Advanced Assault 5th Edition

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FM 100-2-1 The Soviet Army: Operations and Tactics
FM 100-2-2 The Soviet Army: Specialized Warfare and Rear Area Support
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FM 3-7 NBC Handbook
FM 3-34 Engineers
FM 3-90 Tactics
FM 3-90.6 Brigade Combat Team
FM 5-34 Engineer Field Data
FM 7-91 Tactical Employment of Anti-armor Platoons, Companies and Battalions
FM 7-92 The Infantry Reconnaissance Platoon and Squad
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FM 22-100 Military Leadership
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FM 34-37 North Korea
FM 90-14 Rear Battle
TB 43-0239 Maintenance in the Desert
TC 25-20 A Leader's Guide to After-Action Review
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I. Advanced Assault (*Tactical Combat in Europe in the 1990s+*)

Rule 1: Sequence of Play (expanded for airstrikes and logistics)

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.* Some rules were moved to the appendices.

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. *Western units are referred to as NATO and the eastern bloc units are known collectively as Warsaw Pact (WP).*

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: *In unit IDs, the platoon ID is given first, followed by the company ID, followed by the battalion ID then regiment/brigade ID.* Platoon and battalion IDs are numbers and Company IDs are letters *(the general exception is for some Engineer companies for example, that are identified by number only).* A NATO tank platoon that is identified as 1C-2/64 is the 1st platoon, Charlie Company 2nd Battalion 64th Armor Regiment.

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. For example, the WP platoon 1A4-265 consists of an infantry unit and a BMP-2 unit. There are also a few units which are called platoons that function as companies. For example, NATO mortar platoons in a mech infantry or armor battalion have two full strength units (which the Army calls sections); this platoon functions in all respects as a company.

2. Company*:* A company consists of all units with the same company, battalion, regiment/brigade ID. For example, the NATO company A-1/121 is Alpha Company, 1st Battalion A-1/121 is Alpha Company, 1st Battalion, 121st Regiment.

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 the1st Brigade of the 1st Mechanized 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, WP 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 WP 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/FISTs: NATO company Hqs and WP OPs are platoons of a company, with HQ and OP respectively, in place of the platoon ID. OPM4-181 MRR would be the observation post Mortar platoon 4th Battalion 181st Motor Rifle Regiment. NATO and WP battalion HQs, WP regimental HQs, NATO TOCs, and WP 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. *For example, TOC 1-64 is the NATO designation for the Tactical Operations Center of the 1st Battalion 64th Armor*.

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 NATO company are subordinate to the company HQ. all units in a battalion are subordinate to the battalion HQ and (for NATO) battalion TOC. All units in a WP 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 NATO 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 pints 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 fi visible or 2 points if not visible allows and 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. NATO Company /WP Battalion HQs: NATO company and WP 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 U.S. 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 TOC is eliminated the owning player may designate any subordinate HQ unit 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 mechanized company to a tank battalion 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 Record.

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

E. Special Cases:

Recon units, HQ units, OP units, FIST 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.

1. Exceptions: Recon units, HQ units, OP units, FIST 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.

a. Belgian Mechanized Platoons: Belgian mechanized platoons are equipped with 2 AIFV and 2 AIFV-B-C25 vehicles and are represented by two separate vehicle and dismounted counters. If the vehicle counters remain stacked together they may be activated as a single unit; the same applies to the dismounted counters. The counters may be activated separately but in doing so each counter will incur the appropriate cost in Operations Points as required.

b. 5 tank Platoons: 5 tank platoons consist of two elements, a heavy section (3 tanks) and a light section (2) tanks. The two sections may be activated as a single unit if they are stacked or adjacent to each other; otherwise, each unit must be paid for separately. The two sections may move and conduct combat separately but must be in the same combat or movement formation.

2. Warsaw Pact Battle Drill: While WP units do not have as extensive a command control arrangement as comparably-sized NATO units, their 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 WP 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.

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 WP 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 NATO 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***).

Some WP units have two HQs, designated aHQ and bHQ. The second is actually the deputy commander; bHQ is subordinate to aHQ, but otherwise functions as another HQ for the battalion.

However, bHQ cannot rally aHQ, nor may it spend operations points to replace aHQ. bHQ is the first choice as a unit from which to replace aHQ, but bHQ may never be replaced. Assistant Corps Commanders (ACC) units function as an additional TOC for NATO Corps.

A. M4C2V: The U. S. Army began introducing this tracked armored vehicle automated tactical command post in the late 1990s. It provides the commander with a vehicle capable of keeping pace with the Abrams/Bradley task force. The vehicle also allows the TOC to continue planning even while the vehicle is in motion. TOC units equipped with the M4C2V may command, plan and execute even while moving and may do all three in the same phase. The vehicle also allows the Headquarters to issue orders digitally and linking the commander to the Army Tactical Command and Control System Headquarters units equipped with the M4C2V may expend 2 extra accumulated Operations Points each movement phase as available.

B. Soviet Tank Regimental Hq- 

Soviet Tank Regimental HQ units are equipped with communication equipment that can only be used while the unit is stationary. Soviet Tank Regimental Hqs may deploy in any movement phase by not moving and placing a HQ Deploy marker on the unit. Beginning in the next movement phase the Soviet Tank Regimental HQ may expend 1 extra Operations Point. Any movement phase in which the Soviet Tank Regimental HQ moves it can no longer spend the extra operations point **until it deploys again.**

C. US XO units (Armor and Mechanized Infantry Companies)

U.S. executive officers (XO) are an important asset in company level operations. As such Company teams often split basically into two units, one commanded by the company commander (usually the larger unit) and the XO. XOs have 1 OP point available each *Allocate Op Points* phase with the following restrictions:

Units must be attached to the XO prior to the XO being able to allocate OP points.
Units must be visible to the XO to be allocated OP Points.
XO units must remain within 4 hexes of the Company HQ unit to issue commands.
XO units do not have to be visible to Company HQ unit to issue commands.
Logpac logistical resupply units may stack with the XO unit to conduct resupply operations at company level.

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 deployed to perform these functions. A TOC may deploy off map but may only accumulate at a rate of half its Operations Points rating while so deployed.

1. Command: A TOC unit functions 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: If a TOC is eliminated it 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 are reduced by two in addition to any points used by the HQ. This reduction takes place at the end of the phasing player 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 WP 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.

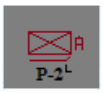
The movement point cost per hex is determined by the formation of the moving unit, the mobility class of the moving unit and the terrain type of the hex being entered. A unit may always move one hex, even if it has insufficient movement points to do so (except mobility class S and L; see below), provided 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 five mobility classes: T (tracked), W (cross-country wheeled), R (road- bound wheeled), L (leg), and S (static). T, 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. Helicopters have a number (the maneuverability rating) in place of a mobility class. Units with a mobility class of S^{L} and WS are covered in ***Rule 7 Transport.***

1. Ski Troops 

Ski troops have a movement allowance of 2 in any scenario that occurs between October and March. These units have a movement allowance of 2 in each movement phase. Ski troops are affected by terrain as if they are a Leg infantry unit and suffer fatigue normally. In scenarios that occur April-September, ski troops have a movement allowance as if they were normal Leg units.

2. Pack animals 

These P-class units have a movement allowance of 2 in each movement phase. They are treated as L class for terrain costs. These units may only transport LOGPACs.

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 hex-sides 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 helicopter 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 hex-sides and enter certain terrain types prohibited to other units, as noted in the terrain effects chart.

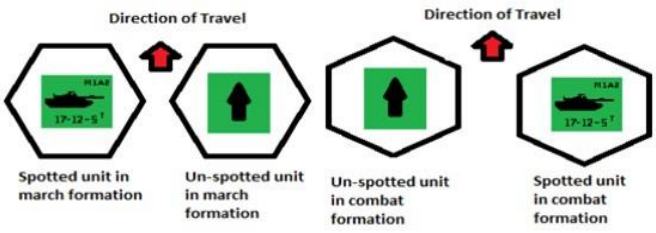
2. Steep Slopes: A steep slope is defined as a hex containing two contour lines of different elevations. The terrain effects chart lists the effect of climbing a steep slope, which is in addition to the regular cost to enter the hex. Climbing a steep slope is defined as entering the hex from a hex of 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 hex).

3. Cliffs: Hexes in which there are more than 2 changes in elevation are considered cliff hexes. Only Special Forces, Alpine, Gebirgs, Mountain, Ranger and Airborne units may enter and exit cliff hexes.

4. Alpine Hex-sides: Only Special Forces, Alpine, Gebirgs, Mountain, Ranger, and Pack Animal units may cross an Alpine Hexside. The unit must end movement for the turn after crossing and may not move again until the next turn. Alpine Hex-sides block line of sight. Aircraft may move and conduct operations normally, including helicopter transport, embarking and debarking passengers.

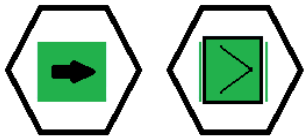
5. Restricted Road: Restricted Roads are narrow road networks that due to the nature of the terrain, force vehicular units to stay on the roadway. Vehicles traveling on a Restricted Road may only enter and exit hex-sides through which the road passes and may not leave the roadway. Leg units may move normally.

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.



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 hex-sides 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. ***(Exception is Air Defense units as explained in Module 1. Air War)***. 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. When using the Logistics rules heavy transports such as the U.S. HET-T or Soviet KAZ 65225 may transport any vehicle class unit. Armored Recovery Vehicles (ARV) may transport any destroyed vehicle. Wheeled Recovery Vehicles (WRV) may only transport destroyed W or R mobility class units. Units with a mobility class of SL are treated as leg units for transport purposes. Units with a mobility class of WS or PS are treated as static units for transport purposes. Static units carried by helicopters are counted as having three times as many steps as they actually do.

Helicopter units may also carry vehicle units, treated as static units. Light vehicles (M-151, LR, UAZ-469, motorcycles, (*See Transport Reference Guide)* are counted as having only as many steps as they actually do. The following units are counted as having 6 times their actual number of steps: Ural-375, GAZ-66, BTR (all types), and BRDM-2 (all types). The BMPs (all types) are counted as having 10 times as many steps as they

actually do. *(See Transport Reference Guide for Complete Listing)*

B. 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 (i.e. Humvees, BMDs, jeeps etc. See Helicopter rules). 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) Units with a filled in triangle may transport leg mobile and static units, and may transport more steps than their current strength. The exact number of steps varies with the unit type; a Mi-8 unit may transport three times its number of steps, while a Mi-26 unit may transport 12 times its number of steps, as shown on the unit transport capacity table. These steps may be leg, static or vehicle units (See A above). Thus a half- strength Mi-8 unit could transport 3 steps of infantry or one step of static units.

C. 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. A helicopter must be landed for a unit to mount or dismount. For purposes of this rule, a helicopter is not considered to be "in the same hex" unless it has landed (***see Part C in Rule 25***).

D. Fire from transporting units: Transporting units may fire normally. Only infantry may fire while being transported by ground vehicles. It may only do so with small arms ammunition (SA) from un-suppressed vehicles, and its conventional fire value is halved. Infantry may fire while being transported in helicopters. As with vehicle transport; Infantry may do so only with small arms ammunition (SA) from unsuppressed helicopter transports, and its conventional fire value is halved.

E. 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 helicopter transporting a unit is destroyed and is not landed, the transported unit is also 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. If a helicopter is destroyed, the unit being transported is destroyed.

F. Combined Transport: Two half strength 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. Two helicopters may combine to carry a single full strength unit. More than two helicopters may not combine to carry a unit, nor may two helicopters combine to carry a single half strength unit. *Unlimited number of transport helicopters may combine transport LOG Bases and LOGPACs.*

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 normally occupy a hex. Only 4 steps may occupy a hex with an Alpine hex-side. 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 (i.e. AVLBs) 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. Units are divided into three groups for stacking purposes; units on the ground, helicopters in combat formation, and helicopters in march formation. Up to 10 steps of each type 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)* or National Symbol. 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. Any player who wishes to fire Msl (Missile) ammunition *(no spotting attempt is made against FGM-148 Javelin, ERYX)* from a previously unspotted unit (See Rule 12) must so declare at the beginning of the fire phase in which he will do so. *(As a player aid, Movement Markers, Missile Fire Markers and Direct Fire markers are available in the Neutral Marker Section for marking firing units).* The opposing player may attempt to spot the missile-firing unit before the fire is resolved. If successfully spotted, the missile firing unit may be fired upon that fire phase.

B. Line of Sight (LOS): A player may attempt to spot only enemy units which are in an 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 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 Appendix C). 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 Appendix C). 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 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.

Aircraft may fly at different altitudes as indicated by the Aircraft

Capabilities Chart. Aircraft may not fly below the lowest altitude indicated in the chart. Only Helicopters in Combat Formation may fly at NAP but no higher than LOW unless performing a popup. Aircraft may operate at or higher than the altitude indicated in the Chart. The altitudes are:

a. NAP Altitude: Aircraft fly at 0-1 level above the hex terrain.
b. Low Altitude: Aircraft fly at 2-3 levels above the hex terrain.
c. Medium Altitude: Aircraft fly at 4-5 levels above the hex terrain
d. High Altitude: Aircraft fly at 6+ levels above the hex terrain.

A helicopter in combat formation is considered to be at the same level as the hex, +1 if the hex contains woods, urban strip or town. A helicopter in March Formation is considered to be +4 levels above the terrain of the hex. A helicopter executing a popup is at whatever level the player announces when the popup is begun, up to level 14.

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. 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. 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. The LOS to a helicopter in a woods hex is not blocked if the immediately adjacent hex along the LOS is also a woods hex (unless it would be blocked without that special rule, of course). Alpine Hex-sides block LOS unless the unit is adjacent to the hex-side.

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. CITV equipped vehicles may conduct two spotting attempts per enemy unit per phase. The vehicle commander and gunner search areas overlap.

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. Thermal sight modifiers have been added to the spotting table.
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. Observation posts and FISTs are equipped with more advanced optics, lasers, and thermal imaging.

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.

II. Combat

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 with some special vehicles, i.e. FIST and AVLBs, 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. 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. 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. 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.*

E. Smoke Grenade Dischargers: All military vehicles are equipped with smoke grenade dischargers. All vehicles have 1 shot of chemical smoke. If a vehicle unit suffers a suppression or hit, a chemical smoke marker is placed in the hex with the vehicle and the round of smoke is marked off of the unit's ammunition record as fired. Some AFVs have the capability to make smoke with their engines. This is covered in optional rule in ***Rule 20*.**

F. Three Element Units: Some nations utilize weapon systems in three element sets. In Assault, most units are either 1, 2, or 4 weapon systems consisting of a single unit step, 1 step or 2 step counters. In order to simulate 3 system steps the following rules are applied.

1. 3-Vehicular (Armored and Vehicle) Platoons: Warsaw Pact Tank Battalions that are organic to Motorized Rifle Regiments have platoons consisting of 4 tanks each. All other Warsaw Pact tank platoons are made of 3 tanks per platoon. Standard 4 tank platoons are treated normally. Some NATO countries utilize 3 vehicle platoons; Denmark for example. 3 vehicle platoons will be identified by a black silhouette with white unit type. For example a 3 tank Danish Centurion Mk V platoon would appear as:

2. Artillery: Some artillery units will consists of 3 tubes or guns as minimum sized sub- units. Multiply *Fire Values* on the Indirect Fire by 1 ½ for 3 weapon units. These are indicated on the Indirect Fire Charts and Unit Data Cards.

3. P-class and Non-artillery W-Class: These units are treated the same as Vehicular units.

4. Hits: When a 3 element unit suffers a hit, place a *HIT-2 Marker* on it.

a. The -2 marker should be applied to both frontal and flank armor calculations, all base to hit chances and all base spotting chances (both to be spotted and spotting attempts). Armor penetration values for rounds fired are not affected.

b. Conventional Fire values, Artillery Rates of Fire and HE values are reduced by 2. All base to hit chances and all base spotting chances (both to be spotted and spotting attempts) are reduced by 2. Units attacking a P-class, W-Class or V-class unit that has a -2 hit marker subtract 2 from the Conventional Fire Combat Results die roll. Artillery fire values are as listed and not adjusted by 1 ½.

c. A unit with a -2 hit marker that suffers another hit is eliminated.

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 helicopters and 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. *All W class units must be deployed to fire at enemy units.*

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. Formation: Only units in combat formation may fire. (***Exception see Rule 15 and Module 1 Air War: Helicopter Combat).***

4. Movement: Since most modern AFVs have very sophisticated stabilizers built in to the fire control system. An M1A2 is very, very good at hitting targets while moving and all NATO units trained that way. Even the Soviets had gun stabilization to a degree. Add +1 to the base chance to hit die roll for NATO units and +2 base chance to hit die roll for WP units. WP units equipped with the AT-8, AT-10 and AT-11 laser guided cannon launched anti-tank missiles may fire their laser guided missiles if they moved in the first movement turn.

5. 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 helicopter does not block the LOS for fire purposes. 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 main armor-piercing round for both sides is the hyper-velocity, armor-piercing, fin-stabilized, discarding sabot (HVAPFDS) round.

b. APDU: Armor-piercing, depleted uranium ammunition is similar to AP but has a special penetrator core made from uranium, which in addition to its other properties is very dense, giving high penetration.

c. HEAT: High explosive anti-tank ammunition relies on the explosion of a shaped charge warhead to blow through armor.

d. HESH: High explosive squash head ammunition is used by the British in Challenger and Chieftain series tanks. The HESH round is fired by the 120mm rifled barrel used by Challenger and Chieftain. The HESH round is a multi-purpose round good for use against buildings, tanks and vehicles. It has the same properties as the HEP round used by U.S. M728.

e. MPAT/MPHE: Used by the Americans and Germans, the multiple purpose anti-tank round, is essentially an upgraded HEAT round. It is capable of engaging AFVs, soft vehicles and helicopters.

f. Msl: Anti-tank guided missiles are extremely accurate anti-armor weapons with HEAT warheads. Missiles are differentiated from other HEAT rounds since there are special rules relating to missile fire.

g. 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.

h. HEP: HEP (high explosive, plastic) It sues a large explosive charge which flattens against a hard target before exploding causing high velocity fragments to break off the targets inner surface (this is called spalling). In game terms HEP is identical to HEAT.

i. APFSDS: Armor Piercing Fin Stabilized Discarding Sabot. Basically the same as AP, the designation APFSDS is used to distinguish the British 120mm Rifled round and the South Korean self-sharpening round from other AP rounds.

j. FGM-148 Javelin Anti-Tank Missile: Javelin is a fire-and-forget missile with lock-on before launch and automatic self-guidance and a top attack profile. The Javelin replaces the Dragon wire-guided ATGM in U.S. Infantry units after 1996. Unlike the Dragon, there is NO spotting attempt on the unit firing the Javelin prior to resolution of fire combat. Also, there is NO modification to the base hit number when a Javelin is attacking enemy units under cover. Other base hit modifications may apply. The Javelin is not laser guided and will not activate Shtora type defense systems. It is also capable of engaging Helicopters. Units always use the flank value when defending against the Javelin.

k. BGM-71F TOW-2B: Another top attack profile missile, the TOW-2B always attacks the flank value of defending units.

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 automatic weapons (machine guns and assault rifles) and grenade launchers (*such as the M203 and not the MK19 AGL).*

d. APERS/*CANISTER*: the anti-personnel tank round *(including the Canister shot)* is packed with thousands of flechettes. The gunner selects a range (up to 1500m) at which the round will detonate. When it detonates, the flechettes are released as a cloud of lethal projectiles still travelling at high velocities along the ballistic path of the round with devastating effect on non-armored targets.

e. 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.

f. FLW: Flame weapon used by the Soviet TO-55. Napalm or jellied gasoline that is delivered to the target in a stream. Used against targets at less than 250m (1 hex) range. The TOS-1 is not a FLW weapon.

3. Multi-Purpose Rounds: If the fire data chart gives a single ammunition supply for two different rounds, the two are actually a single type of round capable of being used for both anti- armor and conventional fire. For example, the HEAT and HE rounds of the Soviet T-62 are the same round; if fired at an armored vehicle it acts as a HEAT round, and if fired at any other unit it acts as an HE round.

D. Rate of Fire: Each step of a unit may fire as many times per phase as its Rate of Fire (ROF) as listed on the Fire Data Chart for that weapon system and ammunition type. 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. For example, a U.S. M1 could fire twice (per step) with AP ammunition or twice with SA ammunition or once with each, as long as the total ROF does not exceed 2. A Soviet BMP-2 could fire three times with SCAP ammunition or once with MSL ammunition or once with each. A U.S. infantry unit could fire once with HEAT, once with MSL and twice with SA ammunition.

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. For example, a full-strength Soviet T-72 platoon fires once with AP ammunition and once with HE ammunition. Since the platoon has two steps, it attacks one target two times with HE ammunition and another target two times with AP ammunition or one target with 2 HE and 2 AP.

F. Single Vehicles: FIST, AVLB, some specialized engineering vehicles, and minefield breaching units each 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. These include AP, APDU, HEAT, HESH, MPAT, SCAP and MSL ammunition.

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.

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, helicopters in combat formation, and helicopters in march formation.

2. Cover: If a unit is under cover and is being fired at across one of the two covered hex-sides, divide the base hit number by 2 and round fractions down, *unless the ammunition being utilized is a top-attack round, in which case there is no modification for cover*.

3. M-901 Units: If a U.S. M-901 unit is under cover and is being fired at across one of the two covered hex-sides, divide the base hit number by three, rounding fractions down. *(See the Anti-Armor Fire Modifiers chart for additions to this list, i.e. FIST units, PRAT, etc.)*

4. Missile Fire: If a unit is firing Msl ammunition at units in a woods hex, divide the base hit number by two, rounding fractions down. If the target is also under cover, (see 2 and 3 above), divide with both modifiers before rounding down.

After the final hit number is determined, roll the die. A roll equal to or less than the hit number means that the target unit suffers one hit. A roll equal to or less than the hit number minus two means that the target unit suffers two hits. *For example, a firing unit's final modified hit number is 7. If a 7 or 6 is rolled the target suffers one hit; if a 5 or less is rolled the target suffers two hits. Shtora equipped vehicles receive a -2 modifier to the base chance to hit when attacked by enemy ATGM, either laser or wire guided. This modifier is applied after all other modifiers (**see Rule 19.B.4.c. Shtora Smoke**).*

A target unit which suffers one or more hits will lose steps, provided the hits penetrate. Top attack profile ammunition and missiles, such as the U.S. Army Javelin and the BGM-71 TOW-2B, always use the flank armor value of the

defending unit. Top attack profile munitions are designed to engage the top armor of vehicles where armor is the thinnest. These weapons are identified on the Direct Fire data charts.

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. *For example, Soviet T-80 firing AP ammunition has a penetration value of 15 at a range of 8 hexes.*

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 hex-sides (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. Units always use the flank value when defending against top attack profile munitions.

3. Hit Confirmation: A hit from APDU ammunition which is capable of penetrating the target's *UNMODIFIED* armor value automatically causes a loss of one step. Hits from other ammunition must be confirmed. 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. If the target unit is equipped with ERA, APDU does not automatically penetrate. The firing unit must roll for penetration. ***(See Advanced Capabilities Spreadsheet for the specific unit's National Homepage for Armor Types, Defense Value and Special Armor Ratings)***

a. Reactive Armor- Reactive Armor (and Explosive Reactive Armor) consist of add on armor, explosive bricks such as Kontact 5 or the Israeli Blazer, designed to defeat AP (NOT APDU) and HEAT rounds including anti-tank missiles. More modern AP, HEAT, and MSL rounds have built in counter-measures, such as probes, designed to defeat Reactive Armor. Both NATO and Warsaw Pact armies utilized RA or ERA to some degree, generally becoming more common after 1990. This new rule mainly addresses the add-on or bolt-on RA/ERA.

1. After it is determined that a hit has occurred with AP/HEAT/MSL ammunition, check the *Advance Capabilities Spreadsheet* for the RA/ERA modifier. This number is added to the armor value being attacked. Subtract the ERA modifier listed on the Direct Fire Chart for that particular type ammunition from the target armor value. This is the target modified armor value. Subtract the target modified armor value from the firing unit ammunition penetration value. This is the Penetration value. Add the Armor Type to the Penetration value. Roll the die. If the number rolled is equal to or less than the penetration value of the hit causes a one- step loss. If not, the target is suppressed but otherwise unharmed. The final modifier is applied to the hit confirmation die roll to determine if the round penetrates.

For example, a U.S. M901 successfully fires a TOW2 missile flank shot on Soviet T-90A tank. The Soviet T-90A flank value is (11) + ERA Armor modifier (7) + Ammunition ERA modifier (-3) = Soviet Modified Armor Value (15). Subtract the Soviet Modified Armor Value (15) from the US TOW2 penetration value (23); 23-15=8. Since the T-90A is equipped with composite armor (-1), these values are added giving a final penetration value of 7. The U.S. player must roll 7 or less to achieve a hit. The U.S. player rolls an 8. The Soviet Kontact 5 ERA and composite armor has defeated the TOW2 missile.

C. Non-armored vehicles: Non-armored vehicles may be attacked using anti-armor rounds; HEAT, AP, APDU and SCAP. Roll the die to determine if a hit occurs (all modifiers apply). A hit results in an automatic loss of 1 step.

D. Upgraded Armor: After 1995, all anti-armor fire must roll for penetration, including APDU rounds

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, helicopters in combat formation and helicopters in march formation. Helicopters have their own row on the conventional fire defense table.

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; if the target is being fired upon from both front and flank, use the front armor value.

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 U.S. 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 U.S. 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 penetration value of the HEAT round is used as the conventional fire value. 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.

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. Units firing Msl ammunition may not conduct opportunity fire beyond 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.

No unit may conduct opportunity fire beyond a range of twelve hexes ***(see Module 1 Air War 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.

Double the number of hexes in which a helicopter in march formation must be visible before opportunity fire may be conducted against it: two hexes at a range up to 4, four at a range of 5-8, and 6 at a range of 9-12.

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.

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. Helicopters in march formation may not close assault or be close assaulted (although they may be fired at a range of 0 in the fire phase).

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).

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 Unit Morale: Each army contains elite units that either through training or indoctrination possess 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 Elite Unit Modifiers on the Command Rating Table for applicable modifiers***

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.

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

(These rules are only for use with basic Assault. More advanced engineering rules are covered in the Module 6 Engineering Operations)

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.

Rule 18: Indirect Fire (See Module 8 for Advanced Indirect Fire Rules)

(These rules are only for use with basic Assault. More advanced Indirect Fire rules are covered in the Module 8 Advanced 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 FISTs 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. During the pre- game cross-attachment segment, artillery units may be designated as Direct Support or General Support.

B. Requesting Fire: Indirect fire is requested at the beginning of each friendly Artillery Plot 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 arrive in the Indirect Fire portion of the Fire Phase.

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/ICM/Un- observed Fire (see below). 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.

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 NATO units are capable of calling fire as are all WP HQs, Ops, drones and FISTs. 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. Special Forces Units function as FOs and may be cross-attached with any indirect fire unit.

a. Direct Support : Artillery units designated as Direct Support may only fire missions that are observed fire. Direct Fire units may fire Counterbattery Fire if the impacting enemy indirect fire is observed by the FIST or OP to which it is assigned. Artillery units belonging to the same

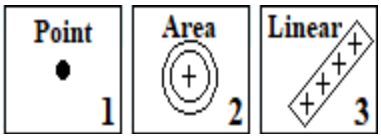
Brigade/Battalion as the spotting unit are always considered Direct Support unless otherwise designated during the cross-attachment segment during pre-game setup.

b. General Support : Artillery units designated as General Support during the pre-game cross-attachment segment, may fire indirect fire missions only for FISTs or Ops. The target hex must be under observation by the calling FIST/OP for at least 1 Artillery Plot phase prior to arrival. Only General Support units may fire during Un-observed Artillery Fire.

3. Canceling Missions: A fire mission may be canceled at the beginning of any artillery fire portion of the Friendly Fire 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: Fire missions due to arrive in the current turn are resolved in the Artillery Fire portion of the Friendly Fire Phase. All artillery firing at a hex is added together and attacks all units (enemy and friendly) in the hex.

Select Fire Mission Type: Three type of artillery fire missions may be selected for each Battery (NATO) or Battalion (WP)



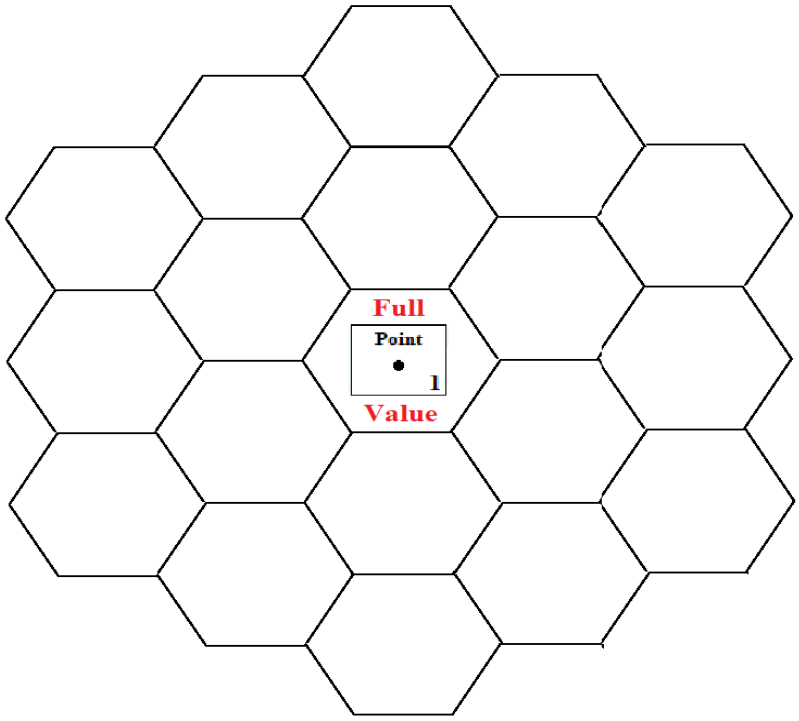
The indirect fire data chart lists the fire value for each indirect fire unit in the game. The value listed is per step. Each full-strength counter has two steps and each half-strength counter has one. Since the fire value is per step, multiple it by two for full-strength units. Write the total fire value (after modification by D1 and D2 below) on the fire mission record as determined by Fire Mission type. NATO artillery battalions may assign different fire missions to each battery. of Warsaw Pact artillery battalions subordinate batteries must fire the same Mission type.

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

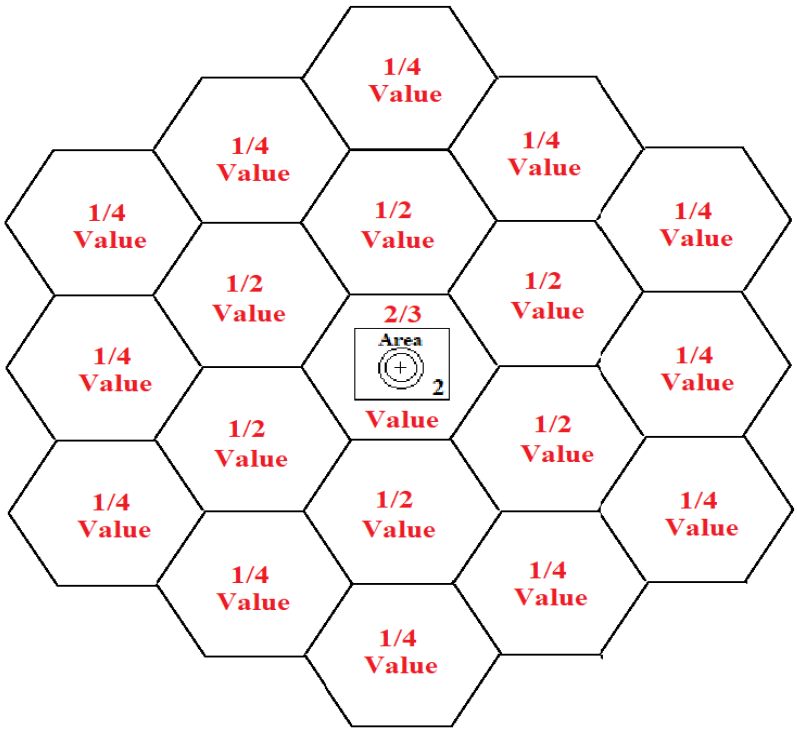
Resolution: The fire values of all artillery units firing at a hex are added together. This is then compared to the defense value of the top unit in the stack and expressed as a simple odds ratio as found on the conventional fire combat results table. If rounding is necessary, always round in favor of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

Results: Results are explained in ***Rule 10*.**

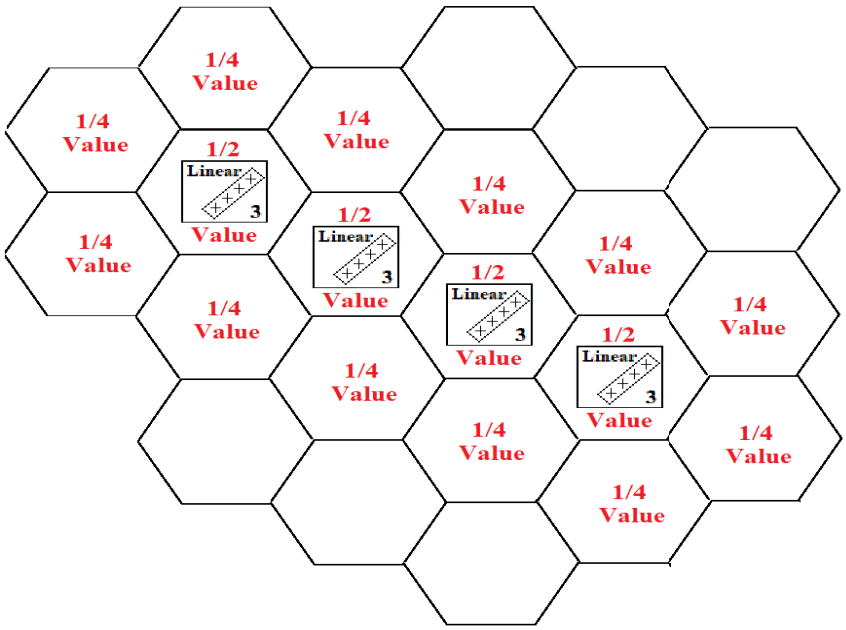
Point Strike: Entire Artillery Fire value concentrated in one hex. All Artillery fires values are added together and applied to the hex being attacked.



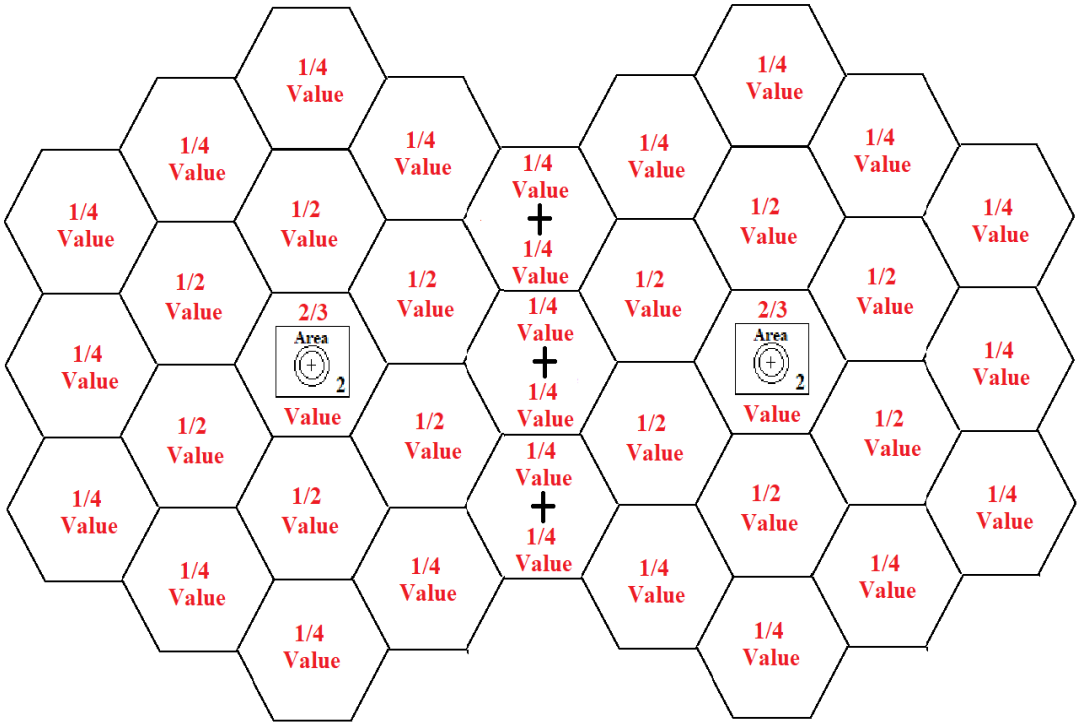
Area Strike: Target hex 2/3 fire value. Adjacent hexes ½ fire value. 2 hexes from target hex ¼ fire value



Linear Strike: 4 contiguous straight line hexes ½ fire value. Adjacent hexes ¼ fire value.



Overlapping Fire: Add the two fire values together for total fire value applied to each hex



D. Special Cases

1. Max ROF: Each indirect fire weapon may fire at its maximum rate of fire for one turn without being re-supplied. 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.

For example, the WP D-30 howitzer has a value of 4 when firing HE ammunition. Since its max ROF multiplier is 6, its total value for that turn would be 24. The firing unit must be resupplied before being able to fire another MAX ROF mission again.

2. ICM: With some weapons, the NATO player has a choice of firing either HE or ICM (Improved Conventional Munitions). ICM may not be fired at urban, town, urban strip, woods, full lake or swamp hexes. When firing ICM the fire value is modified by the ICM multiplier on the indirect fire chart. If the max ROF option is taken with ICM, multiply the fire value both by the max ROF and ICM modifiers. Unlike MAX ROF modifiers, the ICM modifier can be used as long as the firing unit has ICM rounds.

3. Smoke: An indirect fire unit may fire smoke instead of HE or ICM. 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 U. S. M-125 mortar is plotted to fire an incendiary smoke mission. Since it may fire four incendiary screens per turn, the U. S. 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 U.S. M-106 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 Fire Plot 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. The total artillery fire value is halved, rounding fractions down, before the fire is resolved.

E. Deployment: *All W class units must be deployed to fire at enemy units.* 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 un-deploying counts 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.

Rule 19: Smoke

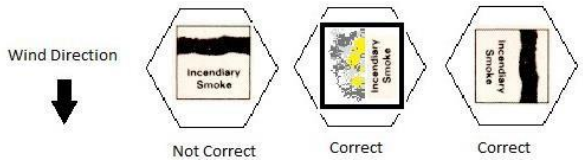
Smoke may be delivered by those indirect fire weapons so noted on the indirect fire charts. There are two types of smoke: incendiary smoke and chemical smoke.

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 NATO 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 hex-sides. The marker is faced toward a hex vertex, indicating that the two hex-sides 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 hex-sides 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 except that units equipped with thermal sights *(See Advanced Capabilities Spreadsheets)*.

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 NATO fire phase of turn 4 would be removed at the* start of the WP fire phase of turn 6.

4. Unit Generated Smoke: Infantry, HQs, OPs and vehicles can self-generate chemical smoke through smoke grenades and in the case of most AFVs, by dumping raw diesel fuel on the engine to generate the smoke screen.

a. Leg Units: Infantry, HQ and OP units can produce one round of chemical smoke. This smoke last until the next the phase in which it was created. For example, a smoke marker placed in the 1st Active Player Movement Phase will remain until the next turn player's 1st Active Player Movement Phase. Place a chem smoke 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.

b. AFV Units: AFVs are equipped either with smoke grenade dischargers or can generate smoke through the engine. See the *Advanced Capabilities Spreadsheet* for the units capable of generating smoke. All AFVs are equipped with smoke grenade launchers. AFVs that survive direct fire combat may have a chem smoke 2 marker placed in its hex at the owning player's discretion. Also, a moving AFV may generate smoke in the hex from which it entered its final movement hex. In this case, a chem smoke 2 marker is placed in each hex. Smoke markers are placed in accordance with rules governing wind direction and velocity.

c. Shtora Defense System: Soviet BMP3/BMD3s, T-80Us and T-90s are equipped with the Shtora active defense system developed in the early 1990s ***(See Advanced Capabilities Spreadsheet).*** The system is designed to automatically activate in the event that the Soviet Shtora-equipped AFV is fired upon by an enemy unit that is using a laser designator or the enemy unit is spotting the target Soviet Shtora-equipped AFV using a laser designator. The system also will increase the chance for spotting the firing or spotting enemy unit if the enemy unit is previously un-spotted. Shtora only activates if the firing unit is firing on the front armor of the target unit. The Shtora Defense System activates whether the target unit is in combat or march formation, any time the unit is fired at; the Shtora Smoke generated by the system only occurs on the very first time the Shtora system is activated. Each Soviet BMP3/BMD3 class, T-80 class and T-90 class AFV carries one round of Shtora smoke and may be resupplied.
Shtora equipped vehicles receive a -2 modifier to the base chance to hit when attacked by enemy ATGM, either laser or wire guided. Shtora Smoke

BLOCKS laser designators. The modifier continues to be applied even after the expenditure of the Shtora Smoke round.

1. Spotting Procedure: The firing or spotting enemy unit must announce whether it is using a laser designator. If the firing unit is unspotted apply the Shtora spotting modifier. If the firing unit becomes spotted, the target unit is automatically placed in combat formation facing the target and may engage the firing or spotting enemy unit before any enemy missile fire in the resolve fires section of the fire phase. Exception: If the target Soviet Shtora-equipped unit IS ATTACKING WITH missile attack on any enemy unit, the missile is recorded as fired on the ammunition supply but no attack takes place since the Shtora system will disengage the missile. In this case the target Soviet Shtora-equipped unit may not fire again in the current fire phase.

2. Shtora Smoke placement: If the target unit has not expended a round of Shtora smoke, the owning player may place a Shtora smoke marker across the hex-sides through the frontal arc of the target unit. Shtora smoke last until the beginning of the next movement phase after which it was placed. Record the use of Shtora smoke on the ammunition record for that unit. Shtora smoke may be replenished if using the Logistics Rules.

d. Chemical Smoke generators: CSG, such as the U.S. M-1059 and Soviet TMS-65, are vehicles designed specifically for creating smoke screens on a large scale. CSG may create smoke screens while in any formation. CSG smoke screens block all hex sides of a hex and are 1 level high. CSG smoke screens are affected by wind as every other type of smoke screen. CSGs can generate Smoke screens for 6 friendly movement phases. Stationary CSG smoke screens are created in the following manner:

1. Place a HEX 1 smoke screen in the CSG hex and a HEX 1 smoke counter in the 3 contiguous hexes from the CSG unit in the direction of the wind as determined at the start of the game. (*If there is light wind, ONLY place HEX 1 counters in 2 contiguous counters in direction of wind.)*

2. If the CSG continues to generate smoke in the next movement phase, place 3 HEX 2 smoke counters in the next 2 contiguous hexes in the direction of the wind extending from the HEX 1 counters. (*If Light WIND only place one HEX 1 smoke counter extending from the counters placed initially.*)

3. These counters remain in place as long as the CSG is on and producing smoke. When the decision is made to end smoke generation, remove the HEX 1 smoke counters and replace the HEX smoke counters with the HEX 1 smoke counters at the start of the 2nd movement phase following cessation. On the next turn remove the HEX 1 counters if no new smoke is produced.(*If Light Wind, simply remove the HEX 1 smoke counters).* Moving CSGs can also produce smoke similar to smoke generating AFVs as follows:
Place a HEX 1 smoke screen in each hex that CSG moves through. The HEX1 smoke screen counters are removed at the beginning of the next friendly movement phase.

Rule 20: Cannon-launched Guided Projectiles and Precision Guided Munitions

(These rules are only for use with basic Assault. More advanced Indirect Fire rules are covered in the Module 8 Advanced Indirect Fire)

Cannon-launched Guided Projectiles and Precision Guided munitions provide the artillery with the capability to make pin-point strikes against specific units rather than attacking a hex. These weapon systems rely on laser designation or in the case of PGM GPS coordinates.

A. Firing CLGPs: CLGP fire is recorded as a normal fire mission on with a specified target hex. PGM munitions are available for mortar and Rocket systems as identified on the Indirect Fire Data Charts.

B. Directing Fire: CLGPs impact during the artillery phase and count as normal HE attack on the target hex unless they are directed by a designator unit. They may be directed to any hex within four hexes of the target hex provided the designator unit has an unobstructed LOS to the designated hex and its range is no more than 24 hexes. The CLGP attack is then resolved against any only one AFV unit in the hex as an anti-armor fire with a base hit number of 8. Hits automatically penetrate and do not need to be confirmed. If the CLGP attack is directed against an AFV unit, there is no HE attack.

C. Designator Units: The laser designator is not capable of penetrating smoke, and thus smoke always blocks the LOS for purposes of directing fire, even if the designator unit has thermal sights. Any casualty in the designator unit eliminates its ability to designate CLGP fire. All AH-64D, Ka-52, Oh-58D and M2A3 and M3A3 Bradley units have the capability to laser designate for CLGPs and all laser guided weapons. Each FIST/OP equipped with laser designators are identified in the *RADAR FISTV ABILITY Charts and* are considered a designator unit. Laser designators will activate the Soviet Shtora Defense System of target units. The WP T-12 100mm cannon has a laser designator assigned to it but it may only be used to designate targets for the AT10 ATGM.

Rule 21: Ammunition Supply (Optional)

(These rules are only for use with basic Assault. More advanced Logistic rules are covered in the Module 5 Logistics Operations)

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 WP SPG-9, SD-44, or M-29 *(any weapon with a mobility class of* 5 *)* units 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 for the U.S. M-1), these are actually the same round, which combines anti-armor and conventional fire effects. Use of either round reduces the combined ammo supply.