WW2 ASSAULT RULES

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I. Assault
(Tactical Combat in World War 2: 1939-1945)

Rule 1: Sequence of Play

Each turn in Assault represents five minutes of real time. A great deal can happen in five minutes on the battlefield, and the sequence of play reflects this. All activity in a turn is divided into phases. All activity in a phase must be completed before a new phase begins. **See Appendix A for Sequence of Play**.

Rule 2: Unit Organization

General Explanation: Each counter in the game bears unit identification (ID) in the upper left corner. For most units this consists of Platoon ID, Company ID, Battalion/Regiment ID, and Brigade/Division ID. Exceptions are given in D below.
Unit IDs have a number of uses, the most common of which is in determining subordination for command and control purposes. For example, every unit in a battalion is subordinate to the battalion headquarters. See rule 4. All unit organizations are shown on the unit organization charts.
Note: For purposes of these rules, platoons and sections are identical except that a platoon has two steps and a section has one step. For brevity, the term "platoon" will be used to mean "platoon or section" for the remainder of this rule.

A. Formats for IDs German units are numbered with the company followed by the platoon over the higher organization; for example 

is the 11th company, 2nd platoon, 2nd Battalion, 2nd SS Pz Rgt. Soviet designations are similar with the Company, followed by Platoon, over the higher organization. 

is the 1st company, 3rd platoon, 1st Battalion, 181st Tank Regiment.
For the Western Allies (U.S., U.K. Commonwealth, and France) units this consists of Platoon ID, Company ID, Battalion/Regiment ID, and Brigade/Division ID.

This unit is the 1st Platoon of Delta Company of 745th Tank Battalion.

B. Definitions: Several organizational terms require game definitions.

1. **Platoon**: Each counter is a platoon (or section; see A above) with certain exceptions. In the case of mechanized infantry, towed artillery, and similar units, each platoon consists of two counters; a transporting vehicle and its cargo, both of which have the same ID.

2. **Company:** A company consist of all units with the same company, battalion, regiment /brigade ID.
3. **Battalion:** A battalion consists of all units with the same battalion and regiment/brigade ID.
4. **Regiment/Brigade:** A regiment or brigade consist of all units with the same regiment or brigade ID from the same division. For example, HQ1 – 1Mech is the headquarters unit for the 1st Brigade of the 1st Infantry Division (US).
5. **Nomenclature:** For reasons of tradition, military terminology employs a number of alternates for the terms defined above. In cavalry units (and some others) companies are called troops and battalions are called squadrons. In artillery units, companies are called batteries. In these rules, "company" means "company, troop, or battery"; "battalion" means "battalion or squadron".

   Some game unit IDs differ from their official values, for example, companies are actually numbered, but they have been given letters for the game.

C. Exceptions: A number of units differ from the identification and organization scheme outlined above.

1. **One-unit companies:** Some companies are composed of a single platoon. In these cases the platoon ID has been eliminated.
2. **Regiments/Brigades/Divisions:** Some units do not belong to a battalion, and are subordinated directly to a regiment/brigade or division. These units will have not have a battalion ID.
3. **Headquarters, Tactical Operations Centers, and Observation Posts:** Company Hqs and OPs are platoons of a company, with HQ and OP respectively, in place of the platoon ID. OP 2SS PZ A would be the Observation Post 2nd SS Panzer Division Artillery.

   Battalion HQs, regimental HQs, TOCs are companies of a battalion/regiment/brigade/division with no platoon ID and with the HQ or TOC in place of the company ID

   Some HQs, TOCs, and OPs consist of two units; a personnel class unit and a vehicle. The personnel class unit is the actual HQ, TOC or OP; the vehicle unit is the primary means of transportation assigned it and is considered a separate platoon of the same company.

RULE 3: COMMAND CONTROL

A. General Explanation: Proper command control on the battlefield is essential to survival and success. In Assault command control problems are simulated through the

use of operations points. Each player receives operations points from a variety of sources in each friendly movement phase. These are then spent to enable units to carry out functions.

B. Sources of operations points: Operations points are received from four sources: headquarters, tactical operations centers, from off-board, and by default.

1. **HQs:** At the start of the game, each player generates the command rating of each of his HQ units. Roll the die once per HQ unit and consult the command rating table. Adjust the roll for national and unit type modifiers. Record the command rating on the command record for the specific HQ.

   The command rating of the headquarters unit is the number of operations points that HQ unit may use each friendly movement phase.

2. **TOCs:** At the start of the game each player must generate the command and planning rations of each of his tactical operations center (TOC) units. Roll the die once per TOC unit, apply the appropriate modifiers and consult the command rating table. The resulting two numbers are the command (first number) and planning (second number) ratings and are recorded on the command record.

   The detailed function of TOC units is explained in rule 6. Command rating rolls are performed in the sight of the other player. However, secrecy is maintained regarding the identities of units being rolled for. Each scenario states the number of HQs and TOCs to roll for, often more than actually appear in the game. The player rolls for these, writes them down and numbers them in order beginning with 1. Then, out of site of the other player, transfers these ratings to the command record. Finally, the player gives the original sheet to his opponent.

3. **Off-Board:** some scenarios specify that off board operations points are available. These may be used exactly as any other operations points, and represent additional direction from higher headquarters.

   In a campaign scenario, operations points from parent headquarters may be used for subordinate units. These operations points are spent for commands to units that are not in view of the headquarters. TOCs can only supply operations points and conduct planning after they are on board and stationary.

4. **Default:** If no operations points are available from any other source, a player may always expend two operations points per friendly movement phase.

C. Subordination: a command unit may expend operations points to affect only units which are subordinate to it. All units in a company are subordinate to the company HQ. all units in a battalion are subordinate to the battalion HQ and (for) battalion TOC. All units in a regiment (all units with the regimental ID and all units assigned to it) are subordinate to the regimental HQ and TOC. All units are subordinate to off-

board operations points and default operations points. For example, all units with company/battalion IDS of 3 are subordinate to the 3rd Battalion HQ.

D. Uses of Operations Points: Units never need operations points to fire, nor do they need them to move in march formation (see rule 6). However, operations points are required when changing formation, moving in combat formation, replacing HQ casualties, cross attaching units, and rallying shaken or broken units.

Each command operation (except cross attaching) requires expenditure of 1 point if the affected unit is visible to the expending HQ or TOC or 2 points if it is not visible. The unit is visible if an unblocked line of sight exists between the two units; see rule 9. Cross attaching always requires 2 points unless done during setup when it is free.

Often more than one HQ and TOC will be able to use operations points to affect a particular unit. If the operation desired requires 2 operations points, 1 may be expended by each of two HQ or TOC units. For example, suppose the platoon 1B2 is not visible to any HQ or TOC unit. 2 points are required for it to move. The player could expend one from HQB-2 and one from HQ-2. Of course, either unit could expend both of the required pints if it has them to expend.

1. **Change formation:** 1 point (if visible) or 2 points if not visible are required for all units in a hex to change from march to combat formation or vice versa.
2. **Move in combat formation:** 1 point if visible or 2 points if not visible allow all units in a hex to move in combat formation. Visibility is determined at the beginning of the movement phase.

   To count as a single operation, all units must begin in the same hex, must move together as a stack, and must all face the same direction while moving (see rule 6). If a player wishes to break up a stack by moving it in different directions or different distances, the operations pint cost must be paid separately for reach unit or stack of units moving together.
3. **Replace HQ casualties:** 1 point if visible or 2 points if not visible allows an eliminated HQ to be replaced. Visibility is determined for the hex in which the replaced HQ will appear (see below). An HQ is replaced using points from units to which it is subordinate; battalion or higher units may be replaced from their TOCs. TOCs may never be replaced. A replaced HQ may not expend operations points in the phase it is replaced.

   An HQ is replaced by removing personnel and or vehicles from a specific unit. The HQ appears in the same hex as that unit.

   a. Company / Battalion HQs: company and battalion HQs are replaced from other units in the same company or battalion. If the HQ is a vehicle unit, it's replaced from a unit containing the same vehicle. If the HQ is

a personnel unit, it is replaced from a personnel unit; the HQs transport unit need not be replaced. The replacing unit takes a one-step loss (and is eliminated if it is already at half strength) and the HQ is placed in that hex. For example, if the HQ of a tank company is eliminated, it is replaced by placing the HQ section back on the board in the same hex as any other full-strength platoon of the company and reducing the platoon to half strength with a hit marker. No destroyed AFV marker is placed since all that is occurring is that the platoon leader is taking over command of the company and becomes the de facto company commander. Alternatively, a half-strength unit could be removed from play and the HQ unit placed in its former hex.

If there is no way to replace an HQ (all eligible units have been eliminated), any surviving subordinate counter may be designated the new HQ at the same cost in operations points as would be required to replace the HQ. The counter remains eliminated.

b. Regiment/Brigade/Division/Corps/Army HQs: These units are replaced from the subordinate TOC. If the HQ unit is a personnel unit, the HQ unit is placed on the board in the same hex as the TOC. If the HQ is a vehicle unit, it is replaced by a Repl HQ counter. (Optionally, each major unit is provided with a replacement HQ). No loss is suffered by the TOC.

If the unit's TOC has been eliminated, the HQ may not be replaced, but any or subordinate HQ may be designated as the new higher headquarters HQ. This unit will still function in its lower command responsibilities but will also have command control of all the units that the HQ it is replacing had (i.e. the replacing HQ is not itself replaced. For example, a U.S. tank company HQ becomes the new battalion HQ because its parent TOC and HQ have been eliminated. It still functions as the company HQ in addition to being the HQ for the remaining battalion). No operations are expended for this, but the HQ may not expend any points during the movement phase in which it becomes the new HQ.

4. **Cross-attaching units:** Cross-attachment merely means that a unit has been assigned to the command of a headquarters to which it is not normally subordinate. For example, the U.S. Army quite often will cross-attach a tank battalion to an infantry division or vice-versa. A unit which has been cross attached is no longer subordinate to its parent HQ, but is instead assigned to a new HQ.

   Both players may cross attach units. A player may cross-attach before the scenario begins and/or during the scenario. If a unit is cross-attached prior to the start of game play, there is no penalty or cost. Cross-attachment during the game may be done only at the start of a friendly movement phase and requires the expenditure of 2 operations points by a

command unit to which the unit was subordinated at the beginning of the phase. The cost is paid for each company or group or units from a single company cross-attached to a single other unit (company or battalion).

Both players may cross-attach up to two platoons to each company (with any three sections counting as one platoon) and may cross-attach up to two complete companies (a complete company is all surviving units of a single company) to each battalion. Note that each battalion or regimental HQ or TOC is a company, to which platoons or sections may be attached.

Record cross-attachments in the cross-attachment section of the command/morale record. (Cross-attachments can also be recorded on the Task Force record).

a) Kampfgruppes and Combat Commands

German and U.S. units are frequently attached to a Kampfgruppe (KG/Kg) or a Combat Command (CCA, CCB, or CCR). These commands often serve as the higher command for battalions and regiments and function similar to a Brigade size unit. Some CC and KG are already established along historical tables of organization but players may feel free to attach or detach units as desired. Kampfgruppe HQ and TOC units that become casualties may NOT be replaced.

5. **Rally:** Command units spend operations points to rally shaken and broken units. See Rule 16.

D. Special Cases:

1. **Exceptions:** Recon units, HQ units, OP units, units, and TOC units do not require operations points to move or change formation. These units are marked with asterisks. In addition, units stacked with HQ or TOC units at the beginning of the movement phase, regardless of their subordination, may change formation and move without requiring operations points, provided they remain stacked with the HQ unit throughout the phase. (This is the only way in which an HQ with a command rating of 0 can exercise command).

   Although an OP unit does not allow units it's stacked with to move in combat formation or change formation without using operations points, it does allow any vehicle transporting it to do so.
2. **Battle Drill:** Soviet (after 1942) and German units may conduct battle drill movements. While units do not have as extensive a command control arrangement as comparably-sized units, reliance on well-rehearsed battle drills and formation movement allow large units to move at a relatively low cost in command or staff effort. Instead of addressing a move or formation change order to a hex, the player may

do so for an entire platoon, company, or battalion. Such an order still requires 1 operations point if the platoon/company/battalion, or any counter of it is visible to the TOC or HQ issuing the orders and 2 operations points if not for German units. Russian tank companies must be in the same hex or contiguous hexes to perform Battle Drills. Orders require 2 operation points regardless of observation status of the issuing TOC or Hq. Additionally, while in battle drill formation, all Russian companies must be visible to their subordinate Battalion Hq to move in combat formation or fire. Targets are assigned to a complete company; i.e. all platoons of a specific company must engage the same target, but different companies may engage different targets**.** All counters of the platoon/company/battalion, with the exception of indirect fire units and their transports, must assume the same formation, assume and maintain the same facing, and expend the same number of movement points, moving in effect in formation. If this is not possible for all counters of the platoon/company/battalion, then battle drill movement may not be used. An HQ or TOC may issue a battle drill order without expending operations points if it begins the phase stacked with one or more counters in the unit receiving the order and remains stacked with that counter for the entire phase.

Rule 4: Headquarters Units

The headquarters unit represents the commanding officer and a small command group.

At the start of each friendly movement phase the player must determine how many operations points each HQ unit is expending and on which subordinate unit or units they will be spent on. For example, the player has a company HQ which has a command rating of 3. At the start of the movement phase he might decide that one operations point is being expended to change the third platoon from march to combat formation, a second point is expended to allow the same platoon to move in combat formation, and the third point expended to allow another platoon already in combat formation to move. When an operations point is expended, this fact should be marked on the command record for that turn and phase.

As indicated previously, an HQ unit need not expend operations points to enable units to change formation or move if they are stacked with the HQ unit and remain stacked with it throughout the movement phase.

HQ units may move and/or fire in the same turn in which they expend operations points. HQ units may expend operations points while suppressed and/or shaken, but not while broken (See Rule 16).

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Rule 5: Tactical Operations Centers (TOCs)

A. Function: The tactical operations center is the brain of the unit. While commanding officers can direct individual units, the TOC provides planning, coordination, and command support to the unit commander that multiplies his effectiveness.

At the start of each first movement phase of a player's turn, the player must decide which of the following actions each of his TOC units is performing: command, plan, or execute plan, and must write the fact on his command record for that turn. (TOCs must be on board to perform these functions unless otherwise noted in the scenario instructions).

1. **Command:** A TOC unit may function the same as an HQ unit, expending operations points equal to its command rating.
2. **Plan:** A TOC which plans may not expend operations points that movement phase. Instead, operations points equal to its command rating are accumulated for later use.

   Accumulated operations points are recorded on the player's command record. The planning rating of the TOC unit is the maximum number of operations points that the TOC may accumulate.
3. **Execute Plan:** A TOC unit which executes may expend as many of its accumulated operations points as desired, up to the total number accumulated.

B. **Limitations:**

1. **Suppression:** A suppressed TOC may not plan but may command and execute.
2. **Movement:** A TOC may not move in a movement phase in which it plans (and if allocated to planning that turn it may not command or execute either).
3. **Firing:** A TOC may not fire in the friendly fire phase if it planned in the previous movement phase.
4. **Losses:** Once eliminated, a TOC may not be replaced (Optionally, a TOC may be replaced at divisional or higher level HQ at a cost of 4 operations points. TOCs lower than division level may be formed at a cost of 3 operations points. A replaced TOC is placed in the same hex as the HQ that is creating it; therefore, the creating HQ must be on the map. However, the unit HQ may use the accumulated operations points of the TOC. Each turn following the elimination of the TOC, the accumulated operations points total is reduced by two in addition to any points used by the HQ. This reduction takes place at the end of the phasing player's turn. The loss of one step has no effect on the TOC.
5. **Loss of Command:** A TOC may not plan or execute if the parent HQ is not in play. If the parent HQ is eliminated, it must be replaced by the TOC before

the TOC can plan or execute. The TOC may command in the absence of the HQ unit.

Rule 6: Movement

A. General Explanation: Units move during the movement phases of a turn. Each player may move his own units in each movement phase of his player turn. Each unit may be moved as many hexes as desired, up to the limits of its movement allowance (Exception See Battle Drill). While a player is moving a unit, it may be subject to opportunity fire (see Rule 14) or pass-through fire (See Rule 18). If so, this fire is resolved prior to the unit exiting the hex through which the fire is directed.

B. Procedure: Units may be moved individually or in stacks. Each individual unit or stack of units must complete its movement before another unit or stack begins moving.

Each unit or stack of units is moved by tracing its path of movement through hexes, expending movement points for each hex as it is entered. A unit's movement allowance is the maximum number of movement points it may expend per friendly movement phase. The movement point cost per hex is determined by the formation of the moving unit, the mobility class of the moving unit and the terrain type of the hex being entered.

A unit may always move one hex, even if it has insufficient movement points to do so (except mobility class S and L; see below), provided it is not into prohibited terrain or across a prohibited hexside.

A unit may enter a hex occupied by enemy units, but immediately ends its move upon so doing. A unit which begins its movement phase in the same hex as an enemy unit may leave or perform or perform any other activity within the hex except fire out of the hex.

C. Formations: Each unit must be in one of two formations at all times: march or combat. (Exception: units whose morale has been broken are in no formation. See Rule 16). Units may change formation at the beginning of a friendly movement phase. There is no limit to the number of units which may change formation at the start of a friendly movement phase, provided the appropriate operations point cost is paid. In general, units must be in march formation to use roads for movement (at the road terrain point cost) and do not require operations points to move. However, units in march formation may not fire except during a close assault. (See Rule 15).

A unit may change formation and move in the same movement phase. A unit which changes from march formation to combat formation and then moves must have operations points expended separately for the formation change and the movement (that is if the unit requires the expenditure of operations points, i.e. recon units and HQs; See Rule 3. E.)

Changing formation counts as movement for purposes of spotting and opportunity fire.

Units in march formation are differentiated by their directions of facing (See F below).

D. Mobility Class: There are six mobility classes: T (tracked), HT (half-tracked), W (cross-country wheeled), R (road-bound wheeled), L (leg), and S (static). T, HT, W, and R units (referred to as vehicle units) also have a movement allowance which they expend to move as explained above. S class units may not move on their own but may be transported by other units (see Rule 7). L class units (hereafter referred to as leg units) do not have or expend movement points. instead, each leg unit may move one hex in a friendly movement phase. Leg units which move in the first and second friendly movement phase of the same player turn are fatigued, and may not move in the first friendly movement phase of the next turn. Movement for this purpose

is defined as entering a new hex; other actions performed in the movement phase, such as entering cover or changing formation does not count. To mark fatigued units, place a fatigued marker on them. Units with a mobility class of 5L and WS are covered in Rule 7 Transport. Units with a class of WS are wheel mobile. HT class units move as T class vehicles off road and W class vehicles on road. Units such as horse drawn wagons and bicycle troops have a movement class of 2L. This class means that the unit has a movement allowance of 2 but pays the terrain costs as if it were a leg unit.

E. Terrain: Terrain affects vehicle units and leg units differently. Vehicle units pay a variable movement point cost to enter certain terrain types. Leg units must make a die roll of a given number or less to enter certain terrain types. The terrain effects charts details movement point cost for vehicle units and the die roll necessary for a leg unit to enter a hex. Certain hexsides also have a movement point cost or die roll associated with crossing them. For vehicles, this cost is added to the cost to enter the hex; for leg units, the most difficult die roll of the two required (if both the hex to be entered and the hexside to be crossed require die rolls) is used. Terrain has no effect on aircraft movement.

1. Amphibious Units: Some vehicle units have the letter A in addition to their mobility class, indicating that they are amphibious. Amphibious units can cross certain hexsides and enter certain terrain types prohibited to other units, as noted in the terrain effects chart.

2. Steep Slopes: A steep slope is defined as a hex containing two contour lines of different elevations. The terrain effects chart lists the effect of climbing a steep slope, which is in addition to the regular cost to enter the hex. Climbing a steep slope is defined as entering the hex from a hex of lower elevation. Vehicle units pay a cost to climb a steep slope if a movement point cost is listed. If the notion P appears, the unit is prohibited from entering the hex at all. Leg units have the notation F for steep slope, which means that a leg unit becomes fatigued. Leg units may only climb steep slopes in the first friendly movement phase of a turn. Units which are not prohibited from entering a steep slope hex pay no special cost for entering it unless they climb it. Alpine and Ranger units may treat steep slopes as normal slope and do not have any movement restrictions (except other terrain in the the hex).

3. Snow and Mud: *In scenarios, i.e. Battle of the Bulge battles, where weather has an adverse effect on ground conditions vehicles and personnel movement may be affected. Creeks and streams may only be crossed via bridges. Terrain costs are doubled for all terrain though all units may move at least one hex.*

a. Western Armored Fighting Vehicles *(German and the Western Allies) with a combined frontal armor value + flank armor value of 11 or more may become bogged down when operating off the roadways. At the end of each movement phase, roll 1 die for each unit that ends movement off the roadway and on a roll of 7-10, the vehicle becomes bogged down and may no longer move in any subsequent movement phase though it may continue to fire. Place a bogged marker on the unit.*

b. Soviet Armored Fighting Vehicles *with a combined frontal armor value + flank value of 13 or more may become bogged down when operating off the roadways. At the end of each movement phase, roll 1 die for each unit that ends movement off the roadway and on a roll of 8-10, the vehicle becomes bogged down and may no longer move in*

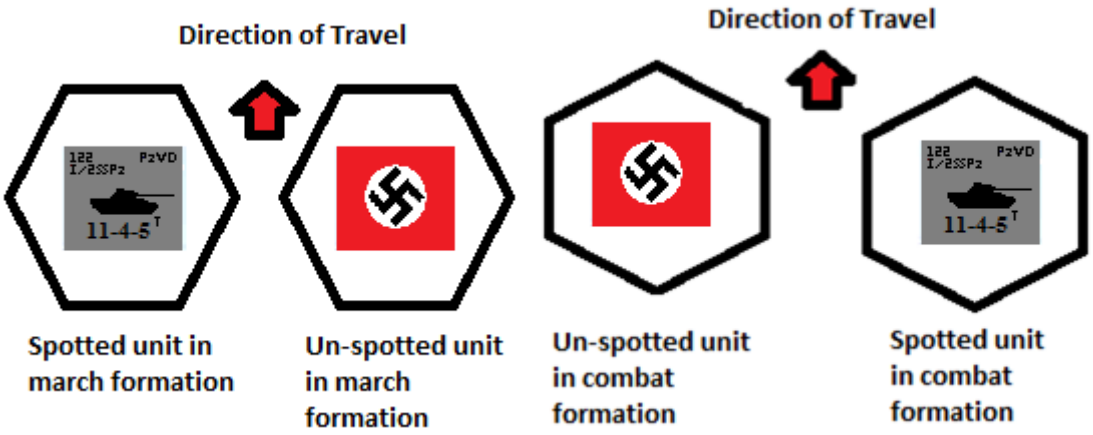
any subsequent movement phase though it may continue to fire. Place a bogged marker on the unit.

***c. Heavy Vehicles** with a combined frontal armor value + flank value of 18 or more are restricted to roadways only. If the unit moves off the roadway it automatically becomes bogged down and may move no further though it may continue to fire.*

***d. Other vehicles** Movement Class W and HT vehicles (Unloaded and/or loaded with P class passengers) may move off-road and only become bogged down on a roll of 10. Movement Class R and W/HT Class vehicles that are towing Weapons (W) class units are restricted to roadways only.*

***4. German Mechanical Reliability (Optional)**: As the war progressed, the Germans were forced to introduce new weapons systems without proper design testing. Also, production quality began to slip as Allied strategic bombing affected the industrial centers. At the beginning of a scenario from January 1943-December 1943, roll one die. The die roll result is the number of steps of German AFVs with a frontal armor rating of 9 or more that have broken down enroute to the battlefield. Remove that number of steps from the game (these removed steps do not count against VP requirements). At the beginning of scenarios from January 1944 – May 1945, roll one die and add +2 to the die roll. The result is the number of steps of German AFVs with a frontal armor rating of 9 or more that have broken down enroute to the battlefield. Remove that number of steps from the game (these removed steps do not count against VP requirements).*

F. Facing: Units always must be faced in a specific direction. A unit is faced in the same direction as the top of the counter if spotted or the direction of the arrow on the back of the counter if unspotted (on back printed original edition Assault series counters). Units in march formation always face a hexside, while units in combat formation face a vertex as illustrated below.

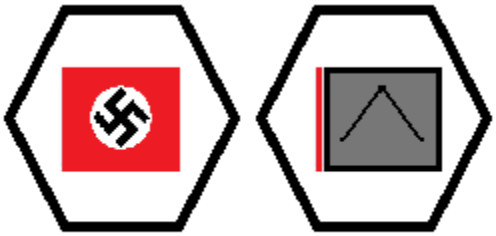


A unit must always face in the direction it is moving. A unit in march formation moves across the hexside it is facing, while a unit in combat formation may move across either hexside it is facing. A unit may change facing without movement cost immediately before entering each hex of its move. When it is finished moving it retains the facing of the last hex moved, unless it expends an additional movement point, in which case it may change facing. A change of facing counts as movement for purposes of spotting, opportunity fire, and (if in combat formation) operations point expenditure.

Facing affects the fire of enemy units on the unit in question, as explained in the direct fire rules.

Note that facing is also the means of determining the formation of the unit.

G. Cover: A unit in combat formation may enter cover in any friendly movement phase if it does not move, dismount, or deploy in that phase. Entering cover counts as movement for purpose of operations point expenditure. A unit in cover is designated by placing a cover marker on the unit with the point of the marker faced toward the same hex vertex the unit faces.



Unit not in cover Unit under cover

In addition, any unit which is fired upon during either fire phase (or which is in the same hex as such a unit) and is in combat formation automatically enters cover at the end of the phase, with the unit and its cover marker turned to face toward one of the vertices of one of the hexsides across which the fire came.

Cover affects the chance of spotting a unit and the chance of causing losses or suppression in direct fire combat (see Rule 11). Only units in cover may conduct opportunity fire.

If a unit in cover moves out of the hex, the cover marker is removed from the map. A unit may change facing while in cover (changing the facing of the cover marker also); this counts as movement for purposes of operations point expenditure.

Rule 7: Transport

A. Which Units may be transported: All units with a mobility class of L (leg) and S (static) may be transported.

Units with a mobility class of SL are treated as leg units for transport purposes. Units with a mobility class of WS are treated as static units for transport purposes.

1. Which Units may transport: All transport units have a circle, either open or filled in, or a triangle on the counter. Units with an open circle may only transport leg units. Units with a filled in circle may transport either leg or static units. Units with triangles may transport leg, static and non-tank vehicles. Each transport unit with a circle may transport as many steps as its current strength level ; transport units with triangles may transport more steps then its current strength level (see Appendix B: Unit Identification Chart)

Units with a half-filled in circle on the counter may transport half as many steps of leg mobile units as their current strength; a single half strength unit with a half filled in circle may not transport anything (but see F. below)

All AFV units may transport P-class units of the corresponding size; i.e. 1 step to 1 step.

Units with a filled in triangle may transport leg mobile and static units, and may transport more steps than their current strength.

2. Procedure: Units being transported are placed under the transport unit, move at the rate of the transport unit, may not be fired at, and do not count against stacking. The identity of a transported unit is not revealed to the enemy if the transporting unit is spotted.

In order for a leg mobile unit to mount or dismount a transport, either the transport unit or the leg unit must spend the entire movement phase in the mounting or dismounting hex. That is, a leg unit could move to a hex containing a transport unit and mount or a transport unit could move to a hex containing a leg mobile unit and allow it to mount. Once mounted no further movement is allowed in that phase. The transporting unit may continue to move (if it has movement points remaining) after dismounting the leg unit. Once dismounted, the dismounting unit may move no further that phase.

In order for a static (or vehicle unit) to mount or dismount, both the mounting unit and the transport unit must spend the entire movement phase in the same hex. Static indirect fire units which are deployed (See Rule 18) may not mount transport units.

A unit which dismounts may be placed in any formation and assume any facing without expenditure of operations points. it may not enter cover or deploy in the same phase. Dismounting counts as movement (for the transported unit) for purposes of spotting, opportunity fire, and pass-through fire.

B. Fire from transporting units: Transporting units may fire normally. Only P class units may fire while being transported by vehicles. It may only do so with small arms ammunition (SA) from unsuppressed vehicles, and its conventional fire value is halved.

C. Fire at transporting units: Transporting units are fired at normally. If a full-strength transporting unit is reduced to a half-strength unit, the mounted unit is also reduced to half-strength. (A half-strength unit is unaffected). If a full strength unit is destroyed, the mounted unit is reduced to a half-strength unit and is suppressed in the hex where the transport unit was destroyed. If a half-strength transport unit is destroyed, the mounted unit is suppressed in the hex where the transport unit was destroyed.

If a full-strength unit is carrying two half-strength units and is reduced to a half-strength unit, one of the half strength units (determine randomly, i.e. place in a cup and draw surviving unit blindly), is eliminated. If the full-strength unit is destroyed, the surviving half-strength unit is suppressed in the hex where the transport unit was destroyed.

D. Combined Transport: Two half strength Truck units may combine to transport a full-strength unit. The two transporting units must remain stacked together during the entire time they are transporting the full-strength unit. If one of the transporting units

is destroyed, the transported unit is reduced to half-strength. AFVs and AIFVs may not combine transport.

Rule 8: Stacking

More than one unit may occupy the same hex. (This is called stacking). There is no limit to the number of units which may occupy a hex. However, only a limited number of units may use road movement through a hex at a time, and only a limited number of units may fire from a hex.

A. **Road Movement:** A maximum of six steps of units may move together as a stack in march order using road movement. (A full-strength unit has two steps, a half step unit has one step and a single vehicle unit has a ¼ step. No unit or stack of units may use road movement to enter a hex already containing a unit which used road movement to enter that hex in the same movement phase; no unit or stack of units may use road movement to enter a hex in which a friendly unit using road movement suffered a loss from opportunity fire in that same movement phase.
B. **Firing:** A maximum of ten steps may fire from a hex.

Rule 9: Spotting

A unit may not be fired at by direct fire unless it is spotted. All game units are back-printed with their national color and a facing arrow (only for originally GDW issued game sets). Units start each scenario flipped over so that opponents do not know the actual strength and location of enemy forces. Units remain flipped until they are spotted, at which time they are turned face up. They remain face up (spotted) until the end of a movement phase in which no enemy unit has an unblocked line of sight to them.

A. **When spotting takes place:** A player may attempt to spot as many enemy units as he desires at the end of each movement phase. A player may attempt to spot every enemy unit which fires at the end of each fire phase.
B. **Line of Sight (LOS):** A player may attempt to spot only enemy units which are in the unobstructed LOS of one of his own units. A LOS exists if the enemy unit is within the maximum LOS distance of the spotting unit, and if the LOS is not blocked. The LOS is a straight line between the center of the spotting unit's hex and the center of the target unit's hex.
    1. **Maximum LOS distance:** The maximum LOS distance depends on the sum of the heights of the spotting and spotted units, as shown on the LOS table.
    2. **Elevation:** elevation is shown on the map by contour lines and colored areas between them. There are 9 levels of terrain elevation from 0 to 8. Each level change represents 25 meters of actual elevation change. Levels change at contour lines and hex boundaries. Portions of a hex which are in different colored areas are on different levels. The terrain key shows all possible

combinations of color and level within a hex (See Terrain Identification Chart). Note that the same color may represent either of two different levels. If a lower-level color is also present, it is the lower value; if a higher-level color is present or if the hex is only one color, it is the higher value. (Although this may sound confusing, examination of the terrain key should make everything clear; See Terrain Identification Chart). For example, if light brown and medium brown areas are both present in a hex, the light brown portion is at level 2, while the medium brown portion is at level 3.

A unit is always assumed to be on all levels present in the hex; that is, it may spot and be spotted from any of those levels. In addition, non-vehicle, dismounted P-class units in a town hex or urban strip may attempt to spot (but not be spotted) as if they were one level higher than the hex that the town or urban strip occupies.

3. **Blocking Terrain:** A LOS is blocked if it passes through terrain higher than the LOS itself. When both the spotter and the target are on the same elevation, this is an easy determination to make. When they are on different elevations, the LOS graph is used (See Terrain Identification Chart).

   Take out the LOS graph and examine it. The vertical axis represents range measured in hexes. The horizontal axis represents height measured in elevation levels. To use the graph, first locate the position of the spotting unit. The spotting unit is always located on the zero hex range of the range axis and the correct elevation on the height axis. Next, locate the point on the graph of the target unit by cross-indexing the range to the target unit and the target unit's elevation. The intersection of these two lines is the target unit's point on the graph. Lay a straightedge on the graph connecting the two points. the straightedge is the LOS from the spotting unit to the target unit. Finally, determine the range and elevation of any blocking terrain. Determine its point on the graph as the same manner as if it were a target unit. If its location on the graph is above the LOS, then the LOS to the target unit is blocked. If it is exactly on or below the LOS, then the LOS is not blocked.

   All terrain is evaluated on the basis of the colored area through which the LOS passes. Town, urban strip and woods hexes are considered to be one elevation higher than the terrain level of the hex for purposes of blocking LOS. (Note that this is true even if the LOS does not pass through the actual town, urban strip, or woods symbol; unlike the colored areas, the terrain is considered to fill the hex. Optionally, apply this only to elevation, a unit may attempt to spot a target unit through an urban strip, town or woods hex as long as the LOS does not actually cross the potentially blocking symbol when using a straightedge). Hexes with smoke screens in them (See Rule 19) are considered to be two elevations higher than the terrain level of the hex.

In addition, the LOS to or from a unit in a woods hex is blocked if the immediately adjacent hex along the LOS is also a woods hex. Adjacent units may still attempt to spot each other regardless of terrain.

The hexes the spotting unit and target unit occupy never constitute a block to the LOS.

C. Number of Spotting Attempts: Only one spotting attempt may be made per enemy unit per phase, conducted by the friendly unit of the spotting player's choice. Usually, but not necessarily, this will be the unit with the greatest chance to spot the target unit.

D. Procedure: Five elements determine the likelihood of a successful spotting attempt: range, target type, terrain, target status and spotter status. These elements are all covered in the spotting tables.

The range from the spotting unit to the target unit determines the base die-roll required to spot the target. This is listed on the base roll table as the number or less which must be rolled on the die in order to spot.

The terrain the target unit is in modifies the base roll. The terrain modifiers table lists the target type (personnel, weapon, or vehicle) and indicates the modifier applied against the spotting number. Note that without a modifier some spotting attempts are impossible. Two modifiers appear in each cell of the table. The first modifier is used if the target is not in cover; the second is used if it is in cover. The notation Auto means that a unit is automatically spotted by any enemy unit at any range provided the spotting unit has an unobstructed LOS to the target.

The target status table lists additional modifiers based on the action of the target unit, making it easier to spot units which are moving, firing missiles, or have just fired. The moving modifier is used only during the movement phases. Formation changes, mounting and dismounting (for the transported unit), deploying and un-deploying are considered movement for spotting purposes. The firing modifier is used during the fire phase and, in the case of non-phasing units conducting opportunity fire, the movement phase.

Finally, the spotter status table lists modifiers based on the type of spotting unit.

Modifiers are added or subtracted from the base chance. Thus a positive modifier makes a unit easier to spot, while a negative modifier makes it harder to spot.

All modifiers are cumulative with the exception that a recon armored vehicle unit does not suffer an adverse modifier for being an armored vehicle but does receive the favorable modifier for being a recon unit. All units with asterisks other than HQs and TOCs are recon units.

Both players are required to give enough information about their units which are spotting or being spotted to determine which modifiers apply (but only the minimum necessary amount of information).

The die is rolled once for each hex containing units the player is attempting to spot; however, since different modifiers may apply, some units in the hex may be spotted while some may not.

The auto-spot range table and the maximum spotting ranges table are play-aids created by combining information from the base roll table and the terrain modifiers table. They provide no new information in themselves, merely saving the players the trouble of computing the values they contain.

E. Auto-spots: if at any time during a movement phase either player has an unobstructed LOS to an enemy unit for which the modified roll is 10 or more, that unit is automatically and immediately spotted. The auto-spot range table gives the distance at which this is true for all unit types. The spotter status and target status modifiers also apply on this table, as modifiers to the range. The notation Max means that the auto-spot range is the same as the maximum LOS.

F. Maximum Auto-spot Range: The maximum spotting range table gives the greatest distance at which a spotting attempt on a particular unit has any chance of success (that is, the roll needed is greater than 0). The spotter status and target status modifiers also apply on this table as modifiers to the range.

G. Dummies: Dummy counters are included as listed in the scenarios and are used to confuse the opposing player as to a player's exact strength and disposition. Dummies move using whatever mobility category and movement allowance is desired by the player. Dummy counters may not spot; they are spotted as any type the owning player desires.

In order to maintain the illusion, the owning player may place any marker he wishes on a dummy (for example, a cover or hit marker).

A dummy counter, once spotted is removed from the board. A player may return a dummy counter to play at the start of any subsequent friendly movement phase by placing it inverted in the same hex as any unspotted friendly unit.

H. Transports: When a spotted unit mounts a transport, the transport is automatically and immediately spotted. When a unit dismounts from a spotted transport, it is automatically and immediately spotted.

I. Un-spotting: If, at the end of any movement or fire phase a previously spotted unit is not within the LOS of any enemy unit, it is flipped over to its unspotted side again. Some units may become incapable of spotting due to suppression (See Rule 10) or morale (see Rule 16). Although these units may not make spotting attempts on spotted units, a spotted unit in their LOS remains spotted.

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Rule 10: Combat Results

All results of all types of fire are expressed as either suppression, hit, elimination or no effect.

A. Suppression: A unit which is suppressed has not suffered sufficient losses to permanently affect its performance in game terms but has temporarily been rendered less effective, either due to losses or fright.

1. **Effects of Suppression:** A suppressed unit may not spot enemy units nor may it observe for indirect fire. Units suffer additional effects from suppression which vary depending on their defense class.

   AFV class units may not be mounted or dismounted by other units, have their conventional fire values halved at ranges of 0 and 1 hex, and subtract one from their base hit number on all anti-armor fires at all ranges.

   Suppressed personnel class units immediately go to ground, and thus have a cover marker placed on them. In addition, they may not fire, nor may the move toward a spotted enemy unit.

   Suppressed weapons class unit may not fire or move.

   Suppressed non-armored vehicle units may not move. Any personnel class units in the vehicle automatically dismount and are suppressed. Any weapons class unit in it is also suppressed and may not dismount.

2. **Recovery from Suppression:** a unit remains suppressed until rallied (See Rule 16). The one exception to this is that if an unsuppressed personnel or weapons class unit mounts a suppressed non-armored vehicle, the vehicle unit automatically recovers from suppression.

B. Hit: A unit suffers a hit result loses one step of strength. All units begin the game with either one step or two steps of strength or a single vehicle. A unit with two steps of strength which suffers a hit has a hit marker placed under the counter and is from then on treated as a unit with one step of strength. A unit which has one step of strength or is a single vehicle and which suffers a hit is removed from play (If using the Logistic rules place the appropriate destroyed vehicle marker in its place). Note that a unit which starts the game with two steps of strength and which suffers two hits, either at the same time or at different times, is removed from play (If using the Logistic rules place two appropriate destroyed vehicle markers in its place for a full strength vehicle unit). A unit which suffers a hit is also suppressed.

C. Elimination: A unit which suffers an elimination result is removed from play, regardless of how many steps it has. (If using the Logistic rules place the appropriate destroyed vehicle marker in its place if the destroyed unit is a vehicle.)

D. No Effect: A no effect result has no effect on the strength of a unit but does require the unit's company to check morale, as explained in Rule 16.

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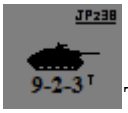
Rule 11: Direct Fire

There are three types of direct fire; anti-armor fire (directed only at armored vehicles), conventional fire (directed at all units, including armored vehicles) and anti-aircraft fire (directed at close air support attack aircraft). Direct fire takes place during the fire phase and may take place during the movement phases (See Rules 14 and 15). Direct fire during the fire phase is simultaneous; all units may fire before fire against them in that phase takes effect.

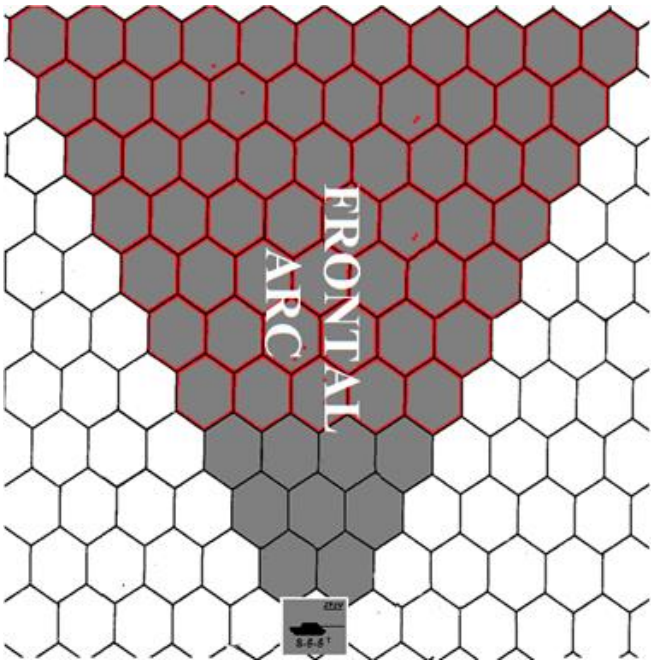
Each fire attack may be directed at any spotted enemy unit; all shots may, but need not be, directed against the same enemy unit. The targets of all fires from all units must be declared before any fires are resolved.

A. Which Units may Fire: Any unit which has direct fire weapons may conduct direct fire. These units are listed on the fire data charts, along with the characteristics of those weapons. The characteristics listed are ammunition type, rate of fire, effectiveness at range, and ammunition supply. The ammunition supply value is used only if Rule 21 is used.

B. Limitations: Several considerations limit the ability of units to fire.

1. **Range:** The fire data charts give the effectiveness of various types of ammunition for a unit at various ranges. The presence of a dash (-) indicates that the unit may not fire that ammunition type at that range with any effect. Generally, the greater the range, the less effective the fire. No unit may conduct direct fire at ranges greater than those listed on the chart.
2. **Line of Sight:** The target of the fire attack must be in the LOS of the firing unit. LOS is determined in the same manner as for spotting, except that dismounted personnel class units in town and urban strip hexes may, at the owning player's option, fire from one level higher than the elevation of the hex. (In other words, they are firing from roof tops and upper stories of the tallest buildings in the hex.) If they do so they may be spotted and fired upon at this higher elevation.
3. **Facing:** All units except Turret-less Assault Guns and Tank Destroyer AFVs have a 360* field of view and may engage targets regardless of unit orientation. Turret-less AFVs are identified by having an underlined Unit Type. 

Turret-less Assault Guns and Tank Destroyer (ISU-152 and JPZ-V for example) AFVs may only engage targets that are within the unit's frontal arc.
(See Diagram below)



4. **Formation:** Only units in combat formation may fire offensively; any unit may fire in defense during a close assault regardless of formation.
5. **Movement:** A unit may not fire in the fire phase of the friendly player turn if it moved in the first movement phase. Movement, for this purpose, is defined as entering a new hex; changing formation, mounting and dismounting, etc. are not movement. Movement in the second movement phase does not affect fire.
6. **Units:** Although units do not block LOS for spotting purposes, they sometimes do block LOS for firing purposes. A unit may never fire through a hex containing friendly units, nor may it fire conventional fire through any hex containing enemy units. A unit may fire anti-armor fire through a hex containing enemy units provided the hex contains no enemy AFV units.

   A unit may always fire over both friendly and enemy units with direct fire if it is on higher elevation and the LOS passes above, rather than through, the elevation of the hex being fired over.

C. **Ammunition Type:** There are a number of different ammunition types listed on the fire data charts. Their specific effects are detailed in the rules on anti-armor and conventional fire. However, a brief description of their actual function will aid in a general understanding of later rules.

1. **Anti-Armor Rounds:**
   a. **AP:** Armor-piercing ammunition is an anti-armor round designed to punch through armor by virtue of the kinetic energy generated by extremely high velocities. The earliest and most simple anti-tank shell was the basic armor piercing, or AP, shell. An AP shell

is made from solid steel with a high carbon contents, which increases the hardness of the steel.

b. **APCR (HVAP):** Armor-piercing Composite Rigid ammunition is similar to AP but has a special penetrator core made from Tungsten. This small-caliber penetrator is made from a high-density material, such a Tungsten, and is housed in a shell made from a light-weight material, such as Aluminum, which has the same diameter as the gun barrel. The resulting shell is known as armor piercing, composite, rigid (APCR) in Europe, and high-velocity, armor piercing (HVAP) in the United States. APCR ammunition tends to be rare.

c. **APC:** Armor Piercing, Capped. To increase the armor protection without increasing the armor plate's thickness, and consequently its weight, face hardening the armor plates was common during the Second World War. As the name implies, the face hardening process increases the hardness of the part of the armor plate facing outwards. This increased hardness will make it more difficult for the shell to penetrate the plate, and might even cause it to scatter on impact. A countermeasure against face hardened plates is to place a cap on a regular armor piercing shell. This cap has a very hard tip, designed to break the hardened face, and a soft steel body, designed to protect the armor piercing shell from the force of impact.

d. **APBC:** Armor Piercing, Ballistic Cap. Because the nose shape that is best suited for penetrating an armor plate is not the best in terms of aerodynamics, it was common to mount a ballistic cap, or windshield, on the shell. The ballistic cap is made from a thin, fragile material that is destroyed on impact without interfering with the penetration process. Because the ballistic cap is thin, the negative impact from lack of mass is negligible, and more than offset by reduced deceleration due to the better aerodynamics.

e. **APCBC:** Armor Piercing, Capped, Ballistic Cap. This shell type is a combination of the caps of the APC and the APBC shells.

f. **APDS:** Armor Piercing Discarding Sabot. The principle of concentrating the kinetic energy of a large-caliber shell in a narrow penetrator is taken to the extreme with the armor piercing, discarding sabot (APDS) shell. Developed during the war, this shell type is similar to the APCR in penetration principle. Rather than fixing the outer shell to the penetrator, the outer shell, or sabot, is discarded from the penetrator immediately upon leaving

the muzzle. The penetrator itself is a long, thin rod of a high-density material, such as Tungsten, or, after fission energy became common after the war, depleted Uranium.

g. **HEAT:** High explosive anti-tank ammunition relies on the explosion of a shaped charge war-head to blow through armor.

h. **SCAP:** Small caliber armor-piercing rounds are fired by heavy machine guns and small cannons. SCAP rounds are differentiated from other AP rounds due to their lower chance of a kill on an armored vehicle once they achieve penetration.

2. **Conventional Rounds:**

a. **HE:** High explosive rounds are effective against all targets. Other conventional rounds are not very effective against armored targets.

b. **SCHE:** Small caliber high explosive rounds lack a large enough explosive charge to damage armored targets, but are otherwise similar to HE rounds.

c. **SA:** Small arms fire consists of semi-automatic weapons, squad automatic weapons, and bolt action rifles.

d. **IS:** Incendiary smoke rounds are filled with white phosphorus which not only creates a good deal of smoke but also burns at extremely high temperatures. An exploding white phosphorus round thus is an extremely deadly weapon against non-armored targets.

e. **FLW:** Napalm or jellied gasoline that is delivered to the target in a stream. Used against targets at less than 250m (1 hex) range.

f. ***Dem**olition**:** Demolition rounds, such as the German Stielgranaten 42, were intended for use against strongpoints and obstacles. The Dem round of the Sturmpanzer IV Brummbar may only be used against bunkers, entrenched units, and obstacles (See Rule 25).*

g. ***Rkt:** The Rocket round is the round of ammunition carried by the Sturmtiger. It is a 380mm rocket with a 125kg HE warhead. It is designed for use against fortifications, and obstacles. The unguided rocket is inaccurate and requires the entire crew to load.*

D. **Rate of Fire:** Each step of a unit may fire as many times per phase as its rate of fire as listed on the fire data chart. Also, each step of a unit has its full rate of fire for both opportunity fire and for close assault, even when both activities occur in the same movement phase. A personnel-class unit may always fire every ammunition type available at is listed rate of fire. Any other type of unit with more than one type ammunition available may fire one or several types in a phase, but the total number of fires may not exceed the lowest ROF number of the ammunition types being fired.

E. Strength of Firing Unit: All fire data is listed per step. Since full-strength units normally have two steps, each fire from such a unit enables the unit to make two attacks. These two attacks must use the same ammunition but may be directed at different targets

F. Single Vehicles: Some vehicles represent a single vehicle, indicated by a white vehicle silhouette. In direct fire (anti-tank and conventional), one shot expended by a firing unit allows for two die rolls against the single vehicle (or unit) in one hex. When determining the number of steps in a hex (for fire purposes) or in a company (for morale purposes) a single vehicle counts as only ¼ of a step; round fractions up.

RULE 12: Anti-Armor Fire

Anti-armor fire is directed at armored vehicle units. Ammunition types which may be used for anti-armor fire are those which, on the fire data charts, have two numbers separated by a colon in each column of the effectiveness at range section of the chart.

A. Hit Procedure: The first number in the effectiveness at range section of the direct fire data chart is the base chance of achieving a hit on a target unit at a given range. Roll the decimal die; if the number rolled is equal to or less than the base chance to hit, the fire attack results in a hit. Several factors modify the base hit number. (Optional: An un-modified roll of 1 always hits. Base hit chance cannot be reduced below 1.

1. Multiple Targets in Hex: Divide the number of enemy AFV steps in the hex by two, rounding fractional results down, subtract one, and add the total to the base hit number. This step is performed before using the modifiers in bullets 2-4 below. For example, a unit has a base hit number of four and there are six steps of enemy AFV units in the target hex. Add (6/2-1) =2 to the base hit number, giving a new hit number of 6. The number of steps in the hex is considered separately for units on the ground.

2. Cover: If a unit is under cover and is being fired at across one of the two covered hexsides, divide the base hit number by 2 and round fractions down.

B. Penetration: Once a hit has been achieved, determine whether or not the ammunition used is capable of penetrating the vehicle's armor. To do so, compare the penetration value of the ammunition to the armor value of the target. If the penetration value is equal to or greater than the armor, the hit may penetrate. If it is less than the armor, the hit does not penetrate, and instead causes the target unit to be suppressed.

1. Penetration Value: Locate the correct column of the effectiveness at range section of the direct fire data chart. The second number (i.e. the number following the base hit number) is the penetration value of the ammunition at that range.

2. Armor Value: Each AFV has two armor values; the first value is for frontal shots and the second value is for flank shots. If the LOS crosses the hexside (march formation) or hexsides (combat formation) the unit is facing, the frontal armor is

used. If the LOS crosses any other hexside the flank value is used. If the LOS exactly crosses the vertex between a front hexside and a flank hexside, the front value is used. If the firing unit is in the same hex as the target unit the flank value is always used.

3. Hit Confirmation: Roll the die once. If the number rolled is equal to or less than the difference between the penetration value of the ammunition and the armor value of the target, the hit causes a one-step loss. If not, the target is suppressed but otherwise unharmed. (Optionally, roll of 1 always causes damage; this represents damage that renders the unit incapable of continuing combat operations; i.e. damage to gun mantlet, engine, track, etc.)

In most cases, an addition to the difference between armor and penetration is made (thus making it easier to confirm the hit)

C. Non-armored vehicles: Non-armored vehicles may be attacked using anti-armor rounds; HEAT, AP (all types) and SCAP. Roll the die to determine if a hit occurs (all modifiers apply). A hit results in an automatic loss of 1 step. P-class units that are being transported by non-armored vehicles that are attacked by this method, do not suffer a loss when the transporting unit is hit, but they are automatically dismounted and suppressed.

Rule 13: Conventional Fire

Conventional fire may be directed at any unit. However, conventional fire from rounds other than HE rounds cannot inflict losses on armored vehicles; any result other than no effect merely suppresses the AFV unit. Conventional fire is resolved by the following procedure.

A. Determine Target Defense Value: Each target has a defense value against conventional fire which is determined by the target defense class, the terrain it is occupying, and whether or not it is in cover. When subtracting from defense value for steps in the hex, the number is considered separately for units on the ground.

1. Basic Defense Value: Consult the conventional fire defense table and cross-index the target defense class with the terrain of the hex it occupies. At the intersection there are two numbers separated by a slash. The first number is the defense value of the unit if it is in the open (i.e. not under cover), while the second number is the value of a unit under cover.

2. Armored Vehicles: *If the target is an armored vehicle, add its front or flank armor value to the defense value depending upon the sector from which the fire is received (i.e. front or flank); if the target is being fired upon from both front and flank, use the front armor value. If the Armored vehicle is being attacked by Indirect Fire or from a CAS mission, the Armored vehicle uses its FLANK factor to defend with regardless of the attack orientation.*

3. Steps: Subtract 1 from the defense value for each step in the hex in excess of 2. However, a unit may never have its defense value reduced below half the value listed on the chart.

For example, a Soviet infantry platoon is in a woods hex under cover. Also in the hex are two other platoons, one of which has already suffered a one-step loss. The Soviet infantry unit is a P (personnel) class unit, and thus would normally have a defense value of 15. Since there are a total of 5 strength points in the hex, however, three is subtracted from the defense value giving a modified value of twelve.

B. Determine Fire Value: Add the fire values of all conventional fires being directed at the target unit from all enemy units firing at it that phase. Thus if two enemy units, each with an ROF of 2 and two steps each, were firing at the unit, a total of 8 shots would be added together. If both firing units had a value of 4, the total fire value would be 32. If an armored vehicle is attacked by a combination of HE and other types of rounds, resolve the HE fire separately. Infantry units may fire HEAT ammunition at units in bunkers and trenches and against non-armored vehicles. In this case, the fire value of the HEAT round is used. Infantry HEAT rounds may only be fired this way against units in entrenchments, bunkers and non-armored units.

C. Resolve the Attack: Compare the fire value to the defense value and convert it to one of the simple odds ratios found on the conventional fire results table. If rounding is necessary, round in favor of the target unit. Thus, a fire value of 32 versus a defense value of 7 would be a 4:1 attack. Roll the die and consult the conventional fire results table. The intersection of the odds column and the row corresponding to the die roll lists the result of the attack. Implement the result as explained in Rule 10.

D. Sturmtiger: The Sturmtiger fires a 380mm rocket intended for use against strongpoints and obstacles. The weapon is cumbersome to say the least and required the entire crew to load it. The rocket itself was not very accurate. The Sturmtiger must deploy and undeploy like an artillery unit.

a. Procedure: To conduct an attack with the Sturmtiger roll one die. On a roll of 1 or 2 the round strikes the intended target and fire is resolved normally. On a roll of 3-10 the round will drift out of the intended target hex in the direction of the wind as determined in pre-game set-up. Roll die once. Divide the result by 2 to determine the number of hexes the round drifts. Round up. This is the new impact hex. Resolve fire versus units in this hex. The Sturmtiger may only fire once per turn and may not opportunity fire with the main gun/rocket launcher.

Rule 14: Opportunity Fire

Opportunity fire takes place during the movement phase. Only units of the non-phasing player which are under cover may conduct opportunity fire, and only at units which are moving. For purposes of opportunity fire, the following actions are also

considered movement: changing formation, mounting and dismounting (for the transported unit), deploying and un-deploying.

A. Limitations: Since units are moved individually or in stacks, the non-phasing player must choose whether or not he will conduct opportunity fire each time the phasing player moves a unit or stack. There is no limit to the number of opportunity fires a player may make in a movement phase, provided no unit exceeds its normal rate of fire for a phase. Fire is conducted based upon the facing of the target as it enters the target hex. Landing, taking off, and popping up are considered movement for purposes of opportunity fire.

1. Range: All weapons may conduct opportunity fire at any enemy unit within four hexes. At ranges of five to eight hexes, units may conduct opportunity fire against enemy units only as they enter the second or any subsequent, consecutive hex under observation of the firing unit. That is, a unit cannot be fired on in the hex in which it is first visible to the firing unit. At ranges of nine to twelve hexes, units may conduct opportunity fire only in the third or any subsequent, consecutive hex under observation. (This may be somewhat confusing here. Since only spotted units may be fired at, and spotting occurs after movement (unless Auto-spot applies) in a movement phase and during the fire phase, this can mean that the unit is already spotted by another unit prior to the current movement phase and before moving into sight of the unit that is to conduct opportunity fire, hence the range restrictions. It also would apply to opportunity fire conducted in the second movement phase against units that were spotted in the first movement phase or the fire phase). No unit may conduct opportunity fire beyond a range of twelve hexes (see Close Air Support rules for opportunity fire vs aircraft).

An enemy unit which begins the movement phase visible to the firing unit may be fired at in any hex of its movement (including the hex it begins in) up to a range of twelve hexes.

2. Fires per Hex: Any single step may fire against any single stack in any single hex once (with a ROF of 1). For example, if a stack moves three hexes with the LOS and range of a unit, the unit may fire a total of three times, once per hex (assuming it has a sufficient ROF). A unit eligible to conduct opportunity fire may do so against enemy units entering or leaving the hex the unit occupies.

B. Resolution: Opportunity fire is resolved as anti-armor or conventional fire as appropriate and resulting morale checks are resolved immediately. After they are resolved, movement proceeds.

Rule 15: Close Assault

Close assault takes place during the movement phase and is resolved after all movement is completed. A close assault takes place when, at the end of movement, there are units of both players in the same hex.

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If a close assault takes place, all units in the hex fire simultaneously. Close assault fire is resolved using the normal rules for anti-armor and conventional fire. Unlike fire conducted in a fire phase, units in march formation may fire in a close assault.

It is possible that after all fires are resolved, both players may still have units remaining in the hex. No special actions are required by these units. If at the end of the next movement phase there are still units of both sides in the hex, another close assault is resolved. No unit may fire during a fire phase if there are enemy units in the hex it occupies.

A. Tank Ramming: Tank ramming was a common practice in WW2, especially for the Soviets who excelled at it. In close assaults, AFVs may attempt to ram enemy vehicles. The danger is that the ramming AFV may also suffer damage. The AFV may make only one ram attempt during each Close Assault resolution and it does not have to be against the same unit (if multiple units are in the hex) at which it fired. Ramming follows after Close Assault fire has been resolved and is not simultaneous with the Close Assault fire.

1. **Procedure:** After all fire has been conducted and fire results applied, both sides may attempt to ram. Soviet AFVs subtract -1 from each of the following die rolls.
    - **a.** For each AFV attempting to ram, the owning player rolls the die and on a roll of 1-6 the ramming attempt is successful. The player rolls again, and on a roll of 1-3 the enemy vehicle unit loses 1 step and is suppressed; on a roll of 4-8 the enemy vehicle is suppressed; on a roll of 9-10 there is no damage to the enemy vehicle.
    - **b.** If the enemy vehicle being rammed is an AFV or AIFV, damage may occur to the friendly ramming AFV. On a roll of 1-4, the ramming AFV is undamaged; on a roll of 5-8 the ramming AFV is suppressed; on a roll of 9-10 the ramming AFV loses 1 step and is suppressed.

Rule 16: Morale

Units under fire may suffer from reduced combat effectiveness, especially when casualties are suffered. Units whose morale deteriorates can become shaken or broken.

A. Morale Checks: Units check morale by company. Each phase in which any unit of a company fired at, the company must check morale. Regardless of how many times the company is fired at, it is never required to check morale more than once per phase. Morale checks during the movement phase occur the first time a unit is fired on by an enemy conducting opportunity fire. To check morale, roll the die once. If the result is equal to or less than the current morale of the company, the company passes the check; otherwise it fails the check.

Units which have been cross-attached to another company are treated as part of that company for morale purposes.

1. Morale Level: A company's initial morale level depends on its initial number of steps. If the company initially has 4 or fewer steps, it is 8; if it has 5-8 steps, its morale is 10; if it has 9 or more steps, its morale is 12. The initial number of steps is counted before any cross-attachment occurs. A company's morale is reduced by 1 for every step loss suffered (including steps of cross-attached units).

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Each company's initial morale and any changes to its morale during the game are written down on the morale section of the command/morale record.

a. **Elite Units:** Each army contained elite units that either through training or indoctrination, possessed a higher level of morale than the regular units. The morale level for an elite unit is raised by a number of levels depending upon the type and nationality. See the Morale Chart on the Command/Morale Table for applicable modifiers.

b. **Italian Army:** Unless the unit is classified as Elite, Italian Army morale is as follows.
4 or Fewer steps = 4 morale
5-8 steps = 6 morale
9+ steps = 8 morale

2. Failed Morale Checks: If a company fails a morale check it is shaken. A shaken company which fails a morale check is broken.

a. Shaken: Units of a shaken company may not move any closer to the closest spotted enemy unit.

b. Broken: Units of a broken company are in no formation; they move as if in march formation but all shots against them are considered to be flank shots. Units of a broken company may not fire, spot, or observe for indirect fire. They must move e away from the closest spotted enemy unit to the extent of their movement ability. The identity of the closest spotted enemy unit may change during movement; that is, the closest enemy unit is that unit which is closest during each hex of the broken unit's movement. If two units are equally close, the broken unit must move away from both of them.

If unable to move farther away from one enemy unit without approaching another enemy unit, the broken unit may not move.

Any unit which becomes broken in a hex also occupied by an enemy unit is removed from play (surrenders).

Any unit which leaves the board while broken is removed from play.

c. Mass surrenders (Optional): *If a Regimental/Brigade or lower HQ unit surrenders, subordinate units are subject to surrender at the same time. Conduct a morale check for each subordinate HQ. Roll one die, add +1 for Shaken HQ units or + 2 for Broken HQ units. If the HQ unit fails the morale check then it surrenders and all units directly subordinate to it surrender and are removed from play. Check for each HQ. This only should be done once per command level. For example, if a Regimental HQ is forced to surrender than morale checks are done only for subordinate battalion HQs. If the subordinate battalion HQ fails the morale check and surrenders then all units that are directly subordinate to it surrender. If a Battalion HQ unit is forced to surrender than conduct morale checks on subordinate Company HQs; etc.*

B. Rally: A player may attempt to rally broken and shaken companies at the start of a friendly movement phase. The attempt is made by a HQ or TOC to which the company is subordinate. Rallying a company costs 1 operations point if any part of the company is visible to the HQ or TOC unit expending the operations point, and 2 points if it is not visible. TOCs may rally companies only while committed to command, not while planning or executing.

To attempt to rally a company, roll one die. If the result is equal to or less than the company's current morale level, the company rallies. Broken companies which rally become shaken. Shaken companies which rally become normal. Broken companies which became shaken immediately assume combat formation, with any facing desired by the player.

Players may also attempt to rally suppressed units at the start of each friendly movement phase. The procedure for rallying suppressed units is identical to that for rallying shaken and broken units except that it does not require the expenditure of operations points.

The player attempts to rally broken and shaken companies before attempting to rally suppressed units. If the company rallies, then all suppressed units of the company also rally and are no longer suppressed. If the company doesn't rally, then the player may attempt to rally each suppressed unit of the company individually.

C. HQs and TOCs: A shaken HQ must expend one of its operations points (if it has any) in each friendly movement phase in an attempt to rally itself (and any other units in its company). A shaken TOC allocated to command must do the same. A broken HQ or TOC must attempt to rally itself in the same manner as a shaken HQ or TOC. A broken HQ or TOC may not expend operations points for any other purpose and a broken TOC may not plan or execute.

Rule 17: Entrenchments

Certain scenarios will call for one side to have several entrenchments. These must be placed on the board with the initial placement troops and, once placed, may not be moved. Each entrenchment may hold up to two steps of personnel or weapons class units.

A unit must be in combat formation and must spend its full movement phase in an entrenchment hex to enter the entrenchment; no expenditure of operations points is required and entering the entrenchment is not considered movement of any purpose (spotting, opportunity fire, etc.). A unit in an entrenchment is noted by placing the unit under the entrenchment marker. Dummy units may occupy entrenchments. A unit may not occupy an entrenchment already occupied by an enemy unit. Units may capture and occupy enemy entrenchments.

Units in entrenchments defend against indirect fire and conventional fire as listed on the conventional fire defense tables. An entrenched unit may not enter cover, but entrenched units are considered to be under cover for spotting and opportunity fire purposes.

Entrenchments may not be placed in marsh hexes.

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Rule 18: Indirect Fire

A. General Explanation: Indirect fire represents the firepower of rockets, mortars and artillery, which deliver high trajectory plunging fire. Indirect fire units are all units which are included on the indirect fire data charts. Artillery forward observers and s call fire missions back to indirect fire units, which in turn fire on the requested target. The process of requesting fire takes time as the following rules indicate.

B. Requesting Fire: Indirect fire is requested at the beginning of each friendly artillery phase. The player secretly writes down his fire missions on his fire mission record. The left side of the record lists the turns of the game in order. Fire missions are written on the line of the turn in which they will arrive; record each firing unit's ID; for example the 9th Battalion would be 9. B battery of the battalion would be 9B, and the first platoon would be 1B9.

1. Writing Fire Orders: Fire orders are written on the right side of the fire mission record. The turn of arrival and the unit firing are repeated. In addition, the player must specify the target hex number, the ammunition being fired, and whether the mission will use maximum ROF (see below).

2. Observing Fire: A hex must be under observation by a unit capable of calling fire in order for a fire mission to be written for the hex. All units are capable of calling fire as are all HQs, OPs and s. An indirect fire unit may also observe for itself. For a hex to be under observation, an unblocked line of sight must be traced from the observing unit to the target hex. Procedures for tracing LOS are explained in Rule 9.

3. Delay: Indirect fire is subject to a delay of one or more turns. This varies depending on which unit is observing for the fire and, which unit is firing the mission. The indirect fire delay time chart lists the number of turns of delay for observing units. In addition, when spotting with other HQ or OP an additional delay of one turn per command level separating observing unit from the HQ to which both it and the firing unit are subordinate.

All OPs are company-level units.

Western (U.S., U.K., French, German) units tended to be more copiously supplied with radios than Soviet OPs. Soviet OPs relied on direct communication via commo wire and field phones. Soviet OPs must be within 2 hexes of at least one indirect fire unit of a battery (company) or for a battalion (in which all the subordinate batteries are firing at the same target) for which it is observing fire and suffer a 1 turn delay.

For example, if an OP requests fire from a different company of the same battalion, there is one additional turn of delay. If an OP requests fire from a company of another battalion in the same regiment, there are two additional turns of delay. If a battalion HQ requests fire from divisional artillery, there are two additional turns of delay.

After the proper delay time is calculated, the unit firing the mission is written down on the fire mission record next to the turn number in which the mission will arrive, not the turn it was requested.

4. Canceling Missions: A fire mission may be canceled at the beginning of any friendly artillery phase. Another order may be written for the unit at that time, but it is subject to delay starting in that artillery phase; it may not be simply substituted for the canceled fire order.

C. Indirect Fire Procedures: After all fire missions are recorded, fire missions due to arrive in the current turn are resolved. All artillery firing at a hex is added together and attacks all units (enemy and friendly) in the hex.

1. Fire Mission Markers: When a fire mission arrives on the board, take a numbered fire mission marker and place it in the target hex. This marker will remain in place until the next artillery phase. Write the number of the marker in the proper space on the fire mission record.

2. Fire Value: The indirect fire data chart lists the fire value for each indirect fire unit in the game. The value listed is per step. Each full-strength counter has two steps and each half-strength counter has one. Since the fire value is per step, multiple it by two for full-strength units. Write the total fire value (after modification by D1 and D2 below) on the fire mission record.

3. Target Defense Value: The indirect fire defense chart lists the defense values of various units in various terrains.

4. Resolution: The fire values of all artillery units firing at a hex are added together. This is then compared to the defense value of the top unit in the stack and expressed as a simple odds ratio as found on the conventional fire combat results table. If rounding is necessary, always round in favor of the target unit. After locating the correct column of the combat results table, roll a die and implement the result.

Repeat this procedure for each unit in the target hex. Note that the fire strength will be the same each time, but the defense value may change.

5. Results: Results are explained in Rule 10.

D. Special Cases:

1. Max ROF: Each indirect fire weapon may fire at its maximum rate of fire for one turn per scenario. In that turn the fire value is modified by the max ROF multiplier on the indirect fire chart. The firing unit suffers no adverse effect from firing at its max ROF.

2. Smoke: An indirect fire unit may fire smoke instead of HE. Smoke missions are plotted using the same procedure as any other fire mission, except that units capable of laying more than one smoke screen may plot as many target hexes as smoke screens. The indirect chart indicates what type of smoke may be fired (chemical or incendiary) and how many smoke screens may be fired per step per turn. Incendiary screens last one turn; chemical screens last two turns. Screens are removed at the start of the artillery phase. The effects of smoke are detailed in rule 19.

For example, a German mortar is plotted to fire an incendiary smoke mission. Since it may fire four incendiary screens per turn, the German player writes down up to four target hexes.

If there are units in the target hex the turn smoke arrives, they may be subject to an attack. Chemical smoke missions do not attack units in the target hex but incendiary smoke missions do. Resolve the attack as if it were an HE fire mission but with a value of 10 per incendiary smoke screen targeted on the hex. For example, a Soviet mortar can fire up to three incendiary smoke screens per turn per step, or a total of 6 per turn if a two-step unit. If all six were fired at a single hex, each unit in the hex would be attacked with a fire value of 60.

4. Pass-Through Fire: Indirect fire is assumed to be taking place over the course of the turn. Thus, the fire mission marker is left in place until the next friendly artillery phase and any unit moving into the hex during a movement phase is attacked by the fire mission as well. Units mounting or dismounting from transport units and units deploying or un-deploying also suffer pass-through fire.

All units suffering pass-through fire are fired at as if in clear terrain. However, the total artillery fire value is halved, rounding fractions down, before the fire is resolved.

E. Deployment: In order to conduct indirect fire, or to be given a fire mission, units must be deployed. After all indirect fire in the friendly artillery phase has been resolved, the player my have any indirect fire units deploy. This is done by placing a deployed marker under the unit. A unit must be in combat formation when it deploys. When off-board artillery deploys, this fact, plus its distance off-board, should be noted under current turn number on the fire mission record.

Indirect fire units which are deployed may not move. They may not enter cover, entrench, mount or dismount, or change formation or facing. (However, a unit which is already under cover or entrenched may deploy, in which case it remains under cover or entrenched). A deployed unit may fire in the direct fire phase of a player-turn only if it was not performing a fire mission in the preceding artillery phase (if no fire mission marker is on the board for it).

Indirect fire units may leave deployment during a friendly movement phase, paying their entire movement allowance to do so. Self-propelled artillery units may do so in either friendly movement phase; towed units may do so only in the second movement phase. Units may not leave during a turn in which they conducted a fire mission.

Deploying or undeploying count as movement for purposes of spotting, opportunity fire, pass through fire and operations point expenditure.

F. Range: Indirect fire is limited by the range of the firing unit. The indirect fire data chart lists the range of the various firing units in hexes. Artillery may not fire beyond its maximum range.

G. Off-Board Artillery: In some scenarios, players receive off-board artillery. The scenario description states what units are received, how far off-board it starts, and whether it is deployed. No counters are received for off-board artillery; it exists only on the fire mission record.

Off-board artillery performs all its activity, including movement, during the friendly artillery phase. During the artillery phase, off-board artillery may do one of four things: deploy, undeploy, perform a fire mission or wait for an assigned mission (if deployed), or move (if undeployed). Fire missions are recorded as for other artillery. Deploying or undeploying are recorded in the left side of the fire mission record: instead of a fire mission, write D or U. movement is also recorded on the fire mission record; instead of a fire mission, write M followed by the number of hexes off-board the unit will be after its movement. Each unit starts at a particular distance off-board. Each turn's movement may change this distance by up to 5 hexes; however, off-board artillery must always remain at least 5 hexes off-board.

The range from off-board artillery to a target is equal to the artillery's distance off-board plus the distance from the target to any hex on the owning player's board edge.

H. Un-observed Artillery Fire: Un-observed artillery fire occurs when an area needs "softening" up prior to a major attack or a player wants to provide harassing fire in a general area. Un-observed missions are not an accurate way to conduct an artillery strike. Normally, these attacks would occur at the very beginning of a defense or attack scenario and not in a movement to contact. The location of the defense is generally known, specific locations of enemy units are not.

a. Pre-game Procedure:

1. Before Set-up: Players determine the wind direction for the game if not already indicated by scenario rules. Both players record fire missions for the hexes that are believed to be most likely to contain enemy units. These fire missions are noted by UA on the fire mission record. Players are not required to conduct Pre-game artillery combat.

2. Set-up: Both sides set-up units and engineering construction occurs.

3. Fire: HE fire missions only are conducted. Fire Drift is calculated for final target hex. Resolve artillery fire is for each hex as required. Remove target mission markers at conclusion of fire. No pass-through fire for pre-game missions. Units may use Max ROF in pre-game fires and in the game itself (regular restrictions apply once the game starts).

b. In-game Procedure: Conduct Unobserved Artillery Fire Mission as a standard fire mission with no unit observing fire using HE or Smoke missions only. Fire drift will affect these missions also. For Chemical smoke missions only, a 1 turn Smoke marker is placed. There is NO delay required for Un-observed Artillery Fire. An unlimited number of artillery units may be assigned to a single Fire mission for un-observed fire. Each firing unit will suffer Fire Drift (see below).

c. Fire Drift: With no one available to observe the strike of rounds and adjust fire, a fire mission will probably drift from the intended target hex to multiple impact hex locations. The fire mission will drift from the intended target in the direction of the wind as determined in pre-game set-up. Roll die once. Divide the result by 2 to determine the number of hexes the fire drifts. Round up. This is the new impact hex. Place the fire mission marker in this hex. Conduct artillery fire versus units in this hex. Reduce the total fire value of artillery units firing into this hex by 1/3 rounding down. An unobserved mission also affects each adjacent hex. Any units in the adjacent hexes are attacked by the firing artillery units but reduce the fire values by 2/3 rounding down. For example, the German player is the attacking player and conducts unobserved artillery mission with a full strength 150mm Howitzer Battery (4 steps). After the final impact hex is determined the fire value of the battery, is reduced by 1/3 rounding down for the impact hex and reduced by 2/3 for each adjacent hex.

J. Counter-battery Fire: Counter-batter artillery fire is designed to disrupt or destroy enemy artillery units. Any time an artillery unit fires indirect artillery it may be subject to counter-battery fire.

a. Procedure: For an artillery unit to be subject to counter-battery fire, it must have conducted fire in the Artillery Fire Phase. The target hex must be in-view of an un-suppressed OP unit in combat formation. The OP unit may then immediately record a CB fire mission on the Indirect Fire log. The CB fire mission only affects those enemy Artillery units that conducted the indirect fire against the specified target hex that is in view of the OP. CB fire missions can be conducted against either on-board or off-board artillery units.

1. Counter-battery artillery units: Any artillery unit can fire a CB fire mission. The selected units may not have conducted On-call Fire in the previous game turn, conducted a fire mission in the current game turn, or scheduled to conduct a fire mission in the next game turn. A counter-battery fire mission does not require placement of a fire mission marker. The fire is directed against specific units, not a hex.

2. Counter-battery Fire value: A counter-battery fire mission may only be conducted using HE ammunition but it may be conducted at Max ROF (but only once per game unless the unit is resupplied using the Logistics Rules).

3. Counter-battery Fire Resolution: Off-map Counter battery fire is resolved as an un-observed fire mission. As such, the Fire value is reduced by 1/3 (round-up). The defending off-map artillery units are treated as if they are a full strength unit occupying a clear hex under cover. Apply Counter-battery fire applicable die roll modifiers.
On-map counter-battery fire is resolved as a normal fire mission with applicable modifiers.

K. Rocket Artillery: Rocket artillery includes the German Neblewerfer and Soviet Katushya weapon systems. These weapons systems tended to be very inaccurate and are more for area suppression weapons than point attack.

a. **Procedure:** Rocket artillery conducts fire similar to un-observed artillery fire. Roll one die. On a roll of 1 the target hex is the actual impact hex. On a roll of 2-10 the fire will drift in the direction of the wind as determined in pre-game set up, the number of hexes rolled on the die (no halving of the die roll for rocket attacks. This is the new impact hex. The Rocket artillery attack that lands in the impact hex has the fire value reduced by 1/3 rounding down for the impact hex and each adjacent hex is attacked by the fire value reduced by 2/3 rounded down. If multiple batteries are attacking the same hex the fire values are combined before reduction for the impact and adjacent hexes. *For example, two 300mm Nebelwerfer batteries attack the same hex. Combine both 45 fire values for a subtotal of 90. The impact hex is attacked by a fire value of 60 and each adjacent hex is attacked by a value of 30.*

L. Railroad Artillery 

: Railroad artillery units are immobile off-map artillery. Counters are provided for informational purposes. These artillery units are deployed at the start of the game and may not be moved off map or to the map. Railroad artillery has fractional rate of fires. For example an ROF of ½ means that the unit may fire once per every 2 artillery fire phases. 1/3 ROF is once every 3 artillery phases. This represents the extended amount of time required to prep and load these guns. All Railroad Artillery attacks are considered unobserved. Roll one die. On a roll of 1 the round lands in the designated impact hex. On a roll of 2-10 the round will drift in the pre-determined wind direction for a number of hexes equal to the die roll. This is the new impact hex. All units in the hex are attacked by the indirect fire value.

Rule 19: Smoke

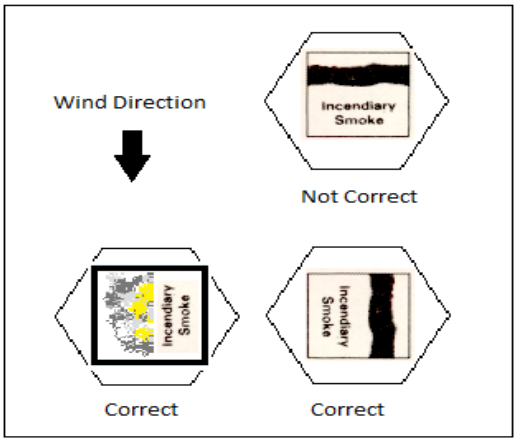
Smoke may be delivered by those indirect fire weapons so noted on the indirect fire data charts. There are two types of smoke: Incendiary smoke and chemical smoke.

A. Placement on the Board: Smoke missions are plotted using the same procedure as any other fire mission, except that units capable of laying more than one smoke screen may plot as many target hexes as smoke screens. In the artillery phase in which the smoke mission arrives, place one smoke marker on the map for each smoke screen.

1. Wind Direction: At the start of each scenario, roll the die and consult the wind direction diagram in the player's scenario folder. This is the direction of the wind for the entire scenario.

2. Wind Velocity: A the start of each scenario, roll the die and consult the wind velocity table. The result will be light, moderate, or strong.

3. Orientation: Each smoke marker is placed in a hex but actually blocks two hexsides. The marker is faced toward a hex vertex, indicating that the two hexsides adjacent to the vertex are blocked. Smoke markers may only be faced in such a way that the line of blocked hexes is parallel to the wind direction.



4. Duration: On the turn of arrival incendiary smoke, place an incendiary smoke marker on the target hex. At the start of the next friendly artillery phase, remove the marker.

On the turn of arrival chemical smoke, place a chemical smoke 1 marker in the hex. If in a light wind condition, flip the marker to its chemical smoke 2 side at the start of the follow-up friendly artillery phase. If in a moderate wind condition, flip the marker to its chemical smoke 2 side and add one additional chemical smoke 1 marker one hex downwind at start of the next friendly artillery phase. At the start of the following friendly artillery phase remove the chemical smoke 2 marker and flip the downwind marker to its 2 side. In the next friendly artillery phase, remove the remaining marker.

If the wind velocity is strong, neither type smoke round creates a smoke screen; on smoke markers are placed (but IS rounds may still attack units in the hex).

B. Effects:

1. Incendiary Smoke: Incendiary smoke blocks LOS for spotting and fire purposes for all units. Incendiary smoke is considered to be two elevation levels tall. The LOS must cross one of the two blocked hexsides to be blocked.

Incendiary smoke may also cause casualties if units are in the target hex the turn of its arrival. See Rule 18.

2. Chemical Smoke: Chemical smoke has the same effect as incendiary smoke on LOS.

3. Direct Fire Smoke: A few direct fire units are listed as having IS (incendiary smoke) ammunition. This may be used in conventional fire, as detailed in Rule 13. In addition, whenever IS ammunition is used to attack a target in direct fire, an IS screen counter is placed in the target hex, regardless of the result of the fire attack (but not if the wind velocity is strong). The incendiary smoke screen lasts for one complete game turn starting in the artillery phase after it appears. Thus a smoke screen which appears in the fire phase of turn 4 would be removed at the start of the fire phase of turn 6.

4. Unit Generated Smoke: Infantry, HQs, OPs and specialized smoke making vehicles can self-generate chemical smoke through smoke grenades and smoke generators.

a. Leg Units: Infantry, HQ and OP units can produce one round of chemical smoke. This smoke last for 1 game turn from the phase in which it was created. Place a

chem smoke 2 marker in the same hex with the unit generating the smoke. Infantry smoke can be produced in either movement or any fire phase. In fire phases it can be created after fires occur and fire results applied (including after resolution of opportunity fire against it). In the movement phase it may be created prior to movement or after movement but before spotting attempts. Record the specific unit's use of smoke on the ammunition record. If using the logistic rules this ammunition supply may be replenished. Generating smoke in this manner does not constitute movement and a unit does not have to be in combat formation to do so.

Rule 20: Ammunition Supply (Optional)

Given the time scale of Assault, it is possible for most units in the game to burn through their basic load of ammunition. This is particularly true of most units equipped with missiles. However, the mechanics involved in keeping track of each game shot are such that is rule is not recommended for players until they are thoroughly familiar with the game mechanics. At that point, players may keep track of ammunition in those weapons which have 3 or fewer shots available. Finally, experienced players may wish to keep track of all ammunition expenditures.

If any weapon with a mobility class of 5L ever move by themselves (i.e. other than being transported), their ammunition supplies are reduced to a total of 4 rounds of the owning player's choice. Mark this fact on the ammunition record.

A. Ammo Supply: The direct and indirect fire data charts list the ammunition available in terms of game fires that may be made. Each time a unit fires, regardless of the number of steps it has, it uses one unit of ammo.

Indirect fire units consume one unit of ammo per turn that they fire unless they fire at Max ROF or they conduct direct fire. If they fire at max ROF, they consume units of ammunition equal to their Max ROF multiplier. If they conduct direct fire, they consume one unit of ammunition per fire.

If the ammo supply column of the fire data chart lists one combined value for two different round (for example, HEAT and HE), these are actually the same round, which combines anti-armor and conventional fire effects. Use of either round reduces the combined ammo supply.

B. Ammo Use: Both players should have an ammo record with a separate line for each type of ammunition carried by each unit. The quantity of a round remaining to the unit should be changed each time it fires.

Once a unit has exhausted its basic load of ammo, that ammo type may not be used again.

Units may not re-supply during the course of a game. (Unless using the Logistics Rules).

Rule 21: Logistics (Optional)

A. Resupply Operations

Log bases are the administrative and logistical assets of tactical units such as Battalion and Brigade/Regiment or operational units such as Brigade/Regiment/Divisions/Armies. In order to function as a resupply/repair point, the Log Base must be deployed. The Log Base assigned carrier unit must remain with the Log Base. U.S, U.K. and French Log Bases contain enough supply for 3 resupply operations. German and Soviet Log Bases contain enough resupply for 2 resupply operations. Italian Log Bases contain enough resupply for 1 resupply operation. One resupply operation will provide one logistical package for each Logistics transportation units (LTU) subordinate to the supplying Log Base. A

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Log Pac marker is placed under each LTU present. Each tactical logistical package contains enough supply for one battalion. The Operational LTUs are not assigned to a particular unit but may be used to resupply any of the subordinate tactical Log Bases.

1. Determining available Log Pacs: The total number of available logistical packages for a higher echelon Log Base is dependent upon the number of combat units assigned to the parent Brigade or Division. A higher level Log Pac will fully restock a Bn/Rgt/Bde Log Base with Log Pacs for distribution to subordinate units.

For example, a German Division has 3 Regiments assigned to it. The Divisional Operational Log Base will have 3 Operational Log Pacs times 2 resupply operations for a total of 6 Operational Log Pacs available to resupply assigned Tactical Log Bases. A Battalion has 6 companies assigned to it. Therefore, the corresponding Bn Tactical Log Base will have 6 tactical Log Pacs times 2 resupply operations for a total of 6 tactical Log Pacs available to resupply subordinate combat units.

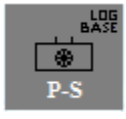
2. Procedure: Logistics transportation units (LTU) can load up with logistic packages by remaining adjacent to or stacked with its parent Log Base for a number of Log phases (see Resupply table). LTUs then proceed to move in regular friendly movement phases to the HQ unit of the units to be resupplied. LTUs move as if they are always in combat formation when carrying a Log Pac counter. The 2 point operations point expenditure is paid by the LOG BASE or higher headquarters only once on the first turn that the LTU moves to re-supply units. This cost is paid per stack of LTUs. For example; a stack of 4 LTUs has picked up a Log Pac counter each to re-supply 4 different battalions. The LOG BASE pays 2 operations points for the entire stack to enter combat formation and move. A stack may be of any size. LTUs must occupy the same hex as resupplied HQ unit to resupply that unit for the number of phases as indicated by the Resupply table. Re-supply Ops constitute the supplying of logistical packages to LTUs or the distribution of logistical packages to Log Bases from LTUs. A Tactical Log Pac will fully resupply each combat unit subordinate to the HQ unit up to its basic load of munitions. Dispersed, shaken or broken combat units may not receive resupply. Combat Units may not move or fire while being resupplied. An Operational Log Pac will resupply a Tactical Log Base up to its full basic load capacity. Once an LTU has conducted a resupply mission, the Log Pac is removed from the map. The LTU may not return a Log Pac to its parent Log Base.

For example, a Soviet T-34 Bn HQ with 9 assigned platoons has 4 platoons that are dispersed. A resupply operation will only resupply the remaining 5 un-dispersed platoons and the Bn HQ up to their starting basic load.

German Horse Drawn LTU

Soviet Regimental tactical Logistics Base

German LTU



German Battalion tactical Logistics Base

Tactical Log Pacs

Operational Log Pac

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B. Maintenance and Recovery Operations

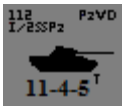
Maintenance and Recovery Operations (MRO) of Logistic Bases cover those actions required to return combat damaged units to full strength.

A. Procedure: The Soviet and Italian MRO can recover .5 armored combat vehicle (ACV) step per recovery vehicle. The Germans, U.S., U.K., and French may recover 1 ACV steps per recovery vehicle.

1. Recovery: In order to recover an ACV, an ARV must remain stacked with a destroyed ACV marker for 2 MRO phases. An in-tow marker is placed under the ARV at the end of the 2nd MRO phase and the destroyed ACV marker is removed from the map. The ARV may then proceed to return to its assigned Log Base in the next movement phase. Un-recovered ACVs are lost at the moment an enemy unit enters its hex. Wheeled recovery vehicles may only recover HT, W, or R class vehicles.

2. Maintenance: The ARV must stack with its parent Log Base for one MRO to off-load the damaged ACV. For each ACV off-loaded, the appropriate number of steps of the appropriate type is added to the Log Base Record (LBR). These steps may be used to purchase replacement units for the next operation.

B. Replacements: Replacement units can be created in the pre-game setup prior to placing any units on the map.
Players are not required to use any recovered steps available to them.

1. Select Units to Replace: Units that were recovered may only be replaced by units of the same type. For example, if 

was destroyed and recovered it must be replaced by the same unit counter.

2. Update Log Base Record (LBR): Subtract the number of steps used to re-build the Replacement Unit from the total on the LBR. The steps used must be of the same type. For example, to rebuild the aforementioned Pz VD, the player must use steps from the AFV box, not the AV or the WV box.

3. Strength: Players may build one step units if desired. Place a hit marker under the platoon counter if the unit is a regular size platoon.

DESTROYED VEHICLE MARKERS: Wheeled vehicle -WV, Armored Fighting Vehicle (Tank/Tank Destroyers)-AFV, and Armored Vehicle (Armored Cars/half-tracks)-AV

C. German Supply Restrictions (Optional) 

During the latter part of the war, the German offensive effort was severely hampered by supply shortages, especially of fuel. At the beginning of each scenario or battle after November 1944, roll 1 die and eliminate that number of steps of any type of motorized vehicle from setup. Passenger units and horse-drawn vehicles may still deploy on map and are not subject to this.

At the end of the 2nd Friendly movement phase, the German player rolls the die. On a roll of 10 the die is rolled again and the resulting number is the number of vehicular counters (not

steps) that run out of fuel. The German Player selects the vehicle units to designate as out of fuel. Place a No Fuel marker on the unit. It may not move but may continue to fire.

Rule 22: Overview of Combat Engineering

In game terms, combat engineers do four types of things: they create improved positions, create obstacles, breach enemy obstacles, and build bridges and ferries to cross water barriers. Improved positions consist of entrenchments, bunkers (entrenchments with overhead protection from artillery bursts and bombs), and vehicle hull-down positions. Obstacles consist of minefields, road craters, anti-tank ditches, and abatis. Because minefields are more complex than the other types, they are given their own rule.

A. When Engineers Work: Some engineer operations can (or must) be done before the game begins. Others are done during the game. (Optionally, all engineer work can be conducted within a game, though it will take a long time to complete some tasks. There are 12 game turns to the hour and some operations may take several hours. The length of time for the engineering operations are given below, just multiply the number of hours by 12 to get the number of game turns required.)

1. Before the Game: All improved positions and all obstacles except minefields must be created before the game. Minefields may be laid before or during the game. Exception: point minefields may be laid only before the game.

2. During the Game: Minefields may be laid during the game. All breaches and water crossings are done during the game.

B. How Engineers Work:

1. Before the Game: the scenario will specify whether one player (or both) may do engineer work before the game, and how many hours of work may be done. The rules specify the work each unit may do in an hour. Improved positions and some obstacles are built with earthmoving points. each earthmover unit counts as 3 points per hour. Some engineer companies receive extra earthmoving points representing additional equipment which has no use during the game, and is consequently not represented by counters. See the earthmoving assets table.

Record completed work on the engineer log. (The log can also be used to keep track of engineer work during the game that is normally conducted prior to the game. That way the engineer unit can perform all tasks described).

2. During the Game: Engineer work is counted in friendly movement phases. Units must be in march formation in the hex in which the work is performed. Units do no work if suppressed, shaken, or broken. Units which do engineer work may not fire in the following combat phase. (The player may have units stop working if he wants them to fire.)

When work begins it is recorded in the engineer log. It has no effect until completed. If a unit stops working, its progress is retained, and work may be resumed later.

3. The Engineer Log: The log is a complete record of engineer work. Each operation gets one line, marked as follows:

Done: Check this column when the work is complete

Location: Put the hex or hexside number of the operation here. Hexes need map letter and hex number , for example, E1809-45 means hexsides 4 and 5 of hex 1809, map E. Hexside 1 is north (or just clockwise of North); number clockwise from there. (If using multiple copies of the same map add a second letter; for example using the above example, there are two E maps being used. One map would be EA and the second would be EB. So if the work was being done on the first E map it would be written EA1809-45.)

Operation: Record the work being done

Time: Write the number of phases needed for the work to be done; each phase that work is done, put a mark after this number until the work is completed.

4. Markers: There are markers for each engineer operation. When the positions is spotted, put a marker on the map. For all except minefields, the position is spotted if an enemy unit has LOS to it at the end of movement or comes adjacent to it during movement. (Hull down positions, entrenchments, and bunkers are built for protection and concealment. Optionally, these positions or units in them must be spotted using the spotting rules for units under cover unless the spotting unit moves adjacent to it, then it is spotted.) For minefield spotting see Rule 34.

Rule 23: Minefields

There are three types of minefields (and minefield markers): hex, hexside, and POINT. If three hexside minefields of the same characteristics (see below) are laid in the same hex, remove them and replace them with a hex minefield. Point minefields are covered in F below; the rest of this rule concerns hex and hexside minefields.

A. Characteristics: Minefields have three characteristics in addition to hex/hexside.

1. Density: A minefield is either single or double (D) density.

2. Composition: A minefield is either anti-tank (AT), anti-personnel (AP), or mixed (MX).

3. Camouflage: A minefield is either camouflaged or un-camouflaged. Most minefields are un-camouflaged.

4. Recording Characteristics: When a minefield is laid, write its characteristics in the engineer log. Single density, un-camouflaged minefields are assumed unless specified otherwise. For short, a double density, mixed camouflaged minefield would be written as DMXC. A single density, mixed un-camouflaged minefield would be just MX.

B. Detection: There are two ways to detect a minefield: spotting it and running in to it.

1. Spotting: A camouflaged minefield may be spotted only by dismounted personnel units. The minefield is spotted immediately when the unit moves adjacent. (In case of a hexside minefield, adjacent means in any hex which one of the minefield hexsides is part of.) An un-camouflaged minefield may be spotted by any unit. The unit attempts to spot as it enters the minefield (moves into the hex or crosses the hexside); if the spotting roll is successful, the unit stops short of the minefield and may move no further in the phase, but takes no casualties. See the minefield spotting table.

2. Failure to Spot: If a unit fails to spot a minefield, it runs into the minefield; roll for losses (see below). Whether or not it takes losses, the unit stops short of the minefield and may move no further in the phase.

3. Results: Whichever of the two means above cause a minefield to be detected; its marker is immediately placed on the board. No unit may enter or cross a minefield during the phase in which it is detected.

4. Laying in Sight: If a minefield is laid in a hex which is visible to the enemy at the time, it is immediately spotted and the marker is placed on the map.

C. Effects: AP minefields attack only dismounted leg mobile or static units; AT minefields attack only vehicle units; mixed minefields attack all units. A minefield attacks separately each step which enters its hex or crosses its hexside. A hex minefield counts as three successive hexside minefields. (Exception: a unit which detects a minefield by running into it is

only attacked once, and only one step of the unit is attacked.) For each step cross the minefield, roll a die and consult the mine attack table. (Thus there are two rolls for a full-strength platoon.) The step is eliminated if the number rolled is equal to the number on the table.

Note: Minefields have no friends. Any unit of either side which tries to cross the minefield is attacked.

D. Minelaying: Minefields laid by Engineer platoons. In the descriptions below, all minefields are un-camouflaged unless otherwise stated.

1. Minelaying before the Game:. Each scenario gives limits; the total number of minefields available, the type and restrictions on placement.

E. Minefield Breaching: there are two main ways used to breach minefield; mine roller/flails and engineer platoons. Infantry units may breach anti-personnel mine fields only.

1. Roller/flails: At the beginning of the game where Roller/flails are available, each battalion's Roller/flails must be assigned to a tank platoon and recorded on the equipment roster, some units have roller/flails permanently assigned. They may not be transferred later. A tank platoon with roller/flails attached has its movement allowance reduced by one. To breach all minefields on a single hexside or to breach a hex minefield, the roller/flail platoon must pay one additional movement point in addition to costs to enter the new hex. For each minefield breached by roller/flails, roll a die on the mine attack table to determine if the roller/flail is destroyed. (Roll three times for a hex minefield.) The minefield is breached even if the roller/flail is destroyed. Flails are never destroyed (actually these are chain flails). The roller/flail platoon can breach as many minefields in a phase as its movement allowance allows.

2. Engineer/Infantry Platoon: For each minefield breached by an engineer platoon/infantry platoon, roll once on the mine attack table and apply the appropriate modifier. (Roll three times for a hex minefield.) A die roll equal to or less inflicts a 1 step loss on the Engineer/Infantry Platoon.

3. Visibility: Roller/flails are easily visible to the enemy; when a unit is spotted the owning player must state if it is so equipped.

4. Effects of Breaching: When a minefield is breached, place a breach marker on it. If the hex or hexside still has un-breached minefields, place a partial breach marker instead. For example, if a player's roller/flails are destroyed on the second die roll against a hex minefield, the minefield is only 2/3 breached. The players will have to remember the exact extent of a partial breach (*easily done by making a notation on the Engineering Log)*. For hex minefields, the breach must leave the minefield hex on a specific hexside, which can be any of the three hexsides not adjacent to the entry hexside. Orient the breach marker to indicate the exit hexside. No unit except the breaching unit may move through the breach in the movement phase in which the breach is made. In subsequent phases, units pay one movement to enter the breach in addition to other terrain costs.

F. Point Minefields: Point minefields are laid before the game. An engineer platoon can emplace three point minefields per hour. All point minefields are single density, mixed, and camouflaged.

1. Location: Point minefields are laid at a single point within a hex. There are three possible locations attached to a road crater or abatis, on a road, or at a river crossing.

a. Attached: Units attempting to breach or cross the crater or abatis encounter the minefield.

b. Road: The minefield is placed on a road hexside. Only units using the road (moving along it in march formation) encounter the minefield.

c. River-Crossing: A river-crossing is the point at which a road crosses a river or stream. The minefield is on one side only (which must be specified). Units attempting to use that location as a bridge or ferry site encounter the minefield.

2. Breaching: A point minefield may be cleared (removed) in 12 phases by an engineer platoon. More than one platoon may work at once; mark the log twice each phase if two platoons participate and so on. This is the only method which works on abatis. Roads and river crossings can also be breached by roller/flail. Craters can be breached by roller/flail, then crossed by bridging, and then breached again by roller/flail; the road is not clear until the second breach.

G. Minefields Combined with Obstacles: if a hex or hexside minefield overlaps abatis or anti-tank ditch, the minefield must be breached twice: once before and once after breaching the obstacle. This procedure is necessary for road craters only if the player wants to clear the road.

Rule 24: River Crossing

A. River and Bank Types:

1. Rivers: In previous games of the series, it was assumed that there was a bridge wherever a road crosses a stream; when the engineering rules are used, this is no longer true, and a non-amphibious wheeled vehicle may not cross a stream unless a bridge has been built there.

Streams and deep streams are 20meters wide. Narrow (hexside rivers are from 20 to 150 meters wide; wide (hex rivers are greater than 150 meters wide; a river's exact width is given in the scenario description.

2. Fords: Deep streams and narrow rives may have fords. A ford hexside has the same characteristics (except for width) as a stream.

3. Banks: A river's banks restrict crossing operations. There are three possible bank conditions, shown on the terrain key, which may differ between the two sides of a river. If no banks are shown, conditions are excellent; there are no restrictions. If either bank is impassable, the river may not be crossed there. If the bank is intermediate, there are no restrictions on swimming vehicles and ferries, but the bank must be improved before a bridge or ferry can operate.

4. Bank Improvement: An intermediate bank must be improved before a bridge or ferry can be established there. The entry bank must be improved before the work can begin on assembling the bridge or ferry; the far bank must be improved before the bridge or ferry can begin operation. Bank improvement takes an engineer platoon, or earthmover 12 phases. If two units work at the same time, mark off two phases on the log, and so on.

B. Bridges: When work begins on a bridge, place a bridge site marker in the hex. Record the type of bridge and number of phases needed to cross the river *(See the Bridge Construction Table)* on the engineer log under operation. When work is finished, flip the marker over to a bridge. Units may begin crossing the bridge on the phase after work is completed.

Bridges may be attacked by conventional or indirect fire, (and bombs if using the Close Air Support rules) and are counted as weapons. Suppression has no effect. If one or more steps are eliminated, they must be replaced (at the same rate as the bridge is built) before the bridge may resume operation.

WW2 ASSAULT RULES

1. ***Bridge Classification:*** *Bridges are classified by the amount of weight that the bridge is designed to support. The Bridging classification system in WW2 Assault uses symbols to identify the specific bridge capability to handle different types of loads:*

All Units

P-class, V-class + Passengers, Armored Vehicles Frontal Armor ≤8

P-class, V-class + Passengers, Armored Vehicles Frontal Armor ≤5

P-class, V-class + Passengers, Armored Vehicles Frontal Armor ≤ 2

P-Class Only

2. ***Bridge Construction:*** *Bridge construction is conducted in a number of engineering phases depending up on the type of bridge and length of bridge being constructed. The Bridge Construction Table on the Engineering Chart specifies the type of bridge, number of phases per 100 feet of construction and whether the bridging unit has the capability of functioning as a pontoon ferry (See Rule 24.C. Ferries) in lieu of a bridge. Each unsuppressed engineer platoon or earthmoving vehicle assigned to a bridge construction may reduce the number of phases required for construction by 1 phase up to half of the required phases. For example; a U.S. M1940 pontoon bridge requires 6 engineering phases to construct. Up to 3 engineer or earthmoving vehicles or combination of may reduce the time required for construction to 3 phases but no less than 3 phases.*

3. ***Removal:*** *It takes twice as long to remove a bridge as to emplace it. The bridge no longer functions when removal begins. When a bridge unit's steps have been removed, put the counter back on the board.*

4. ***Pontoon Ferries:*** *Some bridges are constructed of Pontoons and roadway. Players have the option of establishing a ferry instead of building a bridge. These units may carry only those units for which they are classified to carry as per Rule 24.B.1. Bridge Classification. These pontoon bridges capable of ferrying operations are identified on the Bridge Construction Chart on the Engineering Tables page.*

C. Ferries: when work begins on a ferry, place ferry site marker in the hex.

Ferry operations are kept track of on the ferry log. Write the ferry site's location in *Location*. Record the number of ferries of each type. Each operating ferry generates ferry points each phase; the number depends on the width of the river, as shown on the ferry table. To determine the total points in a site, multiply the number of ferries by the points per ferry. Enter the total on the log under *Points/Phase*. It takes 20 points to carry across one step of heavy vehicles (frontal armor of 6 or more) and 10 points for one step of other units. Units being transported (infantry in APCs for example) cross free. When a unit begins crossing, put it under the ferry site marker until enough ferry points have accumulated for it to cross. Each phase, record the ferry points accumulated on the ferry log under *Points Across*. When a unit has crossed, mark off those points and start with another unit.

WW2 ASSAULT RULES

Ferries may be attacked by conventional, indirect, (and bombs if using the CAS rules) and are counted as weapons. If a ferry is suppressed, shaken or broken, it does not operate.

1. Ferries: These take 4 phases to assemble. Two ribbon steps make one ferry; when a ferry is finished, remove the counter. If a ferry step is destroyed, one ferry is out of commission; it may be restored by adding another ribbon step, in 4 phases.

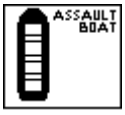
2. Removal: It takes twice as long to remove a ferry as to emplace it. The ferry no longer functions when removal begins. When a ferry's steps have been removed, put the counter back on board.

F. Swimming: Amphibious vehicles can cross streams and rivers at the rates given on the swim table. If crossing takes one phase, the unit starts the phase adjacent to the river and ends the phase adjacent to the river, on the other side. If crossing takes two phases, the unit starts adjacent to the river, moves one hex onto the river in the first phase, and moves one hex off the river in the second phase.

G. Snorkeling: Soviet tanks (T-34) may cross rivers by snorkeling at a snorkel site. They must be first prepared; this takes 2 movement phases without moving or firing. A prepared tank may not fire anti-tank fire until the turret ring is cleared, which takes 2 phases without moving or firing. A prepared tank may fire conventionally (SCAP/SCHE or SA), but if it does so it may no longer snorkel. A tank crosses the river in 1 phase per 100 meters (or fraction) of river width.

Possible snorkeling sites are very limited. Before the game, for each map, randomly determine 3 sites (hexes or hexsides) per river, chosen from among possible swim sites (i.e. passable banks). Both players know the locations.

H. Assault boats: *Engineer units may set up raft sites for crossing streams and rivers. Assault boats may be set up in one friendly movement phase and used in the next friendly movement phase at any site that is acceptable for Bridges and Ferries. Only P-class units may use assault boats. P-L class units may fire from the assault boats but add +1 from the conventional fire die roll. Anti-tank fire, i.e. Panzerfaust, Bazooka, Piat, etc. may not be conducted from an assault boat. Engineer units may establish any number of assault boat sites.*



1. *When an assault boat site is established, place an assault boat marker in the hex.*
2. *Assault Boat operations are kept track of on the ferry log. Write the Assault Boat site's location in Location.*
3. *Place the unit that is to cross underneath the Assault Boat*
4. *Each assault boat site generates a number of Crossing Points each movement phase as determined by the Assault boat Table in the Engineering Chart. It takes 10 Crossing Points per step to cross.*
5. *Each phase, record the crossing points accumulated on the ferry log under Points Across.*
6. *When a unit has crossed it may move freely off the assault boat site, mark off those points and start with another unit.*

Units in assault boats may be attacked by any means available to the enemy unit. If a unit crossing in an assault boat is eliminated, the assault boat is destroyed and removed from play.

WW2 ASSAULT RULES

Rule 25: Obstacles

Obstacles are created before the game only. (Optionally, this can also be done during the game at a rate of 12 turns per hour. Just keep track of the work on the Engineer Log. The obstacle is not complete until the total time required to build it is completed. Work is listed per platoon or engineering vehicle. Up to two platoons or vehicles may combine to complete the work in the same hex in half the time)

A. Road Craters: A U.S./U.K./German engineer platoon makes 2 per hour; other engineer platoons make 1.5 per hour. A road crater blocks the road across one hexside. A crater can be breached by an earthmover in 6 phases of an engineer platoon in 12 phases, or it can be bridged.

B. Abatis: An engineer platoon or earthmover makes 1 abatis hexsides per hour. Abatis creates a dense woods hexside and blocks any road on that hexside. Abatis can be breached by, any other earthmover in 8 phases, an engineer platoon in 10 phases, a platoon plus earthmover in 6 phases. *The German Sturm Panzer IV Brummbar may assist an engineer platoon and/or earthmover in breaching an Abatis. For every Demolition round fired (at the ROF on the Direct Fire data chart), the number of phases required is reduced by one.*

C. Anti-tank Ditches: Two hexsides (one marker) of AT ditch costs 20 earth moving points; vehicles may not cross AT ditch hexsides. An AT ditch can be breached by any earthmover in 10 phases, an engineer platoon in 12 phases, a platoon plus earthmover in 8 phases.

Rule 26: Improved Positions:

All improved positions must be built before the game.

A. Entrenchments: One entrenchment costs 3 earthmoving points. in addition, all dismounted personnel begin the game in entrenchments if they have been in position for at least 2 hours before the game begins. The effects of entrenchments are given in Rule 17.

B. Hull Down Positions: one hull down position costs 8 earthmoving points.

1. A hull down position holds 2 steps of vehicle units (or 4 steps of P class, or 2 steps of W Class). A hull down position is entered in the same manner as an entrenchment. A hull down position counts as cover; however, there are four covered hexsides, not two. Vehicles in hull down positions have increased indirect fire defense value against HE and conventional fire: V class units have a strength of 20 and AFVS have a strength of 40. Anti-armor fire is multiplied by 1/3.

C. Bunkers: A bunker costs 9 earth moving points plus 4 hours of work form an engineer platoon. In addition, dismounted personnel units may begin the game in bunkers if they have been in position for at least 8 hours before the game begins.

Bunkers are identical to entrenchments except that their indirect fire defense strengths are 30, not 20. *The German Sturmpanzer IV Brummbar may attack units in entrenchments and fortifications with the DEM round. This round is specially designed for use against fortifications. Each Brummbar round expended may subtract -1 from the conventional fire table die roll.*

WW2 ASSAULT RULES

Rule 27: Close Air Support

Close Air Support, or CAS, provides the player with the ability to call in airstrikes on enemy positions or perceived positions. CAS use B (free fall bombs), AGR (air-to-ground rockets) and internal guns to attack targets and hexes. Each aircraft is considered to be 1 plane for direct fire and opportunity fire.

See Appendix A. Sequence of Play for the Air Phase.

A. Flight: *Aircraft do not pay terrain costs and can enter any hex regardless of terrain. All aircraft have unlimited movement. Aircraft are always considered to be in combat formation. Aircraft may enter from any map edge and exit from any map edge. All aircraft must exit the map in the same air phase in which they entered it.*

1. Facing: *Aircraft are placed on the map facing a hexside. The nose of the aircraft is its front.*

2. Turning Radius: *Even though aircraft have unlimited movement (class ∞), they do have a turn rate. Aircraft turn by moving one hex forward, and then turn one hexside.*

3. Spotting: *Normal spotting rules apply to spotting aircraft. All spotting attempts are against a moving unit. Aircraft will fly at different altitudes depending upon the type. Consult the Aircraft Data Chart in the Charts & Tables section for specifications*

a. Low Altitude: *Aircraft fly at 1 level above the highest terrain in the hex.*

b. Medium Altitude: *Aircraft fly at 2 levels above the highest terrain in the hex.*

c. High Altitude: *Aircraft fly at 3 levels above the highest terrain in the hex.*

4. Stacking: *CAS aircraft may not enter a hex containing another aircraft.*

B. Availability: *CAS may be canceled for a number of reasons. Enemy air superiority and weather may limit the number of sorties available. See Rule 40 on weather.*

1. Air Superiority: *In game terms, this means local air superiority and it only affects the availability of CAS missions. It is variable and could change each turn. At the beginning of each turn players roll the die. The player with the highest roll has local air superiority for the current air phase and may conduct CAS missions for the current air phase The losing player may not conduct CAS missions (Air Superiority of the winning side prevented the CAS aircraft from reaching the target area. If both players roll the same number, then both players may conduct CAS missions. Each player rolls for Air Superiority whether he has CAS missions available or not. In battles after 1943, Allied units add +3 to their Air Superiority die roll results.*

2. Determining available CAS Missions: *Prior to starting the game, each player secretly determines which CAS mission or missions that are available to per turn.*

1. Procedure: *Consult the Availability Modifiers for each modifier available. Add all modifiers together. Roll one die and add the die roll modifier to determine the appropriate column on the Mission Availability chart. This will determine the type and number of CAS Aircraft available..*

2. Countries: *Roll once for each country, applying all modifiers.*

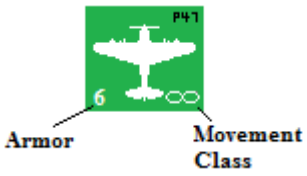
3. Strike Package Selection: *Strike Packages are specified by nationality and by aircraft. Each aircraft has a strike package assigned to it.*

WW2 ASSAULT RULES

a. Sorties: *A player may conduct 1 sortie per air phase per aircraft. The player may conduct sorties in as many air phases as he wants as long as the aircraft has ordinance (ammunition) and it is not damaged.*

C. Combat

1. Anti-aircraft fire: *To be attacked, an aircraft must be spotted. Aircraft have one armor factor that is used in anti-aircraft combat.*



2. Hit confirmation: *If the aircraft is hit then the armor value is subtracted from the penetration value of the anti-aircraft weapon. Roll one die and if the roll is equal to or less than the difference, the ammunition penetrates the aircraft. The aircraft is removed from play and can make no further sorties. If the aircraft is dropping a bomb and is hit by anti-aircraft fire at the same time, the bomb combat still occurs, regardless of the fate of the aircraft.*

3. Weapons: *The player announces what type of weapon is used in each sortie prior to entering the map. An aircraft may not change weapon types during the current air phase, but may select a different weapon type in subsequent phases. In other words, the player may announce a Bomb attack for the current phase. Thus, the player may not change to a gun attack until the next air phase.*

4. Opportunity Fire: *Opportunity fire may occur versus aircraft during an aircraft's ingress or egress to the target. Only Air Defense units (units whose primary weapon systems have a ** or † indicated on the Direct Fire Data Chart may engage in opportunity fire versus CAS aircraft. Opportunity fire results against aircraft are applied at the instant they are obtained.*

a. Tracking: *An aircraft must be tracked for a number of hexes by the firing unit before opportunity fire takes place. Low Altitude Aircraft must be tracked for 6 consecutive hexes. Medium Altitude and High Altitude aircraft must be tracked for 4 consecutive hexes. Normal opportunity fire combat occurs at any time after the aircraft completes the tracking requirement for the engaging air defense unit.*

5. Target Defensive Fire: *The target unit may conduct defensive fire with any weapon marked with an *, **, or †, as long as it did not opportunity fire at any other aircraft. The target unit may not engage in direct fire in the current turn's Fire phase if it fires in the Target Fire versus aircraft portion of the Air Phase. Any Air Defense unit (i.e., weapon systems marked by an ** or †) may fire at the aircraft during Target Fire if it is adjacent to, or stacked with, and did not opportunity fire at any aircraft during aircraft movement.*

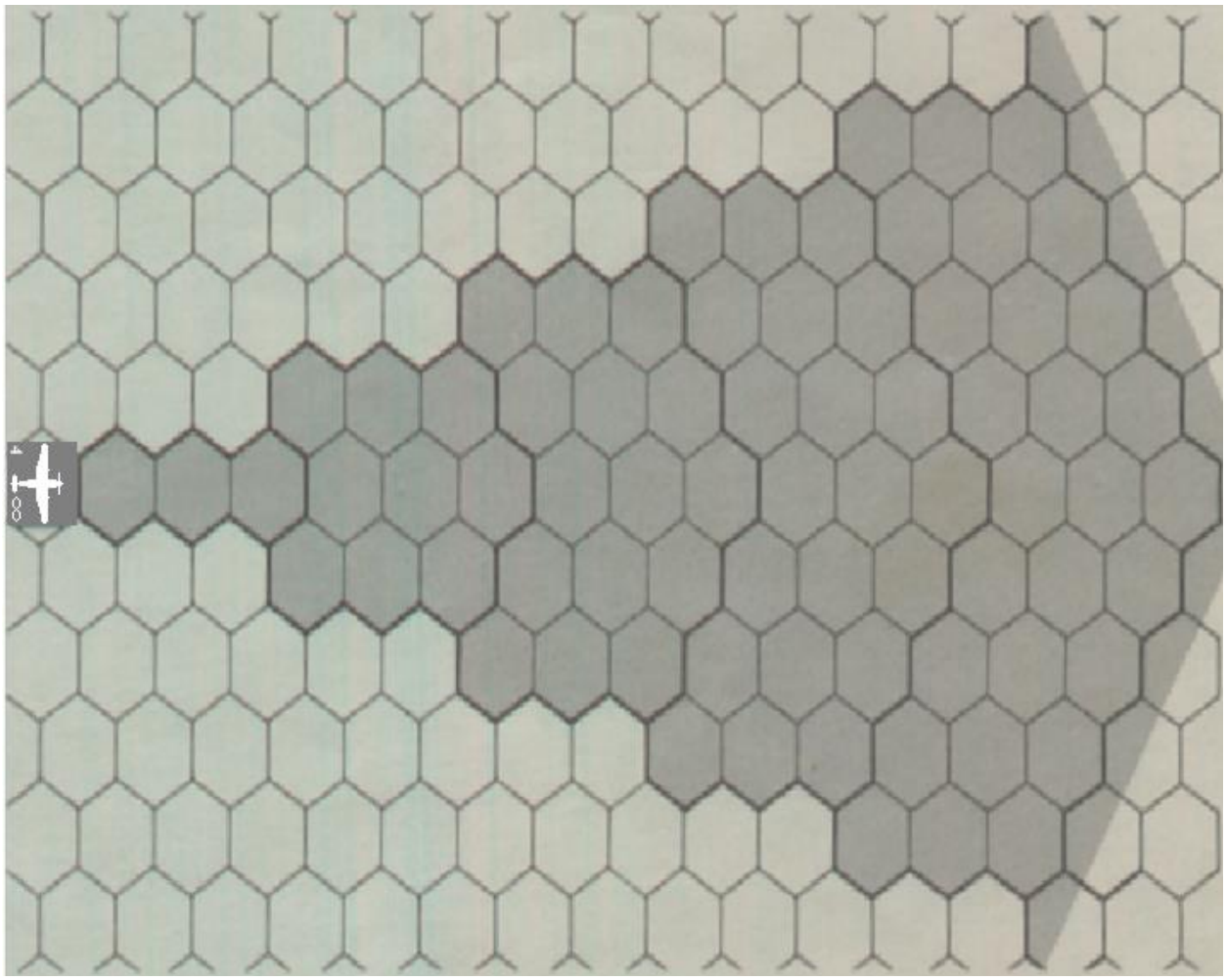
6. Air-Ground Combat: *There are two types of air-to-ground combat. Bomb and Gun Strafing (SCAP and SCHE) attacks. To be attacked by Gun the target must be spotted prior to the aircraft attack. A Bomb attack is made against a hex just like HE indirect fire. AIRCRAFT MAY FIRE UP TO THE AMMUNITION SUPPLY OF THE SPECIFIC WEAPON BEING USED IN A FIRE PHASE. For example, if the aircraft carries 4 Bombs, it may use all 4 in a combined attack against a single target or hex. Therefore, the ROF of a given weapon system is the available ammunition supply.*

WW2 ASSAULT RULES

a. Bomb Attack: *A Bomb mission does not have to be under observation since the attack is against the hex. The Bomb attacks as an HE conventional attack. Bombs have a +2 modifier to the Conventional Fire Combat Results Table Die Roll.*

b. Gun Attack: *A target unit may only be attacked by Gun CAS mission if the unit has been spotted prior to the attack. The CAS unit may attempt to spot targets while egressing by applying all applicable spotting modifiers for distance, terrain, and target condition. Additionally, add the level that the aircraft is flying to the spotting attempt die roll; i.e. Low level add +1, Medium, +2 and High +3. Target units that are spotted by OP and HQ units are considered spotted by the friendly CAS aircraft. Gun Attacks always attack flank armor of armored vehicles.*

c. Firing Arc: *An aircraft may only fire or drop its weapons in its forward arc. See Diagram below:*



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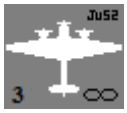

Rule 28: Airborne Operations

In the original Assault series, scenarios with airborne units began in the post drop phase. This optional set of rules allows players to simulate the actual drop itself. There is a chance that a unit will suffer casualties in the actual drop through loss of personnel, equipment and vehicles in accidents that occur outside of actual combat.

A. Airborne Transport Aircraft

Airborne capable units are transported via Airborne Transport Aircraft. The Airborne capability in WW2: Assault also represents the Glider-borne troops. Each ATA counter consists of several C-47 or Ju-52 type aircraft. Each ATA unit may transport 2 steps, i.e. P-class or airborne capable W-class or V-class unit. Airborne Transport Aircraft may be attacked by anti-aircraft fire. If ATA suffers adverse anti-aircraft fire result it and transported units are removed from play. ATA fly at medium altitude. The player conducting Airborne Operations must have Air Superiority to conduct Air Drop Operations (See Rule 38.B.1 Air Superiority).

1. ATA Availability: *Players roll for Air Superiority (See Rule 38.B.1). Next determine the number of ATA available per turn by rolling. The result is number of ATA available is per turn.*

A. Air Drop Procedure

1. *Determine weather (Use weather chart in CAS Availability Table)*
2. *Determine wind and wind direction (Use the wind table on the Conventional and Indirect Fire Chart)*
3. *Light wind-no drift unit lands in march formation in designated Drop Zone (DZ) hex.*
4. *Moderate wind drift- Designate the Drop Zone hex that the unit is to land in. Roll the die and divide by 2. This is the number of hexes that the unit will drift from the Drop Zone in the direction of the wind. Conduct a morale check. The unit is suppressed in march formation if the morale check is failed.*
5. *Strong wind drift-Designate the Landing Zone hex that the unit is to land in. Roll the die and divide by 2. Add +2 to this number. This is the number of hexes that the unit will drift from the Landing Zone in the direction of the wind. No morale check is conducted. The unit is placed in the final DZ hex suppressed in march formation.*
6. *The player conducting the air drop determines the orientation of each unit.*
    - ***a.*** *Adverse weather in Moderate and Strong Winds; adds an additional +2 for rain, +4 for fog, and +6 for snow to all landing zone drift die rolls. For Light Wind roll for wind direction and move unit +1 hex in direction of wind for rain and +3 hexes for Fog and +5 for snow.*
    - ***b.*** *Air drops occur in the Phasing player CAS phase. No suppressed air dropped units may rally until the Friendly 2nd Movement Phase following the air drop. Unsuppressed*

units may move in Friendly 1st Movement Phase after the air drop.

c. *Units that land in woods or marsh hexes lose 1 step if full strength 2 step unit; and are broken if it is a 1 step unit. All units are eliminated if landing in full sea or lake hexes.*

B. Glider Landing Procedure

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1. *Each ATA may tow 1 Glider*

2. *Each Glider may transport 2 steps of V-class(M-151 or KW only), W-class(57/50mm ATG or smaller ATG or 75mm Gun/Howitzer) or P-class unit*

3. *Phasing player selects landing hex.*

a. *Roll 1 die. On a roll of 1-4 the glider unit lands successfully and unit is placed on map in movement formation.*

b. *On a roll of 5-8, unit suffers a hard landing and is placed on map suppressed in movement formation.*

c. *On a roll of 9-10 the glider breaks up and the unit suffers a one-step loss and must make a morale check.*

Rule 29: Karl-Gerat Morser (Mortar)

The Karl-Gerat series of mortars were available in 2 calibers, (KG40) 600mm and (KG41) 540mm. The KG40 fired a concrete piercing round similar to the Brummbars but on a MUCH larger scale. The KG41 which did not become operational until the end of 1944 fired a concrete piercing and an HE round.

1. **Karl-Gerat 040 (KG40) 600mm Mortar:**
   a. **Deployment Procedure:** The KG40 must be in Combat Formation and takes two Friendly Artillery Phases to deploy. In the first Artillery Phase place a Deploy marker face down underneath the KG40. In the next friendly Artillery Phase, flip the Deploy marker right side up and place it on top of the KG40. The KG40 may then be available to fire in the third friendly Artillery Phase. The KG40 may not move while attempting to deploy, if it does than the process begins again.
   b. **Firing Procedure:** The KG40 has a rate of fire of 1 round every 10 minutes. Once the KG40 is used for the first time in combat in may only fire every other Friendly Artillery Phase. A call for fire may still be recorded but the earliest arrival time will be the 2nd Artillery Phase after the last round was fired. For example, the KG40 #II fires a round in the Friendly Artillery Phase of Turn 3; the earliest it could fire again would be the Friendly Artillery Phase of Turn 5.
   c. **Combat:** The KG40 fires a Demolition round for use against bunkers, entrenchments, buildings and hard targets. ONLY units occupying a bunker or entrenchment that is the target of the KG40 are attacked versus

indirect fire. If the unit(s) suffer losses, the bunker/entrenchment is considered destroyed. If the attack is versus an Urban Strip or City hex, a CRATER marker is placed in the hex. Only L movement class units may move through the hex after a CRATER marker has been placed. The effects of roads through a CRATER hex are negated. If more than 1 unit occupies the Urban Strip or City hex, the owning player determines which unit is attacked by indirect fire.

d. Movement: The KG40 has a movement class of **TR** or Tracked-Road and may only move in Movement Formation. In Winter or Rain Weather, the KG40 is restricted to primary roads (Red Roadways) due to its large size and un-maneuverability. The KG40 may only change facing once per turn and may only do so in MOVEMENT FORMATION and only on a roadway without penalty. If the KG40 moves off-road, roll one die and on a roll of 6-10 it becomes bogged down. If the KG40 attempts to change facing while off-road, roll one die and on a roll of 4-10 the unit becomes bogged down. If the unit becomes bogged, place a bogged marker. It may not move or fire for the remainder of the scenario. The unit would have to be dismantled and mounted on special transport before it could be used again.

2. Karl-Gerat 041 (KG41) 540mm Mortar: KG41 is exactly the same as the KG40 except for the weapon mounted. The KG41 may fire a Demolition round or an HE round. The Demolition round functions the same as the KG40 round; the HE round functions as a normal Indirect Fire HE attack except a CRATER marker is placed in the hex. After the CRATER marker is placed, only L movement class units may move through the hex and all road bonuses are negated.

Rule 30: Sdkfz 303 Goliath

The Sdkfz 303 Goliath is a remote controlled vehicle equipped with 60kg of HE for use against strongpoints, infantry formations and vehicles. The Goliaths were not particularly successful and were susceptible to having their control cables cut by artillery fire. They also suffered from slow speed and almost no ground clearance.

A. Procedure: The Goliath is controlled by a StuG III control vehicle. The Controlling StuG may make a Goliath attack at a range of 1 or 2 hexes. The Goliath functions as a round of ammunition and is marked off once used. The Goliath attacks versus Conventional Fire and may only be used in clear terrain or road hexes. Goliath always attacks the *FLANK VALUE* of armored vehicles. The StuG may not fire any other weapons during the fire phase in which it makes a Goliath attack.

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APPENDIX A. SEQUENCE OF PLAY

ARTILLERY PHASE

Record fire/air strike mission
Adjust smoke markers
Resolve indirect fire/Un-observed Fire/Counterbattery
Deploy units

FIRST MOVEMENT PHASE

Declare TOC action for turn
Allocate Ops points
Attempt to rally broken/shaken/suppressed units
Perform logistics operations (1. Resupply; 2.MRO)
Change formations
Move units/Conduct Engineering Ops/Remove fatigue markers as necessary
Attempt to spot;
Resolve close assault/Ramming and check morale

AIR PHASE

Conduct Air drops and Glider landings: morale checks as necessary
CAS ingress to targets
(Resolve ADA opportunity fire on moving aircraft)
Direct fire on aircraft by Target Units
Resolve airstrikes
CAS conduct egress movement
(Resolve ADA opportunity fire on moving aircraft)

FIRE PHASE

Resolve all fires, apply results simultaneously, check morale
Attempt to spot firing units

2nd MOVEMENT PHASE

Same as 1st movement phase plus reduce accumulated ops points by 2 for each eliminated TOC

REPEAT FOR NEXT PLAYER (COMPLETES TURN)