attempt. No DRM apply. When he rolls a 5 on the colored die, the T-34/85 becomes Mired. In his next MPh, he tries again, this time with a +1 DRM to the colored die due to being Mired. He rolls a 3 on the colored die, which becomes a 4—unboggging the T-34/85—and a 6 on the white die. Multiplying the two die rolls together provides the MP cost to start—18 MP—more than the T-34/85 has. The Bog counter is removed, and the tank is left in Motion in T7.

If the T-34/85 had rolled a 3 on the white die of this second unboggging attempt, it would only cost 9 MP to Start (3 × 3), and the tank could use its remaining 7 MP to move. If it had used all its MP to enter T7 to begin with, the only applicable DRM to the Bog Check would have been +1 for Normal Ground Pressure, and it would not have bogged from rolling a 9 on its Bog Check.

ing. A moving/Non-Stopped AFV must add +2 to its sM usage DR. Hindrance DRM between the AFV and its target hex also apply to the usage DR. An AFV may not fire a sM from inside a building.

Smoke Pots (sP) places dispersed smoke (+2, $\frac{1}{2}$ counter) in the AFV's own hex. The crew must be CE to use a sP.

Nahverteidigungswaffe (sN) places dispersed smoke (+2, $\frac{1}{2}$ counter) in the AFV's own hex. The crew must be BU to use the sN. The sN is also used during the CCPH as an attack vs enemy units, but without placing smoke.

To Hit/To Kill Example

(*use page 24 illustration*)

Let's consider the To Hit possibilities of the Russian KV-1 M41 in vE3 during the MPH of the PzKpfw IIIN that starts in C6. If the orchards are in season (April-October) the tanks cannot see each other until the PzKpfw IIIN enters G5 because the orchards in D4 and E4 block LOS from E3 to the lower level hexes C6, C5, D4, E5, and F4. When the PzKpfw IIIN enters G5, the KV-1 M41 changes its TCA to E4/F3 and fires. It must change either its VCA or TCA to include G5 within the CA of its Main Armament, and changing the TCA incurs less of a penalty. The KV-1 M41 fires on the Vehicle Target Type; cross-referencing the Gun Type (Russian 76L) with the range (3 hexes) on the Vehicle Target Type To Hit Chart provides a TH# of 10. The TH DR will be modified as follows: +2 for the first CA hexspine changed by the ST Gun (Case 8); +1 BU (Case 13; note that this RST Gun cannot fire if CE); +2 for Moving Vehicle (Case 24; the PzKpfw IIIN spent more than 3 MP in LOS to enter G5); +2 Smoke Hindrance (Case 18; the orchard does not hinder LOS between the two higher-level hexes); for a total of +7 DRM (the shot would be the same in the DFPh, assuming nothing else changed). The Russian rolls a 3 (colored die of 1), hitting the PzKpfw IIIN in the front of its turret. (If the colored die had been 2 and the white die 1, the PzKpfw IIIN would be hit in the rear hull.)

The AP TK# for the Russian 76L Gun at range 3 is 13 on the AP To Kill Table. Subtracting the Front Turret Armor Factor of 6 provides a Final TK# of 7. The Russian rolls an 8, one greater than the Final TK#, resulting in Possible Shock. The PzKpfw IIIN passes its MC, avoiding Shock.

The Russian then intensive fires the KV-1 M41. (He would not be able to use Intensive Fire vs a non-adjacent unit in the DFPh.) The TH# remains 10, but with slightly different modifiers to the TH DR: +1 BU (Case 13), +2 Moving Vehicle (Case 24), and +2 Smoke Hindrance (Case 18) still apply; Case 8 for changing CA no longer applies, but the +2 for Intensive Fire (Case 9) does, as does a -1 Acquired Target (Case 20) for a total of +6 DRM. The Russian rolls a 4 (double 2s), hitting the PzKpfw IIIN in the rear hull, where the AF is 3. Because it is a rear hit, the TK# of 13 is raised to 14, for a Final TK# of 11. The Russian rolls an 11 and immobilizes the PzKpfw IIIN.

7.6 Bog and Ground Pressure:

Bog occurs whenever a vehicle fails a Bog Check DR. A vehicle must take a Bog Check whenever entering woods or a building (but not during setup) or when it attempts to change its VCA while in a woods or building hex. The Bog effect takes place in the entered hex. The VCA change attempt does not occur if the vehicle bogs. A bogged vehicle may not exit its hex or change its VCA until freed but may change its TCA if otherwise able to do so.

If the Final Bog Check DR is greater than or equal to 12, the vehicle bogs, is marked with a

Bog counter, becomes stopped, and must end its MPH immediately. Bog Checks are subject to DRMs found on the QRDC including Ground Pressure. A vehicle's Ground Pressure is identified by the unit letter in the upper left corner of the vehicle counter. Any vehicle whose unit letter is encased in a square has Low Ground Pressure. If encased in a circle it has High Ground pressure. If neither, it has Normal Ground Pressure.

An otherwise mobile vehicle may attempt to eliminate Bog status at the start of its MPH provided it has not fired during its PFPh. Bog removal is attempted by spending as its start MP

In the AFPh the PzKpfw IIIN fires back at the KV-1 M41. (The German could have fired during its MPH with essentially the same chances but would not then be able to place an Acquisition counter for future use.) He declares he will attempt to shoot HEAT (H9) and also has a TH# of 10. The modifiers to the TH DR are +4 for T Gun Bounding Firer (Case 14), +1 BU (Case 13), +2 Smoke Hindrance (Case 18), and -1 Target Size (Case 22) for a total of +6 DRM. The German rolls a 5 and just misses but does not run out of HEAT yet. If the PzKpfw IIIN had not stopped (or not been Immobilized) it would have had to double the lower dr (Case 16).

Next turn when the KV-1 M41 fires in the Russian PFPh its TH# remains 10. Modifiers for its TH DR are +1 BU (Case 13), +2 Smoke Hindrance (Case 18), and -2 Acquired Target (Case 20) for a total of +1.

Assuming the PzKpfw IIIN survives until the DFPh, its TH# will remain 10 and the TH DRM will be +1 BU (Case 13), +2 Smoke Hindrance (Case 18), -1 Target Size (Case 22), and -1 Acquired Target (Case 20) for a total of +1 DRM. If it hits with HE, its HE TK# of 7 is essentially worthless against the KV-1 M41. If it hits with HEAT, it would have a TK# of 13. On a turret hit the PzKpfw IIIN would strike the KV-1 M41's frontal Armor Factor of 11, and the Final TK# of 2 would be tough to achieve. A hull hit would strike the side armor of 8 (since the VCA is not pointed at the PzKpfw IIIN), and the resulting Final TK# of 5 is more feasible to attain. (The box around the 8 side Armor Factor indicates that the turret side armor is 11, one step up from 8.)

If, instead of using the Vehicle Target Type (as all these shots have done), the PzKpfw IIIN used the Area Target Type, then its TH# at this range would be 7 and the TH DRM would be the same total of +1. If it hit the KV-1 M41, the result would be determined on the 6 FP IFT column (half of the 12 FP column normally used for 70+mm attacks) with a +1 DRM since the KV-1 M41's smallest Armor Factor is 8. The German would need to roll an original 2 or 3 to affect the KV-1 M41; on the 6 FP column a final DR of 3 or 4 (resulting in a K/# result or one greater) would either Shock or Immobilize the KV-1 M41, depending on whether it was a turret hit or a hull hit.

If the orchards were out-of-season (November-March), then the KV-1 M41 and the PzKpfw IIIN in C6 (back where it started) could see each other at the start of the MPH. When the PzKpfw IIIN spends 1 MP to start, the KV-1 M41 can fire. The TH# is 10, and the DRM are +1 BU (Case 13) and +2 Orchard Hindrance (Case 18) for D4 and E4 (the E4 hexside of this Inherent Terrain is enough to invoke the Hindrance) for a total of +3. Although the PzKpfw IIIN has started, it has not yet entered a new hex and so is not yet a Moving Vehicle for Case 24 to apply. If the KV-1 M41 hits the PzKpfw IIIN, it will strike the frontal 6 AF regardless of whether it hits the hull or the turret. Since the LOS enters C6 along the hexspine dividing the turret front from the turret side, the target facing used is that least advantageous to the firer. (The PzKpfw IIIN's side hull AF is 3; its side turret AF is 4, one-level up from 3.) The KV-1 M41 fires and rolls a 7 (colored die of 4), hitting the PzKpfw IIIN in the hull; using the Basic AP TK# of 13 provides a Final TK# of 7. The Russian rolls an 8 on the TK DR, achieving Possible Shock. The German then passes his MC, avoiding Shock. Because there was no effect on the vehicle, the CE crew suffers a 2 FP Collateral Attack for the AP hit using the same TK DR to resolve the IFT attack but with a +2 CE DRM. In this particular case (and most others), any AP TK DR that does not affect the AFV will also have no effect on the 2 FP Collateral Attack.

The Russian could have instead declared the KV-1 M41 was using HE ammo, while still using the Vehicle Target Type with the same chance of hitting the PzKpfw IIIN. After a hit, a look at the HE and Flame TK Table shows the HE TK# in the 70+ column is 7, providing a Final TK# of 1 against the frontal 6 AF—impossible to achieve. The subsequent Collateral Attack would be on the 12 FP column. Assuming an original 7 TK DR, adding the +2 CE DRM provides a final 9 on the 12 FP column and results in a MC on the crew. If the crew rolls equal to its Morale of 8 and Pins, it would Button Up. If the crew fails the MC, the AFV would be Stunned and would Button Up, Stop, and have a Stun counter placed. If the crew rolls a 12 on its MC, the AFV would be Stunned and under Recall; it would Button Up, Stop, and have a STUN counter placed.

an amount of MP equal to an original colored dr times an original white dr. This MP cost is doubled if the vehicle is non-tracked. If the final colored dr is 1-4 the vehicle is freed, even if the start MP expenditure is greater than its total MP, but it is still in the bog hex. The vehicle may then use any remaining MP to move normally. If the colored dr was a 5, the vehicle becomes Mired and its Bog counter is flipped over to its Mired side, which adds a +1 to the colored die to future Bog removal attempts as long as it is Mired. If the colored dr is a 6 or more, then the vehicle becomes Immobilized. A bogged vehicle can still expend MP for non-movement related activities (smoke dispensers) and can fire normally. However, after the phase in which it became bogged is over, it may not change its VCA or fire bow mounted weapons at units in its hex unless the unit entered during this MP from within the VCA of the vehicle and only during the MP used to enter the hex, not for any MP spent in the hex.

7.7 Crew Exposed (CE)/Buttoned Up (BU):

An inherent AFV crew is either Buttoned Up (BU) or Crew Exposed (CE). An AFV is considered to be BU unless under a CE counter signifying it is CE. A BU crew is not vulnerable to any fire except as it might affect the AFV. A BU crew must add +1 to any TH DR by a MA. Being BU doubles the $\frac{1}{2}$ MP road movement rate of the AFV.

An AFV must be CE to use its AAMG. A CE AFV may not enter a building; however once a BU AFV is inside a building, it may become CE. A CE crew is entitled to a protective +2 DRM due to the partial protection of the AFV. Some AFV, however, provide less protection and subsequently less DRM. The CE DRM is not cumulative with other positive TEM. A CE crew cannot be targeted by Ordnance other than as part of the AFV.

CE counters may be placed during setup and thereafter they may be placed or removed only during the owner's MPH/APh except due to combat results but may not be both placed and voluntarily removed or vice-versa during the same phase. Such placement cannot occur in the MPH following a PFP in which the AFV fired or in the MPH simultaneously with or after declaring Bounding First Fire. Becoming CE or BU does not constitute movement for purposes of Defensive First Fire, but does allow Defensive First Fire in the new state (CE or BU) by Weapons that were otherwise allowed to fire based on the AFV's last MP expenditure or action. An AFV that becomes Shocked or Stunned becomes BU for at least the remainder of the Player Turn.

7.8 Vehicular Machine Guns/IFE Fire:

Most AFV have MG(s) of one type or another. MG FP is listed in the lower right portion of the counter and is listed in Bow (BMG)/Coaxial (CMG)/Anti-Aircraft (AAMG) order such as 2/4 (no AAMG present) or 2/4/4, or -/-/2. A few AFVs have Rear MGs (RMG) which is reflected as a superscript R# after the CMG FP. Each MG/IFE armament of an AFV may only make one fire attack per Player Turn unless it is the MA of a vehicle with a specific multiple ROF. Non-Close Combat vehicular machine gun fire is limited to the same fire phase as the vehicle's MA. If a vehicle does not fire its MGs in the same fire phase as its MA (counting MPH and DFPh as one), it forfeits their use in other phases with the exception of the CCPH. In its MPH, a vehicle may fire its weapons only from the same hex, unless the MA retains ROF. The FP of a vehicle's various IFE/MGs may be added together to make one attack assuming the target lies within the CA for all the IFE/MGs that wish to fire, or the IFE/MGs may make separate attacks against different targets; Mandatory FG applies.

If fired together the worst applicable CA DRM applies to the total attack. It does not matter if the MGs fire before or after a MA. Additionally, once a vehicle fires any turret-mounted weapon, any of its other turret-mounted weapons must pay the same CA penalties as the first weapon that fired. If, after firing, another turret-mounted weapon or MA that has maintained ROF wishes to fire at another target outside the current TCA, the turret DRM would only apply on the move from the current TCA to the new TCA. These same principles apply to bow-mounted weapons if changing the VCA to fire. If the VCA changes, the TCA changes the same number of hexspines relative to the VCA. A RST or 1MT AFV cannot fire a CMG while CE.

Any vehicle MG/IFE firing outside its current respective CA must add a DRM equal to the pertinent case on the Firer Based TH DRMs (BMG = NT, CMG/RMG = T or ST depending on turret type). A vehicle that uses MG Bounding Fire must halve its FP and a Bounding First Firer must always fire within its TCA (it may usually adjust the TCA if expending MP before firing). Vehicular MG fire during the AFPh is also halved unless it is a MA attempting a TH DR as Ordnance.

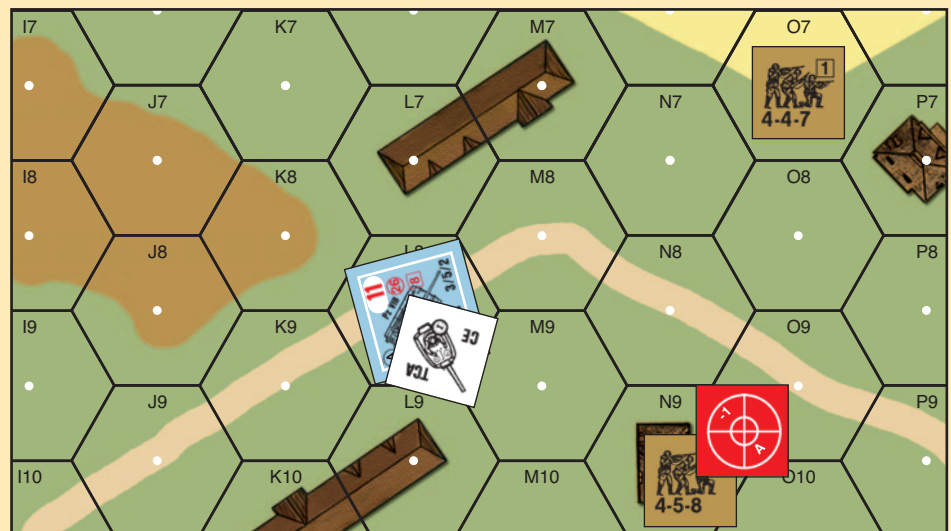
An AAMG has a range of 8 hexes and may only fire if the AFV's crew is CE. The CMG has a range of 12 hexes, and the RMG and the BMG have a range of 8 hexes. A vehicular MG may attack another vehicle's crew if they are CE but may target another AFV as Ordnance only if it is the vehicle's MA. MGs malfunction on a DR of 12, mark this with a MG "Malfunction" counter. They repair on a dr of 1 and are permanently disabled on a repair dr of 6, mark this with a "Disabled" counter. AAMGs may only be repaired if the crew is CE. A BMG with a white dot overprinted on its FP strength factor is a Fixed Mount MG which requires that an additional +1 DRM be applied when the MG is firing at any moving target.

Vehicular MG Example

In the German Prep Fire Phase the PzKpfw VIB wishes to fire its MGs at the two squads. The tank fires its 3 FP bow machine gun (BMG) and its 2 FP anti-aircraft machine gun (AAMG) at the 4-4-7 in vO7. The attack is on the 4 FP column (3 FP BMG + 2 FP AAMG) with no DRMs. Vehicular MG can firegroup with each other and must do so when firing at the same target. The target is in the tank's VCA, so the tank does not have to pivot to fire its BMG, and the tank is CE, allowing use of its AAMG (which has no CA to worry about). The tank then fires its 5 FP coaxial machine gun (CMG) at the 4-5-8 in N9. This hex lies within the TCA of the CMG so the tank does not need to pivot its turret. The attack is on the 4 FP column with +2 DRM (for the wooden building TEM). The King Tiger could have chosen to fire the CMG and the AAMG together at the 4-5-8 in N9 for an attack on the 6 FP column with +2 DRM (building TEM of +2) (its best chance of affecting the 4-5-8 with

MGs alone). The King Tiger could instead have opted to firegroup its BMG and CMG at the 4-4-7 in O7, changing its TCA to M8/M9. This attack would be on the 8 FP column (adding the AAMG doesn't help) with +2

DRM (+2 for one hexspine change for Slow Turret Traverse). This would remove the -1 Acquisition on N9 due to firing the CMG at a different target.



7.9 To Kill Process:

A hit scored on a vehicle using a LATW TH Table or using the Vehicle Target Type is resolved on the applicable To Kill (TK) Table. There are 3 different TK Tables [AP (APCR/APDS) TK Table, HEAT TK Table, and the HE and Flame TK Table] and each is consulted only to resolve hits using its particular ammo type. Each TK Table lists a TK number for each weapon capable of using that type of ammunition.

The TK# of an Ordnance hit vs a vehicle is found by consulting the TK Table used for that ammo type to find the TK# listed for that gun caliber, length, and range. The TK# is then modified by the applicable modifiers (if any) listed on the QRDC to find a Modified TK#. Lastly, the Final TK# is derived by subtracting from the Modified TK# the Armor Factor of that aspect of the vehicle that was hit. The Final TK# is the number the firer must roll less than to guarantee destruction of the vehicle.

7.10 AFV Effects:

An AFV has been destroyed when the Final TK DR made by Ordnance fire is less than the Final TK number. In this case flip the vehicle over to its wreck side. There are many instances however when a vehicle can be affected by attacks against it but not destroyed. All AFVs have an inherent

crew that is not represented by a counter. This crew checks morale with a morale level of its nationality's best unbroken elite Infantry MMC (as located in the chart on the Nationality Chart). This includes all U.S. AFV using a morale level of 8 when fighting the Japanese.

A Shock *possibility* occurs whenever a non-MG, non-HE TK DR is one greater than the Final TK number of an AFV. Such an AFV must take a **NTC (2.0)**, failure of which results only in the placement of a Shock counter on the AFV. An *automatic* Shock is caused by an HE turret hit or a DC turret effect one greater than the Final TK number/K IFT result number or on a turret hit TK number equal to the Final TK/K IFT result on Direct or Indirect and DC attacks. The crew of a Shocked AFV is incapable of any action. If CE, they must immediately BU. A Shocked AFV may not move even to pivot or change TCA, interdict or attack, even in CC. No MP expenditure is needed to bring the AFV to a halt. At the end of the next RPh, the AFV must make a dr for recuperation. On a 1-2 the Shock counter is removed. On a 3-6 the Shock counter is flipped to its Unconfirmed Kill (UK) side. An AFV under a UK counter is still Shocked and must make a dr for recuperation in the next RPh. On a 1-3 the UK counter is removed. On a 4-6 the AFV is flipped over to its wreck side. An already

Shocked AFV that is Shocked again has no additional penalties except that a UK counter is flipped back to the Shock side.

A Final TK DR equal to the Final TK number of any AFV struck by a hull hit results in Immobilization of that AFV regardless of the target facing. A Final HE/DC TK DR one greater than the Final TK number on a hull hit or an Indirect Fire attack resulting in a K on the IFT vs the hull also results in an Immobilization of the AFV. A FT/MG/IFE attack can never result in an Immobilization.

If an AFV CE crew fails a MC (other than for Possible Shock), or if a MG Final TK DR equals the Final TK number, the crew is Stunned and the AFV is marked with a Stun counter. A Stunned AFV immediately becomes BU if CE and may not regain CE status until able to do so in a subsequent Player Turn. A Stunned AFV may not fire (even in CC), move (including CA changes), or expend MP for any reason during the remainder of the Player Turn, and immediately Stops, although no stop MP is spent, if moving/in Motion. At the end of the Player Turn in which the Stun was placed, flip the Stun counter to its +1 side. This indicates the AFV is no longer Stunned but must add +1 to any TH, MG/IFE, CC, or MC DR. The +1 counter remains with the AFV for the rest of the scenario.

PF and Same Hex Fire Example

The T-34/85 begins its MPh by expending 1 MP to start. The 4-6-7 makes a PF attempt, needing a final dr of 3 or less. No drm apply if this is before 1945, and when the German rolls a 4 the squad does not secure a PF but is considered to have used a SW (it can still use its inherent FP normally or fire another SW). The 5-4-8 makes a PF attempt, rolls a 6, fails to secure a PF, and is pinned. The tank expends another MP to move to vY2. The pinned 5-4-8 makes another PF attempt, rolls another 6, and breaks.

The T-34/85 then enters Z1 at one-half its MP (8) for the cost of the building terrain, and takes the required Bog Check for entering a building. It will Bog on a final DR of 12 or more, and the DRM are +1 for Normal Ground Pressure and +3 for entering a wooden building. The Russian rolls a 7, passing the Bog Check.

The 4-6-7 then makes a second PF attempt and rolls a 3, getting the PF. At a range of zero hexes the PF has a TH# of 10. The applicable DRM are +2 for TEM (Case 17), +2 for Moving Vehicle (Case 24), and possibly +2 for avoiding the Backblast caused by firing from a building (Case 12). The German declares that he will accept the Backblast Desperation penalty, however, so the total TH DRM is +4, and he rolls a 6 (colored die of 3), hitting the AFV in the hull (colored dr ≥ white dr) and in the side (colored dr of 3 or 4 when shooting in the same hex). A 3 on the 1 FP column results in a 1MC on the 4-6-7 as a

result of the Backblast penalty, which the squad passes, being marked with a First Fire counter for having used 2 SW. On the HEAT To Kill Table the PF has a TK# of 31, and subtracting out the side hull AF of 6 results in a Final TK# of 25; only a DR of 12—a Dud—can save the T-34/85. The German rolls a 12, leaving the T-34/85 unaffected.

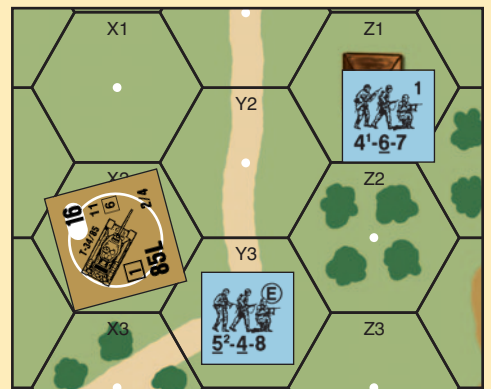
The 4-6-7 cannot make any more PF attempts, but it can attack the T-34/85 again since it spent 8 MP to enter. The 4-6-7 now desires to conduct a CC Reaction Fire attack against the tank and first takes a PAATC, passing by rolling less than 8. The squad's normal CCV of 5 is reduced by 1 to 4 for having already fired, and there is a +2 DRM since the vehicle is Non-Stopped. The German must roll a 2 to have any effect. (If he did roll a 2 in CC, the 4-6-7 would be eligible for Leader Creation.) The German rolls higher than a 2, however, leaving the T-34/85 unaffected, but marking the 4-6-7 with a Final Fire counter.

The T-34/85 then spends a MP to Stop, and the 4-6-7 makes another CC Reaction Fire attack, this time as Final Protective Fire (it could have done so before the T-34/85 stopped). The squad does not have to take another PAATC, and now there are no DRM since the tank is now stopped, although the squad's CCV is still reduced to 4. The squad rolls a 5, passing its PPF MC but with no effect on the T-34/85.

Now the tank attacks the 4-6-7 on the 8 FP column with +2 TEM; the 6 FP of the com-

bined MG (2 FP BMG and 4 FP CMG) are tripled (TPBF) and halved (Bounding First Fire). Because the tank only spent 1 MP to stop, the squad cannot attempt another FPF CC Reaction Fire attack before the T-34/85 gets to attack. If the tank had not stopped, its FP would be halved again for being Non-Stopped. The Russian rolls a 7, which becomes a 9 on the 8 FP column for a PTC. The German rolls a 10 and fails the PTC, becoming pinned, preventing any further CC Reaction Fire.

The T-34/85 still has 5 MP remaining. It could spend those as Delay and end its MPH in Z1, or it could start and exit Z1. If it stays in the hex it will engage in CC with the 4-6-7 again during the CCPh, with no PAATC required. If both then survived the CCPh, the 4-6-7 would be locked in Melee; the AFV would not be locked in Melee, but would be precluded from firing outside the hex as long as the 4-6-7 was there.



An AFV that suffers a second Stun result is Recalled. A 1MT AFV that has been Stunned is automatically Recalled and may not become CE for the remainder of its time onboard.

Recall also occurs whenever a CE AFV suffers a K/KIA result on the IFT or rolls an original 12 on a MC (other than for Possible Shock). Place a STUN counter on the AFV which is Recalled which is treated the same as Stun except that at the end of the Player Turn the STUN counter is flipped over to its Recall +1 side and that AFV must attempt to exit the playing area along a friendly board edge (the edge either which the player entered on, or was allowed to set up in front of with no enemy units between) via the shortest route in MP using Motion status (3.3.2) as fast as possible. If an AFV's MA suffers permanent breakdown, the AFV is Recalled (but not Stunned). Victory Points are not awarded for Recall.

7.11 Area Target Type Results:

A hit using the Area Target Type vs an AFV is resolved on the IFT using half of the FP of the column representing the ordnance's caliber size, using the same effects DR for all units hit by the attack. A final KIA result destroys the AFV and a final DR resulting in a K/# or one greater than a K/# Shocks the AFV on a turret hit or immobilizes it on a hull hit. TEM modifies the IFT DR, as do the following DRM: -1 if all AF are ≤ 4 ; +1 if all AF are ≥ 8 .

7.12 Collateral Attack:

An attack with an MMC's inherent firepower, or a MG/FT attack that does not specifically target an AFV, or an attack using the ITT cannot affect an AFV, only its CE crew. An attack using the ATT or VTT that hits an AFV

(or a predesignated FT attack) but does not destroy, Shock, or Stun it may also affect the CE crew collaterally. Using the same original effects DR that resolved the attack vs the AFV, make another attack vs the crew using the IFT firepower of the attacking weapon and ammo type (halved if hit on the ATT) and applying only the CE DRM or the in hex TEM.



7.13 Open-Topped (OT):

An AFV whose entire overhead depiction is printed on a white background is an OT AFV (EX: M8 Armored Car) and is CE unless beneath a BU, Shock, or Stun counter. It cannot fire (except for bow-mounted MG/FT) when BU, and it receives a -1 DRM to the IFT DR of an Area Target Type (7.11) attack against it and a -2 DRM when attacked in CC. A BU crew is vulnerable to fire from units in its own hex (3.2.2.1 and 7.7), but normal CE DRM applies.

An OT AFV remains CE vs a Pin result, but during that Player Turn suffers the Case 2 Pinned firer +2 To Hit DRM and the halving of all MG/IFE FP, as well as prohibiting it from using Intensive Fire and ROF. A FT TK number is increased by two vs an OT vehicle (or by three if both CE and OT).



PAATC and Close Combat Example

It is the Russian APH, and all the Russians desire to advance into Close Combat (CC) with the German Panther. The MMC must first take a Pre-AFV Advance/Attack Task Check (PAATC). The 8-1 leader modifies the DR of the two 4-4-7s that he is stacked with and they each roll an 8, pass, and immediately advance into vJ2. The 6-2-8 fails its TC, is pinned, and cannot advance. After observing these results, the 8-1 advances into J2.

During the CCPh the CC attacks are sequential due to the presence of the vehicle. The non-vehicular player attacks first, and the Russian chooses to attack the AFV with the 8-1 and one 4-4-7. He cannot group the two squads together, and the leader will defend with the unit with which it attacks. The squad has a Close Combat Value (CCV) of 5, and the leader has a CCV of 1 which he adds for a total CCV of 6. The DRM for the CC attack against the AFV are -1 for leader direction, -1 for CE vehicle, and +2 for Motion vehicle for a total of 0. The Russian rolls a 6 which equals the CCV, immobilizing the AFV. Had it been eliminated, there would be no further attacks.

The AFV now attacks back, and the German must choose how to assign his two CC-capable weapons, the 5 FP CMG and the 2 FP AAMG (not halved since the AFV is no longer in Motion), against the CCV of the Russian squad(s) on the Close Combat Table (CCT). He can either group them together at one target (including the 8-1 and the 4-4-7) or he can attack different targets with them. If he groups them together he can attack the 8-1 and 4-4-7 at 1:1 (7:6) or attack the remaining 4-4-7 at 1:1 (7:5) instead.

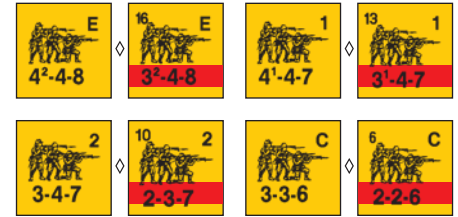
Assuming the remaining 4-4-7 survives, it can attack back with its CCV of 5, a -1 DRM for CE, and a -1 DRM because the AFV is Immobilized. If the German splits the attacks, he can attack the 4-4-7 at 1:1 with the CMG. Assuming the AFV survives any attack by the remaining 4-4-7, he could then attack the 8-1 and 4-4-7 at 1:4 (2:6). Deciding that the 4-4-7 that has not yet attacked is the greatest threat, the German attacks it with the CMG at 1:1 and no DRM. The German rolls a 5, equaling the # under the 1:1 column of the CCT and inflicting casualties on the 4-4-7, which gets replaced with a 2-3-7 HS. The HS then attacks with its CCV of 3 and a -2 DRM. The Russian rolls a

8.0 Pacific Theater:

The Pacific Theater of Operations (PTO) is where both the Japanese (8.1) and the U.S. Marine Corps (8.4) fought. PTO Terrain (8.2) was unique, and concealment (8.3) was an integral part of combat.

8.1 The Japanese:

Japanese units have different characteristics than other nationalities and are detailed as follows.



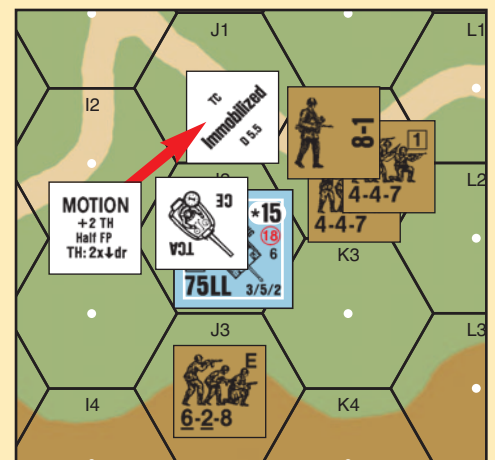
8.1.1 Squads: A Japanese squad has no Broken side. Instead it has a *Full-Strength* side and a *Reduced-Strength* side, both of which are normally in Good Order. The Reduced-Strength side is distinguished by a horizontal red stripe.

8.1.2 Step Reduction: Whenever a Japanese squad or crew fails a MC, it undergoes Step Reduction (unless it suffers Casualty Reduction and/or is a Conscript and exceeds its ELR). Unless it becomes broken, a unit that undergoes Step Reduction retains any Pinned/CX status it has and also retains any Target Acquisition it can currently claim. Only Japanese squads and crews can suffer Step Reduction.

8.1.3 Attack Break: A Japanese squad that fails a MC *without* suffering Casualty Reduction, or that breaks because of a KIA result, is always affected in one of the following ways:

12, causing Casualty Reduction for the HS and thus eliminating it.

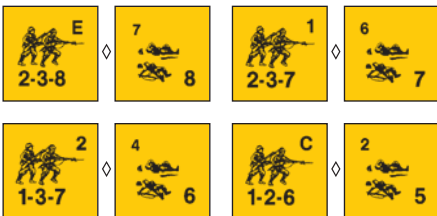
Now the Panther attacks the 8-1 and 4-4-7 with the AAMG at 1:4 (2:6). The roll is a 10 for no effect. 8-1 and 4-4-7 are now locked in Melee with the Panther and marked with a Melee counter. The tank is not locked in Melee, but will be unable to fire outside of its own hex.



- If *Full-Strength* it is Step-Reduced; i.e., is flipped over to its Reduced-Strength side, which is still considered an unbroken squad.
- If *Reduced-Strength* it is Step-Reduced; i.e., is exchanged for one of its *unbroken* HS.
- If *non-Conscript* and *Full-Strength*, and it exceeds its ELR, it is replaced (due to ELR failure) by a Full-Strength squad of the next-lower Class which is then Step-Reduced (due to MC failure) as per the first bullet.
- If *non-Conscript* and *Reduced-Strength*, and it exceeds its ELR, it is replaced (due to ELR failure) by a Reduced-Strength squad of the next-lower Class which is then Step-Reduced (due to MC failure) to an unbroken HS as per the second bullet.
- If Conscript (regardless of whether Full- or Reduced-Strength) and it exceeds its ELR, it is replaced by one of its *broken* HS.

EXAMPLE: A stack of unbroken Japanese MMC consisting of a 1st Line 4-4-7 Full-Strength squad, a 2nd Line 2-3-7 Reduced-Strength squad, and a 1-3-7 HS suffers a 1MC result. The 4-4-7 makes a Final DR of 8 and thus fails the MC; it is Step-Reduced and flipped over to its Reduced-Strength side (the side with the red stripe) but is *not* broken. The 2-3-7 Reduced-Strength squad rolls a Final DR of 11 and fails its 1MC by > its ELR and is thus replaced with an unbroken Conscript 1-2-6 HS. The 1-3-7 HS fails the 1MC, but not by enough to fail its ELR, and so becomes broken and DM. If the 2-3-7 Reduced-Strength squad had instead been a Conscript (whether Full- or Reduced-Strength), it would be replaced by a *broken* Conscript 1-2-6 HS when it failed its ELR.

8.1.4 Casualty Reduction: All Casualty Reduction results, regardless of how they were caused, apply in the normal manner.



8.1.5 HS: All Japanese HS break in the normal manner.



8.1.6 Crews: A Japanese crew that fails a MC *without* suffering Casualty Reduction, or that breaks because of a KIA result, undergoes Step Reduction (8.1.2) in one of the following ways:

- A *Full-Strength* (2-2-8) crew is flipped over to its Reduced-Strength (1-2-8) side.
- A *Reduced-Strength* crew (1-2-8) is replaced with a *broken* reduced-quality (1-2-7) crew.



8.1.7 Leaders: Japanese leaders have no broken side and have a different rank structure than other nationalities. In descending order, it is: 10-2, 10-1, 10-0, 9-1, 9-0, 8-0, 8+1. A Japanese leader can Pin only due to entering Bamboo or via a collapsing Hut (8.2.1) but otherwise does not take PTCs although a PTC result can remove any Concealment or HIP. A Japanese leader who fails a MC or breaks because of a KIA result is instead Wounded (even if already Wounded). If he passes his wound severity dr, he is flipped over to his Wounded side (unless already Wounded); if he fails a MC by an amount > his ELR, he is not subject to replacement. A leader that rolls an original 12 on a MC is eliminated.

A Japanese leader increases the morale level of all Japanese MMC in his location by one. DM status is ignored when a Japanese Infantry unit is being rallied by a Japanese leader, and the Japanese leader *must* attempt to rally *all* broken Japanese units in the same location during the RPh. If a Japanese leader fails to rally a Japanese MMC, that MMC is Replaced by the next lower-quality unit. If already at the lowest quality, that MMC suffers Casualty Reduction instead. Japanese MMC cannot create a leader (5.3).

EXAMPLE: In the RPh, a Japanese 9-1 leader attempts to rally a broken/DM Elite 2-3-8 HS, a broken/DM 1st Line 2-3-7 HS, and a broken/DM 1-2-7 crew in jungle. The leader increases the morale level of all three units by one and they are immune to DM status. Each MMC also receives the -1 leadership DRM *and* the -1 woods DRM (3.1f). The 2-3-8 rolls an original 11 and rallies. The 2-3-7 rolls an original 11 and is replaced by a broken 2nd Line 1-3-7 HS. The 1-2-7 crew (which *must* use the leader to attempt to rally despite having Self-Rally capability and has a printed broken Morale Level of 8) rolls an original 11 and rallies. If the Japanese leader had been a 9-0 instead, the 2-3-8 would be replaced by a broken 1st Line 2-3-7 HS and the crew would be eliminated.

8.1.8 Miscellaneous:

8.1.8.1 Ambush: Good Order Elite and 1st Line Japanese Infantry (including crews and leaders) receive a -1 ambush drm *unless* they are part of a Banzai Charge (8.1.8.8).

8.1.8.2 MMG/HMG/ATR: A Japanese MMG/HMG/ATR SW being fired by a Japanese squad/HS has its B# and Multiple ROF lowered by one and is permanently removed on an original IFT (or TH) DR ≥ the original B#.

8.1.8.3 Morale: Japanese are exempt from taking PAATC and *unbroken* Japanese treat LLMC as LLTC (3.2.3).

8.1.8.4 CC: Whenever at least one Japanese Infantry unit is the ATTACKER in CC/Melee or ambushes the enemy in CC, that CC/Melee automatically becomes (and remains) Hand-to-Hand and uses the Hand-to-Hand Close Combat Chart instead of the normal Close Combat Chart unless every



such Japanese unit participating in it was ambushed and/or is pinned in which case it reverts to the normal Close Combat Chart. Each Japanese *Hand-to-Hand* CC attack receives an *extra* -1 DRM vs Infantry unless every Japanese Infantry unit participating in that attack is pinned. Hand-to-Hand is not allowed by/vs an AFV, but a Reduced-Strength Japanese unit retains its Full-Strength CCV.

8.1.8.5 HIP: In addition to any HIP Guns (6.4), the Japanese player may always use HIP (6.4 and 8.3.3) for up to 10% (fractions rounded up) of the squad equivalents in his onboard-setup OB (and any SMC/SW stacked with them) in any terrain type *except* Open Ground. HIP is lost as if the HIP Infantry were a Gun as per 6.4 and 8.3.3.

EXAMPLE: The Japanese player sets up with nine squads, four crews, and two Guns on board o. PTO Terrain is in effect. In addition to any crews manning HIP Guns, he may use HIP for two squad equivalents (the four crews equal two squad equivalents [1.2.2] and 9 + 2 = 11 squad equivalents, × 0.1 = 1.1, FRU = 2); either two squads or one squad and two crews not manning HIP Guns. He cannot use HIP for non-Guns in hex EE5 as it is Open Ground, but he may use HIP in EE4 (kunai), DD2 (jungle), DD4 (palm tree), or DD5 (huts).



8.1.8.6 Banzai: Any *onboard* Japanese leader may declare a Banzai Charge. Infantry units in multiple hexes may be part of the same Banzai Charge as long as they are adjacent to another unit that is part of the same Banzai Charge.

All units participating in a Banzai Charge must be in Good Order, free to move, and have not yet started their MPH. At least one unit in the Banzai Charge must be within eight hexes of and have a LOS to an enemy unit (the target) that the chain of units will move towards during that MPH.

Banzai units have their morale level increased by one for the rest of the Player Turn, lose any Concealment (8.3), and are exempt from Pin results (unless entering Bamboo or via a collapsing Hut [8.2.1]) while part of a Banzai Charge. Banzai units have 8 MF (though a wounded leader has only 3 MF) which cannot be increased. They may not Assault Move or carry more than their IPC, but they *may* enter an enemy unit's location.

Banzai units *must* immediately move toward the target using Impulse Movement. In Impulse Movement, each Banzai unit must move one hex. Its movement is temporarily suspended so that the next Banzai unit may move one hex. Movement is alternated by Banzai units until all units have moved one hex for that Impulse, at which point (only) Defensive First Fire may occur against any of the Banzai units. Each Banzai unit is considered to have spent the maximum number of MF that was expended by any one unit in that Impulse. The Banzai Charge continues with a new Impulse until all units still in the Banzai Charge can no longer move in a Banzai Charge.

A Banzai unit *must* enter the target hex unless another Banzai unit already occupies the hex. Otherwise, each Banzai unit must move closer (in hexes) to the target hex or enter an enemy-occupied hex that is not further away (in hexes) from the target hex or move adjacent to the target hex. A Banzai unit may not enter a hex that it left in a prior Impulse. Banzai units adjacent to the target hex may voluntarily end (before the next Impulse) their Charge unless some adja-

cent, enemy-occupied hex is devoid of Banzai units.

A Banzai unit remains part of the Banzai Charge until it is eliminated, broken, out of MF, in a hex with an enemy unit at the start of an Impulse, can no longer move per the Banzai rules, or has voluntarily ended its Charge adjacent to the target hex. Having entered a hex with an enemy unit, it may not move further in that MP, and may not advance while in the hex

with the enemy unit. The Banzai Charge ends when there are no units left in the Charge.

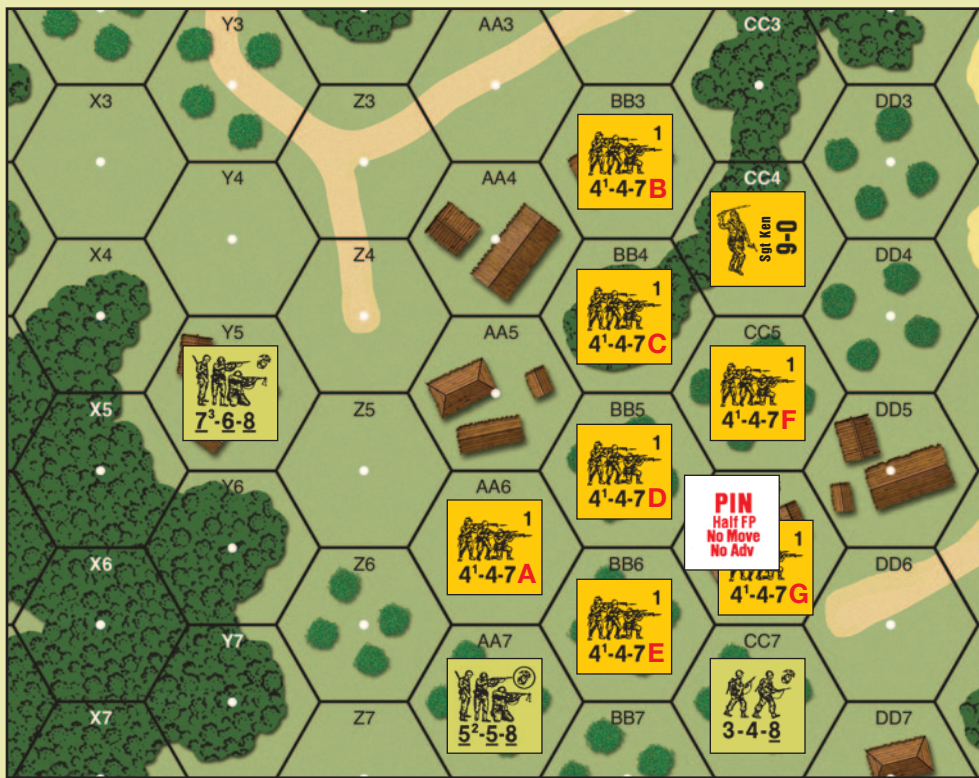
8.1.8.7 TPBF: Whenever an MMC Banzai unit enters the hex of a Good Order enemy Infantry unit, all such defending units *must immediately* after any Residual FP Attack use Defensive First Fire against the entering unit as one FG using Triple Point Blank Fire, even if that means using Final Protective Fire. Banzai units may use TPBF in the AFPh against in-hex enemy units; and friendly fire does not affect in-hex, non-Melee friendly units unless using the Area Target Type. A unit cannot fire outside its own hex that an enemy unit also occupies.

8.1.8.8 Banzai Ambush: Ambush may be possible normally if other friendly units advance into a hex containing Banzai units and enemy units, in which case the Banzai units are considered Inexperienced (5.4) for the purpose of determining ambush.

8.2 PTO Terrain:

PTO Terrain is in effect only when specified by SSR. If a scenario specifies that PTO Terrain is in effect, the following rules apply:

- All woods are Jungle;
- All brush is Bamboo;
- All orchards are Palm Trees;
- All *wooden* buildings in hexes containing \geq two separate buildings, but no *partial* building depiction, are Huts;
- All grain is Kunai; and
- No roads exist (all Woods-Roads are Paths, with no Open Ground in the Woods-Road portion of those hexes).



Banzai Example (PTO Terrain is in effect): In its MP, the Japanese 9-0 leader declares a Banzai Charge against the 7-6-8 in oY5 along with the six unpinned Japanese squads. Place a Banzai counter on each. Pinned **squad G** in CC6 cannot participate. The 9-0 leader does not need to have LOS to Y5 nor be within eight hexes of it since at least one of the Banzai units meets those requirements.

In the 1st Impulse, **squad A** must move to Z5, **squad B** to AA4. **Squad E** can either move to AA6 or enter enemy-occupied hex AA7 as that hex is not further away from the target hex (unlike hex CC7); it chooses to enter AA6. **Squad C** may move to AA4 or AA5 and **squad D** to AA5 or AA6; both choose AA5. The 9-0 leader may move to BB3 or BB4, and **squad F** may move to BB4 or BB5; both choose BB4. All of this occurs in a single Impulse costing 2 MF, at the end of which all three American units could use Defensive First Fire but chooses not to.

In the 2nd Impulse, **squad A** must enter Y5, **squad B** must enter Z4, and **squad E** must enter Z5. **Squads C** and **D** must enter either Z4 or Z5, with **C** choosing Z4 and **D** choosing Z5. The 9-0 leader and **squad F** choose AA4 over AA5. This Impulse costs 2 MF for a total of 4 MF.

At the end of the 2nd Impulse, the 7-6-8 must use TPBF against **squad A** entering its hex. The American rolls a 7 on the 20 FP column of the IFT with a 0 DRM (+1 hut TEM, -1 FFFAM) causing a 2MC. **Squad A** rolls a 6 and is unaffected since its morale level is increased by one and it is exempt from Pin results. The 7-6-8 is marked with a First Fire counter and 8 Residual FP is placed. At this moment **squads B, C, D,** and **E** can voluntarily choose to end their Charge since they are adjacent to the target hex and there are no adjacent, enemy-occupied hexes that are devoid of Banzai units, but none chooses to do so.

In the 3rd Impulse, no Japanese unit *must* enter Y5 since one is already there but **squad B** does so anyway. **Squad C** enters Y4 and **squads D** and **E** enter Y6 (both hexes adjacent to the target), and the 9-0 leader and **squad F** enter Z4. This Impulse costs 2 MF for a total of 6 MF.

The 8 Residual FP attacks **squad B** (0 DRM) causing a 2MC when the American rolls a 5. **Squad B** rolls a 7 and is Step-Reduced to a 3-4-7. The 7-6-8 must now attack **squad B** with TPBF (halved for SFF). The 8 FP (0 DRM) attack results in a K/2 when the American rolls a 3. The 3-4-7 Casualty Reduces to a 2-3-7 HS, which is eliminated when it rolls a 12 on its 2MC. Flip the First Fire counter on the 7-6-8 to its "Final Fire" side. All Banzai units may now choose to voluntarily to end their Charge, but once again none does so.

With 2 MF remaining for the 4th Impulse, the Banzai units must continue to enter Y5 or move adjacent to it. The 9-0 leader and **squad F** enter Y5 while **squad C** enters X4 and **squads D** and **E** enter X5. The 8 Residual FP attacks the entering 9-0 leader and **squad F** for no effect. The 7-6-8 must use PPF with TPBF and rolls a 9 on the 8 FP column (0 DRM), which does not affect the 9-0 leader or **squad F** but breaks the 7-6-8.

Having spent all 8 MF, the Banzai Charge is now over. The Banzai counter on each Japanese unit is flipped to its "+1 Ambush" side. The morale level of each Banzai unit remains increased for the rest of the turn, but now each is subject to possible Pinning.

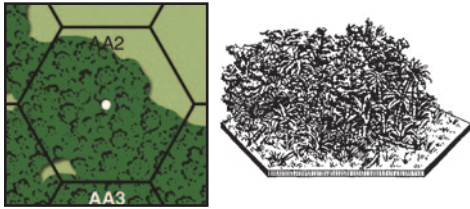
During the AFPh, the 9-0 leader can direct **squads A** and **F** against the broken 7-6-8 (they cannot fire outside their hex) in a 12 FP attack (tripled and halved), and they will not be affected by Japanese units outside the hex attacking the 7-6-8 (because a Melee does not yet exist; 8.1.8.7).

A unit in a *Dense* jungle (8.2.1), kunai, or bamboo hex may not participate in a multi-hex Fire Group if another unit in that Fire Group occupies some other *Dense* jungle, kunai, or bamboo hex.

Any recovery attempt in a jungle, kunai, or bamboo hex receives a +2 drm.

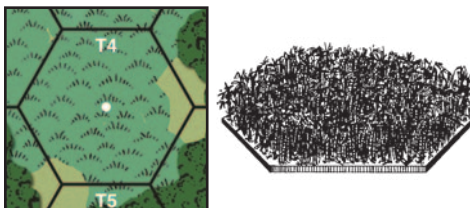
Ambush (3.8) may occur in a jungle, kunai, or bamboo hex just as if that terrain type were woods. However, the ATTACKER unit/stack in that hex must add a +1 drm to its ambush dr.

8.2.1 Terrain Types:



Jungle: Whenever PTO Terrain is in effect, all woods becomes jungle (EX: mAA2) and, if not defined as Light, is considered Dense. All jungle is treated as woods (1.1.1) unless stated otherwise.

Dense jungle has a +2 TEM (or a -1 TEM for Mortar fire vs Infantry or CE vehicles) and Infantry stacking limits are reduced to two MMC squad equivalents (plus normal SMC allowances) in hexes that do not also contain a road/building. Dense jungle is Inherent Terrain, thus blocking LOS along its hexsides. Normal woods entry costs apply. A Fully Tracked vehicle entering/changing VCA in Dense jungle must undergo a Bog Check with an additional +2 DRM; an Armored Car cannot enter. No mortar may fire from a Dense jungle hex.



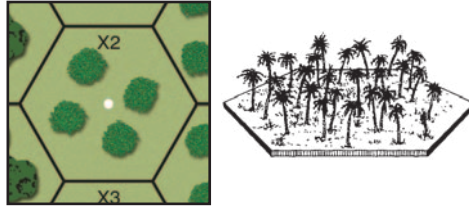
Bamboo: Whenever PTO Terrain is in effect, all brush become bamboo (EX: nT4) and is treated as Dense jungle unless otherwise stated. Broken units in bamboo may not claim the -1 Rally DRM and such units need not rout towards bamboo.

Bamboo normally has a +1 TEM. However, its TEM is -1 for any DC or Ordnance HE attack vs an unarmored target. The Residual FP of an attack that received the bamboo -1 TEM is increased by one IFT column (like Air Bursts).

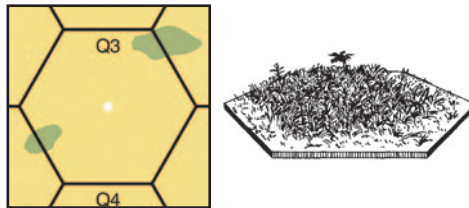
It costs all of an Infantry unit's MF to enter a bamboo hex (including the MF bonus gained for moving with a leader [3.3.1]). After all Defensive First Fire, mark an unbroken unit that entered (or attempted to enter) bamboo with CX and Pin counters. For Defensive First Fire purposes, a unit is considered to spend all of its MF +1. A unit may not advance into bamboo in the

APH if it is already marked with a CX counter. If it does enter in the APH, mark the unit with a CX counter. A unit may Low Crawl into a bamboo hex.

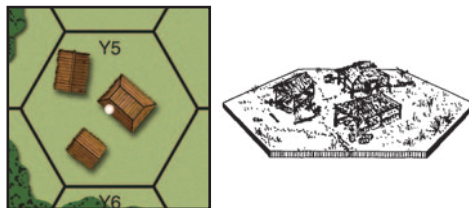
A Gun may set up using HIP (6.4) in bamboo but cannot be Emplaced. A non-vehicular Gun cannot change its Covered Arc and fire in the same Player Turn. A Gun may not be manhandled (6.5) into bamboo.



Palm Trees: Whenever PTO Terrain is in effect, all orchard becomes palm trees (EX: oX2). Each palm tree hex is treated as an orchard hex (1.1.1) except that palm trees are always in season.



Kunai: Whenever PTO Terrain is in effect, all grain becomes kunai (EX: oQ3). Kunai is treated as brush (1.1.1) unless stated otherwise.



Huts: Whenever PTO Terrain is in effect, each wooden building whose hex contains at least two separate buildings, but no partial building depiction, becomes a hut (EX: oY5). Except as stated otherwise, huts are treated as wooden buildings (1.1.1) (unless collapsed) and all huts in the same hex are considered one hut for rules purposes.

A hut is a one-level +1 LOS Hindrance like an out-of-season orchard, but only if the LOS crosses ≥ one building depiction in that hex. A hut is never a LOS obstacle. A hut has a +1 TEM; however HEAT cannot be used against Infantry in a hut. There is no Backblast penalty for firing from a hut.

An AFV may enter a hut at a cost of 2 MP (Fully Tracked) or 4 MP (Armored Car) but only if it is BU and not Recalled. Such entry does not cause a Bog Check and automatically Collapses the hut before Defensive First Fire ensues. Any AFV may set up in a hut, but that hut will immediately Collapse if the AFV exits it or changes any CA while in it.

Any KIA result vs a unit in a hut immediately Collapses the hut.



If a hut Collapses, place a Collapsed Hut counter in the hut hex. A collapsed hut has no TEM and is a normal (i.e., not one-level) LOS Hindrance across the building depiction(s), but it is still costs 2 MF/MP (4 MP for an Armored Car which must also undergo a Bog Check) to enter, and is considered a hut/building for Victory Conditions purposes (only).

Any Infantry unit in a hut at the moment the hut Collapses must take a PTC (leadership modifiers are NA) although every unit is considered to have a morale level of 8 for purposes of that PTC only. A failed PTC pins that unit, even if it is normally immune to Pin results (a pinned broken unit would be unable to rout).

Paths: Whenever PTO Terrain is in effect, all roads in woods/jungle hexes are paths. A path allows Infantry to enter a jungle hex along the path for 1 MF; otherwise a path has no effect.



8.3 Concealment:

Concealment occurs only when PTO Terrain (8.2) is in effect or by SSR. Under certain circumstances, any Infantry unit may be concealed by placing one (only) concealment counter on top of the unit or stack. A stack may contain only one concealment counter, which must always be on top of concealed unit(s).

At the start of a scenario, an Infantry unit may set up concealed if:

- it sets up in Concealment Terrain and uses a concealment counter provided in its OB; or
- the enemy side has no units setting up on board (conceal all units before the enemy views them); or
- after all setup, no enemy unit has a LOS to it.

Reinforcements entering the board may always set up concealed.

Only certain terrain types are considered Concealment Terrain. These are:

- jungle (both Light and Dense)
- palm trees
- kunai
- bamboo
- huts (including Collapsed huts)
- buildings

A concealed unit loses Concealment when any of the following happen in the LOS of a non-HIP Good Order enemy unit:

- It uses its inherent firepower/MA or a SW/Gun in a Prep Fire, Defensive First Fire, Final Fire, or Advancing Fire attack.
- It engages in CC without both Ambushing and eliminating all enemy units in the hex.
- It attempts Smoke grenade or DC placement.
- It moves in the MPH using Non Assault Movement.
- It moves in the MPH or advances into Open Ground as defined for purposes of Interdiction (3.6).
- It attempts to enter a hex with an enemy concealment counter during its MPH.

- It suffers a KIA, K, MC, or PTC result.
- It changes the Covered Arc of a possessed Gun.
- It transfers or recovers a SW/Gun.
- It deploys or recombines (8.4-4.1).
- A leader uses its leadership modifier except for PAATC.
- It Interdicts (3.6) a routing unit.

A concealed unit loses that Concealment regardless of LOS when any of the following happen:

- It becomes wounded/broken for any reason.
- An enemy unit attempts to enter its location in the MPh or RtPh.
- Voluntarily (at any time).
- It ends the CCPH in a hex with an unbroken enemy unit.

8.3.1 Concealment Gain: A Good Order unit may gain Concealment at the end of its Player Turn provided no **non-HIP unbroken** enemy unit has a LOS to it and it is in Concealment Terrain.

8.3.2 Concealment Effects: Counters in an enemy's concealed stack cannot be inspected. Ordnance attacks against a concealed unit receive a +2 TH DRM and non-ordnance IFT attacks are considered Area Fire and thus halved (including a DC vs units that were concealed at the time the DC was operably placed). This may be in addition to any other Area Fire firepower modification reason. Only Area Acquisition (6.11) may be used against a concealed target, which can only become acquired if using the Area Target Type, or if the acquiring shot causes the loss of that Concealment.

A unit or stack in its MPh or RtPh may attempt to enter a hex that contains only a concealed stack, in which case the concealment counter is removed from both the defender stack and (if any) from the moving stack. AFV may enter normally, but Infantry must (unless conducting a Banzai Charge) stop and end their MPh/RtPh without entering, having expended the entry MF in the hex they never left, where they will be attacked by any existing Residual Fire counter, even if previously attacked by it.

During the APh, a concealed stack may advance and retain Concealment unless entering Open Ground (3.6) in LOS of a Good Order enemy unit. Regardless of terrain, ambush can occur in any hex if at least one of the combatants is concealed. Each concealed side receives a -2 drm to its ambush dr. A side that ambushes the enemy but fails to totally eliminate them loses Concealment.

A concealed unit is never held in Melee (nor does it hold an enemy unit in Melee).



8.3.3 Guns & HIP: Guns share the concealment status of their manning Infantry; use a $\frac{1}{2}$ concealment counter.

HIP Guns and their manning MMC in Open Ground are placed on board concealed when a Good Order enemy unit gains LOS. When firing on a TH Table, HIP Emplaced Guns are placed on board concealed and will



Concealment Example 1:

The Japanese set up first on board on/on/between hexrows X and AA. Their OB consists of eight 4-4-7 squads, three LMGs, a 9-1 leader, and six concealment counters. The Japanese player places one squad each in X2, Y4, Y5, and Z6; two squads, two LMG, and the 9-1 leader in AA7; and two squads and one LMG in X8. Because they are set up in Concealment Terrain, he may add an OB-given concealment counter to X2, Y5, Z6, and AA7. He still has two concealment counters left but because his other units in Y4 and X8 are not set up in Concealment Terrain he may not use them so they are lost.

If after setting up the American player has no unit with LOS to a unit that did *not* receive an OB-given concealment counter, then that unit can now be concealed. If the Americans were all entering from offboard, *all* the Japanese units could set up concealed, and there would be no need for concealment counters in the Japanese OB.

lose Concealment due to firing only if the colored die roll of the TH DR is a 5 or 6. When an enemy Infantry unit enters the hex of a HIP unit in the APh, place the HIP unit on board concealed in the CCPH. Otherwise, a Gun retains/gains its Concealment normally.

Concealment Example 2:

Using the previous illustration, the Japanese player has a 2-3-7 HS in Z2, a 4-4-7 squad in AA4, and a 3-4-7 squad in AA5. The American player has a 5-5-8 squad in Y6 and a 5-5-8 squad in Y5. All units are concealed. It is the American Player Turn. The 5-5-8 in Y5 drops Concealment to Prep Fire at the concealed 2-3-7. The attack is halved for Area Fire, but the 2 FP attack results in a NMC, which requires the 2-3-7 to drop its Concealment and take a NMC. During the MPh, the concealed 5-5-8 moves to Z5, losing its Concealment since that is in Open Ground in LOS of Good Order Japanese units. The concealed 4-4-7 in AA4 drops its Concealment to Defensive First Fire at the moving 5-5-8. This results in no effect but does place a Residual Fire counter. The 5-5-8 then attempts to enter AA5 containing the last concealed Japanese unit. The 3-4-7 loses its Concealment due to the attempted entry. The 5-5-8 *must* end its MPh in Z5, where it is attacked by the Residual Fire counter and may be fired upon having spent 2 MF in Z5 attempting to enter hex AA5.

Now assume Dense jungle is in effect, the two American 5-5-8s are broken (and therefore not concealed, although not currently DM), and it is the Japanese MPh. Because the American units are not Good Order, the Japanese units can move how they wish without losing Concealment. The 2-3-7 in Z2 spends 4 MF to move to X4. Because it remains concealed, the 5-5-8 in Y5 does not become DM. The 4-4-7 in AA4 spends 2 MF to move to Z5. The 3-4-7 in AA5 spends 4 MF to move to Y7, but a Good Order American unit in X9 causes the 3-4-7 to lose Concealment in Y7, making the 5-5-8 in Y6 DM. In the RtPh, the DM 5-5-8 *must* rout away from the Known Enemy Unit adjacent to it in Y7. Because of the Dense jungle, it cannot see the 2-3-7 in X4. Because the 4-4-7 in Z5 is concealed, the 5-5-8 can rout from Y6 to either Y5 or X5. It routs to X5 and continues routing to W6. The 5-5-8 in Y5 cannot rout because it is not DM. In the APh, the 4-4-7 and the 2-3-7 advance into Y5 with the broken 5-5-8, where they will receive a -3 ambush drm: -1 for the Good Order 1st Line Japanese Infantry unit (8.1.8.1) and -2 for a concealed unit (8.3.2). The 5-5-8 receives a +1 ambush drm for being broken. In the resulting Hand-to-Hand CC (8.1.8.4), the broken American cannot attack; the Japanese receive a -1 DRM for Hand-to-Hand, a -2 DRM vs a broken unit, and another -1 DRM if they ambushed the Americans. With ambush, therefore, they would kill the 5-5-8 in Hand-to-Hand at 1:1 odds with an original 10 DR (-4 DRM) or cause Casualty Reduction on an original 11. Regardless of LOS, the Japanese units would retain Concealment if they ambush and eliminate the American unit; since they are not in LOS of any Good Order enemy unit, they will retain Concealment even if they do not ambush the 5-5-8.

8.3.4 Rout Phase: Concealed units are ignored during the RtPh until they voluntarily drop Concealment during the RtPh, or a routing unit attempts to enter a hex containing a concealed unit, at which time Concealment is lost; the broken unit ends its RtPh, where it will be eliminated for failure to rout.

8.4 U.S. Marine Corps & Early U.S. Army:

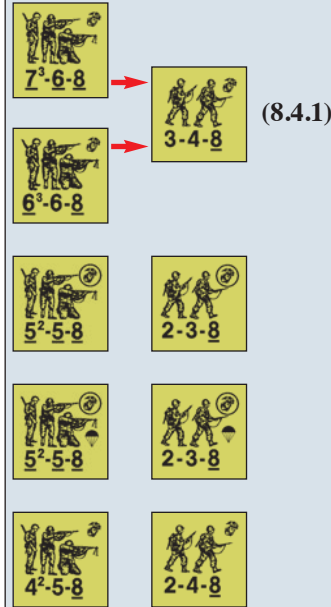
U.S. Marine Corps MMC are elite American units with different strength factors that use American leaders and weapons normally. A Good Order 7-6-8 squad may deploy into two 3-4-8 HS at setup (including reinforcements), or in the American RPh as its sole action immediately after all recovery attempts (3.1b) by passing a NTC (2.0).

8.4.1 3-4-8 HS: The 3-4-8 is the HS of both the 6-6-8 and 7-6-8 squad. Two Good Order 3-4-8 HS in the same hex with a Good Order leader can during the American RPh as their sole action recombine into a 7-6-8 immediately after all reinforcements are set up (3.1a) if there are 7-6-8 squads provided in the OB.

8.4.2 Raiders and Paramarines: U.S.M.C. Raider squads/HS (5-5-8/2-3-8) are designated by a circle around the Marine insignia on the counter. Good Order Raider MMC receive a -1 ambush drm. Paramarine squads/HS (5-5-8/2-3-8) are designated by both a circle around the Marine insignia and a parachute symbol on the counter.

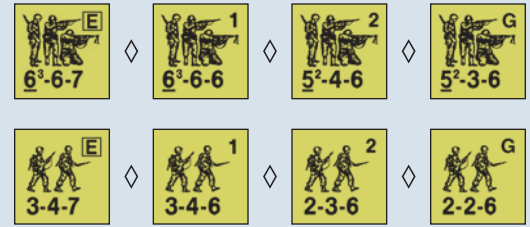
8.4.3 Early U.S. Army: Against the Japanese prior to 6/42, U.S. 4-4-7/3-3-6 squads and their HS are used to represent rear echelon and badly disorganized U.S. Army troops and Philippine Army troops other than Philippine Scouts.

U.S. Marine Corps Squads and Half-Squads

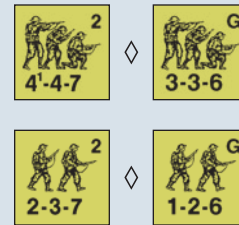


Nationality Chart

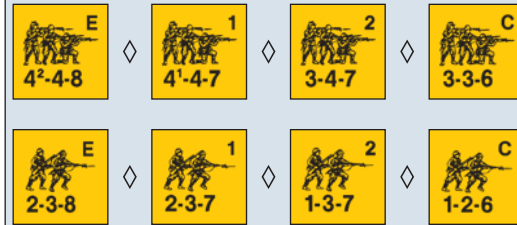
U.S. Army Squads and Half-Squads



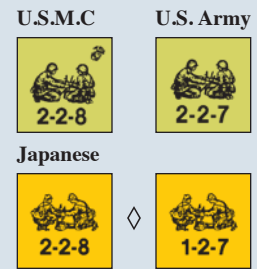
Early U.S. Army Squads and Half-Squads



Japanese Squads and Half-Squads



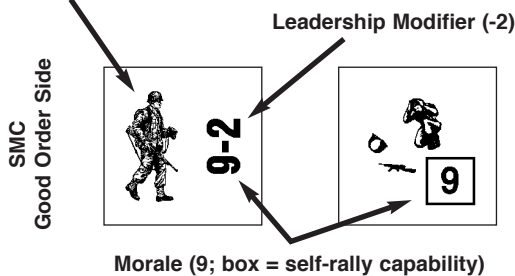
Crews



Leaders (SMC)

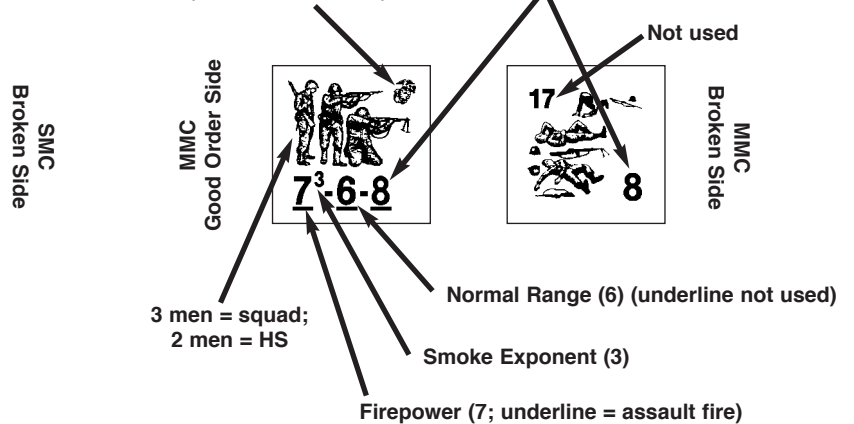


1 man = SMC



Class (E,1,2,C/G,U.S.M.C.)

Morale (8/8; underline = See 5.1)

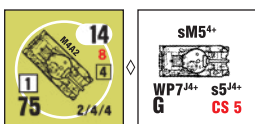


CHAPTER H

VEHICLE AND ORDNANCE NOTES

In addition to providing important details on how specific weapons function within the ASL system, the Vehicle and Ordnance Notes in Chapter H of the ASL Rulebook are widely renowned as one of the best single sources of information on the guns and vehicles that saw combat in World War II. The Notes from the ASL Rulebook for the vehicles and ordnance that appear in ASLSK #4 are being included here mostly in their entirety, although we have deleted some references to rules that are not applicable to Starter Kit. Rarity Factors (RF) and Basic Point Values (BPV) are provided for ASL designers in producing their own ASLSK #4 scenarios. (SW are not assigned these values, but are instead allocated based on the number of squad equivalents.) Rarity Factors range from .9 (most common) to 1.6 (most rare). BPV can help gauge the relative value of units; for the vehicles included here they range from a low of 20 to a high of 105, whereas guns range from 25 to 67. For comparison's sake, a U.S.M.C. 7-6-8 squad has a BPV of 17, and a Japanese Conscript HS has a BPV of 2.

U.S. VEHICLE NOTES

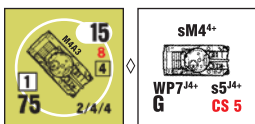


M4A2 Medium Tank: This Sherman model used two GMC diesel engines. 8,052 [including the M4A2 (L) model] were built, making this type the most numerous of the 75mm Shermans—but as the Army preferred gasoline powered vehicles, most were assigned to Lend-Lease and only 640 were retained in U.S. service. The only U.S. combat use of the M4A2 was with the U.S.M.C., since many of the Navy's small craft were also diesel-powered and both could use the same fuel. The M4A2's operational debut was with Company C of the 1st Marine Amphibious Corps Tank Battalion in the assault on Betio (Tarawa Atoll). A Marine medium tank platoon comprised four Shermans before April 1944, three from then until April 1945 (with two bow-mounted FT also authorized), and five Shermans thereafter (with three FT Shermans per company).

† WP7 and s5 become available in June 1944—as signified by the superscript “⁴⁺” on the counter.

† sM becomes available in 1944—as signified by the superscript “⁴⁺”.

† RF in PTO (only) is 1.1 for 11/43-6/45. BPV is 69.

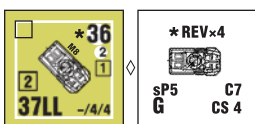


M4A3 Medium Tank: The M4A3 differed from other early Shermans by having a Ford V8 engine. Due to this engine's high output, compact design, and ease of maintenance, the M4A3 became the preferred model for Army service; however, the original model's production was insufficient to supply the Army's entire needs and it remained a minority type. 1,690 were built.

† WP7 and s5 become available in June 1944—as signified by the superscript “⁴⁺” on the counter.

† sM becomes available in 1944—as signified by the superscript “⁴⁺”.

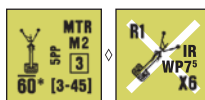
† RF is 1.3 for 7/43-45. PTO dates are 1944-45. BPV is 70.



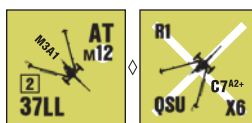
M8 Armored Car: Although designed as a light TD, the M8 Light Armored Car replaced the M3A1 Scout Car and M2 Halftrack as the primary AFV in mechanized cavalry units. The M8's light weight and 6x6 drive gave it excellent speed and cross-country mobility, making it well-liked by its crews despite being thin-skinned and under-gunned when confronting serious opposition. 8,523 were built. From late 1943, each mechanized cavalry recon platoon was authorized one section of three M8, while in 1944-45 each TD battalion included one (if towed) or three (if SP) recon platoons, each of which contained five Jeeps and two M8.

† RF for ETO is 1.5 for 9/43-10/43; 1.4 for 11/43-12/43; 1.3 for 1/44-2/44 and 1.2 for 3/44-45. RF in PTO is 1.4 for 5/44-45. BPV is 48.

U.S. ORDNANCE NOTES

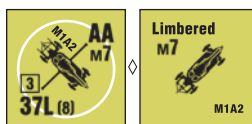


M2 60mm Mortar: This light mortar was a license-built version of the French Brandt 60mm mortar, and was adopted by the U.S. Army in 1940. About 75,000 were made. An Army rifle company had three in the mortar section of its weapons platoon. A mechanized cavalry recon troop had nine (three per platoon). Each armored infantry platoon had one. Each parachute infantry platoon had one, as did each glider infantry platoon until 8/44. The glider infantry company also had 2-4 more (depending on the date) in its weapons platoon. A Marine rifle company had two (officially increased to three in April 1943—although many companies apparently did not receive the third one until much later). In May 1944, four were also authorized in each Marine infantry battalion HQ Company. A Marine Raider company had three 60mm mortars.



M3A1 37mm AT Gun: Development of the first purpose-built U.S. anti-tank gun started in 1937, and was based on the German PaK 35/36. Unlike most AT guns, the M3A1 had a manual breech block which lowered its rate of fire. It was used in combat in North Africa but was then gradually replaced in the ETO by the 57mm gun. However, in the PTO it remained in use throughout the war, being more than adequate to deal with the lightly-armored Japanese AFV and having a canister round that proved invaluable for stopping massed infantry attacks. 18,702 were built. It was usually towed by a Jeep or a ¾-ton truck. In the 1941-43 period, it was found in the Army infantry battalion's HQ company, the infantry regiment's AT company, the armored infantry company (with one gun per armored infantry platoon and one in the company HQ, towed by an M2 Halftrack), the HQ company of an armored infantry regiment, the armored division's HQ company and armored recon battalion, and the glider infantry regiment. A platoon comprised four guns. In addition, the 10th Mountain Division in Italy was authorized three 37mm AT guns per infantry battalion. A Marine division had three four-gun 37mm AT platoons in each infantry regiment's weapons company and had (from April 1943 through 1944) three six-gun platoons in its Special Weapons battalion. A Marine Raider regiment had four 37mm AT guns. The Philippine Army also used the 37mm AT gun in 1941-42.

† RF for North Africa and the ETO is .9 for 11/42-6/43, 1.2 for 7-12/43, and 1.4 for 44-45. PTO RF is 1.0. BPV is 30.

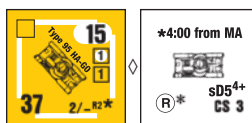


M1A2 37mm AA Gun: The design of this weapon was started in 1920 by John Browning (of MG fame), but the final version did not enter production until 1939. It compared unfavorably with the 40mm AA gun in several respects, but since production of the latter could not meet demand, the M1A2 continued to be built. 7,278 were manufactured and the gun saw service in all theaters throughout the war. It was also employed as the MA of the M15 and M15A1 MGMC Halftracks. The Army used the M1A2 in four-gun batteries in Mobile and Semi-mobile AAA [Anti-Aircraft Artillery] Automatic Weapons battalions, and in Coast Artillery (AA) regiments. The Marines used four-gun M1A2 platoons in AAA battalions, Defense battalions, and divisional Special Weapons battalions.

† RF for North Africa and the ETO is 1.3 11/42-3/44, 1.4 for 4-12/44, and 1.5 in 1945. RF for the PTO is 1.3 through 5/44, and 1.4 for 6/44-45. BPV is 34.

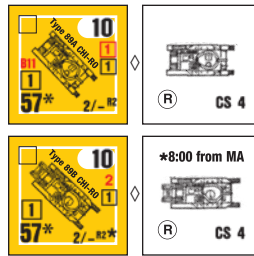
JAPANESE VEHICLE NOTES

[For the sake of brevity, the following abbreviations are used herein: IJA Imperial Japanese Army; IMB Independent Mixed Brigade; SNLF Special Naval Landing Force.]



Type 95 HA-GO Light Tank: The inability of the lumbering Type 89 CHI-RO to function effectively with motorized units led to a call in 1933 for a lighter and faster gun-armored tank. The result was the Type 95 HA-GO, with a medium-velocity 37mm gun and the same air-cooled diesel engine used in the Type 89B but with an armor basis of only 12mm. Upon testing the prototype, the Infantry School called for heavier armor and armament while the Cavalry School found the design acceptable. Since the latter were expected to

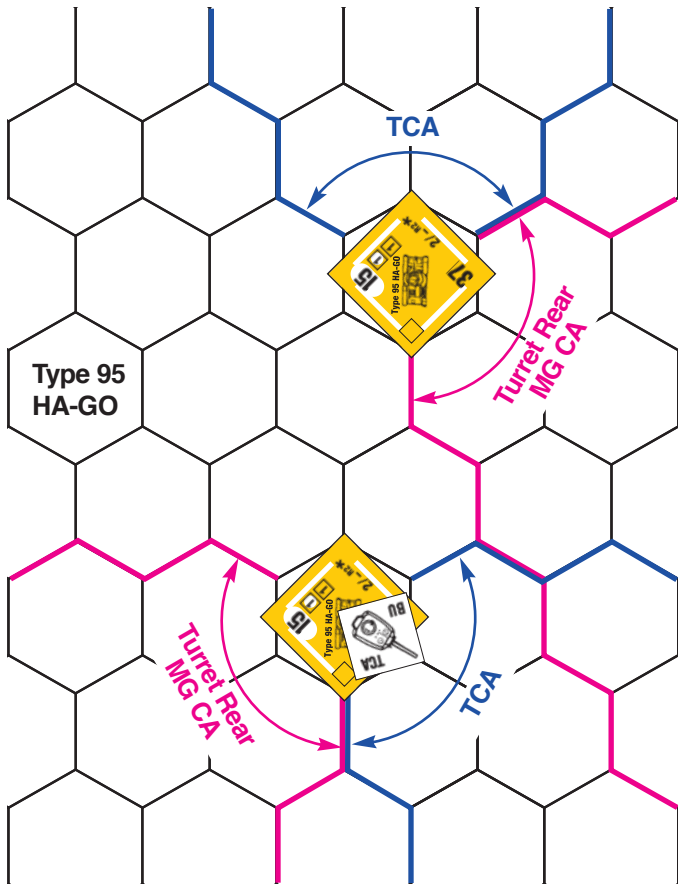
be its main user, their view prevailed and it was put into production without the infantry's suggested changes. Once in service, the HA-GO quickly gained an excellent reputation due to its high standard of reliability. In fact, so great was its popularity that it was kept in production until 1943—far longer than its combat value warranted—while more up-to-date light tank designs languished on paper. The HA-GO first saw combat in 1937 with the Kwantung Army (*Kantogun*) in China. In due course it superseded the combat cars and tankettes in their various roles (most importantly in the divisional tank companies) and equipped several light tank regiments. By 1941 a company of light tanks had also been authorized in each medium tank regiment and a number of independent light tank companies had been created. In addition, the HA-GO was used by some SNLF units. A platoon (*shotai*) of light tanks comprised three such AFV, while a company (*chutai*) normally had ten. The Type 95's official designation was KE-GO, but the pre-production name HA-GO assigned to it by Mitsubishi was more commonly used. Its nickname was KYU-GO ("nine-five"). Allied intelligence sometimes referred to it as the M2595. Around 1,250 were built. The HA-GO, along with the CHI-HA medium, formed the mainstay of Japanese tank regiments (*sensha rentai*) during WW2. The IJA built several other types of light tanks after the HA-GO, but apparently all were assigned to units that remained in Japan.



Types 89A & 89B CHI-RO Medium Tanks: The Type 89, accepted for service in 1929 and built by Mitsubishi from 1931, was the first tank of Japanese design to be mass-produced. It was intended expressly for infantry support and first saw action during the 1932 "Shanghai Incident," being used there by a SNLF unit. During production, a wide variety of changes were made, including a revised front hull, re-designed turret, and (in 1936) the installation

of an air-cooled diesel engine. With the new engine it was called the Type 89 OTSU ("B"), and the earlier, gasoline-powered version was then re-named the Type 89 KO ("A"). The 89B game piece represents the final model with all improvements. Allied wartime intelligence had several designations for the various models: M2589A, M2589B, Type 92, and Type 94 (M2594); however, the Japanese used none of these names. The Type 89 was employed mainly in China; however, the 7th Tank Regiment used them in the conquest of the Philippines and a small number reportedly participated in the overrunning of Malaya and Burma. Most Type 89 were withdrawn from service in/by 1943, but the 7th Independent Tank Company was still equipped with them in late 1944 when it fought against U.S. troops on Leyte. A platoon of Type 89 comprised three such AFV; a company, ten.

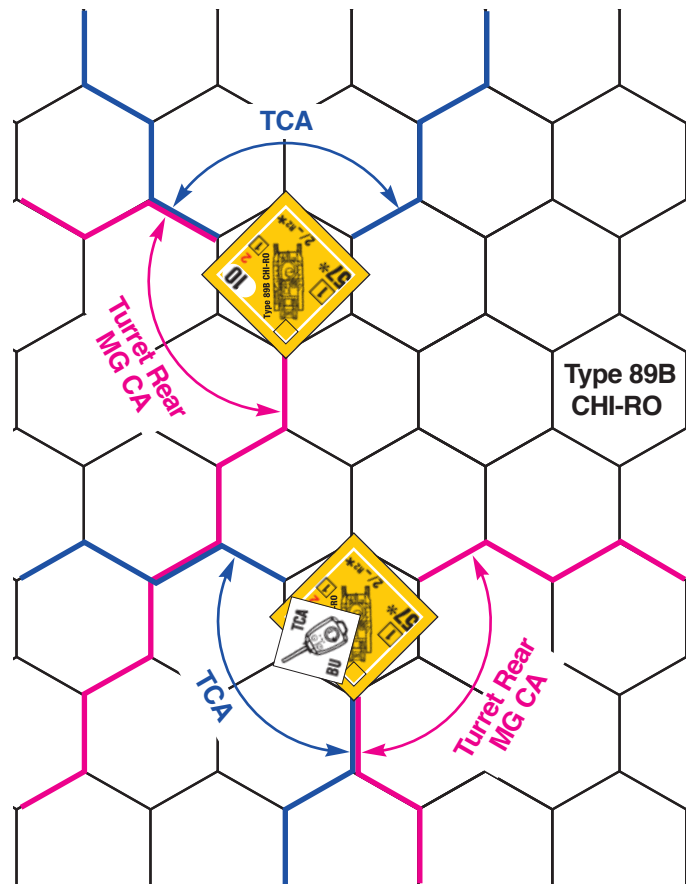
† The MA and all the MG have B11. This is signified by "B11" in red on the counter (Type 89A only [counter not included]).



† The center hexspine of the turret Rear MG's CA is always the second hexspine *clockwise* from the center hexspine of the current TCA; i.e., the Rear MG is located at the 4:00 position relative to the MA—as signified by "4:00 from MA" on the counter. See the above diagram.

† sD becomes available in 1944—as signified by the superscript "44".

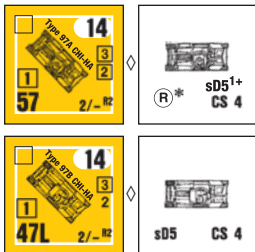
† RF for China are 1937-38 (1.6), 1939 (1.4), 1940 (1.3), 1941 (1.2), 1942(1.1), 1943 (1.2), 1-3/44 (1.3), 4-5/44 (1.2), 6-12/44 (1.3), 1-2/45 (1.4), 3-4/45 (1.3), and 5/45 (1.6) [EXC: vs Russians they are 1939 (1.1) and 8/45 (1.4)]. In Malaya-Burma-India they are 1941-5/42 (1.0), 6/42-2/44 (1.3), 3/44 (1.1), 4/44 (1.2), 5/44 (1.3), 6/44 (1.4), 7-10/44 (1.6), 11/44-2/45 (1.3), and 3-4/45 (1.5), and 5/45 (1.6). For use elsewhere they are 1941-1/42 (1.4), 2/42 (1.3), 3/42 (1.1), 8-9/42 (1.5), and 6/43-45 (1.5) [EXC: vs U.S. they are 1941-4/42 (1.0), 8-10/42 (1.5), 6-10/43 (1.5), 11/43-6/44 (1.3), 7-9/44 (1.2), 10-12/44 (1.3), 1-2/45 (1.2), 3/45 (1.4), 4-5/45 (1.5), and 6-7/45 (1.6)]. BPV is 33.



† For the *Type 89B* (only), the center hexspine of the turret Rear MG's CA is always the second hexspine *counterclockwise* from the center hexspine of the current TCA; i.e., the Rear MG is located at the 8:00 position relative to the MA—as signified by "8:00 from MA" on the counter. See the above diagram.

† *Type 89A* (counter not included) RF for China [EXC: NA vs Russians] are 1937-38 (1.2), 1939-40 (1.4), 1941-42 (1.5), and 1943 (1.6); availability is otherwise NA. BPV is 34.

† *Type 89B* RF for China are 1937 (1.4), 1938 (1.3), 1939-1941 (1.2), 1942 (1.3), and in 1943 (1.4) [EXC: vs Russians they are 1939 (1.1) only]. In Malaya-Burma they are 1941-5/42 (1.5). In the Philippines they are 1941-4/42 (1.2), 1943-9/44 (1.6), and 10/44 (1.4). BPV is 36.



Types 97A & 97B CHI-HA Medium Tanks:

By 1935 the latest European tanks and theories on armored warfare were proving the Type 89 CHI-RO obsolete, so the Japanese decided to produce a faster, more modern replacement. Two very different prototypes—the CHI-HA with a 12-cyl. air-cooled diesel engine, and the less-expensive but lighter and slower CHI-NI with a one-man turret—were built and tested; but when full-scale war broke out with China

in 1937, the more sophisticated CHI-HA was immediately chosen. At that time the CHI-HA was probably the most technically advanced tank in production anywhere, in all respects save its gun. The Japanese belief that tanks were best used for infantry support had not yet been shattered, so no need was seen to give the CHI-HA a potent AT capability. However, with the possibility of future upgunning in mind, the designers made the diameter of its turret ring as large as possible. This proved to be a wise decision, for after the Japanese experiences against masses of Russian tanks at Nomoman in 1939, the CHI-HA's turret was redesigned to carry an adapted version of the Type 1 47mm AT gun. The *Shinhoto* (“new turret”) CHI-HA or CHI-HA Kai (“Modified”), as this model was variously known, entered series production in 1942 but, aside from two prototypes used on Corregidor in April of that year, was not encountered by the Western Allies until 1944. Besides equipping many tank companies, the *Shinhoto* CHI-HA was used by platoon/company commanders in tank regiments that retained the 57mm-armed CHI-HA. In addition, numbers of the 57mm version were fitted with the new turret and gun when sent back to Japan for repairs. Over 1,500 CHI-HA were built inclusive of both types—the vast majority by Mitsubishi. Three CHI-HA normally comprised a platoon (*shotai*), and ten a company (*chutai*). However, in the latter part of the war some tank regiments (*sensha rentai*) reportedly contained platoons of four or even five CHI-HA in companies of up to seventeen tanks, and quite often the companies contained one or two additional HA-GO platoons. Allied wartime intelligence sometimes referred to the CHI-HA as the M2597 Medium; the *Shinhoto* CHI-HA was also called the Type 97 Improved by the Americans and the Type 97 Special by the British. “A” and “B” in the piece names are our own designations.

† sD becomes available in 1941—as signified by the superscript “+” (Type 97A only [counter not included]).

† Type 97A (counter not included) RF for China are 1939 (1.6), 1940 (1.5), 1941 (1.3), 1942-3/44 (1.2), 4-5/44 (1.0), 6-12/44 (1.1), 1-2/45 (1.2), 3-4/45 (1.1), and 5-8/45 (1.2) [EXC: vs Russians they are 1939 (1.5) and 8/45 (1.5)]. In Malaya-Burma-India they are 1941-5/42 (1.0), 3/44 (1.1), 4/44 (1.2), 5/44 (1.3), 6/44 (1.4), 7-10/44 (1.6), 11/44-2/45 (1.2), 3/45 (1.4), and 4/45 (1.5). Vs U.S. they are 1941-4/42 (1.3), 10/42 (1.3), 6/44 (1.2), 7-8/44 (1.3), 1-2/45 (1.3), 3-4/45 (1.5), and 5-6/45 (1.6). BPV is 42.

† Type 97B RF for China are 1943-3/44 (1.5), 4-5/44 (1.4), 6/44-2/45 (1.5), 3-4/45 (1.4), and 5-8/45 (1.5). In India-Burma they are 4/44 (1.5), 6-10/44 (1.6), 11/44-2/45 (1.5), and 3-4/45 (1.6). Vs U.S. they are 5/42 (1.4), 6/44 (1.4), 7/44 (1.5), 1-2/45 (1.1), 3-4/45 (1.3), 5/45 (1.4), and 6/45 (1.5). BPV is 45.

JAPANESE ORDNANCE NOTES

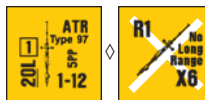


Type 89 Heavy Grenade Launcher: The Type 89 “knee mortar” was developed to provide the infantry with an indirect-fire capability at ranges out to 600m (the minimum range of the Year-11 Type

70mm mortar). Adopted in 1929, it replaced the older and much shorter-ranged Year-10 Type light grenade launcher. The Type 89 was unusual in having a rifled barrel and being trigger-fired, and unique in that range alteration was accomplished by turning a knob to move the firing pin up or down inside the barrel. Its projectiles included standard infantry HE and WP grenades (to which a finned propellant container would first be attached), and unfinned smoke and HE shells. Since a soldier could carry the dismantled mortar strapped to his leg, the Japanese sometimes referred to it as the “leg mortar.” However, a translation of this term as “knee mortar” led some Allied troops to believe it was meant to be fired with its curved baseplate resting on one’s thigh—a notion that led to a number of shattered femurs. Initially, two Type 89 mortars were authorized per rifle platoon; about 1940 this allotment was increased to three (or in some cases four). One was also authorized in the infantry battalion headquarters. The Type 89 was used by both IJA and SNLF troops.

† The following special rules apply to the use of HE/SMOKE:

- When firing HE at a range of \leq two hexes, the ROF is lowered to “1” for that shot and Air Bursts are NA.
- WP can be fired only at a range of 1-5 hexes, reduces the ROF to “1” for that shot, is considered Dispersed even when fired in the PFFh, and Air Bursts are NA.
- Smoke can be fired only at a range of 3-10 hexes.



Type 97 Automatic Gun: This ATR was developed in 1937 to provide the infantry with a light-weight AT weapon. As originally designed it fired only full automatic, but later many were modified to fire semi-automatic also/only. It weighed 150 lbs. including its carrying poles and small gunshield, and was normally carried by four men using two handlebar-shaped poles. The Type 97 was apparently not built in large numbers for it was encountered infrequently by the Allies. Occasionally it was used for beach defense. When available it was issued to the infantry battalion’s MG company or infantry-gun company, or to the regimental AT company. In many IMB, a platoon of two was authorized per rifle company.

† This ATR requires a friendly crew in order to be fired with no B#/ROF penalty; 8.1.8.2.

† RF is 1.4 for 1938-39 [EXC: 1.1 vs Russians in 1938], 1.3 for 1940-43, and 1.4 for 1944-45. BPV is 17 (which includes a 2-2-8 crew).



Type 92 Infantry Gun: Commonly referred to as the “battalion gun” (*daitaiho*), the Type 92 was developed to replace the Year-11 Type 70mm mortar and Year-11 Type flat-trajectory infantry gun with a single weapon capable of

both direct and indirect fire. Though much heavier than the other two guns, it was still extremely light for its caliber and could be rapidly manhandled from one position to another. In addition, it could be disassembled and animal-packed if necessary. Its short range was not even seen as a detriment, for it was to be used right up with the forward troops. Allied intelligence spoke of its unreliability and unpopularity, but its users do not seem to have shared these opinions. Each infantry battalion was authorized a platoon of two Type 92 in its infantry-gun company; sometimes two platoons were allotted, especially in independent infantry battalions. As originally organized, a SNLF battalion generally had one or two Type 92 platoons; however, by 1943 they were often replaced by coast-defense/AA artillery. After WW2 the Type 92 saw further action in the Chinese civil war, and in the Korean, Indo-China, and Vietnam conflicts.

† This Gun may also fire like a Mortar, for which purpose its range is “3-70” hexes (otherwise, it has no such minimum range). However, it may not fire as both a Mortar and non-Mortar in the same phase (treating MPH and DFFh as one). Switching from Mortar to non-Mortar or vice-versa does not cause loss of Acquisition.

RF is 1.0 1933-45 [EXC: vs Russians in 1938 it is 1.3]. BPV is 33.

ASL STARTER KIT #4 PTO

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