

AssaultTM

Tactical Combat in the 80's

Contents

Introduction	1
Rule 1: Game Components.....	1
Rule 2: Sequence of Play.....	1
Rule 3: Organization.....	2
Rule 4: Command Control.....	2
Rule 5: Headquarters Units.....	4
Rule 6: Tactical Operations Centers.....	4
Rule 7: Movement.....	4
Rule 8: Transport.....	6
Rule 9: Stacking.....	6
Rule 10: Spotting.....	6
Rule 11: Combat Results.....	8
Rule 12: Direct Fire.....	8
Rule 13: Anti-Armor Fire.....	9
Rule 14: Conventional Fire.....	10
Rule 15: Opportunity Fire.....	10
Rule 16: Close Assault.....	11
Rule 17: Morale.....	11
Rule 18: Entrenchments.....	11
Rule 19: Artillery and Indirect Fire.....	12
Rule 20: Smoke.....	13
Rule 21: Cannon-Launched Guided Projectiles (Optional).....	14
Rule 22: Ammunition Supply (Optional).....	14
Rule 23: Scenarios.....	14
Rule 24: Record-Keeping.....	15

Assault

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Introduction

Assault is a tactical level simulation of ground combat in Europe in the mid-1980's. As modern tactical combat is a subject of extreme breadth, *Assault* comprises the first in a series of games. Complete by itself, *Assault* covers mobile engagements between U.S. and Soviet tank and mechanized forces. Other games and modules add helicopters, engineering, combat in built-up areas, tactical air strikes, and other belligerents.

This booklet contains the basic *Assault* rules and is included in each game in the series. Certain rules (most of rule 1, for example) apply only to *Assault* itself. Each game in the series other than *Assault* also contains a separate sheet or booklet listing additional rules and exceptions to these rules.

Rule 1: Game Components

Assault contains the following components.

A. Maps: The two 17" x 22" maps depict areas representative of central Germany. A hexagonal grid is superimposed over the maps to regularize movement and placement of units. Each hexagonal cell (hereafter referred to as a hex) covers 250 meters of actual terrain from side to side.

The maps are laid out in such a way as to be geomorphic; that is, map edges with the same grid pattern may be butted together and the terrain will match.

B. Counters: Three counter sheets (480 counters total) are included representing the game units and a variety of non-unit markers. Each unit counter represents either a platoon (3-5 vehicles or weapons or 30-40 men) or a section (about half of a platoon). Sections have white, instead of black, numbers and/or letters on the bottom of the counter. Counter format is detailed on the unit identification chart.

Certain terms are used in conjunction with units throughout the rules: full-strength, half-strength, and step. A platoon initially has two steps and is called a full-strength unit. When it loses a step, it becomes a half-strength unit. A section initially has one step and is called a half-strength unit. These concepts are used and expanded upon in the rules.

C. Rules: This rules booklet.

D. Charts: A complete set of game charts is included. Their use is explained in later rules. Some of the charts are game record sheets, and permission is here granted for players to photocopy them for their own use.

E. Scenario Folders: Each player has a scenario folder, the use of which is explained in rule 23.

F. Reference Booklet: The reference booklet provides doctrinal and organizational background on the belligerents, as well as designer's notes. While not essential to play, it is designed to aid understanding and enjoyment of the game.

G. One Decimal Die: The die is used to generate random percentile numbers. In all cases, a roll of 0 is read as a roll of 10.

Rule 2: Sequence of Play

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

Soviet Player Turn

Soviet Artillery Phase: The Soviet player writes down artillery fire missions for later turns and then resolves all his fire

missions due to arrive in the current turn.

First Soviet Movement Phase: The Soviet player moves any or all of his units. The U.S. player conducts opportunity fire against moving Soviet units.

Fire Phase: Both players simultaneously resolve fire from any or all of their direct fire units.

Second Soviet Movement Phase: The Soviet player again moves any or all of his units. The U.S. player again conducts opportunity fire.

U.S. Player Turn

Artillery Phase: The U.S. player writes down artillery fire missions for later turns and then resolves all his fire missions due to arrive in the current turn.

First U.S. Movement Phase: The U.S. player moves any or all of his units. The Soviet player conducts opportunity fire against moving U.S. units.

Fire Phase: Both players simultaneously resolve fire from any or all of their direct fire units.

Second U.S. Movement Phase: The U.S. player again moves his units and the Soviet player again conducts opportunity fire.

During the Soviet player turn, the Soviet player is the phasing player and the U.S. player is the non-phasing player. During the U.S. player turn the roles are reversed.

Rule 3: Unit Organization

A. General Explanation: Each counter in the game bears a unit identification (ID) in its upper left corner. For most units this consists of a platoon (or section) ID, a company ID, and a battalion ID. Exceptions are given in D below.

Unit IDs have a number of uses, the most common of which is in determining subordination for command 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.

B. Formats for IDs: In unit IDs, the platoon ID is given first, followed by the company ID, followed by the battalion ID. Platoon and battalion IDs are numbers, while company IDs consist of one or more letters. On U.S. units (but not Soviet units), the battalion ID is preceded by a dash. For example, a U.S. unit identified as 1B-2 is the 1st Platoon of B Company of 2nd Battalion; a Soviet unit identified as 2M4 is the 2nd Platoon of the mortar company of 4th Battalion. For exceptions to this scheme see D below. For further explanations see the unit identification chart.

C. Definitions: Several organizational terms require game definitions.

1. Platoon: Each counter is a platoon (or a 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 Soviet platoon 1A4 consists of an infantry unit and a BMP-B unit. There are also a few units which are called platoons but which, in the game, function as companies. Such units are noted with a C in parentheses on the unit organization charts. For example, the mortar platoon of the U.S. 1st Battalion has 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 and battalion ID. For example, the U.S. company A-1 (A Company, 1st Battalion) consists of the platoons 1A-1, 2A-1, 3A-1, and the company HQ, HQA-1.

3. Battalion: A battalion consists of all units with the same battalion ID.

4. 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, Soviet companies are actually numbered, but they have been given letters in the game.

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

1. One-unit Companies: Some companies are composed of only a single platoon. In these cases the platoon ID is omitted.

2. Regiments: Some Soviet units do not belong to a battalion, and are subordinated directly to a regiment. These units have a regimental ID in place of the battalion ID; regimental IDs are preceded by a dash. For example, 1AT-91 is the 1st Platoon of the anti-tank company of the 91st Regiment.

3. Headquarters, Tactical Operations Centers, and Observation Posts: U.S. company headquarters (HQs) and Soviet observation posts (OPs) are platoons of a company, with *HQ* and *OP*, respectively, in place of the platoon ID. For example, HQD-1 is the headquarters of D Company of the 1st Battalion, while OPM4 is the observation post of the mortar company of 4th Battalion. (Note that the U.S. has no OPs and the Soviets have no company HQs. Note also that not every U.S. company has an HQ.)

U.S. and Soviet battalion HQs, Soviet regimental HQs, U.S. battalion tactical operations centers (TOCs), and Soviet regimental TOCs are companies of a battalion/regiment, with no platoon ID and with *HQ* or *TOC* in place of the company ID. For example, TOC-3 is the tactical operations center of the U.S. 3rd Battalion, while HQ-91 is the headquarters of the Soviet 91st Regiment.

Some HQs, TOCs, and OPs consist of two units: a personnel class unit and a vehicle. The personnel class unit is the actual HQ, TOC, or OP; the vehicle unit is only its transport and is considered a separate platoon of the same company.

Rule 4: 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 certain 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. The resulting command rating is recorded on a separate sheet of paper and is later transferred to the command record.

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 ratings of each of his tactical operations center (TOC) units. Roll the die once per TOC unit and consult the command rating table. The resulting two numbers are the command (first number) and planning (second number) ratings and are recorded on a sheet of paper and 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 on a sheet of paper, and numbers them in order, beginning with 1. Then, out of the other player's sight, the player transfers these ratings to his command record, in the order stated in the scenario. Finally, the player gives the original sheet of paper 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.

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 U.S. company are subordinate to the company HQ. All units in a battalion are subordinate to the battalion HQ and (for the U.S.) battalion TOC. All units in a Soviet regiment (all units with the regimental ID and all units assigned to that regiment in the specific scenario) are subordinate to the regimental HQ and TOC. All units are subordinate to off-board operations points and default operations points.

For example, all U.S. units with company/battalion IDs of B-3 are subordinate to HQB-3; all units with battalion IDs of 3 (including HQB-3) are subordinate to HQ-3.

D. Uses of Operations Points: Units never need operations points to fire, nor do they need them to move in march formation (see rule 7). 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 10. Cross-attaching always requires 2 points.

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

1. Change Formation: 1 point (if visible) or 2 points (if not visible) are required for all the 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 the 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 7). If a player wishes to break up a stack by moving it in different directions or different distances, the operations point cost must be paid separately for each unit or stack of units moving together.

3. Replace HQ Casualties: 1 point (if visible) or 2 points (if not visible) allows an eliminated HQ to be replaced. Visibility is determined for the hex in which the replaced HQ will appear (see below). An HQ is replaced using points from units to which it is subordinate; U.S. battalion and Soviet regimental HQs may be replaced using points from the TOC of the same unit. TOCs may never be replaced. If an HQ is replaced, re-roll its command rating. A replaced HQ may not expend any points in the phase in which 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. U.S. Company/Soviet Battalion HQs: U.S. company and Soviet battalion HQs are replaced from other units in the same company or battalion. If the HQ is a vehicle unit, it is replaced from a unit containing the same vehicle. If the HQ (not its transport) is a personnel unit, it is replaced from a personnel unit; the HQ's transport may also be replaced from a unit containing the same vehicle, but the transport need not be replaced. The replacing unit takes one step loss (and is eliminated if already a half-strength unit) 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. 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 the HQ until eliminated.

b. U.S. Battalion/Soviet Regimental HQs: A U.S. battalion or a Soviet regimental HQ is replaced from the unit's TOC. If the HQ is a personnel unit, the HQ counter is placed on the board in the same hex as the TOC. If the HQ is a vehicle unit, the HQ counter labeled *Repl HQ* is used instead. The Soviet counter receives a UAZ-469 for transport while the U.S. counter receives an M-151 (jeep). No loss is suffered by the TOC.

If the unit's TOC has been eliminated, the HQ may not be replaced, but any U.S. company HQ in the same battalion or Soviet battalion HQ in the same regiment may be designated as the battalion/regimental HQ. It still functions as a company/battalion HQ, but in addition all other units of the battalion/regiment are subordinate to it. No operations points are expended for this, but the HQ may not expend any points during the movement phase in which it becomes the new battalion/regimental 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. 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 old command units, but is instead

subordinate to its new command units.

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 scenario, there is no penalty or cost. Cross-attachment during the scenario 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 of units from a single company cross-attached to a single other unit (company or battalion).

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

Record cross-attachments in the cross-attachment section of the command/morale record.

5. Rally: Command units spend operations points to rally shaken and broken units. See rule 17.

E. Special Cases:

1. Exceptions: Recon units, HQ units, OP 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 is stacked with to move in combat formation or change formation without using operations points, it does allow any vehicle transporting it to do so.

2. Soviet Battle Drill: While Soviet units do not have as extensive a command control arrangement as comparably-sized U.S. 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 Soviet 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 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 Soviet 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 5: Headquarters Units

The headquarters unit of a company, battalion, or regiment 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 which subordinate unit or units they will be spent on.

For example, the U.S. player has a company HQ which has a command rating of three. 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 expended to allow the same platoon to move in combat formation, and the third point expended to allow the first platoon of the company, 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 HQ units which are broken (see rule 17) may not expend operations points.

Rule 6: Tactical Operations Centers (TOCs)

A. Function: The tactical operations center of a battalion or regiment 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 that fact on his command record for the turn.

1. Command: A TOC unit may function the same as an HQ unit, expending operations points equal to its command rating.

2. Plan: A TOC which plans may not expend operations points that movement phase. Instead, operations points equal to its command rating are accumulated for later use.

Accumulated operations points are recorded on the player's command record. The planning rating of the TOC unit is the maximum number of operations points that it 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 plan in a movement phase in which it moves (and if allocated to planning that turn it may not command or execute either).

3. Firing: A TOC may not fire in the friendly fire phase if it planned in the previous movement phase.

4. Losses: Once eliminated, a TOC may not be replaced. However, the unit HQ may use the accumulated operations points of the TOC. Each turn following elimination of the TOC, the accumulated operations points total is reduced by two in addition to any used by the commander. This reduction takes place at the end of the owning player's 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 unit HQ is not in play. If the unit HQ of a U.S. battalion or a Soviet regiment is eliminated, it must be replaced before the TOC can plan or execute. The TOC may command in the absence of a unit HQ.

Rule 7: 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. While a player is moving a unit, it may be subject to opportunity fire (see rule 15) or pass-through fire (see rule 19). If so, this fire is resolved before the unit finishes movement.

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 of units 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.

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 the hex 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 broken are in no formation. See rule 17.) 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, and do not require operations points to move. However, units in march formation may not fire except during a close assault (see rule 16).

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.

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

Units in march formation are differentiated from units in combat formation 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 8). 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 second friendly movement phase of a 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, don't count. To mark fatigued units, place a *fatigued* marker on them.

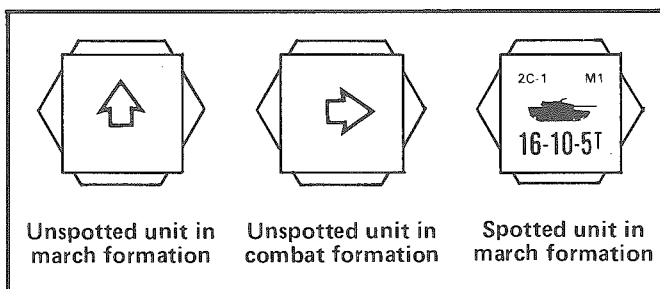
E. Terrain: Terrain affects vehicle units and leg units differently. Vehicle units pay a variable movement point cost to enter certain terrain types. Leg units must make a die roll of a given

number or less to enter certain terrain types. The terrain effects chart details the movement point cost for vehicle units and the die roll necessary for leg units to enter a hex. Certain hexsides also have a movement point cost or die roll associated with crossing them. For vehicles this cost is added to the cost to enter the hex; for leg units, the most difficult die roll of the two required (if both the hex to be entered and the hexside to be crossed require die rolls) is used.

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

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. Units in march formation always face a hexside, while units in combat formation face a hex vertex, as illustrated below.

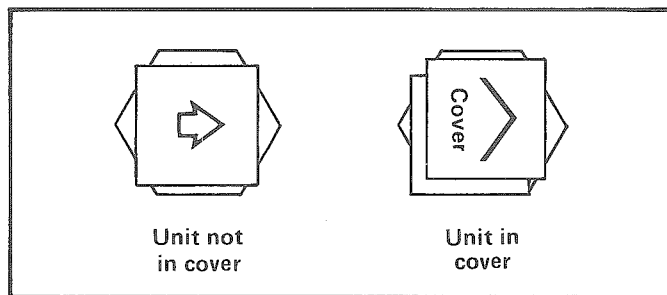


A unit must always face in the direction it is moving. A unit in march formation moves across the hexside it is facing, while a unit in combat formation may move across either hexside it is facing. A unit may change facing without movement cost immediately before entering each hex of its move. When it is finished moving it retains the facing of its 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 a unit.

G. Cover: Any 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 purposes 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 hexsides across which the fire came.

Cover affects the chance of spotting a unit and the chance of causing losses or suppression in direct fire, as explained in later rules. Only units in cover may conduct opportunity fire.

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

Rule 8: Transport

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

B. Which Units May Transport Units: All transport units have a circle, either open or filled in, on the counter. Units with an open circle may transport only leg units. Units with a filled-in circle may transport either leg or static units. Each transport unit may transport as many steps as its current strength level, but never more.

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 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 an infantry unit and allow it to mount. Once mounted, no further movement is allowed that phase.

In order for a static unit to mount or dismount, both the static unit and the transport unit must spend the entire movement phase in the same hex. Static indirect fire units which are deployed (see rule 19) 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 passthrough fire.

D. Fire From Transport Units: Transporting units may fire normally. Only infantry may fire while being transported. It may only do so with small arms ammunition from unsuppressed vehicles, 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 a half-strength unit. (A half-strength unit is unaffected.) If a full-strength unit

is destroyed, the mounted unit is reduced to a half-strength unit and is suppressed in the hex where the transport unit was destroyed. If a half-strength transport unit is destroyed, the mounted unit is suppressed in the hex where the transport unit was destroyed.

If a full-strength unit is carrying two half-strength units and is reduced to a half-strength unit, one of the half-strength units (determined randomly) 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.

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 a half-strength unit.

Rule 9: Stacking

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

B. Firing: A maximum of ten steps may fire from a hex.

Rule 10: Spotting

A unit may not be fired at by direct fire unless it is spotted. All game units are backprinted with their national color and a facing arrow. 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 (and 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 ammunition from a previously unspotted unit (see rule 13) must so declare at the beginning of the fire phase in which he will do so. 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: A player may attempt to spot only enemy units which are in the line of sight of one of his own units. A line of sight exists if the enemy unit is within the maximum line of sight distance of the spotting unit, and if the line of sight is not blocked. The line of sight is a straight line between the center of the spotting unit's hex and the center of the target unit's hex.

1. Maximum Line of Sight Distance: The maximum line of sight distance depends on the sum of the heights of the spotting and spotted units, as shown on the line of sight 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 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. Note that the same

Color: <i>Level</i>	color may represent either of two
Light Green: 0	different levels, depending on the
Light Brown: 1 or 2	presence or absence of another col-
Medium Brown: 3 or 4	or in the hex. If a lower-level color
Medium-Dark	is also present, it is the lower value;
Brown: 5 or 6	if a higher-level color is present or
Dark Brown: 7 or 8	if the hex is only one color, it is the
	higher value. (Although this may
	sound confusing, examination of
	the terrain key should make every-

thing clear.) 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 hex may attempt to spot (but may not be spotted) as if they were one level higher than the hex occupied.

3. Blocking Terrain: A line of sight is blocked if it passes through terrain higher than the line of sight 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 line of sight graph is used.

Take out the line of sight 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 point of the range axis and the correct elevation on the height axis. Next, locate the target unit by cross-indexing the range to the target unit and its elevation. The intersection of these two lines is its position on the graph. Lay a straightedge on the graph connecting the two lines. The straightedge is the line of sight from the spotting unit to the target unit. Finally, determine the range and elevation of any potential blocking terrain. Determine its point on the graph in the same manner as if it were a target unit. If its location on the graph is above the line of sight, the line of sight is blocked. If it is exactly on or below the line of sight, the line of sight is not blocked.

All terrain is evaluated on the basis of the colored area through which the line of sight 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 the line of sight. (Note that this is true even if the line of sight does not pass through the actual town, urban strip, or woods symbol; unlike the colored areas, the terrain is considered to fill the entire hex.) Hexes with smoke screens in them (see rule 20) are two elevations higher than the terrain level.

In addition, the line of sight to or from a unit in a woods hex is blocked if the immediately adjacent hex along the line of sight is also a woods hex.

The hexes the spotting unit and spotted unit are in never constitute a block to the line of sight.

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

enemy unit.

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

The range from the spotting unit to the target unit determines the basic 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 basic 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 unit is not in cover; the second is used if it is in cover. The notation *Auto* means that a unit in that terrain type is automatically spotted by any enemy unit at any range provided it has an unobstructed line of sight to it.

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

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

Modifiers are added to 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 the 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, OPs, and TOCs are recon units.

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

The die is rolled once for each hex containing units the player is attempting to spot; however, since different modifiers may apply, some units in the hex may be spotted while others are 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 line of sight to an enemy unit for which the modified roll to spot 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 line of sight.

F. Maximum Spotting 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 unit 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, he may give it a 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. Unspotting: If, at the end of any movement or fire phase a previously spotted unit is not within the line of sight 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 11) or morale (see rule 17). Although these units may not make spotting attempts on unspotted units, a spotted unit in their line of sight remains spotted.

Rule 11: 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 they 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 17). 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 that suffers a *hit* result loses one step of strength. All units begin the game with either one step or two steps of strength. 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 and which suffers a hit is removed from play. 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.

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 of strength it has.

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 17.

Rule 12: Direct Fire

There are two types of direct fire: anti-armor fire (directed only at armored vehicles) and conventional fire (directed at all units, including armored vehicles). Direct fire takes place during the fire phase and may take place during the movement phases (see rules 15 and 16). 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 at 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 22 is used.

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

1. Range: The fire data charts give the effectiveness of various types of ammunition for a unit at various ranges. The presence of a dash (—) indicates that the unit may not fire that ammunition type at that range with any effect. Generally, the greater the range, the less effective the fire. No unit may conduct direct fire at ranges greater than those listed on the chart.

2. Line of Sight: The target of the fire attack must be in the line of sight of the firing unit. Line of sight 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 elevation higher than the elevation of the hex. (In other words, they are firing from rooftops 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 16.)

4. Movement: A unit may not fire in the fire phase of the friendly player-turn if it moved in the first movement phase. Movement, for this purpose, is defined as entering a new hex; changing formation, mounting and dismounting, etc. are not movement. Movement in the second movement phase does not affect fire.

5. Units: Although units do not block line of sight for spotting purposes, they sometimes do block line of sight for firing purposes. A unit may never fire through a hex containing friendly units, nor may it fire conventional fire through any hex containing enemy units. A unit may fire anti-armor fire through a hex containing enemy units provided the hex contains no enemy AFV units.

A unit may always fire over both friendly and enemy units with direct fire if it is on a higher elevation and the line of sight passes above, rather than through, the elevation of the hex be-

ing fired over.

C. Ammunition Types: 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 (HVAPFSDS) 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. The type of uranium used in these rounds is not dangerously radioactive.

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

d. Msl: Guided anti-tank 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. These are found in rules 10, 13, and 15.

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

2. Conventional Rounds:

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

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

c. SA: Small arms fire consists of automatic weapons (machine guns and assault rifles) and grenade launchers.

d. APERS: The anti-personnel round fired by U.S. tanks consists of a round which is packed with thousands of flechettes. The gunner selects a range (up to 1500 meters) 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.

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 U.S. M1 tank 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 as listed on the fire data chart. Also, each step of a unit has its full rate of fire for both opportunity fire and for close assault, even when both activities occur in the same movement phase. A personnel-class unit may always fire every ammunition type available at its listed rate of fire. Any

other type of unit with more than one type of 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 unit could fire twice (per step) with AP ammunition or twice with SA ammunition or once with each. A Soviet BMP-B unit could fire three times with SCAP ammunition or once with Msl ammunition. A U.S. infantry unit could fire once with HEAT ammunition, once with Msl ammunition, and twice with SA ammunition.

E. Strength of Firing Unit: All fire data is listed per step. Since full-strength units 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 S-122 platoon fires once with AP ammunition and once with HE ammunition. Since the platoon has two steps, it actually makes two attacks with HE and two with AP.

Rule 13: 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 chart, have two numbers separated by a colon in each column of the *effectiveness at range* section of the chart. These include AP, APDU, HEAT, 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 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.

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

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 hexsides, divide the base hit number by three, rounding fractions down.

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 by both modifiers before rounding off.

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 seven. If a seven or six is rolled, the target unit suffers one hit; if a five or less is rolled the target unit suffers two hits.

A target unit which suffers one or more hits will lose steps, provided the hits penetrate.

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 of the ammunition to the armor of the target. If the penetration 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 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, a Soviet T-80 firing AP ammunition has a penetration value of 15 at a range of eight hexes.

2. Armor Value: Each AFV unit has two armor values; the first value is for frontal shots and the second is for flank shots. If the line of sight crosses the hexside (march formation) or hexsides (combat formation) the unit is facing, the frontal armor is used. If the line of sight crosses any other hexside the flank value is used. If the line of sight exactly crosses the vertex between a front hexside and a flank hexside, the front value is used. If the firing unit is in the same hex as the target unit the flank value is always used.

3. Hit Confirmation: A hit from AP or APDU ammunition which is capable of penetrating the target's armor 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.

In most cases, an addition to the difference between armor and penetration is made (thus making it easier to confirm the hit). If the target unit is protected by chobham armor, no addition is made. If the target unit is protected by laminate armor, two is added to the difference. In all other cases four is added to the difference; see the hit confirmation table. All vehicles protected by chobham or laminate armor are listed on the armor types table.

For example, a U.S. infantry unit firing HEAT ammunition achieves a hit on the front of a T-80 unit. The T-80 has a frontal armor value of 15 while the infantry's HEAT ammunition has a penetration of 17, or a difference of two. Since the T-80 has laminate frontal armor, two is added to the difference, for a final difference of four. The U.S. player must roll a four or less on the die to inflict a step loss on the T-80.

Rule 14: 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.

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 if the unit is 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 two. 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 fifteen. Since there are a total of five 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.

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 11.

Rule 15: 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 undeploying.

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 unit as it enters the target hex.

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 by 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.

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

2. Fires per Hex: Any single step may fire against any single stack in any single hex once (with a ROF of 1). For example, if a stack moves three hexes within the line of sight 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 16: 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.

Rule 17: 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 is 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 of the company is fired upon. Morale checks in the fire phase occur at the end of the phase. To check morale, roll the die once. If the result is equal to or less than the current morale level 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 Levels: A company's initial morale level depends on its initial number of steps. If the company initially has 4 or fewer steps, its morale is 8; if it has 5 through 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 level 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.

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 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 within the same distance of 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 18: Entrenchments

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

A unit must be in combat formation and must spend its full movement phase in an entrenchment hex to enter the entrenchment; no expenditure of operations points is required and entering the entrenchment is not considered movement for 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 19: Artillery and Indirect Fire

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

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

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

2. Observing Fire: a hex must be under observation by a unit capable of calling fire in order for a fire mission to be written for the hex. All U.S. units are capable of calling fire as are all Soviet HQ and OP units. 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 line of sight are explained in rule 10.

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

the headquarters to which both it and the firing

Company unit are subordinate. Command levels for the Battalion Soviets are shown at left.

Regiment All OPs are company-level units.

Division For example, if an OP requests fire from a different company of the same battalion, there is one

Army additional turn of delay. If an OP requests fire from a company of another battalion in the same regi-

ment, there are two additional turns of delay. If a battalion HQ requests fire from divisional artillery, there are two additional turns of delay.

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

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

C. Indirect Fire Procedure: After all fire missions are recorded, fire missions due to arrive in the current turn are resolved.

All artillery firing at a hex is added together and attacks all units (enemy and friendly) in the hex.

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

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

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

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

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

5. Results: Results are explained in rule 11.

D. Special Cases:

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

For example, the Soviet D-30 howitzer has a value of 4 when firing HE ammunition. Once during the game it may fire at max ROF. Since its max ROF multiplier is 6, its total value for that turn would be 24.

2. ICM: With some weapons, the U.S. player has a choice of firing either HE (High Explosive) or ICM (Improved Conventional Munitions). ICM may not be fired at 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 modifier and by the ICM modifier.

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 fire 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 20.

For example, a U.S. M-125 mortar is plotted to fire an incendiary smoke mission. Since it may fire four incendiary smoke screens per turn, the U.S. player writes down up to four target hexes.

If there are units in the target hex the turn the 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 targetted 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 six per turn if a two-step unit. If all six were fired at a single hex, each unit in the hex would be attacked with a fire value of 60.

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

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

E. Deployment: In order to conduct indirect fire, or to be given a fire mission, units must be deployed. After all indirect fire in the friendly artillery phase has been resolved, the player may 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 the 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 also 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 deployment during a turn in which they conducted a fire mission.

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

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

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

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

The range from off-board artillery to a target is equal to the

artillery's distance off-board plus the distance from the target to any hex on the owning player's board-edge (east or west).

Rule 20: Smoke

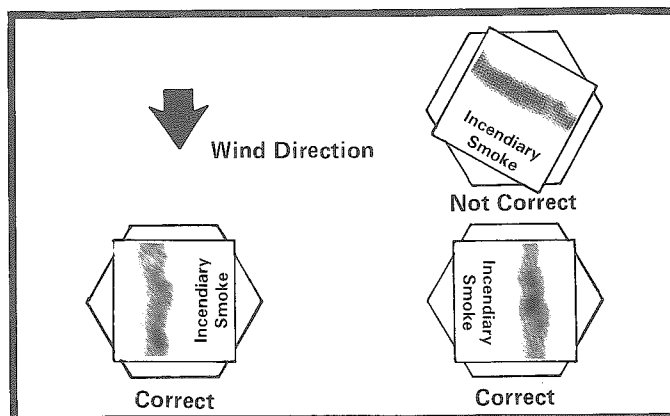
Smoke may be delivered by those indirect fire weapons so noted on the indirect fire data charts. There are two types of smoke: incendiary smoke and chemical smoke.

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

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

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

3. Orientation: Each smoke marker is placed in a hex but actually blocks two hexsides. The marker is faced toward a hex vertex, indicating that the two hexsides adjacent to that 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 of 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 of 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 next friendly artillery phase and remove it at the start of the following 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 the 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 of smoke round creates a smoke screen; no smoke markers are placed (but IS rounds may still attack units in the hex).

B. Effects:

1. Incendiary Smoke: Incendiary smoke blocks line of sight for spotting and fire purposes for all units. Incendiary smoke is considered to be two elevation levels tall. The line of sight must

cross one of the two blocked hexsides to be blocked.

Incendiary smoke may also cause casualties if units are in the target hex the turn of its arrival. See rule 19.

2. Chemical Smoke: Chemical smoke has the same effect as incendiary smoke except that units equipped with thermal sights ignore the effects of chemical smoke. All U.S. M-1s, M-2s, M-3s, and M-901s are equipped with thermal sights. In addition, U.S. Dragon gunners have thermal sights, and thus U.S. infantry may spot units through chemical smoke and fire Msl ammunition through it; they may not observe artillery fire through smoke or fire other ammunition through smoke. See the thermal sight units table.

C. 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 14. In addition, whenever IS ammunition is used to attack a target in direct fire, an incendiary smoke screen 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 U.S. fire phase of turn 4 would be removed at the start of the Soviet artillery phase of turn 6.

Rule 21: Cannon-Launched Guided Projectiles (Optional)

Cannon-launched guided projectiles (CLGPs) are currently in the final stage of development and may be fielded within the time frame of this game. If players wish, they may include the use of CLGPs in any scenario.

A. Firing CLGPs: Only U.S. 155mm howitzers may fire CLGPs. CLGP fire is recorded as a normal fire mission with a specified target hex.

B. Directing Fire: CLGPs impact during the artillery phase and count as a 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 line of sight to the designated hex and its range to the designated hex is no more than 24 hexes. The CLGP attack is then resolved against any 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: One counter in each U.S. company may be noted (on the ammunition record) as containing the company's laser target designator. The laser designator is not capable of penetrating smoke, and thus the smoke always blocks the line of sight for purposes of directing fire, even if the designator unit has thermal sights. Any casualty in the designator unit eliminates its ability to direct CLGP fire.

Rule 22: Ammunition Supply (Optional)

Given the time scale of *Assault*, it is possible for most units in the game to burn through their basic load of ammunition. This is particularly true of most units equipped with missiles. However, the mechanics involved in keeping track of each game shot are such that this 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.

A. Ammo Supply: The direct and indirect fire data charts list the ammunition available to units in terms of game fires that may be made. Each time that 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 rounds (for example, HEAT and HE for the U.S. M1), these are actually the same round, which combines anti-armor and conventional fire effects. Use of either round reduces the combined ammo supply.

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

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

Units may not resupply during the course of the game.

Rule 23: Scenarios

Assault contains three scenarios. Players should decide by mutual consent which scenario is played. Beginning players should start with the Probe scenario, as it has fewer units in play and is thus more manageable.

Once a scenario is chosen both players randomly determine which force levels they will be using; since each player has six possible force levels, each scenario actually consists of 6×6 or 36 scenarios, for a total of 108 in the game.

After determining scenario and force levels, the players consult their scenario folders for the details of the scenario: forces, special rules, victory conditions, and so on.

A. Force Levels: Each side has six counters numbered from 1 to 6. These should be shuffled face down and each player draws one of his own counters. The other counters are placed aside. The counter drawn determines the forces available to the player for the scenario, as shown in the player's scenario folder. The force level counter should be saved and shown to the other player at the end of the scenario.

B. Scenario Information: Each player's scenario folder provides all information necessary to play each scenario. The information is divided into three parts: 1) general scenario information, which applies to all force levels of the scenario, 2) sections for each of the force levels in the scenario, containing information which applies to a single force level, and 3) the scenario chart, which details the units appearing in each force level and their arrival times.

1. General Scenario Information:

a. Description: The player's situation and goals are briefly outlined.

b. Maps and Wind Direction: The U.S. scenario folder shows the maps used, their orientation in relation to each other, and the compass directions of the assembled map. Soviet units always enter from the east, and U.S. units enter from the west. Note that the orientation of the map number in the diagram corresponds to the orientation of printed town names on the actual map.

The U.S. scenario folder also shows a wind direction compass for determining wind direction in the scenario.

c. Victory: This section lists those objectives for which the player receives victory points. This is generally expressed in terms of towns captured, enemy units eliminated, and friendly units exited off the map.

d. Total Scenario Length: This section gives the number of turns in the scenario.

e. Off-Board Artillery: This section states the nature of any off-board artillery available to the player: quantity, ID, level, distance off-board, and whether it is deployed.

f. Off-Board Command: This section states any off-board command points available to the player.

g. Command Ratings: This section states how many HQs and TOCs should be rated for the scenario.

h. Initial Deployment: This section gives the deployments of the player's units which start on the board, if any.

Sections e, f, and h are omitted if they do not apply; for example, if no off-board command points are available, section f does not appear.

2. Force Level Information: The following information is different for each force level.

a. Units Required: This section states which units are used in the scenario. For example, 6 means the 6th Battalion, D6 means D Company of that battalion, and 1D6 is its first platoon. For more detailed information see the scenario charts.

b. Command Units: This section states which command units, and in what order, are to be assigned the command ratings rolled for at the beginning of the scenario.

c. Subordination: This section states which Soviet battalions are subordinate to which regimental HQs and TOCs. This section appears only if the scenario contains more than one regimental HQ. In scenarios with only one regimental HQ, all units are subordinate to that regiment.

d. Victory Point Multiplier: This section states the multiplier used when determining victory (see C below).

e. Special Rules: This section gives any special rules or explanations required to play that force level.

3. The Scenario Charts: The scenario charts list every unit in the game and state which scenarios and force levels units appear in. Cross-index the scenario and force level with the unit. If a number appears, the unit enters on that turn; if an S appears, the unit is an initial unit and starts on the board. If no number or S appears, the unit is not included in that force level.

Units followed by asterisks each consist of a personnel counter and a vehicle transporting it.

The chart also lists dummies and entrenchments. Dummies are listed in the form *quantity/turn of arrival*; for example, 2/1 means that two dummies are received on turn 1. For entrenchments, only the quantity is given; all entrenchments are on the board at the start of the scenario.

C. Victory: At the end of the scenario, both players add up the victory points gained and then multiply them by the victory point multiplier of their force level. (Note: when adding up victory points, it is possible to arrive at a negative total.) The player with the higher victory point total is the winner.

D. Off-Board Command Units: HQs and TOCs which are scheduled to enter during the scenario, but which have not yet appeared, may perform command functions. No units are visible to them; thus they spend two operations points for everything.

Rule 24: Record-keeping

A considerable amount of record-keeping is required in *Assault*, but it isn't difficult to do. There are three record charts, printed back-to-back on two sheets of heavy paper: the command/morale record, the fire mission record, and the ammunition record. Players should photocopy these records and have

several copies of each on hand to use as necessary.

A. Command/Morale Record: The record has four sections.

1. Headquarters: This section is used to record operations point expenditures by headquarters. Each HQ gets one line. Write the HQ's ID in the first column and its command rating in the second. Remaining columns correspond to the first (F) and second (S) friendly movement phases of turns 1-10. (A new record must be filled out after turn 10.) Each phase, mark off operations points as the HQ uses them (never exceeding its command rating, of course).

2. TOCs: This section is similar to the HQ section, with a few differences. The second column is used for the TOC's command and planning ratings. The third column is used to record accumulated operations points. When the TOC plans, record its accumulation of points with strokes (); when it executes, cross out the old total and write a new total each phase using arabic numerals. The remaining columns correspond to turns 1-10; the first division is used to record the TOC's allocation for the turn to command (C), planning (P), or execution (E).

3. Morale: This section record each company's morale. Write each company's ID in the first column and its initial morale in the second. When its morale changes, cross out the old value and write in the new value. Remember that each battalion or regimental HQ or TOC is a company.

4. Cross-Attachment: This section records cross-attachments. Write the unit being attached to in the first column and the unit or units being attached (two at most) in the second column. If only part of a unit is being attached, record this fact in parentheses with a minus sign. For example, if the recon company of the 91st Regiment, without its 3rd Platoon, is being attached to a battalion, the entry would read *R-91 (-3R-91)*.

B. Fire Mission Record: This chart records the player's fire missions. The section on the left lists each turn in order and is used to keep track of when a mission is due to arrive. When a mission is planned, record the firing unit's (or units') ID in the proper line of the second column of the section. The rest of the chart records the details of each mission. Write the turn of arrival and unit ID in the first two columns of the section, to identify the mission. Then record the target hex, giving map letter and hex number, the ammunition type being used, and whether the mission will use the maximum rate of fire (with a checkmark). If the mission is a smoke mission, use one line to record each target hex. When the mission arrives, write the number of the fire mission marker used in the next column and record the total fire value in the last column.

C. Ammunition Record: Of course, this record is used only if rule 23 is also being used. The first column records the unit ID. The second records its type (note that a mechanized infantry platoon has two types: the infantry itself and its transport). The third column records the type of round, with one line per type; note that if two ammunition types share their ammunition supply, they get one line together. The last column records the number of rounds remaining; write down the initial supply from the fire data charts; every time the unit fires, cross out the old value and write in a new value.

The record is also used to record the assignment of special equipment, such as the U.S. laser designator. Write *laser* in one of the boxes at the bottom of the chart and write the corresponding number in the *Round* column for each unit which receives it.

Expanded Sequence of Play

Soviet Player Turn

Artillery Phase

- Record fire missions.
- Adjust smoke markers from previous turns.
- Resolve indirect fire.
- Deploy artillery units.

First Movement Phase

- Declare TOC action for turn.
- Allocate operations points.
- Attempt to rally broken or shaken units.
- Attempt to rally suppressed units.
- Change formation.
- Move units, resolve all pass-through fire and opportunity fire, and check morale.
- Mark fatigued units (those which climbed a steep slope this phase).
- Remove fatigue markers (unless unit climbed steep slope this phase).
- Attempt to spot.
- Resolve close assaults and check morale.

Fire Phase

- Declare all missile fire.
- Attempt to spot units firing missiles.
- Resolve all fires.
- Check morale.
- Attempt to spot firing units.

Second Movement Phase

- Allocate operations points.
- Attempt to rally broken or shaken units.
- Attempt to rally suppressed units.
- Change formation.
- Move units, resolve all pass-through fire and opportunity fire, and check morale.
- Mark fatigued units.
- Attempt to spot.
- Resolve close assaults and check morale.
- Reduce accumulated operations points by 2 for all eliminated TOC units.

U.S. Player Turn

The U.S. player turn is identical to the Soviet player turn in sequence.

Boots & Saddles

Air Cavalry in the 80's

Contents

Introduction.....	1
Section I.....	1
Game Components.....	1
Introduction to Helicopters.....	1
Rule 25: The Airmobile Reaction Phase.....	1
Rule 26: Helicopter Movement.....	2
Rule 27: Landing and Taking Off.....	2
Rule 28: Helicopter Combat.....	2
Rule 29: Poppers.....	2
Rule 30: Anti-Aircraft Missiles.....	3
Rule 31: Laser-Designated Missiles.....	3
Rule 32: Radar.....	3
Rule 33: Variable Armament.....	3
Section II.....	3
Rule 3: Organization.....	3
Rule 4: Command Control.....	4
Rule 5: Headquarters Units.....	4
Rule 7: Movement.....	4
Rule 8: Transport.....	4
Rule 9: Stacking.....	4
Rule 10: Spotting.....	4
Rule 12: Direct Fire.....	4
Rule 13: Anti-Armor Fire.....	4
Rule 14: Conventional Fire.....	4
Rule 15: Opportunity Fire.....	4
Rule 16: Close Assault.....	4
Rule 17: Morale.....	4
Rule 19: Artillery and Indirect Fire.....	5
Rule 21: Cannon-Launched Guided Projectiles (Optional)....	5
Rule 22: Ammunition Supply (Optional).....	5
Rule 23: Scenarios.....	5
Rule 24: Record-Keeping.....	5

Boots & Saddles

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Introduction

Boots & Saddles is a game in the *Assault* series, a tactical level simulation of ground combat in Europe in the 1980's. Complete in itself, *Boots & Saddles* introduces rules for attack helicopters and airmobile operations.

This booklet contains the additions to the basic *Assault* rules needed to play *Boots & Saddles*.

The basic *Assault* rules are included in this package and should be read first. Players should become familiar with the basic rules (and perhaps play a scenario without helicopters: introductory scenarios A or B, or any of the scenarios in *Assault*) before reading this booklet.

This booklet is organized into two general sections. The first consists of new rules which introduce major concepts of helicopter combat. The second consists of additions and exceptions to the basic *Assault* rules (not all of which have to do with helicopters).

Section I

Game Components

Boots & Saddles contains the same quantities and types of components as are listed in the *Assault* rules, plus this booklet.

Introduction to Helicopters

In these rules, helicopters are treated generally as AFVs—although with several exceptions, most obviously their ability to fly. However, unless a specific exception is given below, every rule in *Assault* which applies to AFVs also applies to helicopters.

Helicopters are mobility class H, and are also identified as type H on the spotting tables and the conventional and indirect fire defense tables.

Rule 25: The Airmobile Reaction Phase

The airmobile reaction phase is an additional phase inserted into each player-turn between the first movement phase and the fire phase. This is a special movement phase in which the non-phasing player (the U.S. player in the Soviet player-turn and the Soviet player in the U.S. player-turn) may move his helicopters.

Soviet Player-Turn

Artillery Phase
First Soviet Movement Phase
U.S. Airmobile Reaction Phase
Fire Phase
Second Soviet Movement Phase

U.S. Player-Turn

Artillery Phase
First U.S. Movement Phase
Soviet Airmobile Reaction Phase
Fire Phase
Second U.S. Movement Phase

The sequence of play is now as shown at left.

The airmobile reaction phase is identical to a movement phase with the following exceptions:

A. Command: The only units which receive operations points or perform command functions in this phase are helicopter HQs, and only helicopter units may be affected. A helicopter HQ is any HQ with a helicopter silhouette.

B. Movement: The only units which may move are the non-phasing player's helicopters. (Exception: the non-phasing player's other units may mount or dismount from helicopters during this phase.) Helicopters' movement in this phase is in addition to movement in the two movement phases.

C. Spotting: Any eligible units of the phasing player may attempt to spot in this phase, but may spot only helicopters which are moving (and mounting/dismounting units). Of the non-phasing player's units, only helicopters may spot, but they may spot any units.

D. Opportunity Fire: Only helicopters and mounting or dismounting units are vulnerable to opportunity fire.

Rule 26: Helicopter Movement

A. Maneuverability: Every helicopter has a maneuverability rating as a superscript to its movement rating. The lower the rating, the more maneuverable the helicopter.

B. Formations: A helicopter in march formation is flying at medium altitude and moderate to high speed. A helicopter in combat formation is flying at low altitude (nap of the earth) and low speed. Movement rules are different for the two.

1. March Formation: The helicopter pays 1 MP for each hex entered, regardless of terrain. It may enter only the hex it is facing. A change of facing costs MPs; the helicopter pays MPs equal to its maneuverability for the first hexside of change within a hex; it pays MPs equal to twice its maneuverability for the second or third change within a hex. Thus, a 180° facing change within a single hex would cost five times the helicopter's maneuverability.

2. Combat Formation: The helicopter pays MPs equal to its maneuverability for each hex entered, regardless of terrain. It may enter either of its two front hexes and may change facing without cost immediately before entering a new hex. It may also change its facing without cost at the end of its movement.

Helicopters which have landed or whose morale has broken are in no formation; a landed helicopter may not move except to take off, while a broken helicopter moves as if in march formation.

Rule 27: Landing and Taking Off

A. Landing: A helicopter in either formation may land at the end of any friendly movement phase. It may land only in clear or urban strip terrain. When a helicopter lands, place a *landed* marker under it. A helicopter which has landed is in no formation and facing is unimportant. It may not move except to take off; units may mount or dismount. It may not fire its weapons. In all other respects (except for its unitary armor value) it functions as an AFV. References to helicopters in subsequent rules do not apply to helicopters which have landed.

B. Taking Off: A helicopter may take off at the beginning of any movement phase. It may assume any formation and facing without expending operations points.

C. In and Out: A helicopter may enter a hex, land, dismount leg-mobile personnel units, take off again, and leave the hex in the same movement phase. This action may be performed in any formation and costs half the helicopter's movement allowance. Only leg-mobile personnel units may dismount; no units may mount.

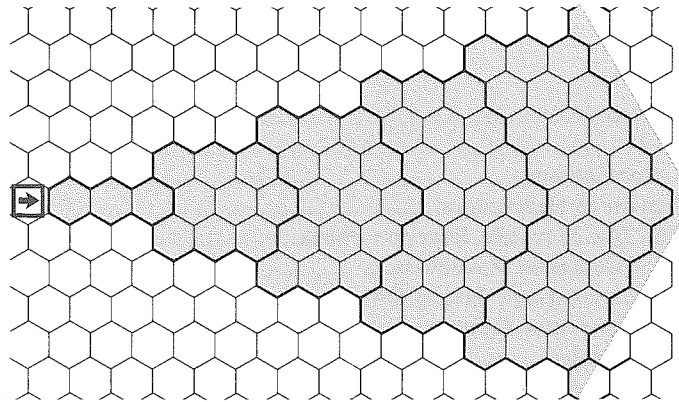
D. Movement Effects: Landing and taking off are considered movement for purposes of operations point expenditure, spotting, opportunity fire, and passthrough fire. A helicopter in combat formation, and which did not move in the phase, may enter cover as it lands.

Rule 28: Helicopter Combat

A helicopter may fire in the fire phase even if it moved in the first movement phase; however, a helicopter which moves in

the first movement phase or the airmobile reaction phase may not fire Msl ammunition in the following fire phase.

A. Firing in March Formation: Unlike ground units, a helicopter in march formation may fire, with certain restrictions. It may fire only within a restricted field of fire, as shown in the diagram below. It may not fire Msl ammunition, and may not fire at a range of 0. (Note: the U.S. UH-1H and UH-60 may not fire in march formation.)



B. Firing in Combat Formation: A helicopter in combat formation may conduct opportunity fire even if it is not under cover, but it may not fire Msl ammunition in the airmobile reaction phase if it moved in the first movement phase.

C. Firing at Helicopters: Fire against helicopters is resolved in the same manner as fire at AFVs with the following exceptions.

1. Armor: A helicopter has a single armor value which applies to both front and flank shots.

2. Conventional Fire: Helicopters are fully affected by all conventional fire rounds, not just HE.

3. Limitations: AAMs (see rule 30) follow their own rules. The abilities of other weapons to fire at a helicopter depend on whether the helicopter is stationary. A helicopter is stationary if it is under cover or is executing a fire popup (see rule 29).

a. Stationary Helicopters: Any direct fire weapon may fire at a stationary helicopter. Weapons (and ammunition) marked on the direct fire data charts with one or two asterisks (* or **) fire without penalty. Other weapons have their hit chances (for anti-tank fire) or fire values (for conventional fire) halved, dropping fractions.

b. Non-Stationary Helicopters: Only weapons (and ammunition) marked with one or two asterisks (* or **) may fire at a non-stationary helicopter. Weapons marked with two asterisks fire without modification. Weapons marked with a single asterisk have their hit chances halved, dropping fractions.

Rule 29: Popups

Helicopters in combat formation may perform popups. There are two types: spotting popups and fire popups. In both types, the helicopter expends MPs equal to its maneuverability and rises to a higher level in the hex (14 is the maximum). Units performing popups are spotted as if they are in clear terrain.

A. Spotting Popups: A spotting popup may occur at any time during movement. The helicopter rises and returns to ground level in the same phase. Thus only spotting and opportunity fire may occur while it is at the higher level. (Exceptions: see rules 30 and 31.)

B. Fire Popups: A fire popup may occur at the end of move-

ment. The helicopter rises and remains at the high level until the beginning of the next friendly movement phase or airmobile reaction phase, at which point it returns to ground level. Thus the unit may spot, perform opportunity fire, and participate in combat during the fire phase (unless it popped up in the second movement phase) at the higher level.

C. Movement Effects: A popup is considered movement for purposes of operations point expenditure, spotting, and opportunity fire. It does not prevent a helicopter from firing Msl ammunition (if it did not otherwise move in the phase).

Rule 30: Anti-Aircraft Missiles

Anti-aircraft missiles (AAMs) are a special type of ammunition which may be fired only at helicopters. For game purposes, the term AAM includes both surface-to-air missiles (SAMs) and air-to-air missiles (AAMs). AAMs may fire at stationary or non-stationary helicopters without penalty.

A. IR Homing Missiles: AAMs marked with a + on the fire data chart (all the ones in this game) are infrared homing missiles. IR homing missiles add the infrared signature of their target to their hit chances. For example, if a Stinger is fired at an Mi-24 at a range of 10 hexes, the base hit chance of 3 is added to the Mi-24's IR signature of 2, for a combined 50% chance of a hit. IR-homing missiles are unaffected by cover.

A helicopter which performed a spotting popup during the first movement phase or the airmobile reaction phase may fire IR homing missiles from the higher level in the fire phase.

B. Stinger and SA-7: The US and Soviet forces both possess small, shoulder-fired AAMs which are distributed among their maneuver units for local protection. One issue (two shots) of Stinger is given to each maneuver company in each US armored, mechanized infantry, armored cavalry, and airmobile infantry battalion. Armored battalions in *Assault* and *Boots and Saddles* are 1 and 4; mechanized infantry battalions are 2 and 3; 6 is armored cavalry; 9 is airmobile infantry. Maneuver companies are all companies except battalion HQs, TOCs, and scout, mortar, and anti-tank companies. (Note: E2 is an anti-tank company).

One issue (two shots) of SA-7 is given to each maneuver company in each Soviet motor rifle and airmobile assault battalion. Motor rifle battalions are 4, 6, 7, 8, 13, and 14; airmobile assault battalions are 16 and 17.

One counter in each company carries the AAM. Any counter (including the company HQ and the transport vehicle of an infantry platoon) may be so designated; mark this fact in the equipment section of the ammunition record. The AAMs may not be transferred to a different counter, and if the carrying counter is eliminated, so are the AAMs. Infantry may fire AAMs while mounted on a vehicle (but not on a helicopter).

Rule 31: Laser-Designated Missiles

The Msl ammunition carried by the U.S. AH-64 is Hellfire; the Msl ammunition carried by the Soviet Mi-24E is the AT-6 Spiral; both of these are laser-designated missiles, with several special characteristics.

Laser-designated missiles are the only Msl ammunition which can be fired at helicopters.

A laser-designated missile may be fired even if the helicopter moved, and a helicopter which performed a spotting popup during the first movement phase or the airmobile reaction phase may fire a laser-designated missile in the fire phase from the higher position. In both of these cases, another unit must be

capable of designating the target. U.S. ground units with laser designators (see rule 22) and any AH-64 or OH-58 in the same company as the firing unit may designate for AH-64s. Any Mi-24 in the same company may designate for Mi-24s. The designating unit must not have moved in the first movement phase or airmobile reaction phase and must have an unblocked line of sight to the target. Maximum range from designator to target is 24 hexes.

Rule 32: Radar

The Soviet ZU-23, ZSU-23, and ZSU-30 and the U.S. M-988 all possess radar. A unit which has radar and is in combat formation automatically spots any helicopter in its line of sight. (Exception: the player may decide at the beginning of his player turn that the radar of any unit is not being used, if he so desires. If so, it may not be used at all until the beginning of his next player turn.)

However, only the unit itself is allowed to conduct opportunity fire against the spotted target in the movement phase in which it is spotted. (Exception: An SA-9 stacked with a ZSU-30 or ZSU-23 of the same company is linked to the ZSU's radar and may conduct opportunity fire in the same movement phase.) Radar can trace a line of sight through any type of smoke.

The U.S. AH-64 possesses a radar detector; whenever it is spotted by radar, it automatically and simultaneously spots the spotter. Again, only the spotting unit is allowed to conduct opportunity fire against the spotted target in the movement phase in which it is spotted.

Rule 33: Variable Armament

The armament of some Soviet and U.S. helicopters can vary.

A. Soviet Helicopters: There are two variants of the Mi-24 and Mi-8: Mi-24D and Mi-24E, Mi-8C and Mi-8D. In game terms, they differ only in their armament. The counters do not differentiate between types, although the direct fire data charts do. Each scenario states the types of Mi-24s and Mi-8s included in it (if any).

B. U.S. Helicopters: The AH-1, AH-64, and OH-58 carry pylons which can be fitted with various weapons. The OH-58 has one pylon; the AH-64 has four pylons; the AH-1 has four pylons, but two of them may be fitted only with rocket pods. At the beginning of the game, the U.S. player chooses the armament of each pylon of each of his helicopters and writes it down on his ammunition record. Examine the direct fire data chart. If the ammo supply number for a round is followed by a p, that round may be chosen for a pylon; rounds with ammo supplies followed by an r are rocket pods. On the AH-1 and AH-64, pylon loads must be chosen in pairs: two pylons loaded with the same round, with the exception that the player may choose one each of the two types of rocket pods. The ammo supply is listed per pylon. For example, if the player chooses two loads of Msl ammunition, one HEAT/HE rocket pod, and one APERS rocket pod for an AH-64, the helicopter's total ammunition load would be 4 Msl, 5 HEAT/HE, 5 APERS, and 10 SCAP/SCHE.

Section II

Rule 3: Organization

The U.S. 5th and 7th battalions are incomplete. The 5th Squadron (divisional cavalry) is represented by two air cavalry

troops. The 7th Battalion (divisional air defense) is represented by one battery. These units must be cross-attached to a battalion or retained as independent companies, as desired by the player.

Rule 4: Command Control

The Soviet 93rd Brigade and US 9th Battalion TOCs are not supplied with vehicles; HQs regenerated from them do not receive vehicles.

Rule 5: Headquarters Units

The Soviet 18th Squadron (Mi-24) has two HQs, designated aHQ18 and bHQ18. The second is actually the deputy commander; bHQ18 is subordinate to aHQ18, but otherwise functions as another HQ for the battalion. However, bHQ18 cannot rally aHQ18, nor may it spend operations points to replace aHQ18. bHQ18 is the first choice as a unit from which to replace aHQ18. bHQ18 may not be replaced.

The Soviet 93rd Brigade functions in all respects as a regiment.

Rule 7: Movement

B. Procedure: Helicopters may freely pass through hexes occupied by units on the ground or other helicopters; units on the ground may freely pass through hexes occupied by helicopters.

D. Mobility Class: 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 8. Units with a class of ^{WS} are wheel-mobile.

E. Terrain: Terrain has no effect on helicopter movement.

Rule 8: Transport

A. Which Units May Be Transported: Units with a mobility class of S^L are treated as leg units for transport purposes. Units with a mobility class of ^{WS} 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.

Helicopters may also carry vehicle units, treated as static units. Light vehicles (M-151s, UAZ-469s, and motorcycles) 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), BRDM-2 (all types). BMPs (all types) are counted as having 10 times their actual number of steps. Other vehicles may not be carried.

B. Which Units May Transport Units: 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).

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; an Mi-8 unit may transport three times its number of steps, while an Mi-26 unit may transport 12 times its number of steps, as shown on the transport capacity table. These steps may be leg or static units (but see A above). Thus a half-strength Mi-8 unit could transport three steps of infantry or one step of static units.

C. Procedure: 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 27.

D. Fire from Transporting Units: Infantry may not fire while

being transported in helicopters.

E. Fire at Transporting Units: If a helicopter is destroyed, the unit being transported is destroyed.

F. Combined Transport: 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.

Rule 9: Stacking

B. Firing: Units in a hex are divided into three groups for stacking purposes: units on the ground, helicopters in combat formation, and helicopters in march formation. Up to ten steps of each may fire from a hex.

Rule 10: Spotting

B. Line of Sight:

2. Elevation: A helicopter in combat formation is considered to be at the same level as the hex, plus one if the hex contains woods, urban strip, or town. A helicopter in march formation is considered to be four levels above this. A helicopter executing a popup is at whatever level the player announces when the popup is begun, up to 14.

3. Blocking Terrain: The line of sight to a helicopter in a woods hex is not blocked if the immediately adjacent hex along the line of sight is also a woods hex (unless it would be blocked without that special rule, of course).

Rule 12: Direct Fire

B. Limitations:

5. Units: Helicopters do not block the line of sight for fire purposes.

Rule 13: Anti-Armor Fire

A. Hit Procedure:

1. Multiple Targets in Hex: The number of steps in the hex is considered separately for units on the ground, helicopters in combat formation, and helicopters in march formation.

Rule 14: Conventional Fire

A. Determine Target Defense Value: 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.

Rule 15: Opportunity Fire

A. Limitations: Landing, taking off, and popping up are considered movement for purposes of opportunity fire.

1. Range: 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.

Rule 16: Close Assault

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

Rule 17: Morale

The Soviet 20th Squadron (Mi-26) is a single company for morale and rally purposes (including its HQ); it has an initial

morale of 8.

Rule 19: Artillery and Indirect Fire

Indirect fire has no effect on helicopters in march formation.

Friendly indirect fire missions must be canceled if any friendly helicopters are on the board in march formation when the mission is due to arrive. If a friendly indirect fire mission is currently in progress, no friendly helicopters may enter march formation.

Helicopters have their own row on the indirect fire defense table.

Rule 21: Cannon-Launched Guided Projectiles (Optional)

C. Designator Units: All AH-64s and OH-58s in AH-64 companies may designate for CLGPs.

Rule 22: Ammunition Supply (Optional)

If SPG-9, SD-44, or M-29 units ever move by themselves (i.e., other than by 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.

Rule 23: Scenarios

The same three scenarios are included in *Boots & Saddles* as in *Assault*, but the force chits are numbered 7-12. Because the same scenarios are used, the two games can be combined, with players drawing randomly from force levels 1-12 (resulting, incidentally, in a total of 432 different scenarios). However, a few additional measures are required.

First, choose which maps are to be used: A and B or C and D may be used, in the orientations shown in the two U.S. scenario folders; as an alternative, the players may choose the western map from one folder and the eastern map from another, again using the orientations shown.

Second, pick a force level. Note that the general scenario information varies slightly between the two games; use the information appropriate to the force level picked.

Finally, when the games are combined, air defense units (and dummies) must be added to force levels 1-6, as shown below; units also receive SA-7 and Stinger.

U.S. Scenarios

Scenario 1

Force Levels 1 and 5: Add 1 dummy to initial forces.

Force Levels 2 and 4: Add 1A-7 to initial forces and 2A-7 on turn 11.

Force Levels 3 and 6: Add 1A-7 to initial forces.

Scenario 2

Force Levels 1, 3, and 5: Add 1A-7 on turn 3 and 2A-7 on turn 7.

Force Levels 2 and 6: Add 1A-7 on turn 3 and 1 dummy on turn 7.

Force Level 4: Add 1 dummy on turn 3 and 1 dummy on turn 7.

Scenario 3

Force Levels 1 and 2: Add A7 to initial forces.

Force Level 3: Add 1A-7, 2A-7, 3A-7, 4A-7, and 3 dummies to initial forces.

Force Level 4: Add 1A-7, 2A-7, 3A-7, and 4A-7 to initial forces.

Force Level 5: Add 1A-7, 2A-7, and 5 dummies to initial forces.

Force Level 6: Add 1A-7, 2A-7, and 2 dummies to initial

forces.

Soviet Scenarios

Scenario 1

Force Levels 1, 2, 3, and 4: Add 2 dummies on turn 5.

Force Levels 5 and 6: Add 1AD-91 and 3AD-91 on turn 5.

Scenario 2

Force Levels 1, 2, 3, and 4: Add AD-91 on turn 8.

Force Levels 5 and 6: Add AD-91 on turn 7.

Scenario 3

All Force Levels: Add 1AD-92 and 3AD-92 to initial forces.

Force Levels 1 and 5: Add 4 dummies on turn 8.

Force Level 2: Add AD-91 on turn 8.

Force Levels 3 and 6: No additions.

Force Level 4: Add 1AD-91, 3AD-91, and 2 dummies on turn 8.

Note on Units Not Included: Although there are no counters provided for the Soviet ZSU-23 and U.S. UH-1H, enough information is provided to enable players to use them in their own scenarios. Use ZSU-30s for ZSU-23s; the counters are identical except for type. A sample UH-1H counter is shown on the U.S. unit organization chart.

Rule 24: Record-Keeping

Since helicopter HQs exercise command during the airmobile reaction phase in addition to the two movement phases, a special helicopter command/morale record is included, with an additional box for the airmobile reaction phase of each turn. This phase is given last, which is the order in which the phases are performed by the Soviet player; note that the U.S. player, whose reaction phase comes before his movement phases, will use the third box before using the first two boxes.

Expanded Sequence of Play

Soviet Player Turn

Artillery Phase

- Record fire missions.
- Adjust smoke markers from previous turns.
- Resolve indirect fire.
- Deploy artillery units.

First Movement Phase

- Declare TOC action for turn.
- Allocate operations points.
- Attempt to rally broken or shaken units.
- Attempt to rally suppressed units.
- Change formation.
- Move units, resolve all pass-through fire and opportunity fire, and check morale.
- Mark fatigued units (those which climbed a steep slope this phase).
- Remove fatigue markers (unless unit climbed steep slope this phase).
- Attempt to spot.
- Resolve close assaults and check morale.

U.S. Airmobile Reaction Phase

- Allocate operations points for helicopters.
- Attempt to rally broken or shaken helicopters.
- Attempt to rally suppressed helicopters.
- Change formation of helicopters.
- Move helicopters, resolve all pass-through fire and opportunity fire, and check morale.
- Attempt to spot.
- Resolve close assaults involving helicopters and check morale.

Fire Phase

- Declare all missile fire.
- Attempt to spot units firing missiles.
- Resolve all fires.
- Check morale.
- Attempt to spot firing units.

Second Movement Phase

- Allocate operations points.
- Attempt to rally broken or shaken units.
- Attempt to rally suppressed units.
- Change formation.
- Move units, resolve all pass-through fire and opportunity fire, and check morale.
- Mark fatigued units.
- Attempt to spot.
- Resolve close assaults and check morale.
- Reduce accumulated operations points by 2 for all eliminated TOC units.

U.S. Player Turn

The U.S. player turn is identical to the Soviet player turn in sequence.

Boots & Saddles

Air Cavalry in the 80's

Briefing Folder

U.S. Organization

The U.S. Army is in the midst of reorganizing its forces into what was until recently referred to as Division/Corps 86. This new organizational framework is now called Army of Excellence (AOE for short).

Just as the new AOE tables have had a profound impact on the line maneuver units covered in *Assault*, they have had an equal effect on cavalry units, both armored and air.

Armored cavalry now bristles with firepower. The addition of M-1 tanks both at the troop level and to each squadron in the form of a complete tank company gives it nearly as many tanks as a tank battalion, while its M-3 cavalry fighting vehicles give it both a limited capability infantry force and a potent antitank missile arsenal. Critics who charge that it is no longer able to scout very well ignore the fact that conventional forward recon tasks are not nearly as important to the cavalry mission as they once were. Instead, the armored cavalry is supposed to screen areas that cannot be covered by other forces and present the "signature" of an armored or mechanized division. That it is certainly capable of doing.

Air cavalry has been extensively reorganized as well. In general, air cav units have become considerably leaner. The aerorifle platoon is gone from the troop, the aeroweapons platoon has been reduced from nine attack helicopters to four, and the aeroscout platoon has been reduced from ten OHs to six. This is due in part to field experience with span of command problems, but is also partly due to the need to provide significantly more aviation units under the new tables. A third motivation which should not be overlooked is the desire to increase the number of command slots available for aviation officers, now that aviation is effectively a separate combat arm. If the required number of qualified personnel are to be attracted to army aviation, there must be the promise of advancement.

Likewise, the nominal strength of an attack helicopter battalion has gone from 63 attack helicopters to 21, effectively reducing them to the strength of an old-style company. However, as experience playing the game will indicate, an AOE attack helicopter battalion equipped with AH-64s is a deadly weapon if properly deployed, and there are few situations in which a force three times that size could be usefully deployed as a concentrated formation. Thus, the new organization may at least lead to battalions being fought as battalions instead of parceled out across the front. Given the tremendous projected increase in the number of attack helicopter battalions, the number of actual attack helicopters deployed with the troops will still climb, despite the lower per-battalion strength.

Units Above Battalion: Each corps has one armored cavalry regiment, consisting of three armored cavalry squadrons, one combat aviation squadron (with three air cavalry troops and two attack helicopter companies), and a battalion of 155mm self-

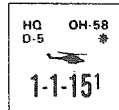
propelled field artillery. Each division contains an air cavalry attack brigade with one cavalry squadron (two troops of "light" divisional cavalry with M-3s and two troops of air cavalry) and two attack helicopter battalions. It has been proposed that each corps also be given an attack helicopter brigade to consist of three attack helicopter battalions, and pending availability of the required number of aircrews and aircraft this will probably be implemented as well.

U.S. Doctrine

U.S. airmobile (or, more stylishly, air assault) doctrine is increasingly emphasizing the helicopter gunship rather than the airmobile infantryman. While the airmobile infantry has tremendous mobility, there seems to be an increasing realization that a helicopter is a very expensive means of getting a rifleman into action, and once he's there what do you have? A rifleman. While helicopter gunships cannot hold ground as tenaciously as can dismounted infantry, lightly equipped airmobile infantry has difficulty in the face of modern mechanized forces as well. While airmobile infantry has uses in a variety of situations, the issue comes down to one of choosing between options given limited resources. Increasingly the choice is being made for gunships as a more cost-effective solution in a majority of situations.

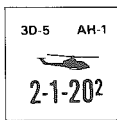
Given the increasing numbers of gunships on both sides, it is inevitable that in a future conflict gunships will meet over the battlefield. What happens in that situation is a matter of considerable interest to helicopter pilots, and a great deal of thinking and writing has been done of late on the subject. But the honest truth of the matter is that no one knows what will happen. No one knows how difficult it will be to shoot another helicopter down with your chin turret, or hit it with rockets, or a Hellfire, or a Stinger. The game makes a statement on the issue, since without such a statement you can't play the game. I believe it to be as reasonable an assessment as any, and more reasonable than some. Ultimately it boils down to a subjective judgment on my part. But that, after all, is what you pay me to do, isn't it?

U.S. Equipment



OH-58 Kiowa: The military version of the popular Bell 206 Jetranger, the Kiowa was originally designed to meet the Army's 1960 specification for the LOH (Light Observation Helicopter) competition. Hughes Aviation won the contest with its OH-6 design, but when production difficulties were encountered and costs began escalating the Army reopened the competition. In 1968 the Bell 206 was chosen and has been in series production ever since.

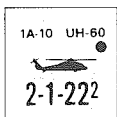
Although not as impressive as some of the more recent light helicopter designs, and due to be replaced in Army inventory by the end of the decade, the OH-58 is still a good observation helicopter. It is fast, maneuverable, and able to carry a useful payload.



AH-1 Cobra: Another Bell design adopted to replace a too-costly machine, the AH-1 was designed to replace the Lockheed AH-56 Cheyenne gunship. Essentially a re-design of the successful UH-1, the first AH-1s were delivered to the Army in 1967 and were deployed to Vietnam almost immediately. Originally equipped exclusively with guns and rockets, the AH-1 has gradually evolved into a tank-killer with provisions for up to eight TOW missiles carried on the inboard weapons pylons. While the basic soundness of the design has enabled it to be adapted successfully to a variety of roles, the need for a purpose-designed tank killer led to its replacement, the AH-64.



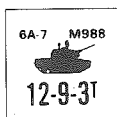
AH-64 Apache: Truly an impressive machine (with an equally impressive pricetag), the Hughes AH-64 Apache was designed from the ground up with the modern battlefield in mind. It is heavily armored (including the rotor blades) to withstand fire up to 23mm in caliber. All four pylons can carry Hellfire missiles or a variety of other stores. It is reasonably maneuverable, and the Hughes "Black Hole" exhaust suppression device reduces its IR signature to virtually nil. With its ability to fire blind and have its Hellfires guided in by laser designators on other aircraft or the ground, it is an extremely effective system, marred only by the unfortunate placement of its sighting gear on the chin of the aircraft, rather than on an overhead mast or the cabin roof, thus forcing it to rise completely above cover to acquire a target.



UH-60 Blackhawk: With the UH-1 fleet beginning to show its age, the Army embarked on a somewhat leisurely search for a replacement in the early 1970's. The winner of the competition was the Sikorsky entry, which became the UH-60. An evolutionary rather than revolutionary design, the UH-60 shows modest improvements over the UH-1 in virtually all categories: speed, payload, armor, maneuverability, and endurance.



M-60A3: The M-60A3 is the last in a long family of vehicles which trace their ancestry to the M-26 Pershing, which appeared in the closing months of World War II. In 1948 the M-26 was replaced by the M-46, which was essentially a rebuilt M-26 with improved power plant and fire control. Mating a new turret with the chassis of the M-46 resulted in the M-47. A basic reworking of the hull armor layout and the adoption of a hemispherical turret produced the M-48. Some additional minor redesigns and the substitution of a 105mm gun for the 90mm gun of the M-48 resulted in the M-60. It is a powerful tribute to the fundamental soundness of the basic design that it has managed to keep up with contemporary tanks in terms of protection, firepower, and mobility with relatively minor redesigns over the years. The A3 variant of the M-60 incorporates essentially the same laser rangefinder and ballistic computer (but not the thermal sights) of the M-1 Abrams, and despite its inferior armor and mobility (*vis a vis* the Abrams) it is likely to continue in the tank inventory of the West for the foreseeable future.



M-988 Sergeant York: At about the same time that the Soviet Union introduced the ZSU-23-4 Shilka as a mobile air defense gun, the Army introduced the 20mm M-163 Vulcan air defense gun. Unfortunately, the Vulcan did not compare favorably to the Shilka in any major category. It had a range-

only radar (rendering it ineffective in inclement weather), a shorter effective range, lower probability of a hit on a maneuvering target, and less lethality overall. While some steps have been taken to upgrade the Vulcan, in 1976 the Army decided that its long-term needs would be better served by a whole new system. Although the German 30mm *Flakpanzer* Gepard was considered, the "not built here" syndrome eliminated this excellent weapon system from serious consideration.

The Divad (divisional air defense) program has been a source of controversy ever since. Ford and General Dynamics submitted prototypes and when Ford won the competitive shoot-off in 1980, partisans of the GD entry raised a number of questions about the validity of the test and the impartiality of the judgment. Today, the cost of the system is so great that there is talk of not acquiring the required numbers at all and just purchasing Gepards instead. Where all this will lead is anybody's guess, but the M-988 is included in this game since its procurement remains the Army's current official policy.

Soviet Organization

Soviet aviation assets are controlled by *Frontovaya Aviatsiya* (Frontal Aviation—the air force) rather than the army, and thus tend to follow air force organization. Flights make up squadrons, which make up regiments. Most category A divisions will, in the near future, include a divisional helicopter squadron like the one in the game. In addition, army and front will command helicopter regiments of various types. An assault helicopter regiment will usually include one or two squadrons of Mi-24 Hinds and two squadrons of Mi-8 Hips, while a transport helicopter regiment will include two squadrons of Mi-8 Hips and two squadrons of Mi-26 Halos (replacing the Mi-6 Hook).

Some of the existing assault helicopter regiments would be broken down in the event of war to provide divisional helicopter squadrons, while others would be assigned on a temporary basis to airmobile assault brigades, since a Soviet airmobile brigade contains no organic transport. Those which remained independent would conduct attack helicopter operations as well as airmobile assaults using conventional infantry. (One battalion in each motor rifle regiment is, in theory, trained in the airmobile assault role.)

Units Above Battalion: The airmobile assault brigades, which will presumably carry out the bulk of the major airmobile assaults, are still something of a mystery. Each brigade consists of brigade troops (as included in the game), three airmobile assault battalions, and a "heavy" battalion. The nature of the heavy battalion is unclear, but it seems to include large numbers of light crew-served weapons, particularly recoilless rifles, and may be intended to augment the brigade's firepower in unusual situations. No heavy battalion is included in the game, as its organization and equipment are still a mystery. Hopefully enough information will eventually surface on it to enable inclusion of counters for it in a later game.

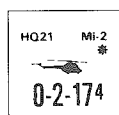
Soviet Doctrine

Soviet airmobile doctrine has, until recently, been very crude and out of date. Attack helicopters have been treated as a surrogate for close support aircraft. Realizing that effective close air support by fixed-winged aircraft required greater coordination and flexibility than Soviet ground forces were capable of, the Soviets instead opted for helicopters to deliver airstrikes. Thus, the primary armament of helicopters consisted of rockets and gravity bombs. As the Soviets have gradually improved their

forward air control procedures, the need for helicopters to carry the burden of close air support missions has declined. Likewise, experience in Afghanistan, although hardly identical to a European environment, has given valuable experience in coping with ground fire and identifying targets. Soviet helicopter units seem to be abandoning use of massed formation attacks and repeated strafing runs on a target, and instead are operating with more individual initiative than many Western sources would have believed them capable of several years ago.

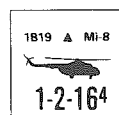
Nevertheless, there does not seem to be the clarity of purpose in Soviet helicopter doctrine that is seen in the West. Is the helicopter a slow fighter-bomber or a fast tank? Is its primary mission to support the main effort, or is it capable of carrying the burden of the main effort? Should helicopter assets be massed at army level or spread out to the divisions? It does not appear that the Soviets have developed answers to these questions that they are as comfortable with as they are with their ground forces doctrine. It is fair to say that the Soviets recognize the value of helicopters, and are certainly building a great many of them, but do not yet seem certain what to do with all of them.

Soviet Equipment

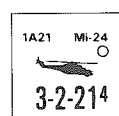


Mi-2 Hopleite: The standard utility, liaison, and training helicopter of the Warsaw Pact, the Mi-2 was first produced in 1964 and has the distinction of never having been mass-produced in the Soviet Union. Instead, all production has been carried out in Poland.

The Mi-2 is the first turbine-engined helicopter in Soviet service, and its primitive rotor system renders it quite sluggish for its compact dimensions. Although the Mi-2 is often seen with a variety of weapons mounts (including ATGMs) it is generally believed that these are for weapons training and not combat use.



Mi-8 Hip: The Hip appeared at about the same time as the Mi-2, reaching military units sometime before 1967. As with the Mi-2, its rotor technology is not capable of sustaining violent maneuvers and thus it is extremely sluggish when attempting nap-of-the-earth flight. It carries a respectable payload, however, and the latest variants have the distinction of being perhaps the most heavily armed helicopters in the world. The Hip's primary mission, however, is assault transport, not gunship, and the heavy rocket armament is intended to suppress fires at landing zones rather than enable it to seek out and destroy enemy units. If the situation demands that, however, Hips will certainly be pressed into the role of ersatz gunships.



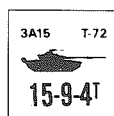
Mi-24 Hind: The Hind is currently the only purpose-built gunship in mass production in the Soviet inventory (although a replacement is hovering in the wings and should make its appearance shortly). Originally designed as an assault transport, the Hind has gradually evolved into a specialized gunship with a primary emphasis on antitank work.

While the evolutionary development of the Hind over the course of the decade since its introduction has dramatically increased its capabilities, it is still limited by the original aircraft design in ways that prevent it from achieving the same capabilities as its Western counterparts. Although the rotor system appears to be capable of higher G forces than earlier helicopters, the layout of the airframe itself prevents the full capability of the rotor from being used. In Afghanistan Soviet helicopter pilots have apparently pushed the aircraft to the limits

of its capabilities in nap-of-the-earth flight and have discovered that when the rotor is subjected to negative G forces (common in NOE flight), the flex of the rotor blades causes them to cut the tail boom off with predictable consequences. It is likely that the Mi-24 replacement will not have this problem and will have significantly improved combat maneuverability.



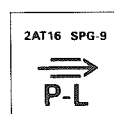
Mi-26 Halo: This helicopter, recently introduced to replace the Mi-6 Hook heavy lift helicopter, has been likened to a Vtol C-130, and with a maximum internal payload of twenty tons it is easy to see why. The cargo area, fitted with overhead cranes, is capable of handling trucks or other wheeled vehicles, and Halos will probably assume primary responsibility for airlifting in the vehicles and heavy equipment of airmobile assault forces.



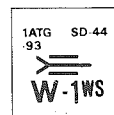
T-72: The T-72 is, in some respects, the twin brother of the T-64, and is the brother which has apparently made good. While there is reason to believe that T-64 production has been terminated, T-72 production continues at a brisk rate, both in the Soviet Union and abroad under a variety of licensing agreements. One explanation offered for this is that the T-64 is the better of the two vehicles, but is difficult to produce. The fact that most T-64s are concentrated in Group of Soviet Forces Germany seems to support this argument.

A second argument (and the one which I find more persuasive) is that T-64 is more difficult to produce and is no better than T-72, probably inferior in some respects (most notably cross-country mobility). They are concentrated in Group of Soviet Force Germany so that unique maintenance requirements are geographically centralized and so that they will absorb the brunt of the massive AFV attrition expected in the opening weeks of a potential conflict. There is some evidence that the Soviets do not believe in putting the best goods in the shop window.

In any event, the game ratings for the T-72 assume that it is essentially the same vehicle as the T-64, but with a better power plant/suspension system.

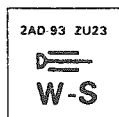


SPG-9: The SPG-9 is probably the last recoilless rifle the Soviets will manufacture. It replaced the 82mm and 106mm in service with antitank units, and was generally found in the antitank platoon of motorized rifle battalions equipped with the BTR-60. With the appearance of the AT-4 Spigot, the Assault series assumes that the SPG-9 will be gradually phased out of first line service with motor rifle troops. However, it does appear to be employed extensively with airborne and airmobile troops, which makes a good deal of sense. It is a lightweight weapon that packs a good deal of punch. The rocket-assisted round gives it better accuracy than most recoilless rifles, and it can be used against personnel (now that an HE round is available for it), bunkers, or AFVs.

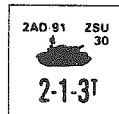


SD-44: The SD-44 is one of the few weapons in the Soviet inventory which has apparently never been fired in anger. Unlike most Soviet ordnance, which has been exported extensively, the SD-44 has been largely limited to Soviet use. The SD-44 is an undistinguished weapon by today's standard: not big enough to be a really good field gun or tank killer. Its chief source of interest is its auxiliary propulsion engine, which enables the gun to be driven (at low speeds) from one gun position to another. This is obviously valuable for airborne or airmobile troops, as it gives the weapon a measure of tactical

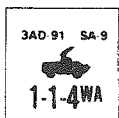
mobility without the need to lift in a prime mover.



ZU-23: The ZU-23 is a towed twin-barrel 23mm cannon, the same gun used in a quad mount for the ZSU-23-4. Provided to a number of Warsaw Pact forces as a primary air defense gun, in Soviet service it is limited to airborne and airmobile troops. Lacking a radar and with only half the rate of fire of the ZSU-23-4, its only real advantage is its ease of transport.



ZSU-30: While the ZSU-23-4 was (and remains) a fine air defense weapon, advances in aircraft armor, particularly on modern Western helicopter gunships, have resulted in a need to replace the system with a weapon with more punch. The result is the ZSU-30, which appears to mount a multiple-barrel gatling gun similar in design (but superior in performance) to the 20mm Vulcan.



SA-9: Originally thought to be the same missile as the SA-7, the SA-9 is now thought to be a missile of superior performance but of about the same dimensions. Although the SA-9 vehicle does not have its own target acquisition system (other than crew vision), it is normally operated with the ZSU-23-4 or ZSU-30, and a data link between the two systems can enable the SA-9 to use the ZSU's fire control radar.

Designer's Notes

The most difficult part of designing *Boots and Saddles* was in integrating helicopters with a system originally developed for ground combat. The integration had to capture the essential strengths and weaknesses of helicopters *vis a vis* ground units but at the same time not cause the system to become overly complicated. Fortunately, we knew in advance that this was coming and managed to avoid painting ourselves into a corner in the original game. The addition of the airmobile reaction phase managed to give helicopters more flexibility than ground units and also enabled us to keep the movement allowances reasonable.

Adding air defense fire was no problem since the original combat system is essentially mechanical; it does not abstract a host of imponderables beyond probability of a hit, and thus lends itself well to modeling the targetting problems of other types of fire as well.

Another major design question was the effect on helicopters of weapons not specifically designed for anti-aircraft use, a subject on which very little combat experience exists. Our reasoning here was that if a helicopter is stationary, it is not much different from any other ground target (except that it is generally smaller and has some ability to begin dodging incoming rounds more quickly than a ground unit). The deciding factor was that the U.S. is currently training infantry to fire TOW at Soviet helicopters. While I am not certain that this will be effective, I was not prepared to dismiss the possibility out of hand and unilaterally declare this training to be stuff and nonsense. The game rule as presented seemed a reasonably conservative evaluation.

Helicopter doctrine was considerably more difficult to model, and it is important for the players to remember that, just as *Assault* did not attempt to place the player in the tank turret, *Boots and Saddles* does not attempt to place him in the cockpit. The player is faced with the decisions of a battalion or regimental commander, not a pilot or tank commander, and we resisted the temptation to attempt a detailed model of helicopter

dogfighting. The result is, I believe, about as good as can be accomplished given the scope of the game and its focus.

One aspect of helicopter performance that is often commented on when potential dogfights are discussed is their maneuverability. As a result, I began thinking in terms of maneuverability's effects on the game quite early, and the maneuverability ratings are the result. Although I had originally feared that this might be an added complication, it actually ended up solving a great many problems with helicopter movement and resulted in a simpler system than might otherwise have been the case. In the game, the base speed of helicopters is calculated from their cruise speeds. Max speed is assumed to be used mostly in short sprints and to achieve higher maneuverability. The maneuverability of a helicopter is a subjective rating I derived, but is based broadly on two considerations: aircraft weight and rotor technology. Obviously, the heavier a helicopter, the more momentum it builds up at high speed and thus the harder it is to turn. Rotor technology is almost as severe a limitation on maneuverability since older rotor systems simply cannot take the violent stresses that newer ones can.

Scenarios were relatively easy to devise; in the absence of detailed engineering rules, the scenario situations presented in *Assault* cannot be significantly extended, and thus we merely added additional force levels to the originals. This has the added advantage of making the two games playable together without a lot of fuss for the players. Once engineering rules are added (which will be in the *Bundeswehr* module), a host of additional scenario situations will become available.

Choice of units for inclusion given the physical parameters of the game was actually quite difficult. On one hand, we wished to include as broad a selection of helicopter units and ground recon and cavalry units as possible. On the other hand, we wanted to include complete battalions wherever possible, as in *Assault*, and end up with a plausible mix of units for scenario purposes. The end result is a compromise, but I think a good one on all these points. There are a number of units it would have been nice to include, but these will be in the *Reinforcements* module.

Boots & Saddles

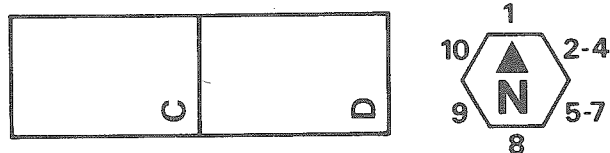
Air Cavalry in the 80's

U.S. Scenario Information

Scenario 1: Probe

Description: A U.S. screening and blocking force is in position to cover a gap between major U.S. units. The U.S. player must deny passage to a Soviet screening force and, if sufficient reinforcements become available, destroy it.

Maps and Wind Direction: The maps are laid out and wind direction determined as shown in the accompanying diagrams.



Victory: Victory points are awarded for the following:

For each step of Soviet units eliminated: 1 point.

If no Soviet AFVs exit the west edge of the map: 10 points.

Total Scenario Length: 18 turns.

Off-Board Artillery: One battery (two full-strength units: 1A11 and 2A11) of M-109 155mm howitzers is deployed 16 hexes off-board.

Command Ratings: Generate command ratings for 4 HQs.

Initial Deployment: Initial units may be deployed, under cover if desired, anywhere on map C.

Force Level 7

Units Required: C-5.

Command Units: HQC-5.

Victory Point Multiplier: 2.1.

Force Level 8

Units Required: C-5, A-6.

Command Units: HQC-5, HQA-6.

Victory Point Multiplier: 0.9.

Force Level 9

Units Required: S-4, A-4, C-5.

Command Units: HQA-4, HQC-5.

Victory Point Multiplier: 1.4.

Force Level 10

Units Required: S-4, A-4, B-4, C-5, 1A-7.

Command Units: HQA-4, HQB-4, HQC-5.

Victory Point Multiplier: 0.6.

Force Level 11

Units Required: A-6, B-8.

Command Units: HQA-6, HQB-8

Victory Point Multiplier: 0.7.

Force Level 12

Units Required: A-6, B-9, C-10, 1AT-9, 2AT-9, 3AT-9, 4AT-9, HQB-10, 1B-10, 2B-10, 3B-10.

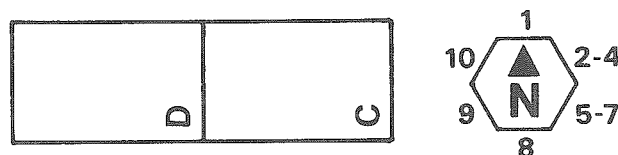
Command Units: HQA-6, HQB-9, HQB-10, HQC-10.

Victory Point Multiplier: 1.0.

Scenario 2: Meeting Engagement

Description: The U.S. front has been broken open and Soviet units in unknown strength are exploiting the breach. The U.S. player must delay the spearhead units and, if sufficient force is available, seal off and eliminate the penetration.

Maps and Wind Direction: The maps are laid out and wind direction determined as shown in the accompanying diagrams.



Victory: Victory points are awarded for the following:

For each step of Soviet units eliminated: 1 point.

If no Soviet AFV exits the map by the end of the scenario: 10 points.

If no Soviet AFV exits the map and there are no Soviet AFVs on map D by the end of the scenario: 10 points (in addition to those awarded above).

For each step of U.S. AFVs exited off the east edge of the map, provided no Soviet AFVs exited the west map edge: 2 points.

Total Scenario Length: 24 turns.

Off-Board Artillery: One battery (two full-strength units: 1A11 and 2A11) of M-109 155mm howitzers is deployed 16 hexes off-board.

Command Ratings: Generate command ratings for 6 HQs and 1 TOC.

Force Level 7

Units Required: C-5, B-8, A-9, A-10, 1AT-9, 1B-10.

Command Units: HQC-5, HQB-8, HQA-9, HQA-10.

Victory Point Multiplier: 1.5.

Force Level 8

Units Required: C-5, A-9, A-10, 1AT-9, 2AT-9, 3AT-9, 4AT-9, HQB-10, 1B-10, 2B-10, 3B-10.

Command Units: HQC-5, HQA-9, HQA-10, HQB-10.

Victory Point Multiplier: 2.6.

Force Level 9

Units Required: 8, C-5.

Command Units: HQ-8, HQA-8, HQB-8, HQC-8, HQC-5.

Victory Point Multiplier: 0.8.

Force Level 10

Units Required: 4, C-5, 1A-7.

Command Units: HQ-4, HQA-4, HQB-4, HQC-4, HQC-5; TOC-4.

Victory Point Multiplier: 1.2.

Force Level 11

Units Required: 6, 1A-7.

Command Units: HQ-6, HQA-6, HQB-6, HQC-6, HQD-6; TOC-6.

Victory Point Multiplier: 1.2.

Force Level 12

Units Required: A-6, A-8, B-9, C-10, 1A-7, 1AT-9, 2AT-9, 1B-10, 2B-10.

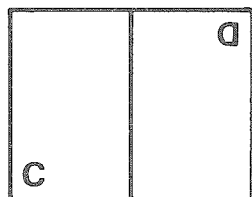
Command Units: HQA-6, HQA-8, HQB-9, HQC-10.

Victory Point Multiplier: 1.3.

Scenario 3: Counterattack

Description: The Soviet local advance has been halted and the Soviets have attempted an airmobile assault to gain new ground. Soviet airmobile units now hold an airhead. The U.S. player must counterattack to prevent relief of the airhead and, if possible, to destroy the Soviet defending forces.

Maps and Wind Direction: The maps are laid out and wind direction determined as shown in the accompanying diagrams.



Victory: Victory points are awarded for the following:

For each Soviet step eliminated: 1 point.

If no Soviet AFV exits the west map edge by the end of the scenario: 10 points.

Total Scenario Length: 24 turns.

Off-Board Artillery: One battalion (six full-strength units: 1A11, 2A11, 1B11, 2B11, 1C11, and 2C11) of M-109 155mm howitzers are deployed 12 hexes off-board; one battery (two full-strength units: 1A12 and 2A12) of M-110 203mm howitzers are deployed 20 hexes off-board.

Off-Board Command: The U.S. player receives 4 off-board operations points each movement phase.

Command Ratings: Generate command ratings for 18 HQs and 2 TOCs.

Initial Deployment: All initial units may be deployed, not under cover, anywhere on map C.

Force Level 7

Units Required: 4, 6, HQA-7, 1A-7, 2A-7, 3A-7, 4A-7.

Command Units: HQ-4, HQA-4, HQB-4, HQC-4, HQD-4, HQ-6, HQA-6, HQB-6, HQC-6, HQD-6, HQA-7; TOC-4, TOC-6.

Victory Point Multiplier: 0.8.

Force Level 8

Units Required: 6, A-4, C-5, D-5, A-7.

Command Units: HQ-6, HQA-6, HQB-6, HQC-6, HQD-6, HQA-4, HQC-5, HQD-5, HQA-7; TOC-6.

Victory Point Multiplier: 0.9.

Force Level 9

Units Required: 4, 9, 10, C-5, B-6, D-6, A-7.

Command Units: HQ-4, HQA-4, HQB-4, HQC-4, HQD-4, HQ-9, HQA-9, HQB-9, HQC-9, HQAT-9, HQ-10, HQA-10, HQB-10, HQC-10, HQC-5, HQB-6, HQD-6, HQA-7; TOC-4, TOC-9.

Victory Point Multiplier: 0.7.

Special Rules: Units of the 9th Battalion enter mounted in units of the 10th Battalion. At the beginning of the scenario, the player chooses as many units from the 9th Battalion as the 10th Battalion can carry and mounts them on the transport units. Once made, this decision may not be changed. Units in excess of the 10th Battalion's capacity are not received; however, command units not received may function from off-board.

Force Level 10

Units Required: 8, 9, 10.

Command Units: HQ-8, HQA-8, HQB-8, HQC-8, HQ-9, HQA-9, HQB-9, HQC-9, HQAT-9, HQ-10, HQA-10, HQB-10, HQC-10; TOC-9.

Victory Point Multiplier: 0.7.

Special Rules: The special rule detailed in force level 9 above is also used in force level 10.

Force Level 11

Units Required: C-5, D-5, A-8.

Command Units: HQC-5, HQD-5, HQA-8.

Victory Point Multiplier: 1.7

Force Level 12

Units Required: 8, C-5, D-5.

Command Units: HQ-8, HQA-8, HQB-8, HQC-8, HQC-5, HQD-5.

Victory Point Multiplier: 0.8.

Introductory Scenarios

The following three scenarios are designed to introduce players gradually to the mechanics of the *Assault* system. All units are placed face up and are always spotted; the spotting rules are not used. The morale rules are not used. All HQ units have a command rating of 2. Game length is unlimited; victory goes to the last player to have a surviving unit on the board. All forces enter turn 1 from that player's side of the board (east for the Soviets, west for the U.S.). Map C is used, oriented as shown in the diagram at left.



Scenario A

This scenario may be played after reading only rules 1-16.

Forces: D-6.

Scenario B

This scenario adds rules for artillery and smoke (rules 19-20). The wind is light and comes from the north.

Forces: A-6.

Scenario C

This scenario adds helicopters and air defense fire (the *Boots & Saddles* rules).

Forces: C-5, A-6.

U.S. Scenario Chart: Scenario 1

Unit	Force Level					
	7	8	9	10	11	12
1S-4			S	S		
2S-4			S	S		
3S-4			S	S		
HQA-4			S	S		
1A-4			S	S		
2A-4			S	S		
3A-4			S	S		
HQB-4				11		
1B-4				11		
2B-4				11		
3B-4				11		
HQC-5	S	S	8	8		
1C-5	S	S	8	8		
2C-5	S	S	8	8		
3C-5	S	S	8	8		
4C-5	S	S	8	8		
HQA-6		8			S	S
1A-6*		8			S	S
2A-6*		8			S	S
3A-6		8			S	S
4A-6		8			S	S
MA-6		8			S	S
1A-7				11		
HQB-8					8	
1B-8					8	
2B-8					8	
3B-8					8	
4B-8					8	
1AT-9						11
2AT-9						11
3AT-9						11
4AT-9						11
HQB-9						8
1B-9						8
2B-9						8
3B-9						10
HQB-10						11
1B-10						11
2B-10						11
3B-10						11
HQC-10						8
1C-10						8
2C-10						8
3C-10						8
4C-10						8
5C-10						10
6C-10						10
Dummies	7/S	7/S	5/S	5/S	4/S	4/S
	9/8	9/8	9/8	4/8	4/8	1/8
	3/10	3/10	3/10	3/10	3/10	
			8/11	4/11	8/11	
Entr.	3	3	3	3	3	3

U.S. Scenario Chart: Scenario 2

Unit	Force Level						Unit	Force Level					
	7	8	9	10	11	12		7	8	9	10	11	12
HQ-4				7			1A-7				7	7	3
TOC-4				7			HQ-8			5			
1S-4				3			HQA-8			3			9
2S-4				3			1A-8			3			9
3S-4				3			2A-8			3			9
1M-4				7			3A-8			3			9
2M-4				7			4A-8			3			9
HQA-4				3			HQB-8	9		5			
1A-4				3			1B-8	9		5			
2A-4				3			2B-8	9		5			
3A-4				3			3B-8	9		5			
HQB-4				5			4B-8	9		5			
1B-4				5			HQC-8			7			
2B-4				5			1C-8			7			
3B-4				5			2C-8			7			
HQC-4				5			3C-8			7			
1C-4				5			4C-8			7			
2C-4				5			1AT-9	5	5				7
3C-4				5			2AT-9		7				7
HQD-4				7			3AT-9		7				
1D-4				7			4AT-9		7				
2D-4				7			HQA-9	3	3				
3D-4				7			1A-9	3	3				
HQC-5	1	1	1	1			2A-9	3	3				
1C-5	1	1	1	1			3A-9	5	5				
2C-5	1	1	1	1			HQB-9						5
3C-5	1	1	1	1			1B-9						5
4C-5	1	1	1	1			2B-9						5
HQ-6					7		3B-9						7
TOC-6					7		HQA-10	3	3				
HQA-6					3	3	1A-10	3	3				
1A-6*					1	1	2A-10	3	3				
2A-6*					1	1	3A-10	3	3				
3A-6					3	3	4A-10	3	3				
4A-6					3	3	5A-10	5	5				
MA-6					3	3	6A-10	5	5				
HQB-6					5		HQB-10		7				
1B-6*					5		1B-10	5	5				7
2B-6*					5		2B-10		7				7
3B-6					5		3B-10		7				
4B-6					5		HQC-10						5
MB-6					5		1C-10						5
HQC-6					9		2C-10						5
1C-6*					9		3C-10						5
2C-6*					9		4C-10						5
3C-6					9		5C-10						7
4C-6					9		6C-10						7
MC-6					9		Dummies	1/S	1/S	1/S	1/S	2/S	2/S
HQD-6					7			3/5	3/5	3/3	1/3	4/3	3/3
1D-6					7			10/7	4/7	2/5	1/7	3/7	3/7
2D-6					7			3/9	8/9	5/7	8/9		3/9
3D-6					7					8/9			

U.S. Scenario Chart: Scenario 3

Unit	Force Level						Unit	Force Level						Unit	Force Level					
	7	8	9	10	11	12		7	8	9	10	11	12		7	8	9	10	11	12
HQ-4	S		S				HQC-6	S	S					HQA-9			3	1		
TOC-4	S		S				1C-6*	S	S					1A-9			3	1		
1S-4	S		S				2C-6*	S	S					2A-9			3	1		
2S-4	S		S				3C-6	S	S					3A-9			3	1		
3S-4	S		S				4C-6	S	S					HQB-9			3	1		
1M-4	S		S				MC-6	S	S					1B-9			3	1		
2M-4	S		S				HQD-6	S	S	S				2B-9			3	1		
HQA-4	S	S	S				1D-6	S	S	S				3B-9			3	1		
1A-4	S	S	S				2D-6	S	S	S				HQC-9			3	1		
2A-4	S	S	S				3D-6	S	S	S				1C-9			3	1		
3A-4	S	S	S				HQA-7	S	S	S				2C-9			3	1		
HQB-4	S		S				1A-7	S	S	S				3C-9			3	1		
1B-4	S		S				2A-7	S	S	S				1M-9			3	1		
2B-4	S		S				3A-7	S	S	S				2M-9			3	1		
3B-4	S		S				4A-7	S	S	S				3M-9			3	1		
HQC-4	S		S				5A-7		S	S				HQ-10			3	1		
1C-4	S		S				6A-7		S	S				HQA-10			3	1		
2C-4	S		S				HQ-8				1		1	1A-10			3	1		
3C-4	S		S				HQA-8				1	1	1	2A-10			3	1		
HQD-4	S		S				1A-8				1	1	1	3A-10			3	1		
1D-4	S		S				2A-8				1	1	1	4A-10			3	1		
2D-4	S		S				3A-8				1	1	1	5A-10			3	1		
3D-4	S		S				4A-8				1	1	1	6A-10			3	1		
HQC-5		3	3		1	1	HQB-8				1		1	HQB-10			3	1		
1C-5		3	3		1	1	1B-8				1		1	1B-10			3	1		
2C-5		3	3		1	1	2B-8				1		1	2B-10			3	1		
3C-5		3	3		1	1	3B-8				1		1	3B-10			3	1		
4C-5		3	3		1	1	4B-8				1		1	4B-10			3	1		
HQD-5		3			1	1	HQC-8				1		1	5B-10			3	1		
1D-5		3			1	1	1C-8				1		1	6B-10			3	1		
2D-5		3			1	1	2C-8				1		1	HQC-10			3	1		
3D-5		3			1	1	3C-8				1		1	1C-10			3	1		
4D-5		3			1	1	4C-8				1		1	2C-10			3	1		
HQ-6	S	S					HQ-9			3	1			3C-10			3	1		
TOC-6	S	S					TOC-9			3	1			4C-10			3	1		
HQA-6	S	S					HQAT-9			3	1			5C-10			3	1		
1A-6*	S	S					1AT-9			3	1			6C-10			3	1		
2A-6*	S	S					2AT-9			3	1			Dummies	1/S	18/S	17/S	10/1	20/1	9/1
3A-6	S	S					3AT-9			3	1				10/3					
4A-6	S	S					4AT-9			3	1									
MA-6	S	S					5AT-9			3	1									
HQB-6	S	S	S				6AT-9			3	1									
1B-6*	S	S	S				7AT-9			3	1									
2B-6*	S	S	S				8AT-9			3	1									
3B-6	S	S	S				9AT-9			3	1									
4B-6	S	S	S				10AT-9			3	1									
MB-6	S	S	S				11AT-9			3	1									
							12AT-9			3	1									
							13AT-9			3	1									

Boots & Saddles

Air Cavalry in the 80's

Soviet Scenario Information

Scenario 1: Probe

Description: Soviet forces must enter the board and probe U.S. positions. If the positions are weak, the probing force must push through and create a breach. If resistance is substantial, the force must vigorously attack the enemy to destroy the force or, failing that, tie them down and possibly draw reserves from other, more critical areas.

Victory: Victory points are awarded for the following:

For each step of U.S. units eliminated: 2 points.

For each step of Soviet AFVs exited off the west map edge before turn 12: 2 points.

For each step of Soviet AFVs exited off the west map edge before turn 18 but on or after turn 12: 1 point.

Total Scenario Length: 18 turns.

Command Ratings: Generate command ratings for 2 HQs.

Force Level 7

Units Required: 15, 21, A13, 1AD-92, 1A11.

Command Units: HQ15, HQ21.

Helicopter Types: Mi-24D, Mi-8C.

Victory Point Multiplier: 1.1.

Force Level 8

Units Required: 15, 21, A13, 1AD-92, 1A11.

Command Units: HQ15, HQ21.

Helicopter Types: Mi-24E, Mi-8E.

Victory Point Multiplier: 0.9.

Force Level 9

Units Required: 15

Command Units: HQ15

Victory Point Multiplier: 3.6.

Force Level 10

Units Required: 15, A13, 1A11.

Command Units: HQ15.

Victory Point Multiplier: 1.9.

Force Level 11

Units Required: 13, 15, A11, A22, 1AD-92, 3AD-92.

Command Units: HQ13, HQ15.

Victory Point Multiplier: 0.7.

Force Level 12

Units Required: 14, 21, A12, 1AD-92, 3AD-92.

Command Units: HQ14, HQ21.

Helicopter Types: Mi-24D, Mi-8C.

Victory Point Multiplier: 0.7.

Scenario 2: Meeting Engagement

Description: The front has been broken open and a Soviet division has been released to initiate the pursuit phase. The Soviet player, commanding the advanced guard of the division, must spearhead that advance in the face of scattered U.S. resistance and possible counterattack forces.

Victory: Victory points are awarded for the following:

For each step of U.S. units eliminated: 2 points.

For each step of Soviet AFVs exited off the west map edge before turn 18: 2 points.

For each step of Soviet AFVs exited off the west map edge before turn 24 but on or after turn 18: 1 point.

For each turn in which the off-board artillery is deployed: minus 5 points.

Total Scenario Length: 24 turns.

Off-Board Artillery: One battalion (six full-strength units: 1A23, 2A23, 1B23, 2B23, 1C23, and 2C23) of D-20 152mm howitzers is undeployed and 50 hexes off-board. The entire battalion must deploy together. The battalion is a regimental-level unit.

Command Ratings: Generate command ratings for 7 HQs and 1 TOC.

Force Level 7

Units Required: 11, 13, 15, 22, HQ-92, TOC-92, 1AD-92, 2AD-92, 4AD-92.

Command Units: HQ-92, HQ11, HQ13, HQ15, HQ22; TOC-92.

Victory Point Multiplier: 1.0.

Force Level 8

Units Required: 92, 11, 12, 13, 21, 22.

Command Units: HQ-92, HQ11, HQ12, HQ13, HQ21, HQ22; TOC-92.

Helicopter Types: Mi-8C, Mi-24D.

Victory Point Multiplier: 0.7.

Force Level 9

Units Required: 92, 11, 12, 13, 18, 22.

Command Units: HQ-92, HQ11, HQ12, HQ13, aHQ18, bHQ18, HQ22; TOC-92.

Helicopter Type: Mi-24E.

Victory Point Multiplier: 0.5.

Force Level 10

Units Required: 15, 18, 21.

Command Units: HQ15, aHQ18, bHQ18, HQ21.

Helicopter Types: Mi-8C, Mi-24D.

Victory Point Multiplier: 1.2.

Force Level 11

Units Required: 16, 19, 21.

Command Units: HQ16, HQ19, HQ21.

Helicopter Types: 19: Mi-8C; 21: Mi-8E, Mi-24E.

Victory Point Multiplier: 2.1.

Special Rules: Units of the 16th Battalion enter mounted in units of the 19th and 21st squadrons.

Force Level 12

Units Required: 16, 17, 19, 20, 21, HQ-93, TOC-92, ATG-93, 3R-93, 4R-93, 1AD-93, 2AD-93.

Command Units: HQ-93, HQ16, HQ17, HQ19, HQ20, HQ21; TOC-93.

Helicopter Types: 19: Mi-8C; 21: Mi-8E, Mi-24E.

Victory Point Multiplier: 1.2.

Special Rules: Units of the 16th and 17th Battalions and the 93rd Brigade enter mounted in units of the 19th, 20th, and 21st squadrons.

Scenario 3: Counterattack

Description: Soviet forces have seized an airhead behind U.S. lines. The Soviet player must defend the airhead against U.S. reserve forces until relieved by Soviet advanced elements. If sufficient reinforcements become available, he must go over to the attack and destroy U.S. forces with which he is engaged.

Victory: Victory points are awarded for the following:

For each step of U.S. units eliminated: 1 point.

For each step of Soviet AFVs exited off the west map edge before turn 18: 2 points.

For each step of Soviet AFVs exited off the west map edge before turn 24 but on or after turn 18: 1 point.

For each of the following towns held (at least one Soviet and no U.S. units present in any hex of town) at the end of the scenario: 10 points.

Alverskirchen, Dössel, Enniger, Northeim.

Total Scenario Length: 24 turns.

Command Ratings: Generate command ratings for 8 HQs and 2 TOCs.

Initial Deployment: Initial units may be deployed, under cover if desired, anywhere on map D.

Force Level 7

Units Required: 93, 11, 16, 17.

Command Units: HQ-93, HQ11, HQ16, HQ17; TOC-93.

Victory Point Multiplier: 1.2.

Force Level 8

Units Required: 93, 11, 13, 16, 17, A22, 1AD-92, 3AD-92.

Command Units: HQ-93, HQ11, HQ13, HQ16, HQ17; TOC-93.

Victory Point Multiplier: 0.8.

Force Level 9

Units Required: 93, 11, 12, 13, 16, 17, 22, HQ-92, TOC-92, R-92, AD-92.

Command Units: HQ-92, HQ-93, HQ11, HQ12, HQ13, HQ16, HQ17, HQ22; TOC-92, TOC-93.

Subordination: 11, 12, 13, and 22 are subordinate to the 92nd Regiment. 16 and 17 are subordinate to the 93rd Brigade.

Victory Point Multiplier: 0.6.

Force Level 10

Units Required: 93, 16, 17, 18.

Command Units: HQ-93, HQ16, HQ17, aHQ18, bHQ18; TOC-93.

Helicopter Types: Mi-24E.

Victory Point Multiplier: 0.8.

Force Level 11

Units Required: 93, 16, 17, A18.

Command Units: HQ-93, HQ16, HQ17; TOC-93.

Helicopter Types: Mi-24E.

Victory Point Multiplier: 1.5.

Force Level 12

Units Required: 93, 13, 16, 17, A11, A18, 1AD-92, 3AD-92.

Command Units: HQ-93, HQ13, HQ16, HQ17; TOC-93.

Helicopter Types: Mi-24E.

Victory Point Multiplier: 1.1.

Introductory Scenarios

The following three scenarios are designed to introduce players gradually to the mechanics of the *Assault* system. All units are placed face up and are always spotted; the spotting rules are not used. The morale rules are not used. All HQ units have a command rating of 2. Game length is unlimited; victory goes to the last player to have a surviving unit on the board. All forces enter turn 1 from that player's side of the board (east for the Soviets, west for the U.S.).

Scenario A

This scenario may be played after reading only rules 1-16.

Forces: HQ11, A11, B11.

Scenario B

This scenario adds rules for artillery and smoke (rules 19-20).

Forces: 13, A11.

Scenario C

This scenario adds helicopters and air defense fire (the *Boots & Saddles* rules).

Forces: 13, 21, A11, 1AD-92.

Helicopter Types: Mi-8C, Mi-24D.

Soviet Scenario Chart: Scenario 1

Unit	Force Level					
	7	8	9	10	11	12
1AD-92	5	5			7	5
3AD-92					7	5
1A11	5	5		5	5	
2A11					7	
3A11					7	
1A12						5
2A12						5
3A12						7
HQ13*					7	
1A13*	5	5		5	5	
2A13*	5	5		5	5	
3A13*	5	5		5	5	
1B13*					7	
2B13*					7	
3B13*					7	
1C13*					7	
2C13*					7	
3C13*					7	
OPM13*					7	
1M13*					7	
2M13*					7	
HQ14*						5
1A14*						5
2A14*						5
3A14*						5
1B14*						5
2B14*						5
3B14*						5
1C14*						7
2C14*						7
3C14*						7
OPM14*						5
1M14*						5
2M14*						5
HQ15*	3	3	3	3	3	3
1A15	3	3	3	3	3	3
2A15	3	3	3	3	3	3
3A15	3	3	3	3	3	3
1B15	1	1	1	1	1	1
2B15	1	1	1	1	1	1
1C15	1	1	1	1	1	1
2C15	1	1	1	1	1	1
HQ21	5	5				5
1A21	5	5				5
2A21	5	5				5
1B21	5	5				5
2B21	5	5				5
OPA22*					7	
1A22					7	
2A22					7	
Dummies	2/1	2/1	2/1	2/1	2/1	2/1
	1/3	1/3	1/3	1/3	1/3	1/3
	17/5	17/5	9/5	2/5	2/5	1/5
					7/7	2/7

Soviet Scenario Chart: Scenario 3

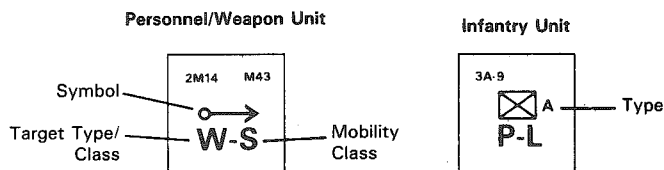
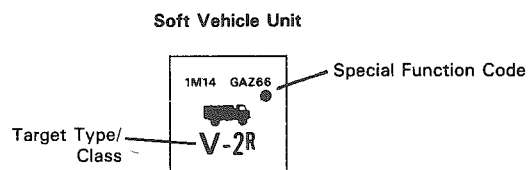
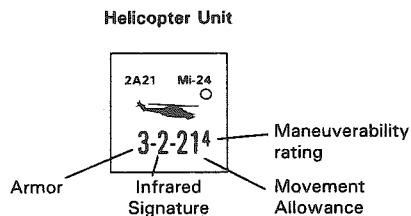
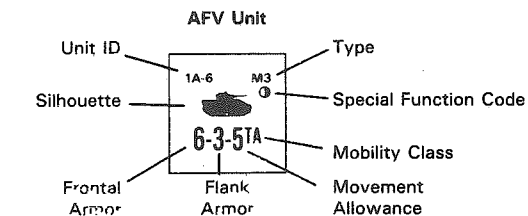
Unit	Force Level						Unit	Force Level					
	7	8	9	10	11	12		7	8	9	10	11	12
HQ-92*			8				1C13*		8	8			8
TOC-92			8				2C13*		8	8			8
1R-92			4				3C13*		8	8			8
2R-92			4				OPM13*		8	8			8
3R-92			4				1M13*		8	8			8
4R-92			4				2M13*		8	8			8
1AD-92		8	8			8	HQ16	S	S	S	S	S	S
2AD-92			8				1AT16	S	S	S	S	S	S
3AD-92		8	8			8	2AT16	S	S	S	S	S	S
4AD-92			8				1A16	S	S	S	S	S	S
HQ-93	S	S	S	S	S	S	2A16	S	S	S	S	S	S
TOC-93	S	S	S	S	S	S	3A16	S	S	S	S	S	S
1R-93	S	S	S	S	S	S	1B16	S	S	S	S	S	S
2R-93	S	S	S	S	S	S	2B16	S	S	S	S	S	S
3R-93	S	S	S	S	S	S	3B16	S	S	S	S	S	S
4R-93	S	S	S	S	S	S	1C16	S	S	S	S	S	S
1AT-93	S	S	S	S	S	S	2C16	S	S	S	S	S	S
2AT-92	S	S	S	S	S	S	3C16	S	S	S	S	S	S
3AT-93	S	S	S	S	S	S	HQ17	S	S	S	S	S	S
1ATG-93	S	S	S	S	S	S	1AT17	S	S	S	S	S	S
2ATG-93	S	S	S	S	S	S	2AT17	S	S	S	S	S	S
1AD-93	S	S	S	S	S	S	1A17	S	S	S	S	S	S
2AD-93	S	S	S	S	S	S	2A17	S	S	S	S	S	S
3AD-93	S	S	S	S	S	S	3A17	S	S	S	S	S	S
OPM-93	S	S	S	S	S	S	1B17	S	S	S	S	S	S
1M-93	S	S	S	S	S	S	2B17	S	S	S	S	S	S
2M-93	S	S	S	S	S	S	3B17	S	S	S	S	S	S
HQ11	6	6	6				1C17	S	S	S	S	S	S
1A11	4	4	4			8	2C17	S	S	S	S	S	S
2A11	6	6	4			8	3C17	S	S	S	S	S	S
3A11	6	6	4			8	aHQ18				6		
1B11	6	6	6				bHQ18				6		
2B11	6	6	6				1A18				4	4	4
3B11	6	6	6				2A18				4	4	4
1C11	6	6	6				1B18				6		
2C11	6	6	6				2B18				6		
3C11	6	6	6				1C18				6		
HQ12			10				2C18				6		
1A12			10				1D18				6		
2A12			10				2D18				6		
3A12			10				HQ22*			10			
1B12			10				OPA22*		8	10			
2B12			10				1A22		8	10			
3B12			10				2A22		8	10			
1C12			10				OPB22*			10			
2C12			10				1B22			10			
3C12			10				2B22			10			
HQ13*		8	8			8	OPC22*			10			
1A13*		8	4			6	1C22			10			
2A13*		8	6			6	2C22			10			
3A13*		8	8			6	Dummies	5/S	5/S	5/S	5/S	5/S	5/S
1B13*		8	8			8		9/4	9/4	1/4	8/4	8/4	8/4
2B13*		8	8			8			2/8	5/8	1/6	9/6	3/6
3B13*		8	8			8				2/10			4/8
							Entr.	8	8	8	8	8	8

Soviet Scenario Chart: Scenario 2

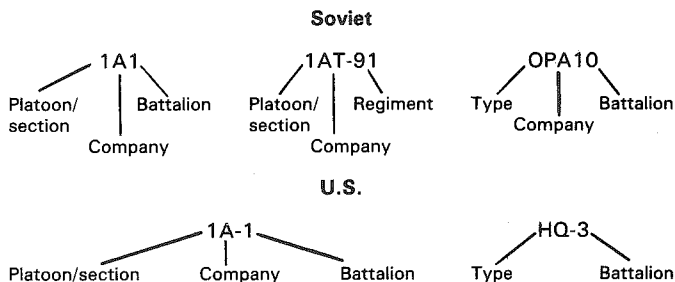
Unit	Force Level						Unit	Force Level						Unit	Force Level					
	7	8	9	10	11	12		7	8	9	10	11	12		7	8	9	10	11	12
HQ-92*	8	8	8				HQ13*	5	10	10				1C17						8
TOC-92	8	8	8				1A13*	5	3	3				2C17						8
1R-92		1	1				2A13*	5	5	5				3C17						8
2R-92		1	1				3A13*	5	5	5				aHQ18			5	5		
3R-92		1	1				1B13*	5	8	8				bHQ18			5	5		
4R-92		1	1				2B13*	5	8	8				1A18			5	5		
1AT-92		10	10				3B13*	5	8	8				2A18			5	5		
2AT-92		10	10				1C13*	5	10	10				1B18			5	5		
3AT-92		10	10				2C13*	5	10	10				2B18			5	5		
1AD-92	5	5	5				3C13*	5	10	10				1C18			5	5		
2AD-92	8	8	8				OPM13*	5	8	8				2C18			5	5		
3AD-92		5	5				1M13*	5	8	8				1D18			5	5		
4AD-92	5	8	8				2M13*	5	8	8				2D18			5	5		
M-92		10	10				HQ15*	3			3			HQ19					5	5
HQ-93						8	1A15	1			1			1A19					5	5
TOC-93						8	2A15	1			1			2A19					5	5
3R-93						8	3A15	1			1			1B19					5	5
4R-93						8	1B15	1			1			2B19					5	5
1ATG-93						8	2B15	1			1			HQ20						8
2ATG-93						8	1C15	3			3			A20						8
1AD-93						8	2C15	3			3			B20						8
2AD-93						8	HQ16					5	5	C20						8
HQ11	8	5	5				1AT16				1	1		HQ21		5		5	1	1
1A11	5	1	1				2AT16				5	5		1A21		5		5	1	1
2A11	5	3	3				1A16				3	3		2A21		5		5	1	1
3A11	5	3	3				2A16				3	3		1B21		5		5	3	3
1B11	8	5	5				3A16				3	3		2B21		5		5	3	3
2B11	8	5	5				1B16				5	5		HQ22*	8	8	8			
3B11	8	5	5				2B16				5	5		OPA22*	8	5	5			
1C11	8	5	5				3B16				5	5		1A22	8	5	5			
2C11	8	5	5				1C16				5	5		2A22	8	5	5			
3C11	8	5	5				2C16				5	5		OPB22*	8	8	8			
HQ12		8	8				3C16				5	5		1B22	8	8	8			
1A12		8	8				HQ17					8		2B22	8	8	8			
2A12		8	8				1AT17					8		OPC22*	8	10	10			
3A12		8	8				2AT17					8		1C22	8	10	10			
1B12		8	8				1A17					8		2C22	8	10	10			
2B12		8	8				2A17					8		Dummies	1/1	1/1	1/1	1/1	2/1	2/1
3B12		8	8				3A17					8			1/3	1/3	1/3	1/3	12/5	12/5
1C12		8	8				1B17					8			7/5	16/5	11/5	10/5		
2C12		8	8				2B17					8			8/8	2/10	2/10			
3C12		8	8				3B17					8								

Unit Identification Chart

Counter Formats



Unit IDs



Symbols



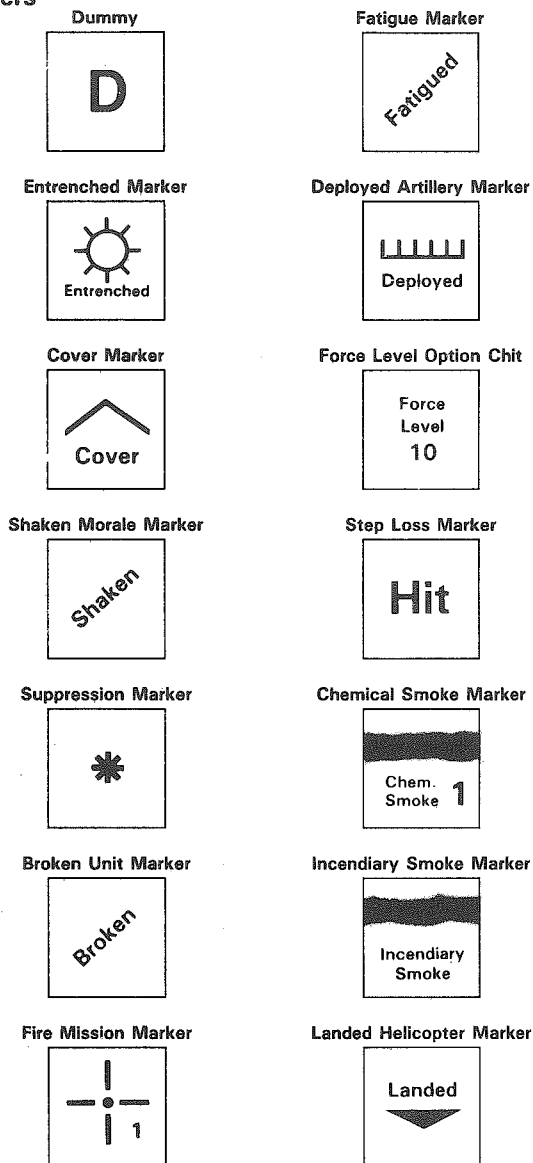
Color Codes

Black on green.....U.S. 2-step units
 Black and white on green.....U.S. 1-step units
 Black on red.....Soviet 2-step units
 Black and white on red.....Soviet 1-step units
 Black on white.....Game markers

Abbreviations

HQ	Headquarters	ATG	Anti-tank gun
TOC	Tactical operations center	AD	Air defense
Repl	Replacement	M	Mortar
OP	Observation post	R	Recon
AT	Anti-tank	S	Scout

Markers



Special Function Codes

- * Unit does not require operations points.
- o Unit may transport other units with a movement class of L.
- o Unit may transport other units with a movement class of L, but only half its number of steps.
- Unit may transport other units with a movement class of L or S.
- ▲ Unit may transport other units with a movement class of L or S, but more than its number of steps.

Transport Capacities

Mi-8.....3 steps
 Mi-26.....12 steps

Target Types/Classes

V Non-armored vehicle
 W Heavy weapon
 P Personnel

Mobility Class

T Track
 W Off-road wheel
 L Leg
 S Static
 R Road-bound wheel
 A Amphibious
 # Helicopter

Conventional Fire Combat Results Table

Die Roll	Odds										
	1:3	1:2	1:1	2:1	3:1	4:1	5:1	6:1	7:1	8:1	9:1
1	S	S	S	H	H	H	E	E	E	E	E
2	NE	S	S	S	H	H	H	E	E	E	E
3	NE	NE	S	S	S	H	H	H	E	E	E
4	NE	NE	NE	S	S	S	H	H	H	E	E
5	NE	NE	NE	NE	S	S	S	H	H	H	E
6	NE	NE	NE	NE	NE	S	S	S	H	H	H
7	NE	NE	NE	NE	NE	NE	S	S	S	H	H
8	NE	NE	NE	NE	NE	NE	NE	S	S	S	H
9	NE	NE	NE	NE	NE	NE	NE	NE	S	S	S
10	NE	NE	NE	NE	NE	NE	NE	NE	NE	S	S

Anti-Armor Fire Modifiers

Target is in cover: $\times \frac{1}{2}$
Target is M-901 in cover: $\times \frac{1}{3}$
Msl firing into woods: $\times \frac{1}{2}$
Target is stationary helicopter;
*firer is †, *, **: no modifier*
firer is any other: $\times \frac{1}{2}$
Target is non-stationary
helicopter;
*firer is †, **: no modifier*
*firer is *: $\times \frac{1}{2}$*
other units may not fire
N steps of AFVs or helicopters
in hex: $+(N/2 - 1)$
AAM firing at helicopter:
+ target's infrared signature

Conventional Fire Defense Table

Unit Type	Terrain					
	Clear	Woods	Marsh	Town	Urban Strip	Entrench
P	5/10	10/15	5/10	10/20	5/20	20
W	5/10	5/10	5/10	5/15	5/15	20
V	10/15	10/15	10/15	5/15	5/15	—
AFV	10/10	10/10	10/10	10/15	10/10	—
H	10/15	10/15	10/15	10/15	10/15	—

The first value is for units not in cover; the second is for units in cover.

Hit Confirmation

Armor Type	Modifier
Chobham	0
Laminate	+2
All Others	+4

Armor Types

Chobham	M-1 Front
Laminate	M-1 Flank
	M-2 Flank
	M-3 Flank
	T-64 Front
	T-72 Front
	T-80 Front and Flank

Indirect Fire Defense Table

Unit Type	Terrain					
	Clear	Woods	Marsh	Town	Urban Strip	Entrench
P	10	15	10	20	20	20
W	10	10	10	15	10	20
V	15	15	15	15	15	—
AFV	30	30	30	30	30	—
H	15	15	15	15	15	—

The value is for a unit in the hex regardless of whether or not it is under cover.

Conventional Fire Modifiers

To attack value:
Target is stationary helicopter: $\times \frac{1}{2}$
Target is non-stationary helicopter:
no fire allowed
To defense value:
Target is AFV or H: + armor value
N steps in target hex: $-(N - 2)$
 The defense value may never be reduced to less than half its initial value

Movement-Related Actions Table

Purpose	Action					
	Change Formation	Mount/Dismount	Land/Take Off	Perform Popup†	Deploy/Undeploy†	Enter Cover†
Need to spend operations points	—	Y*	Y	Y	Y	Y
Spotting and opportunity fire	Y	Y*	Y	Y	Y	N
Passthrough fire	N	Y*	Y	N	Y	N

This table specifies which activities other than movement are considered to be movement for various purposes. † A unit must be in combat formation to perform these actions. * The transported unit is affected, not the transporting unit.

Command Rating Table

Die Roll	Rating	
	HQ	TOC
1	0	1-5
2-5	1	2-10
6-8	2	2-15
9-10	3	2-20

Opportunity Fire Limits

Range	Limits
4	Maximum range for Msl or fire at unit performing popup.
5-8	Target must be in 2nd consecutive spotted hex (4th hex for helicopter in march formation).
9-12	Target must be in 3rd consecutive spotted hex (6th hex for helicopter in march formation).

Limits above (except for Msl) do not apply if target begins the phase visible and remains visible. ROF is 1 per hex entered by target.

Wind Velocity Table

Die Roll	Velocity
1-3	Light
4-7	Moderate
8-10	Strong

Thermal Sight Units (U.S. only)

M-1, M-2, M-3, M-60A3, M-901, AH-1, AH-64, TOW, Infantry B, Motorcycle B, Infantry A (for missile fire and spotting only)

Terrain Effects Chart

Terrain		March Formation				Combat Formation			
		Mobility Category				Mobility Category			
		T	W	R	L	T	W	R	L
Hexes	Clear	1	1	1	NE	1	1	1	NE
	Woods	1	1	2	NE	2	2	P	NE
	Town	2	2	2	NE	3	3	2	NE
	Urban Strip	NE	NE	NE	NE	NE	NE	NE	NE
	Primary Road	½	⅓	¼	NE	NE	NE	NE	NE
	Secondary Road	½	⅓	½	NE	NE	NE	NE	NE
	Full Lake**	2*	2*	P	P	2*	2*	P	P
Hexsides	Marsh	3*	3*	P	6—	4*	4*	P	8—
	Full Lake	+2*	+2*	P	P	+2*	+2*	P	P
	Stream	+1	+1	P	NE	+2	+2	P	NE
	Dense Woods	P	P	P	4—	P	P	P	6—
Hexsides	Steep Slope (Climbing)	+1	+2	P	F	+1	+2	P	F

NE = No effect on movement.

P = Prohibited.

F = Fatigued; the unit may enter the hex only in the first movement phase.

*Amphibious only; all others prohibited.

**Units entering a full lake hex also pay the cost of crossing a full lake hexside.

Headquarters

[illegible]

TOCs

TOC	C/P	Accumulation	1	1F	1S	2	2F	2S	3	3F	3S	4	4F	4S	5	5F	5S
			6	6F	6S	7	7F	7S	8	8F	8S	9	9F	9S	10	10F	10S
TOC	C/P	Accumulation	1	1F	1S	2	2F	2S	3	3F	3S	4	4F	4S	5	5F	5S
			6	6F	6S	7	7F	7S	8	8F	8S	9	9F	9S	10	10F	10S
TOC	C/P	Accumulation	1	1F	1S	2	2F	2S	3	3F	3S	4	4F	4S	5	5F	5S
			6	6F	6S	7	7F	7S	8	8F	8S	9	9F	9S	10	10F	10S

Morale

[illegible]

Cross-Attachment

Unit	Attached	Unit	Attached	Unit	Attached	Unit	Attached

Helicopter Headquarters

HQ	C	1F	1S	1R	2F	2S	2R	3F	3S	3R	4F	4S	4R	5F	5S	5R
		6F	6S	6R	7F	7S	7R	8F	8S	8R	9F	9S	9R	10F	10S	10R
HQ	C	1F	1S	1R	2F	2S	2R	3F	3S	3R	4F	4S	4R	5F	5S	5R
		6F	6S	6R	7F	7S	7R	8F	8S	8R	9F	9S	9R	10F	10S	10R
HQ	C	1F	1S	1R	2F	2S	2R	3F	3S	3R	4F	4S	4R	5F	5S	5R
		6F	6S	6R	7F	7S	7R	8F	8S	8R	9F	9S	9R	10F	10S	10R
HQ	C	1F	1S	1R	2F	2S	2R	3F	3S	3R	4F	4S	4R	5F	5S	5R
		6F	6S	6R	7F	7S	7R	8F	8S	8R	9F	9S	9R	10F	10S	10R
HQ	C	1F	1S	1R	2F	2S	2R	3F	3S	3R	4F	4S	4R	5F	5S	5R
		6F	6S	6R	7F	7S	7R	8F	8S	8R	9F	9S	9R	10F	10S	10R
HQ	C	1F	1S	1R	2F	2S	2R	3F	3S	3R	4F	4S	4R	5F	5S	5R
		6F	6S	6R	7F	7S	7R	8F	8S	8R	9F	9S	9R	10F	10S	10R
HQ	C	1F	1S	1R	2F	2S	2R	3F	3S	3R	4F	4S	4R	5F	5S	5R
		6F	6S	6R	7F	7S	7R	8F	8S	8R	9F	9S	9R	10F	10S	10R
HQ	C	1F	1S	1R	2F	2S	2R	3F	3S	3R	4F	4S	4R	5F	5S	5R
		6F	6S	6R	7F	7S	7R	8F	8S	8R	9F	9S	9R	10F	10S	10R
HQ	C	1F	1S	1R	2F	2S	2R	3F	3S	3R	4F	4S	4R	5F	5S	5R
		6F	6S	6R	7F	7S	7R	8F	8S	8R	9F	9S	9R	10F	10S	10R

Cross-Attachment

[illegible]

Other Headquarters

HQ	C	1F	1S	2F	2S	3F	3S	4F	4S	5F	5S	6F	6S	7F	7S	8F	8S	9F	9S	10F	10S
HQ	C	1F	1S	2F	2S	3F	3S	4F	4S	5F	5S	6F	6S	7F	7S	8F	8S	9F	9S	10F	10S
HQ	C	1F	1S	2F	2S	3F	3S	4F	4S	5F	5S	6F	6S	7F	7S	8F	8S	9F	9S	10F	10S
HQ	C	1F	1S	2F	2S	3F	3S	4F	4S	5F	5S	6F	6S	7F	7S	8F	8S	9F	9S	10F	10S
HQ	C	1F	1S	2F	2S	3F	3S	4F	4S	5F	5S	6F	6S	7F	7S	8F	8S	9F	9S	10F	10S
HQ	C	1F	1S	2F	2S	3F	3S	4F	4S	5F	5S	6F	6S	7F	7S	8F	8S	9F	9S	10F	10S
HQ	C	1F	1S	2F	2S	3F	3S	4F	4S	5F	5S	6F	6S	7F	7S	8F	8S	9F	9S	10F	10S
HQ	C	1F	1S	2F	2S	3F	3S	4F	4S	5F	5S	6F	6S	7F	7S	8F	8S	9F	9S	10F	10S
HQ	C	1F	1S	2F	2S	3F	3S	4F	4S	5F	5S	6F	6S	7F	7S	8F	8S	9F	9S	10F	10S
HQ	C	1F	1S	2F	2S	3F	3S	4F	4S	5F	5S	6F	6S	7F	7S	8F	8S	9F	9S	10F	10S
HQ	C	1F	1S	2F	2S	3F	3S	4F	4S	5F	5S	6F	6S	7F	7S	8F	8S	9F	9S	10F	10S
HQ	C	1F	1S	2F	2S	3F	3S	4F	4S	5F	5S	6F	6S	7F	7S	8F	8S	9F	9S	10F	10S

TOCs

TOC	C/P	Accumulation	1	1F	1S	2	2F	2S	3	3F	3S	4	4F	4S	5	5F	5S
			6	6F	6S	7	7F	7S	8	8F	8S	9	9F	9S	10	10F	10S
TOC	C/P	Accumulation	1	1F	1S	2	2F	2S	3	3F	3S	4	4F	4S	5	5F	5S
			6	6F	6S	7	7F	7S	8	8F	8S	9	9F	9S	10	10F	10S

Morale

[illegible]

[illegible][illegible]

[illegible]

1 2 3 4 5

Rule 7: Movement

G. Cover: Helicopters do not automatically enter cover when fired upon (nor may they voluntarily do so).

Rule 8: Transport

Units in combat formation do not pay operations points to dismount; they do pay operations points to mount.

This cost is always paid for the transported unit, not the transporting unit.

Scenarios

In scenario 1, the Soviet player should roll for 3 HQs. In force level 12, add the 15th Battalion to units required and add its HQ to command units. (This is as shown on the scenario chart.)

Scenario Charts

The number of dummies received is incorrect in several instances. Here are the changes:

	<i>Force Level</i>					
	7	8	9	10	11	12
U.S. Scenario 1		1/8	4/8	3/11		
U.S. Scenario 2	12/7	6/7	7/7	3/7	5/7	5/7
			7/9			
Soviet Scenario 2	9/5	18/5	13/5			
		0/10	0/10			
Soviet Scenario 3	1/6	1/6	1/6	2/6	10/6	4/6
						3/8

In addition, all dummies given as starting on-board in U.S. scenario 2 should instead enter turn 1.

Soviet Direct Fire Data Chart

The SCAP round of the BTR-70/BRDM-2 should have an asterisk (*).

Unit	Ammo	ROF	Range Effectiveness														Ammo Supply
			Range in hexes														
			0	1	2	3	4	6	8	10	12	14	16	18	20	22	
M-1 (M-60A3)	APDU	2	8:20	9:20	8:20	7:19	6:19	5:18	4:18	3:17	2:16	1:14	—	—	—	—	3
	AP	2	8:18	9:18	8:17	7:17	6:16	5:15	4:14	3:13	2:12	1:11	—	—	—	—	8 (7)
	HEAT	2	8:18	9:18	8:18	7:18	5:18	3:18	1:18	—	—	—	—	—	—	—	6 (5)
	HE	2	4	7	7	7	7	7	6	5	4	3	—	—	—	—	
	APERS	2	15	30	30	30	30	30	—	—	—	—	—	—	—	—	0 (2)
	IS	2	—	20	20	20	20	18	16	14	12	10	—	—	—	—	1
	SCAP*	3	6:5	8:5	5:5	4:4	2:3	1:2	—	—	—	—	—	—	—	—	20
	SA	2	3	5	5	3	1	—	—	—	—	—	—	—	—	—	8
M-2 (M-3)	Msl	1	—	8:20	8:20	8:20	8:20	8:20	8:20	8:20	8:20	8:20	—	—	—	—	2 (3)
	SCHE	5	2	3	3	3	3	3	2	2	1	1	—	—	—	—	10
	SCAP	5	8:13	9:13	8:12	7:12	6:11	5:10	4:9	2:8	—	—	—	—	—	—	5
	SA	2	3	4	4	3	1	—	—	—	—	—	—	—	—	—	8
M-113 M-106 M-125	SCAP*	3	6:5	8:5	5:5	4:4	2:3	1:2	—	—	—	—	—	—	—	—	30
	SA	2	2	3	3	3	2	1	—	—	—	—	—	—	—	—	8
ACCV	SCAP*	2	6:5	8:5	5:5	4:4	2:3	1:2	—	—	—	—	—	—	—	—	30
	SA	2	4	5	5	4	3	1	—	—	—	—	—	—	—	—	10
M-901 (TOW)	Msl	2	—	8:20	8:20	8:20	8:20	8:20	8:20	8:20	8:20	8:20	—	—	—	—	5 (8)
Infantry A	Msl	1	—	8:19	8:19	8:19	8:19	—	—	—	—	—	—	—	—	—	1
	HEAT	1	8:17	4:17	—	—	—	—	—	—	—	—	—	—	—	—	1
	SA	2	10	9	7	3	2	—	—	—	—	—	—	—	—	—	10
Infantry B Motorcycle B	HEAT	1	8:17	4:17	—	—	—	—	—	—	—	—	—	—	—	—	1
	SA	2	6	5	3	1	—	—	—	—	—	—	—	—	—	—	8
HQ/TOC	SA	2	2	2	2	—	—	—	—	—	—	—	—	—	—	—	4
M-988	SCAP**	4	6:12	8:12	7:11	7:10	6:9	5:8	4:7	3:6	3:5	2:4	2:4	1:3	1:3	—	11
	SCHE	4	4	7	7	7	7	7	6	6	5	5	4	4	2	2	
Stinger	SAM†	1	—	—	4:6	4:6	4:6	4:6	3:6	3:6	3:6	3:6	3:6	2:6	2:6	2:6	2
OH-58	SCAP*	5	4:3	8:3	6:3	4:3	2:2	1:1	—	—	—	—	—	—	—	—	16p
	SA	5	4	6	6	5	4	3	—	—	—	—	—	—	—	—	
	AAM†	1	—	—	4:6	4:6	4:6	4:6	3:6	3:6	3:6	3:6	3:6	2:6	2:6	2:6	1p
AH-1	Msl	2	—	8:20	8:20	8:20	8:20	8:20	8:20	8:20	8:20	8:20	—	—	—	—	2p
	HEAT*	5	6:12	8:12	7:12	6:12	5:12	4:12	3:12	2:12	1:12	—	—	—	—	—	5r
	HE	5	3	7	7	7	7	6	5	4							

U.S. Indirect Fire Data Chart

Weapon	Value (HE)	Max ROF	ICM	Incend Smoke	Chem Smoke	Range (Hexes)	Ammo Supply				
							HE	ICM	Incend Smoke	Chem Smoke	CLGP
81mm Mortar M-125	10	× 7	—	4	—	18	9	—	4	—	—
81mm Mortar M-29	10	× 7	—	4	—	18	9	—	4	—	—
4.2" Mortar M-106	12	× 5	—	3	—	22	10	—	14	—	—
155mm Howitzer M-109	6	× 6	× 4	1	1	58	20	15	3	5	4
203mm Howitzer M-110	4	× 4	× 7	—	—	67	42	28	—	—	—

Values are per strength point.

Ammo supply is the number of turns of fire except for smoke, which is the total number of smoke screens allowed.

U.S. Indirect Fire Delay Time Table

Observer	Delay
Firing Unit	0
HQ Unit	1
Other Unit	2

Unit	Ammo	ROF	Range Effectiveness															Ammo Supply
			Range in hexes															
			0	1	2	3	4	6	8	10	12	14	16	18	20	22		
T-64 T-72 T-80	APDU	1	8:20	9:20	8:19	7:19	6:18	4:18	3:17	2:16	1:15	—	—	—	—	—	1	
	AP	1	8:19	9:19	8:19	7:18	6:17	4:16	3:15	2:14	1:13	—	—	—	—	—	3	
	HEAT	1	8:19	9:19	8:19	7:19	5:19	3:19	1:19	—	—	—	—	—	—	—	2	
	HE	1	6	10	10	10	10	9	8	7	6	5	—	—	—	—	7	
	SCAP*	2	6:5	8:5	5:5	4:4	2:3	1:2	—	—	—	—	—	—	—	—	4	
	SA	2	3	5	5	3	1	—	—	—	—	—	—	—	—	—	8	
BMP-B	Msl	1	—	8:19	8:19	8:19	8:19	8:19	8:19	8:19	8:19	—	—	—	—	—	2	
	SCAP	3	8:8	9:8	8:8	7:7	6:6	5:5	4:4	2:3	—	—	—	—	—	—	5	
	SCHE	3	3	6	6	6	6	5	4	3	2	1	—	—	—	—	10	
	SA	2	3	5	5	3	1	—	—	—	—	—	—	—	—	—	8	
BMP-A	Msl	1	—	—	7:18	8:18	8:18	8:18	8:18	8:18	8:18	—	—	—	—	—	2	
	HEAT	1	6:18	8:18	7:18	6:18	5:18	2:18	1:18	—	—	—	—	—	—	—	6	
	HE	1	2	3	3	3	3	2	2	2	1	1	—	—	—	—	8	
	SA	2	3	5	5	3	1	—	—	—	—	—	—	—	—	—	8	
BTR-70 BRDM-2	SCAP	3	6:7	8:7	6:7	5:6	4:6	2:4	1:3	—	—	—	—	—	—	—	8	
	SA	2	2	4	4	4	4	2	1	—	—	—	—	—	—	—	8	
AT-4	Msl	1	—	8:19	8:19	8:19	8:19	8:19	8:19	—	—	—	—	—	—	—	2	
BRDM-2 w/AT-5	Msl	2	—	8:19	8:19	8:19	8:19	8:19	8:19	8:19	8:19	—	—	—	—	—	7	
AM-82	HEAT	3	—	8:13	8:13	7:13	6:13	4:13	3:13	2:13	1:13	—	—	—	—	—	2	
	SCHE	3	—	15	15	15	15	14	12	10	8	6	—	—	—	—	8	
S-122	AP	2	8:17	9:17	8:17	6:16	4:15	3:14	2:12	1:10	—	—	—	—	—	—	2	
	HEAT	2	8:19	8:19	7:19	5:19	3:19	2:19	1:19	—	—	—	—	—	—	—	2	
	HE	2	6	10	10	10	10	10	9	8	7	6	5	4	—	—	9	
	IS	2	—	20	20	20	20	18	16	14	12	10	8	6	—	—	3	
D-30	HEAT	2	6:19	8:19	7:19	5:19	3:19	2:19	1:19	—	—	—	—	—	—	—	3	
	HE	2	—	10	10	10	10	10	9	8	7	6	5	4	—	—	12	
	IS	2	—	20	20	20	20	18	16	14	12	10	8	6	—	—	3	
SPG-9	HEAT	2	6:18	8:18	7:18	6:18	4:18	2:18	1:18	—	—	—	—	—	—	—	16	
	HE	2	2	3	3	3	3	2	2	2	1	1	—	—	—	—	10	
SD-44	AP	3	6:16	8:15	8:15	7:14	5:14	2:13	1:12	—	—	—	—	—	—	—	16	
	HEAT	3	6:18	8:18	7:18	6:18	3:18	2:18	1:18	—	—	—	—	—	—	—	10	
	HE	3	2	4	4	4	4	3	3	2	2	1	—	—	—	—	20	
Infantry A	HEAT	1	8:17	6:17	2:17	—	—	—	—	—	—	—	—	—	—	—	2	
	SA	2	10	8	6	4	2	—	—	—	—	—	—	—	—	—	6	
Infantry B	HEAT	1	8:17	6:17	2:17	—	—	—	—	—	—	—	—	—	—	—	2	
	SA	2	8	6	4	1	—	—	—	—	—	—	—	—	—	—	10	
HQ/OP/ TOC	SA	2	2	2	2	—	—	—	—	—	—	—	—	—	—	—	7	
Motorcycle	HEAT	1	8:17	4:17	—	—	—	—	—	—	—	—	—	—	—	—	1	
	SA	6	4	2	1	—	—	—	—	—	—	—	—	—	—	—	10	

Soviet Direct Fire Data Chart (Continued)

Unit	Ammo	ROF	Range Effectiveness															Ammo Supply
			Range in hexes															
			0	1	2	3	4	6	8	10	12	14	16	18	20	22		
ZU-23	SCAP**	5	6:7	6:6	5:6	4:5	3:5	2:4	1:3	1:2	—	—	—	—	—	—	40	
	SCHE	5	2	3	3	3	3	3	2	2	1	1	—	—	—	—		
ZSU-23	SCAP**	5	6:7	8:6	6:6	5:5	4:5	3:4	2:3	1:2	—	—	—	—	—	—	16	
	SCHE	5	3	5	5	5	5	4	4	3	2	1	—	—	—	—		
ZSU-30	SCAP**	6	6:10	8:10	7:9	6:8	5:7	4:6	3:5	3:5	2:4	2:4	1:3	1:3	—	—	6	
	SCHE	6	4	7	7	7	7	7	6	5	4	4	3	2	2	—		
SA-9	AAM†	1	—	—	4:9	4:9	4:9	4:9	3:9	3:9	3:9	3:9	3:9	2:9	2:9	2:9	4	
SA-7	AAM†	1	—	—	3:5	2:5	2:5	2:5	2:5	2:5	1:5	1:5	1:5	1:5	1:5	1:5	2	
Mi-24D Mi-24E	Msl (D)	2	—	—	—	8:19	8:19	8:19	8:19	8:19	8:19	8:19	—	—	—	—	2	
	Msl (E)*	2	—	—	—	8:21	8:21	8:21	8:21	8:21	8:21	8:21	8:21	8:21	8:21	—	2	
	HEAT*	8	6:10	7:10	5:10	3:10	2:10	1:10	—	—	—	—	—	—	—	—	32	
	HE	8	1	2	2	2	1	1	—	—	—	—	—	—	—	—		
	SCAP*	5	4:5	8:5	6:5	4:4	2:3	1:2	—	—	—	—	—	—	—	—	20	
	SA	5	3	5	5	4	3	1	—	—	—	—	—	—	—	—		
Mi-2 Mi-8C	HEAT*	8	6:10	7:10	5:10	3:10	2:10	1:10	—	—	—	—	—	—	—	—	16	
	HE	8	1	2	2	2	1	1	—	—	—	—	—	—	—	—		
Mi-8E	Msl	2	—	—	—	8:19	8:19	8:19	8:19	8:19	8:19	8:19	—	—	—	—	2	
	HEAT*	8	6:10	7:10	5:10	3:10	2:10	1:10	—	—	—	—	—	—	—	—	48	
	HE	8	1	2	2	2	1	1	—	—	—	—	—	—	—	—		

Soviet Indirect Fire Data Chart

Weapon	Value (HE)	Max ROF	Incend Smoke	Chem Smoke	Range (Hexes)	Ammo Supply		
						HE	Incend Smoke	Chem Smoke
122mm Howitzer D-30	4	×6	1	1	61	12	3	3
122mm Howitzer S-122	4	×4	1	1	61	9	3	3
130mm Gun M-46	4	×4	—	—	110	16	—	—
152mm Howitzer D-20	5	×4	1	1	69	12	3	3
152mm Howitzer S-152	5	×4	1	1	69	12	3	3
203mm Howitzer S-203	4	×2	—	—	72	20	—	—
82mm Mortar AM82	12	×7	8	—	12	8	8	—
120mm Mortar M-43	4	×7	2	—	22	12	8	—
240mm Mortar M-240	6	×2	—	—	38	20	—	—
122mm Rocket BM-21	15	—	—	—	43	3	—	—

Values are per strength point.

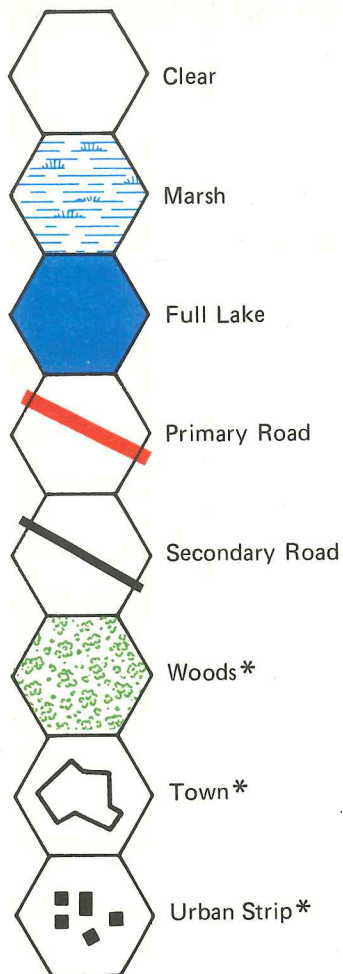
Ammo supply is the number of turns of fire except for smoke, which is the total number of smoke screens allowed.

Soviet Indirect Fire Delay Time Table

Observer	Delay
Firing Unit	0
Firing Unit's OP	1
Other OP or HQ	2

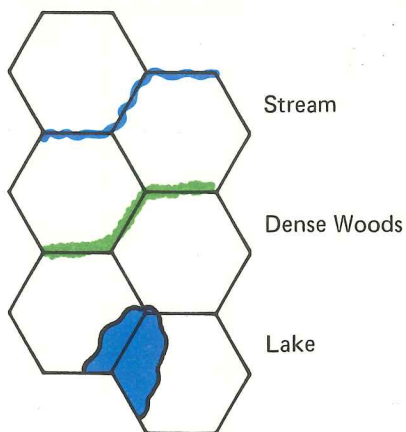
TERRAIN KEY

Hexes

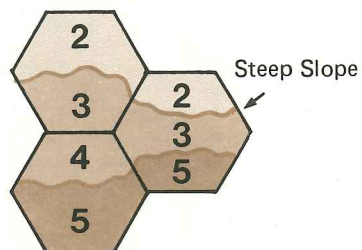


* +1 Level

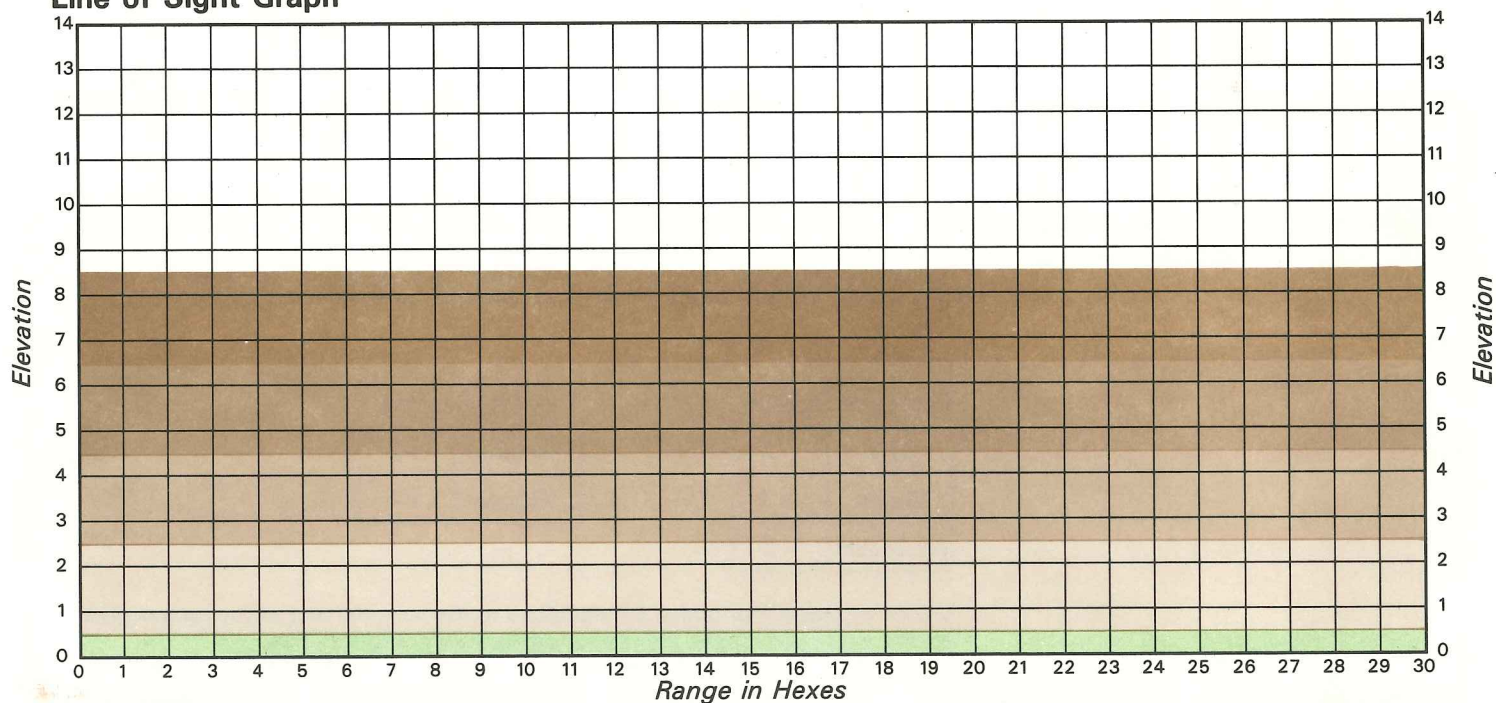
Hexsides



Terrain Levels



Line of Sight Graph



Spotting Tables

Base Roll

Range	Die Roll
0	Auto
1-2	12
3-4	10
5-6	8
7-8	6
9-10	4
11-12	2
13-14	0
15-16	-2
17-18	-4
19-20	-6
21-22	-8

Line of Sight

Combined Height	Range
0	18
1	22
2	26
3	30
4+	32

Terrain Modifiers

Target Type	Terrain					
	Clear	Woods	Marsh	Town	Urban Strip	March Formation on Road
H	NE/-2	-2/-4	-2/-4	NE/-2	-2/-4	—
P	Auto/NE	-2/-6	NE/-4	-3/-6	-2/-4	NE
W	Auto/+2	NE/-4	Auto/-3	NE/-4	+2/-2	Auto
V/AFV	Auto/+4	+2/-2	Auto/-2	+2/-2	Auto/NE	Auto

Values on this table are modifiers to the base roll. Auto = auto-spot. The first number in each cell on this and the two tables below is for units not in cover. The second number is for units in cover.

Auto-Spot Ranges

Target Type	Terrain					
	Clear	Woods	Marsh	Town	Urban Strip	March Formation on Road
H	4/2	2/0	2/0	4/2	2/0	—
P	Max/4	2/0	4/0	0/0	2/0	4
W	Max/6	4/0	Max/0	4/0	6/2	Max
V/AFV	Max/8	6/2	Max/2	6/2	Max/4	Max

Values on this table are the maximum distance at which a unit is spotted automatically. Max = maximum line of sight distance from the line of sight table.

Maximum Spotting Ranges

Target Type	Terrain					
	Clear	Woods	Marsh	Town	Urban Strip	March Formation on Road
H	12/10	10/8	10/8	12/10	10/8	—
P	Max/12	10/6	12/8	10/6	10/8	12
W	Max/14	12/8	Max/10	12/8	14/10	Max
V/AFV	Max/14	14/10	Max/10	14/10	Max/12	Max

Values on this table are the maximum distance at which it is possible to spot a unit. Max = the maximum line of sight distance from the line of sight table.

Spotter Status

AFV	-2
Recon	+2
All Others	0

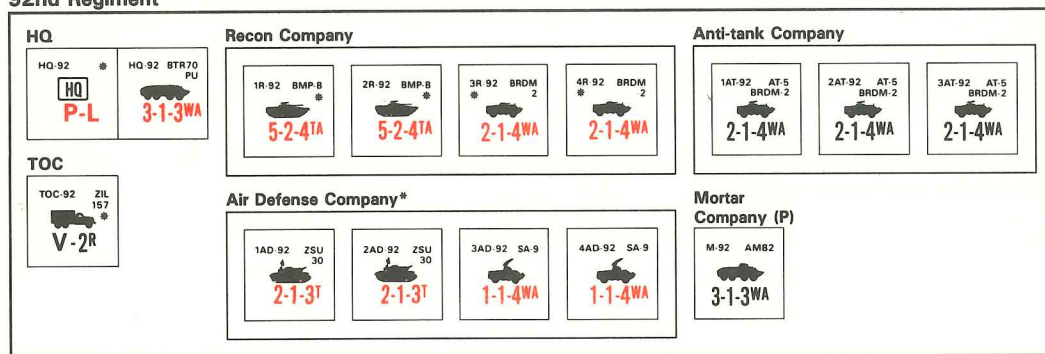
Target Status

Moving	+2
Firing	+4

Values on these two tables are modifiers to the base roll and to the ranges given on the auto-spot ranges and maximum spotting ranges tables.

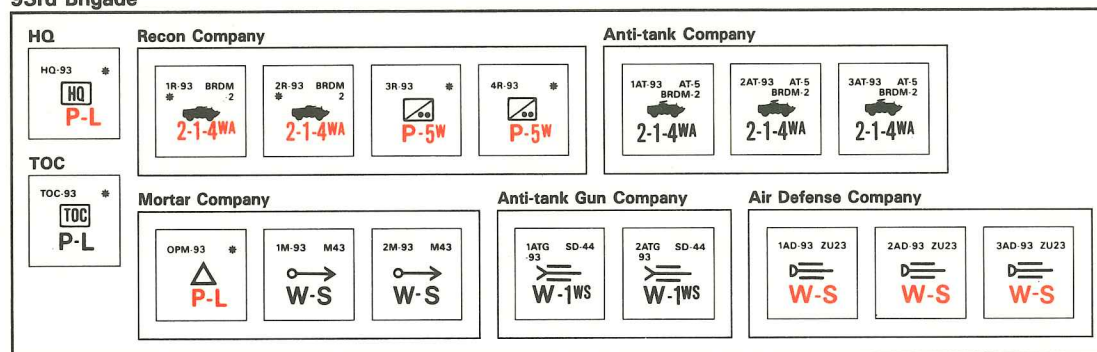
Soviet Organization Chart

92nd Regiment

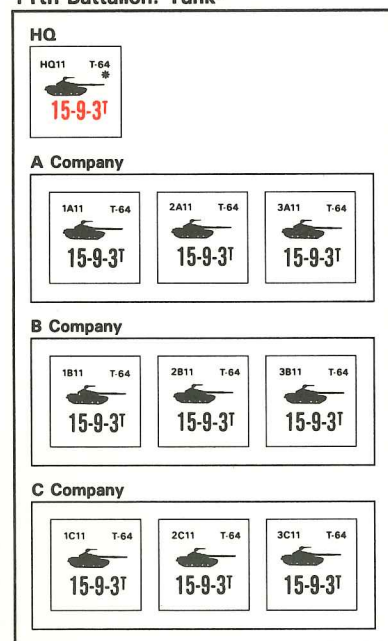


*The air defense company of the 91st Regiment is identical

93rd Brigade

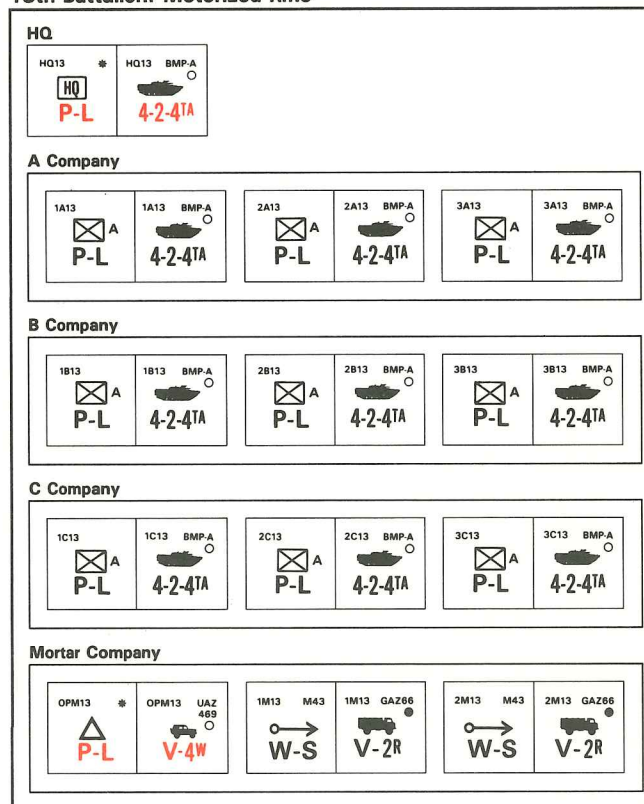


11th Battalion: Tank*

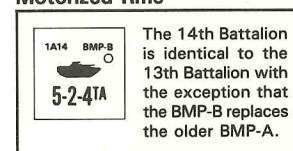


*The 12th Battalion is identical.

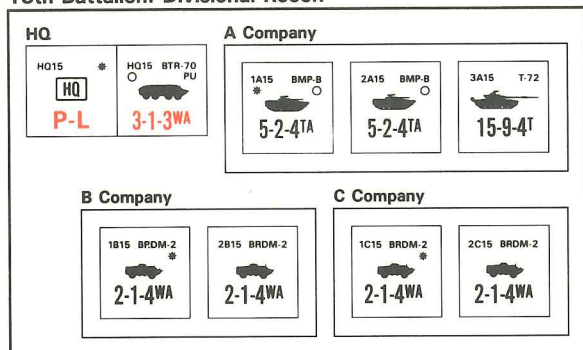
13th Battalion: Motorized Rifle



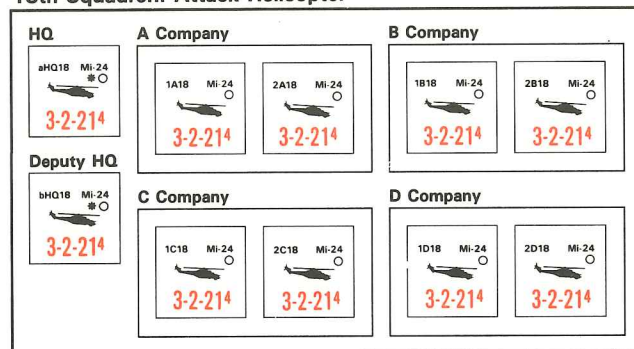
14th Battalion: Motorized Rifle



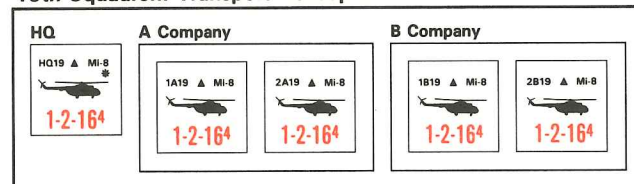
15th Battalion: Divisional Recon



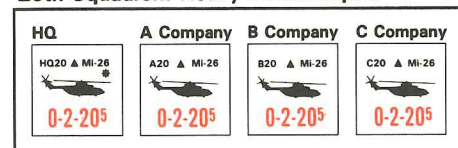
18th Squadron: Attack Helicopter



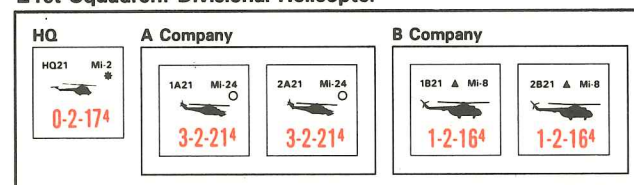
19th Squadron: Transport Helicopter



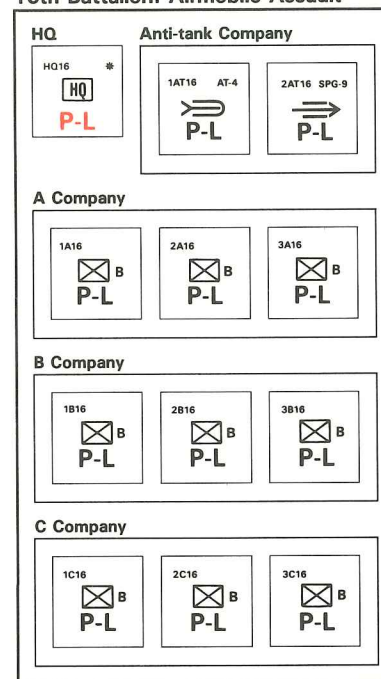
20th Squadron: Heavy-lift Helicopter



21st Squadron: Divisional Helicopter

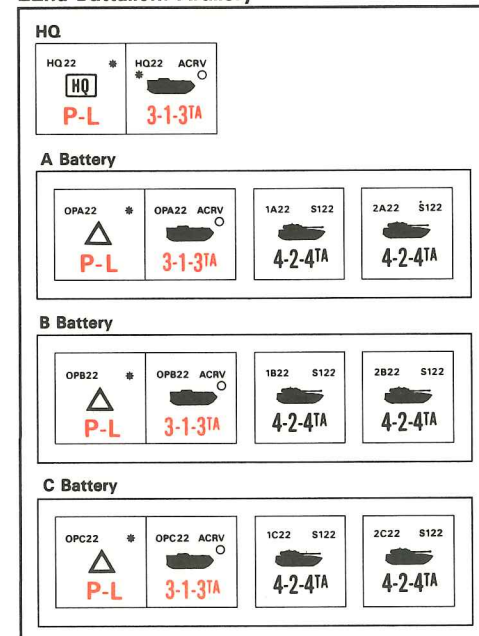


16th Battalion: Airmobile Assault*



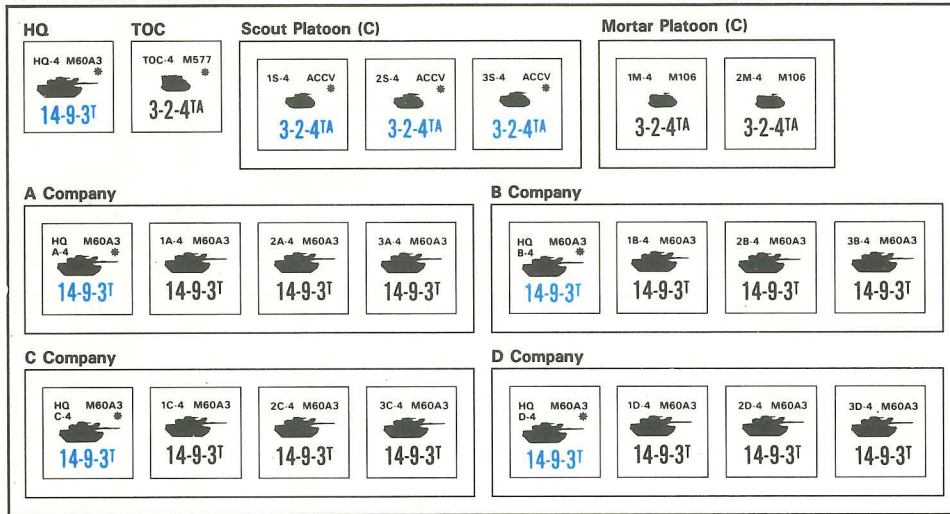
*The 17th Battalion is identical

22nd Battalion: Artillery

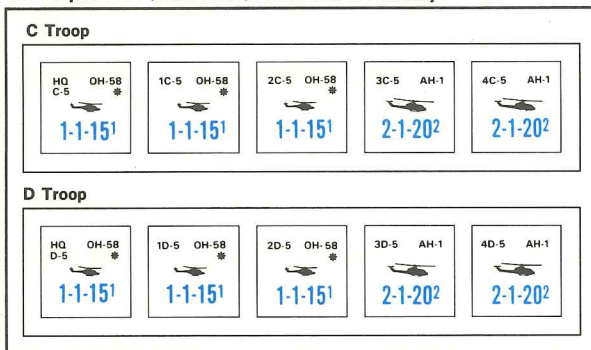


U.S. Organization Chart

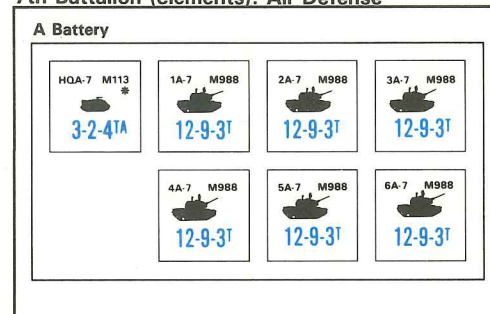
4th Battalion: Armored



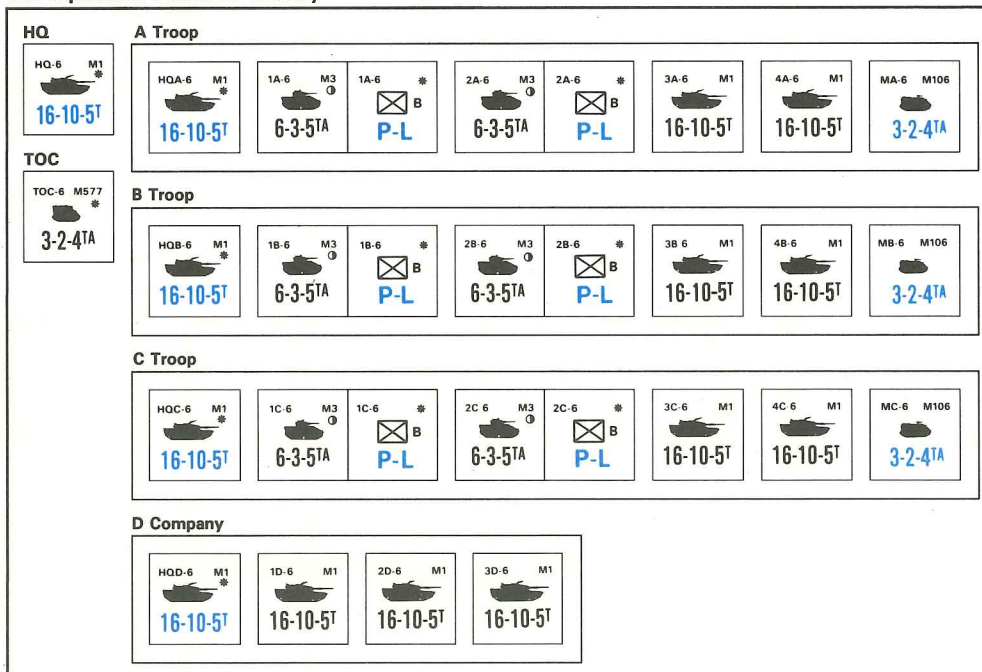
5th Squadron (elements): Divisional Cavalry



7th Battalion (elements): Air Defense



6th Squadron: Armored Cavalry



8th Battalion: Attack Helicopter

HQ 1-1-15¹					
A Company					
 4-0-22²	 1-1-15¹	 1-1-15¹	 4-0-22²	 4-0-22²	
B Company					
 4-0-22²	 1-1-15¹	 1-1-15¹	 4-0-22²	 4-0-22²	
C Company					
 4-0-22²	 1-1-15¹	 1-1-15¹	 4-0-22²	 4-0-22²	

9th Battalion: Airmobile Infantry

HQ P-L						
Anti-tank Company						
 P-L	 P-SL	 P-SL	 P-SL	 P-SL	 P-SL	 P-SL
TOC P-L	 P-SL	 P-SL	 P-SL	 P-SL	 P-SL	 P-SL
A Company						
 P-L	 P-L	 P-L	 P-L			
B Company						
 P-L	 P-L	 P-L	 P-L			
C Company						
 P-L	 P-L	 P-L	 P-L			
Mortar Platoon (C)						
 P-L	 P-L	 P-L				

10th Battalion: Combat Support Aviation

HQ 2-1-22²						
A Company						
 2-1-22²	 2-1-22²	 2-1-22²	 2-1-22²	 2-1-22²	 2-1-22²	 2-1-22²
B Company						
 2-1-22²	 2-1-22²	 2-1-22²	 2-1-22²	 2-1-22²	 2-1-22²	 2-1-22²
C Company						
 2-1-22²	 2-1-22²	 2-1-22²	 2-1-22²	 2-1-22²	 2-1-22²	 2-1-22²

1-2-17²

No counters for the UH-1H are included in this game, but this is what they look like. They may be substituted for the UH-60s in any scenario if desired.

Assault Counter Sheet 4

1A11 T-64 15-9-3T	2A11 T-64 15-9-3T	3A11 T-64 15-9-3T	1B11 T-64 15-9-3T	2B11 T-64 15-9-3T	3B11 T-64 15-9-3T	1C11 T-64 15-9-3T	2C11 T-64 15-9-3T
3C11 T-64 15-9-3T	1A12 T-64 15-9-3T	2A12 T-64 15-9-3T	3A12 T-64 15-9-3T	1B12 T-64 15-9-3T	2B12 T-64 15-9-3T	3B12 T-64 15-9-3T	1C12 T-64 15-9-3T

2C12 T-64 15-9-3T	3C12 T-64 15-9-3T	1A13 BMP-A 4-2-4TA	2A13 BMP-A 4-2-4TA	3A13 BMP-A 4-2-4TA	1B13 BMP-A 4-2-4TA	2B13 BMP-A 4-2-4TA	3B13 BMP-A 4-2-4TA
1C13 BMP-A 4-2-4TA	2C13 BMP-A 4-2-4TA	3C13 BMP-A 4-2-4TA	1A13 P-L	2A13 P-L	3A13 P-L	1B13 P-L	2B13 P-L

3B13 P-L	1C13 P-L	2C13 P-L	3C13 P-L	1M13 M43 W-S	2M13 M43 W-S	1M13 GAZ66 V-2R	2M13 GAZ66 V-2R
1A14 BMP-B 5-2-4TA	2A14 BMP-B 5-2-4TA	3A14 BMP-B 5-2-4TA	1B14 BMP-B 5-2-4TA	2B14 BMP-B 5-2-4TA	3B14 BMP-B 5-2-4TA	1C14 BMP-B 5-2-4TA	2C14 BMP-B 5-2-4TA

3C14 BMP-B 5-2-4TA	1A14 P-L	2A14 P-L	3A14 P-L	1B14 P-L	2B14 P-L	3B14 P-L	1C14 P-L
2C14 P-L	1M14 M43 W-S	2M14 M43 W-S	1M14 GAZ66 V-2R	2M14 GAZ66 V-2R	1A15 BMP-B 5-2-4TA	2A15 BMP-B 5-2-4TA	3A15 T-72 15-9-4T

1B15 BRDM-2 2-1-4WA	2B15 BRDM-2 2-1-4WA	1C15 BRDM-2 2-1-4WA	2C15 BRDM-2 2-1-4WA	1A16 P-L	2A16 P-L	3A16 P-L	1B16 P-L
2B16 P-L	3B16 P-L	1C16 P-L	2C16 P-L	3C16 P-L	1A16 AT-4 P-L	2A16 SPG-9 P-L	1A17 P-L

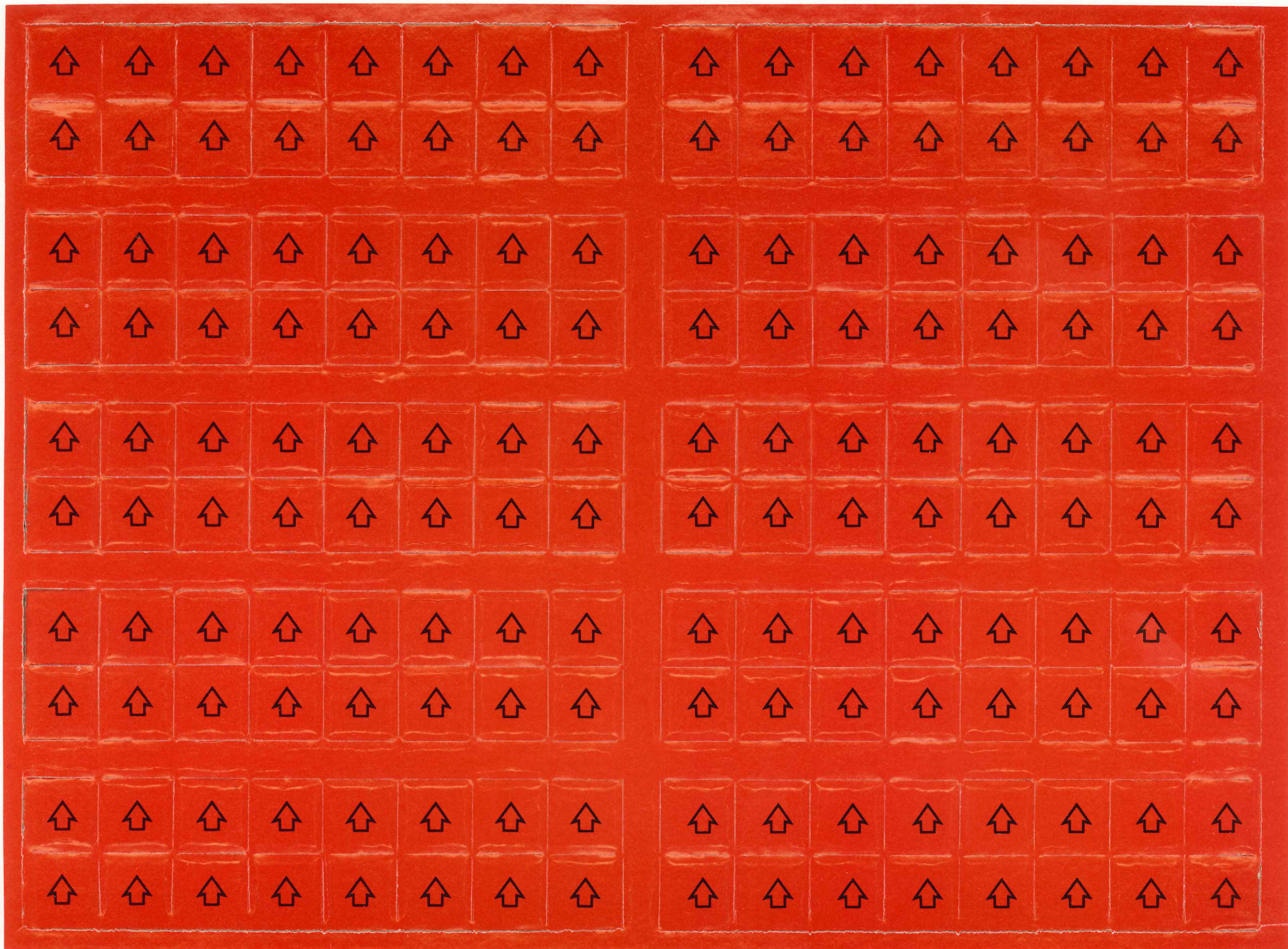
2A17 P-L	3A17 P-L	1B17 P-L	2B17 P-L	3B17 P-L	1C17 P-L	2C17 P-L	3C17 P-L
1A17 AT-4 P-L	2A17 SPG-9 P-L	1A22 S122 4-2-4TA	2A22 S122 4-2-4TA	1B22 S122 4-2-4TA	2B22 S122 4-2-4TA	1C22 S122 4-2-4TA	2C22 S122 4-2-4TA

TOC-92 ZIL 157 V-2R	1AT-92 AT-5 BRDM-2 2-1-4WA	2AT-92 AT-5 BRDM-2 2-1-4WA	3AT-92 AT-5 BRDM-2 2-1-4WA	M-92 AMB2 3-1-3WA	1ATG SD-44 93 W-1WS	2ATG SD-44 93 W-1WS	1AT-93 AT-5 BRDM-2 2-1-4WA
2AT-93 AT-5 BRDM-2 2-1-4WA	3AT-93 AT-5 BRDM-2 2-1-4WA	1M-93 M43 W-S	2M-93 M43 W-S	TOC-93 P-L	HQ22 P-L	3C14 P-L	D

HQ11 T-64 15-9-3T	HQ12 T-64 15-9-3T	OPM13 UAZ 469 V-4W	OPM13 P-L	HQ13 BMP-A 4-2-4TA	HQ13 P-L	OPM14 UAZ 469 V-4W	OPM14 P-L
HQ14 BMP-B 5-2-4TA	HQ14 P-L	HQ15 BTR-70 PU 3-1-3WA	HQ15 P-L	HQ16 P-L	HQ17 P-L	1A18 Mi-24 3-2-214	2A18 Mi-24 3-2-214

1B18 Mi-24 3-2-214	2B18 Mi-24 3-2-214	1C18 Mi-24 3-2-214	2C18 Mi-24 3-2-214	1D18 Mi-24 3-2-214	2D18 Mi-24 3-2-214	aHQ18 Mi-24 3-2-214	bHQ18 Mi-24 3-2-214
1A19 Mi-8 1-2-164	2A19 Mi-8 1-2-164	1B19 Mi-8 1-2-164	2B19 Mi-8 1-2-164	HQ19 Mi-8 1-2-164	A20 Mi-26 0-2-205	B20 Mi-26 0-2-205	C20 Mi-26 0-2-205

HQ20 Mi-26 0-2-205	1A21 Mi-24 3-2-214	2A21 Mi-24 3-2-214	1B21 Mi-8 1-2-164	2B21 Mi-8 1-2-164	HQ21 Mi-2 0-2-174	OPA22 P-L	OPB22 P-L
OPC22 P-L	OPA22 ACRV 3-1-3TA	OPB22 ACRV 3-1-3TA	OPC22 ACRV 3-1-3TA	HQ22 ACRV 3-1-3TA	1AD-91 ZSU 30 2-1-3T	2AD-91 ZSU 30 2-1-3T	3AD-91 SA-9 1-1-4WA



Assault Counter Sheet 5

4AD-91 SA-9 1-1-4WA	1AD-92 ZSU 30 2-1-3T	2AD-92 ZSU 30 2-1-3T	3AD-92 SA-9 1-1-4WA	4AD-92 SA-9 1-1-4WA	1R-92 BMP-8 * 5-2-4TA	2R-92 BMP-8 * 5-2-4TA	3R-92 BRDM * 2-1-4WA
4R-92 BRDM * 2-1-4WA	HQ-92 * P-L	HQ-92 BTR70 PU 3-1-3WA	1R-93 BRDM * 2-1-4WA	2R-93 BRDM * 2-1-4WA	3R-93 * P-5W	4R-93 * P-5W	1AD-93 ZU23 W-S

Cover	Cover	Cover	Cover	Cover	Cover	Cover	Cover
Cover	Cover	Cover	Cover	Cover	Cover	Cover	Cover

2AD-93 ZU23 W-S	3AD-93 ZU23 W-S	OPM-93 * P-L	HQ-93 * P-L	Repl UAZ469 V-4W	D	D	D
D	D	D	D	D	D	D	D

Landed	Landed	Landed	Landed	Landed	Landed	Landed	Landed
Entrenched	Entrenched	Entrenched	Entrenched	Entrenched	Entrenched	Entrenched	Entrenched

Deployed	Deployed	Deployed	Deployed	Force Level 7	Force Level 8	Force Level 9	D
Deployed	Deployed	Deployed	Deployed	Force Level 10	Force Level 11	Force Level 12	D

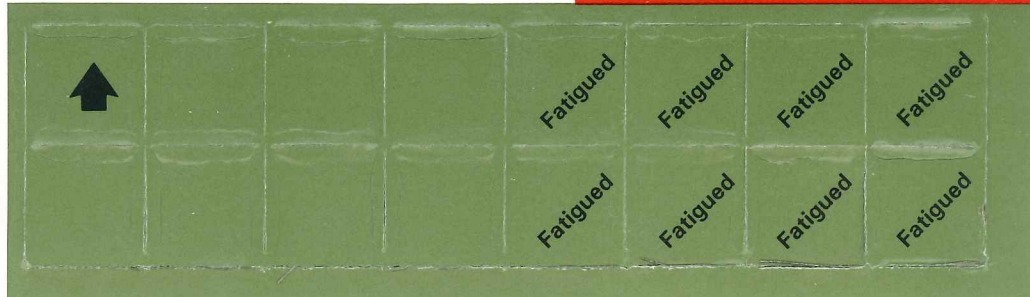
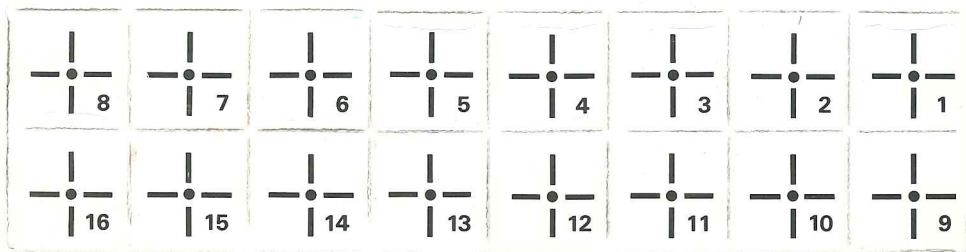
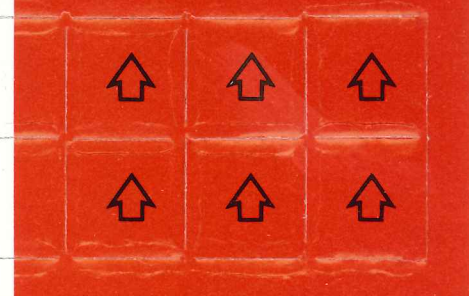
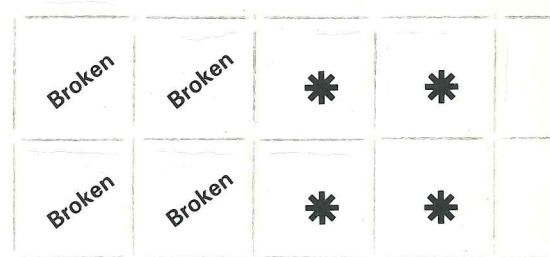
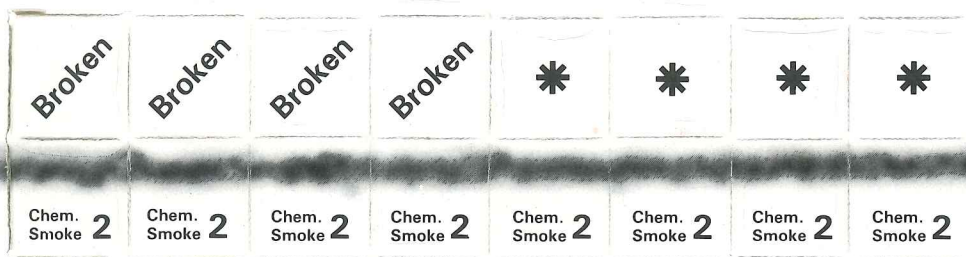
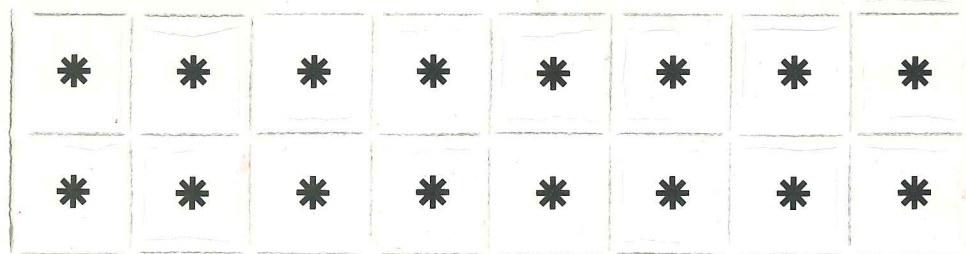
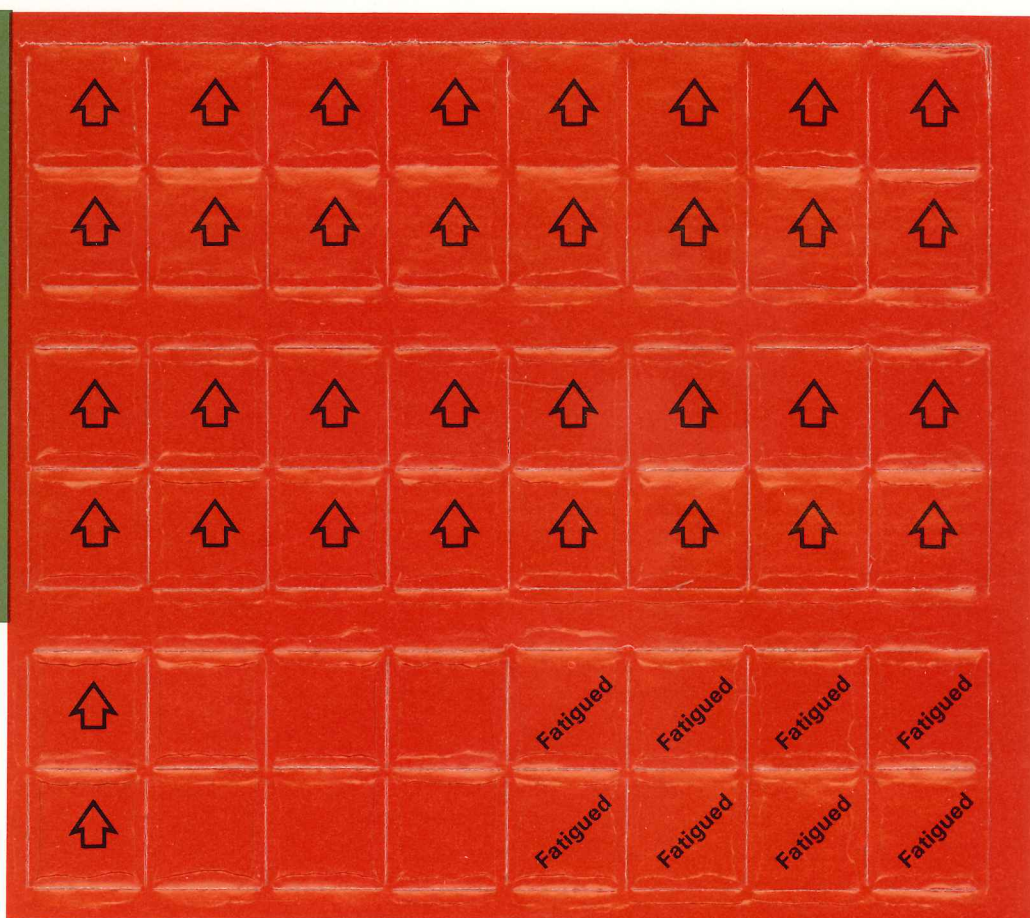
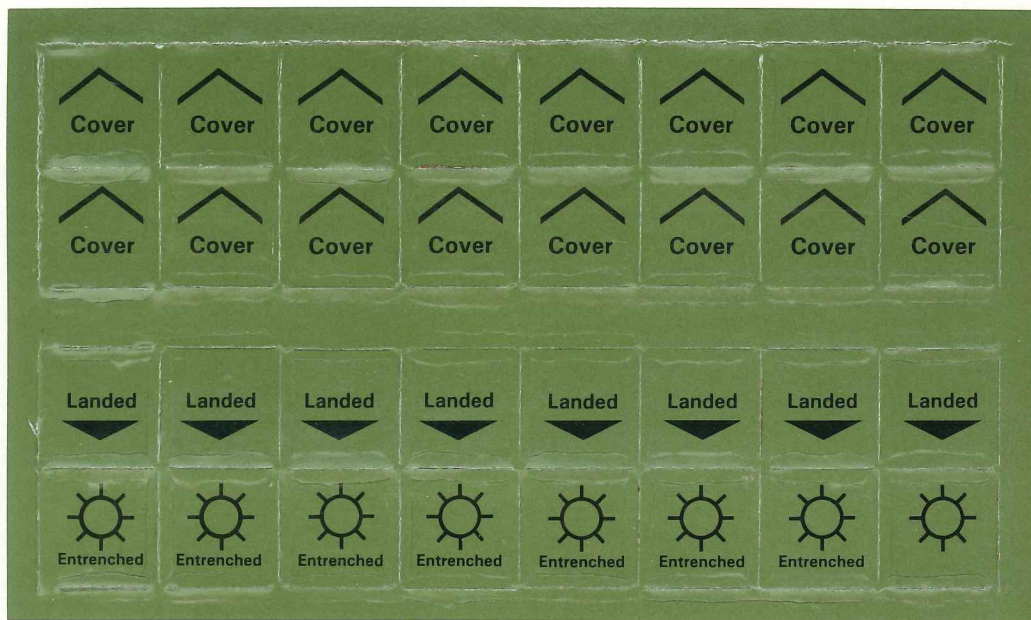
Hit	Hit	Hit	Hit	Hit	Hit	Hit	Hit
Hit	Hit	Hit	Hit	Hit	Hit	Hit	Hit

D	D	D		Hit	Hit	Shaken	Shaken
D	D	D		Hit	Hit	Shaken	Shaken

Hit	Hit	Hit	Hit	Shaken	Shaken	Shaken	Shaken
Chem. Smoke 1	Chem. Smoke 1	Chem. Smoke 1	Chem. Smoke 1	Chem. Smoke 1	Chem. Smoke 1	Chem. Smoke 1	Chem. Smoke 1

Deployed	Deployed	Deployed	Deployed	Force Level 7	Force Level 8	Force Level 9	D
Deployed	Deployed	Deployed	Deployed	Force Level 10	Force Level 11	Force Level 12	

Incendiary Smoke	Incendiary Smoke	Incendiary Smoke	Incendiary Smoke	Incendiary Smoke	Incendiary Smoke	Incendiary Smoke	Incendiary Smoke
Incendiary Smoke	Incendiary Smoke	Incendiary Smoke	Incendiary Smoke	Incendiary Smoke	Incendiary Smoke	Incendiary Smoke	Incendiary Smoke



Assault Counter Sheet 6

1A-4 M60A3 14-9-3T	2A-4 M60A3 14-9-3T	3A-4 M60A3 14-9-3T	1B-4 M60A3 14-9-3T	2B-4 M60A3 14-9-3T	3B-4 M60A3 14-9-3T	1C-4 M60A3 14-9-3T	2C-4 M60A3 14-9-3T
3C-4 M60A3 14-9-3T	1D-4 M60A3 14-9-3T	2D-4 M60A3 14-9-3T	3D-4 M60A3 14-9-3T	1M-4 M106 3-2-4TA	2M-4 M106 3-2-4TA	T0C-4 M577 3-2-4TA	1A-6 M3 6-3-5TA

2A-6 M3 6-3-5TA	1B-6 M3 6-3-5TA	2B-6 M3 6-3-5TA	1C-6 M3 6-3-5TA	2C-6 M3 6-3-5TA	3A-6 M1 16-10-5T	4A-6 M1 16-10-5T	3B-6 M1 16-10-5T
4B-6 M1 16-10-5T	3C-6 M1 16-10-5T	4C-6 M1 16-10-5T	1D-6 M1 16-10-5T	2D-6 M1 16-10-5T	3D-6 M1 16-10-5T	T0C-6 M577 3-2-4TA	1A-9 P-L

2A-9 P-L	3A-9 P-L	1B-9 P-L	2B-9 P-L	3B-9 P-L	1C-9 P-L	2C-9 P-L	3C-9 P-L
1M-9 M29 P-L	2M-9 M29 P-L	3M-9 M29 P-L	1S-4 ACCV 3-2-4TA	2S-4 ACCV 3-2-4TA	3S-4 ACCV 3-2-4TA	HQ A-4 M60A3 14-9-3T	HQ B-4 M60A3 14-9-3T

HQ C-4 M60A3 14-9-3T	HQ D-4 M60A3 14-9-3T	HQ E-4 M60A3 14-9-3T	1C-5 OH-58 1-1-151	2C-5 OH-58 1-1-151	HQ C-5 OH-58 1-1-151	1D-5 OH-58 1-1-151	2D-5 OH-58 1-1-151
3C-5 AH-1 2-1-202	4C-5 AH-1 2-1-202	3D-5 AH-1 2-1-202	4D-5 AH-1 2-1-202	1A-6 P-L	2A-6 P-L	1B-6 P-L	2B-6 P-L

1C-6 P-L	2C-6 P-L	MA-6 M106 3-2-4TA	MB-6 M106 3-2-4TA	MC-6 M106 3-2-4TA	HQA-6 M1 16-10-5T	HQB-6 M1 16-10-5T	HQC-6 M1 16-10-5T
HQD-6 M1 16-10-5T	HQ-6 M1 16-10-5T	1A-7 M988 12-9-3T	2A-7 M988 12-9-3T	3A-7 M988 12-9-3T	4A-7 M988 12-9-3T	5A-7 M988 12-9-3T	6A-7 M988 12-9-3T

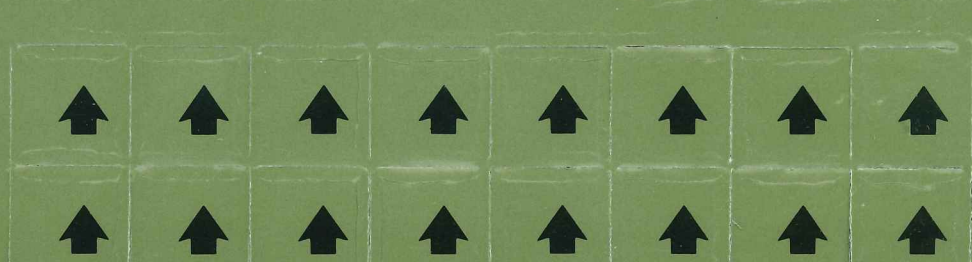
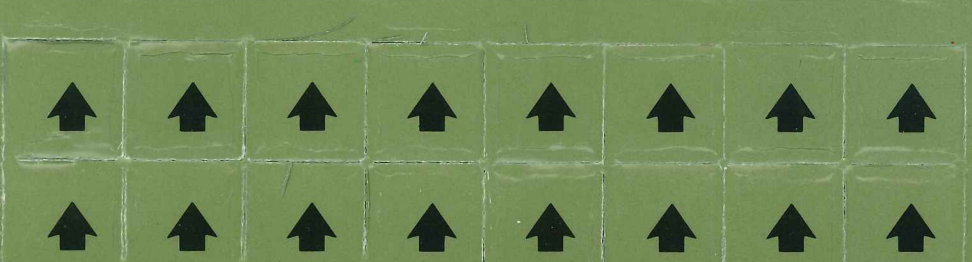
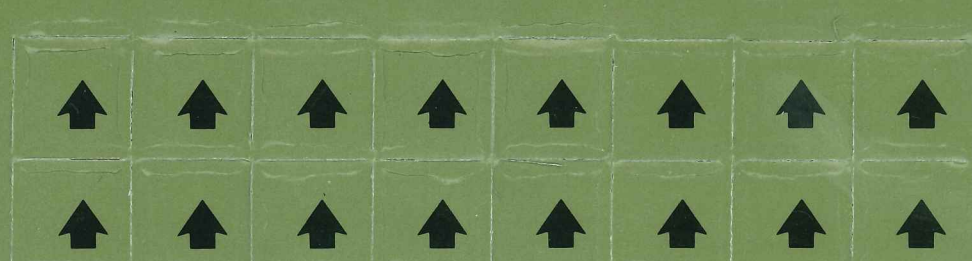
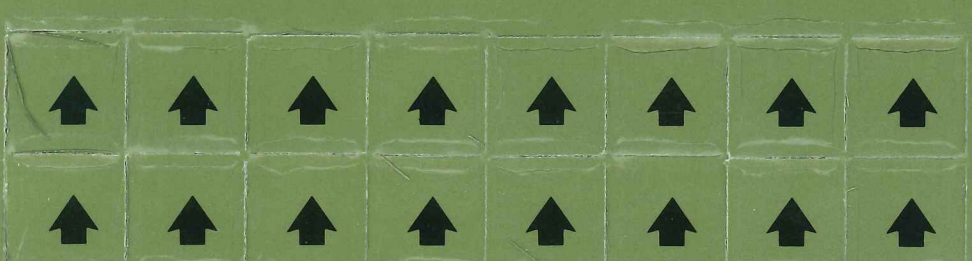
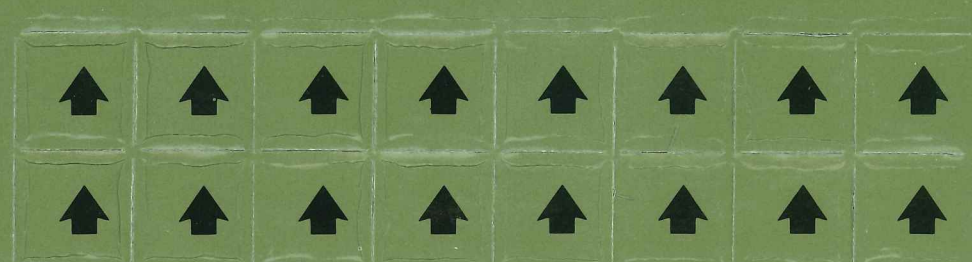
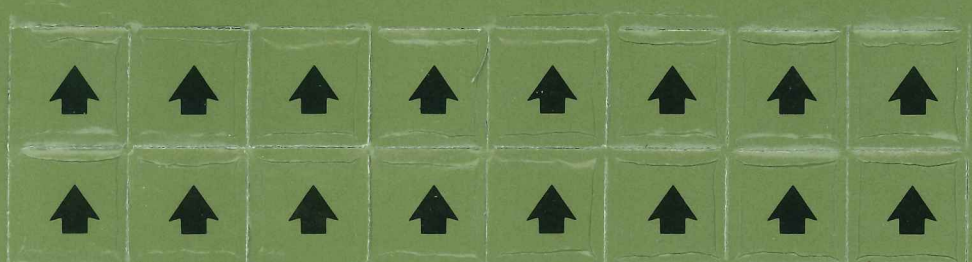
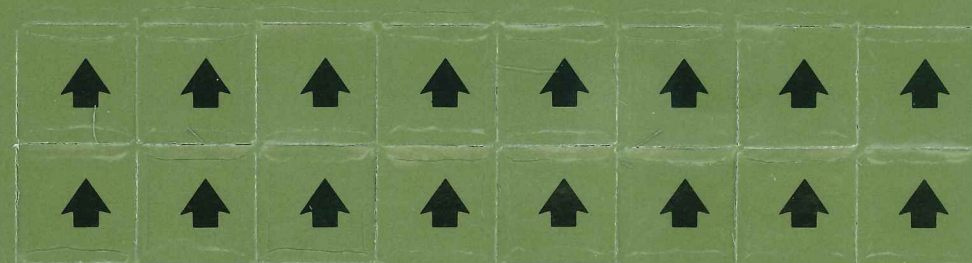
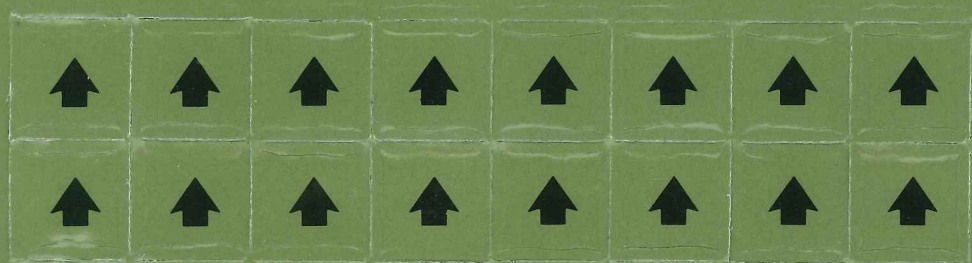
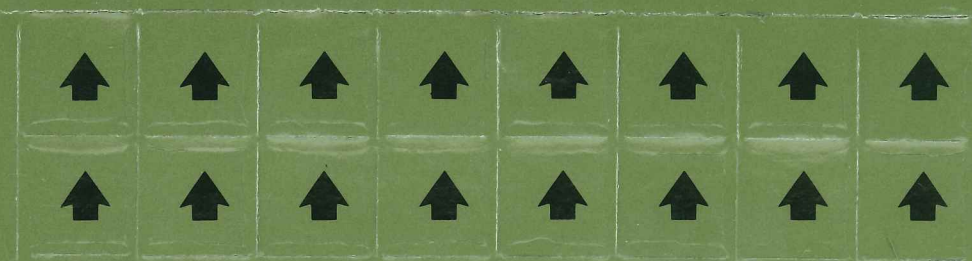
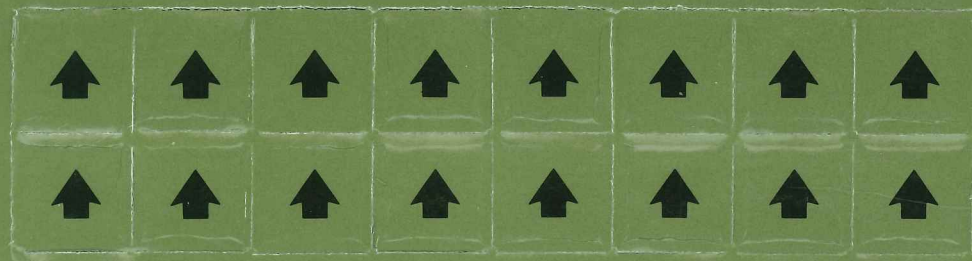
HQA-7 M113 3-2-4TA	HQ-8 OH-58 1-1-151	1A-8 OH-58 1-1-151	2A-8 OH-58 1-1-151	1B-8 OH-58 1-1-151	2B-8 OH-58 1-1-151	1C-8 OH-58 1-1-151	2C-8 OH-58 1-1-151
HQ A-8 AH-64 4-0-222	3A-8 AH-64 4-0-222	4A-8 AH-64 4-0-222	HQ B-8 AH-64 4-0-222	3B-8 AH-64 4-0-222	4B-8 AH-64 4-0-222	HQ C-8 AH-64 4-0-222	3C-8 AH-64 4-0-222

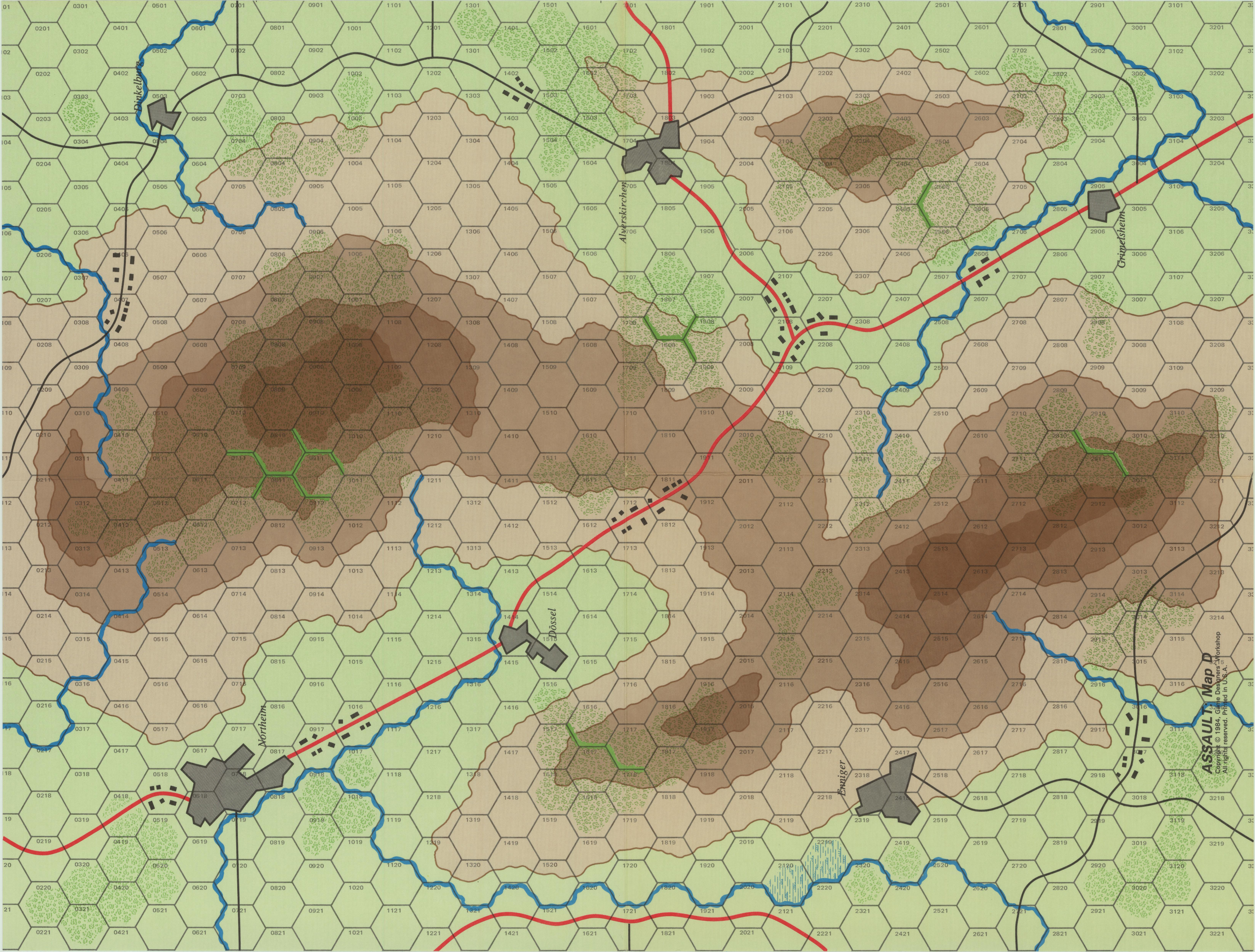
4C-8 AH-64 4-0-222	1AT-9 TOW P-SL	2AT-9 TOW P-SL	3AT-9 TOW P-SL	4AT-9 TOW P-SL	5AT-9 TOW P-SL	6AT-9 TOW P-SL	7AT-9 TOW P-SL
8AT-9 TOW P-SL	9AT-9 TOW P-SL	10AT-9 TOW P-SL	11AT-9 TOW P-SL	12AT-9 TOW P-SL	13AT-9 P-5W	HQA-9 P-L	HQB-9 P-L

HQC-9 P-L	HOAT-9 P-L	HQ-9 P-L	HQ A-10 UH-60 2-1-222	1A-10 UH-60 2-1-222	2A-10 UH-60 2-1-222	3A-10 UH-60 2-1-222	4A-10 UH-60 2-1-222
5A-10 UH-60 2-1-222	6A-10 UH-60 2-1-222	HQ B-10 UH-60 2-1-222	1B-10 UH-60 2-1-222	2B-10 UH-60 2-1-222	3B-10 UH-60 2-1-222	4B-10 UH-60 2-1-222	5B-10 UH-60 2-1-222

6B-10 UH-60 2-1-222	1C-10 UH-60 2-1-222	2C-10 UH-60 2-1-222	3C-10 UH-60 2-1-222	4C-10 UH-60 2-1-222	5C-10 UH-60 2-1-222	6C-10 UH-60 2-1-222	HQ C-10 UH-60 2-1-222
Repl HQ P-L	Repl M151 V-4W	T0C-9 P-L	HQ D-5 OH-58 1-1-151	HQ E-5 OH-58 2-1-222	D	D	D

D	D	D	D	D	D	D	D
D	D	D	D	D	D	D	D





ASSAULT: Map D
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