

Firefight

RULES OF PLAY

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FIREFIGHT EQUIPMENT INVENTORY

400 Playing Pieces
 One Playing Map "A" (22" x 34")
 One Playing Map "B" (22" x 34")
 One Rules of Play Booklet
 One Modern Combat Data Booklet

Two Plastic Dice
 One Standard Game Box with Cover

Should any of these parts be missing or damaged, please contact:

Simulations Publications, Inc.
 Customer Service Department
 44 East 23rd Street
 New York, N.Y. 10010

HOW TO READ THIS RULES BOOKLET:

The Firefight rules are organized into three **Main Parts**, each dealing with the rules for one of the three versions of the game. The rules are further divided into **Major Sections**, each of which are numbered with a whole number, i.e., 1.0, 2.0, 3.0, etc. Each of these Major Sections have associated with them a number of **Cases**, numbered decimally to reflect the

Major Section to which they belong. For example, Major Section 7.0, Movement, is divided into Cases 7.1, 7.2, 7.3 and 7.4. In some instances the Cases themselves are subdivided into Secondary Cases, that are numbered to the second decimal place. When a cross-reference to a rule is made, it will be made by number. The number itself will express the place of that rule in the organization of the booklet.

Below is an outline of the Major Sections and the Primary Cases associated with them. Players may wish to use this outline as a quick reference as to where a given piece of information may be found.

NOTE: In the centerfold of this booklet will be found two sheets of charts and tables that the Players will use in the game. These pages should be torn out along the perforations. Also, on the back cover of the booklet are found other charts that are used in the game (do **not** attempt to tear this page out).

Should the Players have a question concerning play that they cannot resolve by recourse to the rules, they should phrase their question(s) so that they can be answered with a "yes" or "no" or other single-phrase reply and send it along with a stamped, self-addressed envelope to the above address (Game Questions Department).

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Firefight I

[1.0] INTRODUCTION

Firefight is a game of mechanized combat which highlights the dynamics of the modern battlefield. It is designed around several factors which military analysts believe will dictate the outcome of the first battles of the next war. These factors include:

The Range and Lethality of Modern Weapons: The weapons employed by today's mechanized units are far superior to those employed during WWII. As an example, the BMP armored personnel carrier which the Warsaw Pact forces employ to transport soldiers around the battlefield outguns the German Mark III tank, which was the backbone of the Blitzkrieg through Western Europe in 1940. The primary impact of these vastly improved weapons systems on the modern battlefield is their ability to enable mechanized units to quickly inflict (or sustain) catastrophic casualties.

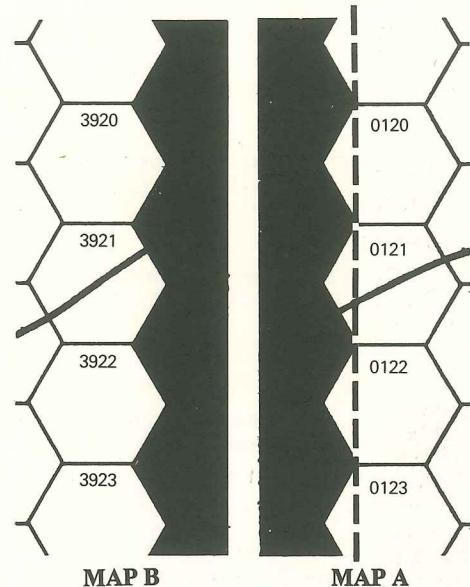
The Use of Terrain and Suppressive Fire to Neutralize Enemy Weapons: Since the range and lethality of modern mechanized weapons has almost reached the point that any target which can be seen can be killed, any commander who is foolish enough to try to shoot it out head-to-head with the enemy will almost instantaneously be destroyed. In order to survive on today's battlefield, mechanized commanders must take specific actions to neutralize the terrible destructive power of the weapons which oppose them. This is accomplished by employing terrain to gain maximum cover from enemy fire and employing suppressive fire to reduce the enemy's accuracy when he fires.

The Combined Arms Team: Although the tank continues to be the primary weapon system in all major armies, no single weapon reigns supreme on the modern battlefield. The mechanized commander who does not effectively integrate the unique capabilities of his infantry, tanks, anti-tank weapons, indirect fire support and mines will be fighting with one hand tied behind his back and will be quickly defeated.

Firefight is played between two people, hereafter referred to as Players. Because it is played on a paper map with cardboard counters, it is not capable of fully simulating the combat environment. It does, however, enable the Player who best understands the dynamics of modern combat to decisively defeat his opponent. While the Player who consistently wins in **Firefight** may not always do so in actual combat, the Player who has not mastered the tactical skills required to win at **Firefight** will quickly be destroyed on the modern battlefield.

Combat is, by its very nature, complex. Therefore, any war game designed to

simulate the effects of combat will also be somewhat complex. In order to present this complexity in a manner which will best enable a Player to understand the rules, **Firefight** is presented in three modules. **Firefight I** is the basic and least complex game. It encompasses the mechanics of play associated with the factors of modern combat discussed above, but addresses only the most basic weapons systems and combat scenarios. **Firefight II** presents additional rules designed to make the combat simulation more realistic, adding all the remaining weapons found on the modern battlefield. **Firefight III** adds additional weapons which are currently in the process of being added to our mechanized forces or, in some cases, are still on the drawing board. As these weapons (laser-guided anti-tank weapons, artillery delivered mines, etc.) become operational, they will continue to influence the dynamics of the modern battlefield.



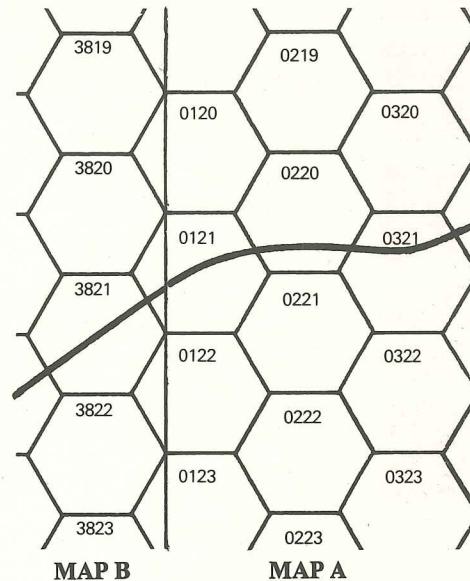
[2.0] GENERAL COURSE OF PLAY

Each Player will receive a force of units representing individual vehicles (and their crews) and "fireteams" (three to five infantry men). These units are portrayed on cardboard counters and are the Player's "men." Each Player uses his force in an attempt to realize the objective assigned him in the Scenario that Players have chosen to play.

Play is conducted in a series of Game-Turns. During each Game-Turn, a Player may cause his units to fire at (attack) Enemy (the other Player's) units. Or he may move his units. He may have some units fire and other units move. But no unit may both fire and move.

The hexagon grid on the map locates the position of every unit while it is moving, firing and being fired at. Each "hex" is a scale of fifty meters across; each Turn, 40 seconds.

The objectives given to a Player usually require him to (1) destroy Enemy units, (2) move his force to occupy some specified terrain feature, or (3) a little of both.



[3.2] THE PLAYING PIECES

There are several classes of playing pieces among the die-cut cardboard counters. First, there are the combat units, representing infantry fire and machine gun teams of two to four men, or individual vehicles with crew. Those of the same side are colored identically. These units represent the maneuver force that a Player commands. He will be allocated the number and type of units according to the Scenario played. Next are off-map artillery markers, which the Player employs to display the use and effect of artillery and mortar fire which he calls in from off the map.

Finally, there are the other markers, which are used to display and identify the effects of fire (combat), simulate smoke, create minefields, etc. The Summary of Unit Types briefly describes each and every unit/marker.

[3.3] SUMMARY OF UNIT TYPES

PERSONNEL UNITS

U.S. FORCES:

Four man fireteam. Identified in Scenarios as TM.





Four man fireteam with M60 machine gun. Identified as TM+ on Scenarios.



Two man machine gun team with M60 (bipod). Identified as MG.



Three man machine gun team (tripod). Identified as MG+.

SOVIET FORCES:



Four man "fireteam." Identified in Scenarios as TM.



Four man "fireteam" with RPK mg. Identified as TM+.



Two man machine gun team with PKM. Identified as MG.



Three man machine gun team with PKM. Identified as MG+.



SAGGER team: two or three men with suitcase Sagger ATGM system.

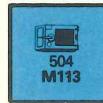


One SPG Recoilless Rifle and crew.

NON-TURRETED VEHICLES (aka APC's)

(This classification may include vehicles which have a small turret such as the BMP. Since all the Armored Personnel Carriers have been placed in this category any vehicle in this list may be called an APC for purposes of target classification even though the vehicle has some other function.)

U.S. FORCES:



M113 Armored Personnel Carrier with crew.



M150 (M113 with TOW ATGM mounting) and crew.



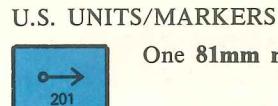
M113Z (M113 with TOW mounting on "cherry picker lift").



MICV; the Mechanized Infantry Combat Vehicle future replacement for M113.



Vehicle X: A general purpose counter which can be used to represent other vehicles which are not specifically shown.



One 81mm mortar and crew.



Two 4.2" mortars (a section).



Three 155mm gun-howitzers (a platoon).

SOVIET UNITS/MARKERS



Two 120mm mortars (a section).



Three 122mm gun-howitzers (a platoon).



Three 152mm gun-howitzers (a platoon).

TURRETED VEHICLES

This classification includes all of the vehicles commonly known as "tanks."

U.S. FORCES:



M60A1: The present Main Battle Tank of the U.S. Army.



M60A2: A variant of the M60 series with a unique gun/missile weapons system.



M60A3: A greatly improved model of the present M60A1 currently being produced. Improved fire control, survivability, etc.



XM1: The future replacement for the M60 series tanks presently under development.



T62: The present Soviet Main Battle Tank.



XMBT: The next Soviet MBT now under development. Various prototypes variously listed as T64, T65 and T70 have been glimpsed.

INDIRECT FIRE UNITS/MARKERS

These counters serve two purposes: (1) They identify the firing unit; and (2) they double as Indirect Fire Markers to mark the hex of Impact. (The Player keeps them off-map, except to place them when he shoots Indirect Fire onto the map.)



Impact Marker: Found on back of Soviet 120mm mortar. Similar symbols are on the back of other Indirect Fire Weapons.

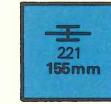
U.S. UNITS/MARKERS



One 81mm mortar and crew.



Two 4.2" mortars (a section).



Three 155mm gun-howitzers (a platoon).

SOVIET UNITS/MARKERS



Two 120mm mortars (a section).



Three 122mm gun-howitzers (a platoon).



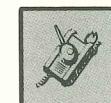
Three 152mm gun-howitzers (a platoon).

Note that an Indirect Fire unit/marker may represent one, two or three tubes. The Scenario Instructions may, for example, call for a Player to have three 81mm and one 4.2". He would thus be served by three 81 mortars and two 4.2 mortars in real life, but he would only have four units total to play with in the game.

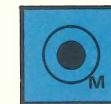
COMMON MARKERS



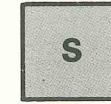
Smoke Marker



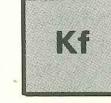
Wreck Marker (has no effect on game play; purely for those Players who like them).



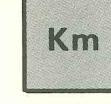
Mine Marker (see rule 18.0).



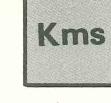
Suppression Marker



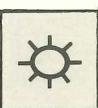
Kill Firepower Marker



Kill Mobility Marker: Found on back of Kf Marker.



Kill Missile Marker



Improved Position

Identity Numbers' three digits distinguish:
overall category; specific type; unique ID.

[4.0] SEQUENCE OF PLAY

Each game or scenario of **Firefight** is composed of a number of Game-Turns during which both Players may have their units either fire or move and also bring off-map artillery to bear on the situation. Each Game-Turn is controlled by a rigid Sequence of Play which tells the Players the order in which they can fire, move and use off-map artillery.

[4.1] SEQUENCE OUTLINE

A. Direct Fire Phase: The Players roll the die and determine who is the First Player. This Player may then cause one or more of his units to fire at any unit of the second Player. (This is called an **attack**.) Then the second Player may cause one or more of his units to fire at any unit of the first Player. The Players continue to alternate attacks until either all units have fired or both Players elect to pass (see Fire Rules, Section 6.0).

B. Movement Phase: Once again the Players roll a die and determine who moves first. The first Player then moves a unit hex by hex across the map. While he is executing this move, the second Player may interrupt him and attack the moving unit, using Opportunity Fire. After the first Player completes his move, the second Player moves a unit. When he does so, the first Player may attack the moving unit. Players continue to alternate moves until either all units have moved or both Players pass (see Movement Rules, Section 7.0).

C. Suppression Marker Removal: The Players remove all Suppression Markers which have been imposed on units as a result of Fire.

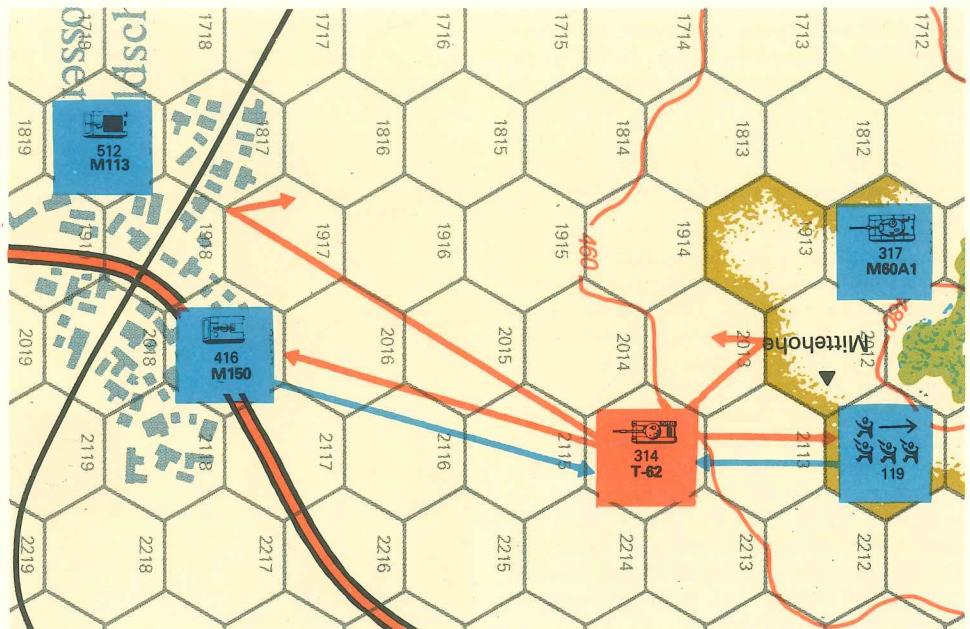
D. Indirect Fire Phase: Indirect Fire and Smoke Markers are removed from the map. (These had been placed on the map on the prior Game-Turn.) After consulting their Indirect Fire Plots, the Players execute any plotted Indirect Fire, placing Markers on the map. (Unlike Fire or Movement, it is not necessary to alternate Indirect Fire attacks, so long as all fire is eventually executed.) Finally, both Players may request future Indirect Fire on their Plots.

E. End of Game-Turn: With the conclusion of the Indirect Fire Phase, the Game-Turn is completed. Note the passage of the Turn and begin a new Game-Turn.

A unit may move or it may fire, but it may not do both in the same Game-Turn (except see Section 15.0).

[4.2] HOW TO DETERMINE WHO IS THE "FIRST" PLAYER

Both the Fire and the Movement Phases require that the Players determine who goes first in each Phase. This is because it is often



Example of Blocking Terrain

advantageous to be the first Player to shoot or move. (If you have a T62 and an M60 looking down each others' throats at 500 meters, the first guy to shoot will probably kill his enemy.)

The easiest way to do this is to call the Soviet Player the "odd" Player and the U.S. Player the "even" Player. Then, whenever the sequence requires you to determine who goes first, either Player can roll one die. If the number is odd (1, 3 or 5) then the Soviet Player is the first Player; if it is an even roll, then the U.S. Player is the first Player.

[5.0] OBSERVATION

In **Firefight**, as in actual combat, a unit must be able to see a target before it can engage it. The ability of a unit to see a target is determined by the terrain that lies between the unit and the target. Before a Player can use one of his units to fire at a target (usually an enemy unit) he must first establish that the Line of Sight between his unit and the target is not blocked. He does this by tracing a straight line between the center of his unit's hex and the center of the target's hex. If this line passes through a hex that contains blocking terrain, then the Line of Sight (LOS) is blocked: the unit does not see the target and the Player may not use the unit to fire at that particular target.

PLAYERS' NOTE: Usually it is obvious to the eye when the LOS is blocked. Sometimes, however, it is necessary to use a ruler or straight edge and actually place it on the map to determine exactly what hexes the LOS passes through.

[5.1] WHAT IS BLOCKING TERRAIN?

The Line of Sight is blocked by buildings (Town hexes) and tall, heavy vegetation (Forest hexes). That is, the Line of Sight may not pass through a hex containing either Town or Forest terrain. If such a hex lies between the sighting unit and the target unit,

then the Line of Sight is blocked. The defilade positions portrayed on the map block Line of Sight if they lie **between** the sighting unit and the target unit (see Case 5.2 for a further explanation of defilade).

EXAMPLE (see map above):

A. The T62 can see the M150 located in hex 2017 because there is no Blocking Terrain **between** the two units. The fact that the M150 is in a Town hex itself does not block the Line of Sight.

B. The T62 cannot see the M113 because the Town hexes (1817 and 1918) come between the two units.

C. The T62 can see the fireteam (TM) located in hex 2112 even though the fireteam is in defilade because there is no Blocking Terrain between the two units.

D. The T62 cannot see the M60A1 because there is a defilade position in a hex which is between the two units.

Roads and Trails and Streams have no effect on the Line of Sight. The contour lines printed on the map which allow the Player to determine the height of any hex do not affect the Line of Sight when playing the **Firefight I** game; however, they will affect Line of Sight when playing **Firefight II** and **III**. (See 13.0.)

[5.11] If a unit is in a Forest or Town hex, it may sight units in other hexes and, conversely, it may be seen by units in other hexes. In judging the Line of Sight, a Player does not care whether there is blocking terrain in the target hex or in the sighting hex. He is only concerned that the hexes **between** the sighting unit and the target unit are free of blocking terrain.

PLAYERS' NOTE: When a Player places a unit on a hex on the perimeter of a Forest or in a Town hex which faces the enemy or in a defilade position, he is placing it where it can be seen and fired at. True, if the unit is fired

at, it will benefit from the terrain, but it can still be shot at. In effect, a unit in a hex at the edge of a Forest has been placed at the tree line. It can see out and into the Clear terrain beyond. If a Player does not want his units seen or fired at, he must keep blocking terrain between his units and the enemy's.

[5.12] Some Forest and Town hexes, particularly those that define the boundaries of the forests and towns, are not 100% solidly filled with the terrain symbol. This is a matter of artistic taste. Because of this, it is possible for the Line of Sight to pass through a hex containing Forest or Town terrain without seeming to pass through the terrain. No matter, the Line of Sight is **still blocked**. If a hex contains the tiniest bit of Forest or Town symbology, then the **whole hex** must be considered to be Forest or Town, and any part of it blocks the Line of Sight. (This rule should eliminate arguments about whether the Line of Sight passes through Forest or misses it by a millimeter.)

[5.2] WHAT IS DEFILADE AND HOW IT IS SHOWN?

When a vehicle or unit can position itself so that the slope of the ground partially conceals it from hostile observation and fire, it is considered in defilade. While in defilade, it would present at least 50% less of a target than it would if fully exposed, because the slope of the ground shields the lower portion of the vehicle/unit. A "hull-down" tank is a tank in defilade. Naturally, a vehicle or unit in defilade is much less vulnerable to hostile fire since it is less of a target to hit.

In the field, defilade positions can be found in an endless variety of places; e.g., streambeds, sunken roads, behind slight raises, etc. But they are usually found associated with hills and ridges, and that is the way we have chosen to locate them in **Firefight**.

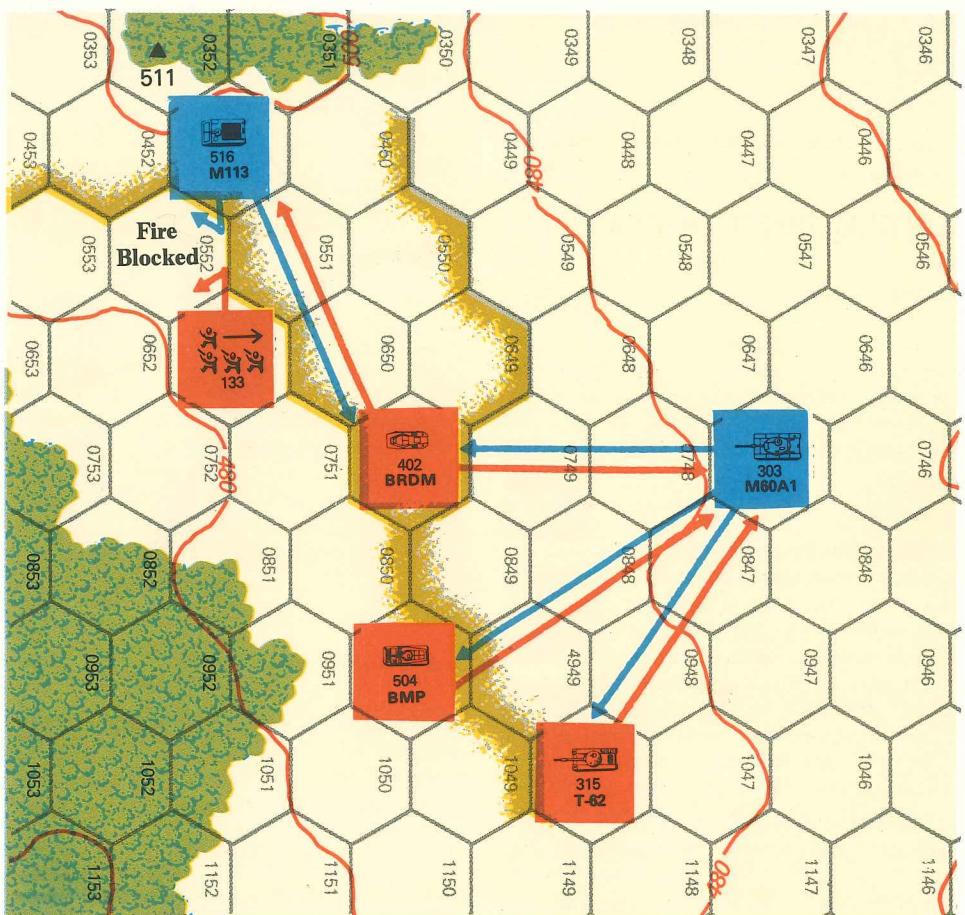
On the map, defilade positions are shown by a light brown "splash" bleeding off the hexside. In most cases, the defilade position lies only on the "up" side of the hexside, that is, in the hex or hexes containing the splashes from the hexside. However, there are some instances where defilade positions are found on either side of a hexside (in which case there will be a splash on both sides of the hexside).

We define the hexside to which the splash butts as the **defilade hexside**. The hex containing the splashing from the defilade hexside is the **defilade position**. If a unit is in a defilade position, we say that it is **in defilade** to any fire that it receives **through** the defilade hexside.

A defilade position blocks Line of Sight if it lies **between** the sighting unit and the target unit **and** the Line of Sight crosses the defilade hexside.

DEFILADE EXAMPLE (at right above):

A. The T62 is not in defilade to the M60A1. The Line of Sight/Line of Fire is coming from the wrong direction and does not pass through a defilade hexside.



Defilade Example

B. The BMP is in defilade to the M60A1. The Line of Sight/Line of Fire passes through a defilade hexside to enter the defilade position. (Note that the two sided defilade position on either side of the hexside does not block the Line of Sight.)

C. The BRDM is in defilade to the M60A1. It is not, however, in defilade to the M113 because the Line of Sight/Line of Fire does not pass through a defilade hexside even though it passes through two intervening hexes which contain defilade positions.

D. The M113 cannot see the fireteam (TM) because the Line of Sight/Line of Fire passes directly down the spine of defilade hexside which lies between the two units.

PLAYERS' NOTE: In a general way, the defilade positions we have constructed on the map define the approximate military crests of the hill masses. They show the positions a unit could take to cover the low ground below it while at the same time deriving protection from the sloping ground.

[5.21] It is possible for the Line of Sight to pass through one or more hexes containing defilade position splashes without passing through a defilade hexside.

In this case, the Line of Sight is **not blocked**. The Line of Sight is **only blocked** if it **crosses** a defilade hexside **and** passes through a defilade position which lies between the sighting unit and the target unit.

[6.0] FIRE

A Player uses his unit(s) to fire at (attack) an enemy target. A Player may attack during the Direct Fire Phase, in which case the attack is called Direct Fire or he may attack during the Movement Phase, in which case the attack is called Opportunity Fire. In either case, the procedure used is exactly the same. In either case, the rules are simulating the use of a unit's weapons (rifles, machine gun, anti-tank missile, tank gun, etc.) against the target.

GENERAL RULE:

In order to fire at an enemy target, a unit must be able to see the target. Other than this, there is no absolute prohibition on a unit firing at another unit. In the Direct Fire Phase, a Player may attack any enemy unit. During the Movement Phase, a Player may only attack the unit that the Enemy Player is moving. When an attack is executed, its result is determined by the Fire Routine, which considers the unit that is firing, the target, the range to the target and any protection afforded the target by terrain.

PROCEDURE:

To make an attack, a Player simply states that he is attacking. He identifies which of his units are firing and he identifies the target.

EXAMPLE: "I am attacking this T62 with this M60a1 and this Fireteam." [Note that one attack may be made with several units, so long as they are all firing at the same

target.] The Fire Routine is then used to resolve the fire of each of the attacking units, and any result is immediately applied to the target. [In the example above, the U.S. Player would use the Fire Routine to resolve the attack of the M60A1 and then use it again to decide the result of the Fireteam attack.]

FIRE ROUTINE:

Step 1: The attacking Player determines the range between the firing and target unit. Range is defined as the fewest hexes between the two units counting the target hex, but not counting the firing hex.

Step 2: The attacking Player determines the type of target he is attacking. [Targets fall into three types: personnel, non-turreted vehicles, and turreted vehicles, see Case 3.3.] He then selects the appropriate firing table, according to the target type. [In the example we are using, the U.S. Player would select the U.S. vs. Soviet Vehicles Table.]

Step 3: The attacking Player now cross-references the range (Step 1) with the firing unit on the appropriate table. This locates a number which is called the Attack Rating.

Step 4: The attacking Player now rolls the dice, and consults either the Anti-Armor Combat Results Table (when the target is a vehicle) or the Anti-Infantry Combat Results Table (when the target is personnel). He cross-references the dice roll with the Attack Rating. This locates a result which is immediately applied to the target.

The instructions that accompany each table describe how terrain affects the combat result. For example, if the target is in defilade, the instructions will state that some results are converted to "No Effect."

CASES:

[6.1] RESTRICTIONS ON FIRE

[6.11] A unit may not fire more than once per Game-Turn, nor may it fire if it moves.

[6.12] A unit may suffer a Combat Result which prohibits it from firing or which reduces its effectiveness. See the explanation of Combat Results (Case 6.5).

[6.13] A unit may not be attacked more than once during the Direct Fire Phase. Note that when a Player attacks, he may use more than one unit to fire with (see Procedure). When he announces the attack, he identifies which units are firing. He may not add to this listing after he has stated it. Nor may he fire at the same target in a later attack during the same Phase. (This rule simulates the need for proper fire distribution. A Player must assign units to fire at a target before he knows the result of any one of the unit's fire.)

[6.14] If a Player states an attack, he must execute that attack. He is responsible for calculating the chance of success before he opens his mouth. If he states an attack which is then found to make no sense (most commonly because he fired on a target out of range) it is still considered to have been executed. In effect, the firing units have wasted their fire.

[6.2] EFFECT OF OTHER UNITS

The presence of Friendly or Enemy units does not affect the ability of a given unit to fire at an Enemy unit. Units never block the Line of Sight. A Player may fire through his own and Enemy units. (Their presence is ignored.) A unit may fire into a stack of units, concerning itself only with the target unit. Personnel being transported by a vehicle are a special case (see Case 7.44).

[6.3] MULTIPLE-FIRE ATTACK

When a Player uses several units to fire at the same target, they are considered to all be firing simultaneously. Since the Player only has two hands and one brain, he can't resolve all the fires simultaneously. Instead, he resolves each unit's fire separately in any order he wishes. He must, however, resolve each fire.

[6.31] Once a Player has announced a multiple-unit attack, he may not change his mind. He must execute all the fire as stated. This might require him to make "needless" attacks; if, for example, he announced that ten T62's were to fire at one M60, he might find that the first T62 killed the M60; regardless, the remaining nine T62's are considered to have fired, even though there is no need to resolve their attacks.

[6.32] Multiple-fire attacks are considered as one attack for purposes of the Sequence of Play. If a Player states that three of his units are making one attack, the fire of each unit is resolved before the Enemy Player may do anything.

EXAMPLE OF DIRECT FIRE COMBAT:

It is the Direct Fire Phase (of any Game-Turn). The Soviet Player has two MG teams (181 & 182) in place around Hill 492. The U.S. Player has a fireteam located in the forest at hex 2834 (121) and another team

approaching at hex 3136. There have been exchanges of fire on prior Turns as the U.S. Player has been attempting to close the hill mass with his TM 120. (Both U.S. teams have an LMG.) The U.S. Player rolls the die to find out who is the First Player. He gets lucky and gets to fire first. He chooses to attack MG 181 using his TM 121. At a range of three hexes his TM has an attack rating of "8." The MG 181 is not in defilade to TM 121 and the Combat Result is a guaranteed Kill or Suppression, because any attack on the 8 Column of the Anti-Personnel Table has some result unless the target receives some terrain benefit. The Soviet MG team will now have little chance to hurt the U.S. team 120, which will be able to move.

[6.4] DIRECT FIRE/OPPORTUNITY FIRE

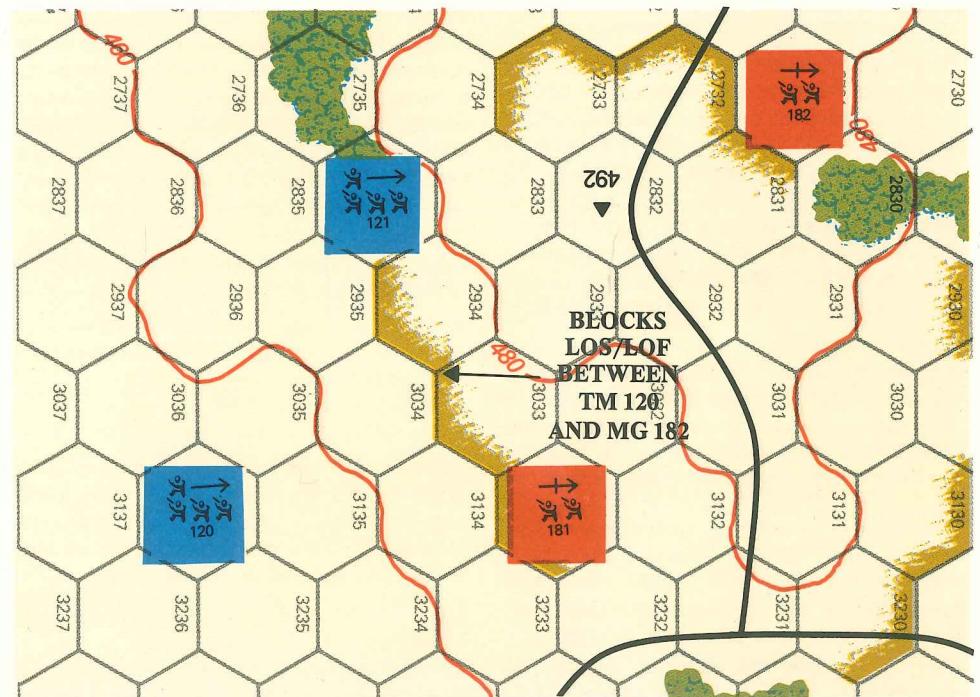
Don't be confused by the terms "Direct Fire" and "Opportunity Fire." Direct Fire is simply fire which is executed during the Direct Fire Phase (before any Player can move a unit). Opportunity Fire is simply fire that is executed during the Movement Phase, when a Player fires at a unit that his opponent is moving. In the Direct Fire Phase, a Player may fire at **any** target his unit(s) can see. With Opportunity Fire, he can only shoot at the unit that is **moving**.

[6.5] EXPLANATION OF COMBAT RESULTS

- No Effect:** Just what it says. The unit has fired at the target and for all practical purposes has had no effect. A miss.

- Suppression:** The fire has some effect. In the case of personnel, it causes them to go to ground and reduces their ability to move and fight. It causes vehicles to button-up, thereby reducing, indirectly, their firepower.

Example of Direct Fire Combat



Kf **Firepower Kill:** Applies only to vehicles. The target's weapons are destroyed. It retains the ability to move.

Km **Mobility Kill:** The target may no longer move. It can still fire.

K **Kill:** The target is destroyed. This result applies to both vehicles and personnel.

[6.51] Application of Combat Results

Markers labeled S, Kf and Km are provided with the counter mix. Whenever a unit suffers a Combat Result, the appropriate marker is placed on it.

[6.52] Effect of Suppression on Personnel

A suppressed "infantry" unit may not move. Its Attack Rating against all targets at all ranges with any weapons system is reduced by three.

[6.53] Effect of Suppression on Vehicles

A suppressed vehicle may move normally. Its Attack Rating against all targets at all ranges is reduced by three.

[6.54] Effect of "Kf" and "Km"

A vehicle which suffers a Kf cannot fire; a Km, it cannot move.

[6.55] Effect of "K"

Remove the target from the map. The unit is destroyed.

[6.56] Suppression is temporary. There is a **Suppression Removal Phase** in the middle of the Game-Turn, when all S Markers are removed from the units on the map. When the Marker is removed, the unit no longer suffers suppression.

[6.57] If a "suppressed infantry" unit suffers a second suppression result while it is already suppressed, it is considered **killed** and is removed from the game. Multiple suppression results have no increased effect on a vehicle.

[6.58] If a vehicle suffering either a Kf or Km result suffers another Kf or Km result, it is killed and removed from the game.

PLAYERS' NOTE: The attack Rating of the unit varies with the range between it and its target. Terrain can have an enormous effect on combat. It behooves a Player to study a possible attack BEFORE HE ANNOUNCES IT, to analyze the probabilities of a kill when using a given weapons system. If he doesn't do this, he will look foolish when he announces attacks that can't succeed.

[6.7] TERRAIN EFFECTS ON COMBAT

When a target lies in a Forest hex, a Town hex or in defilade, it receives protection from fire. This effect is graphically integrated on the Combat Results Tables. These tables are color-coded to reflect the terrain the target is in. For example, certain results are blocked out in green. If the target is in Clear terrain or a Town or in defilade, these results apply to the target. If the target lies in a Forest hex, however, the result is ignored. The target benefits from the Forest because the result that would otherwise affect it is ignored.

Do not confuse the effect of terrain on combat with the effect of Line of Sight. You

may fire at a unit which lies in a Forest hex so long as the LOS does not pass through intervening hexes which contain Forest (blocking) terrain.

[6.8] DRAGON AND LAW

Each U.S. infantry platoon (mech or leg) has three Dragon weapons systems. That is, three Dragon launcher/trackers, plus a dozen some odd missiles. These Dragons are assigned by the platoon commander to the squads according to the tactical situation. In **Firefight**, a Player will be told (reminded, really) in the scenario instructions how many Dragon systems each infantry platoon possesses. He then will "assign" these Dragons to specific Fireteams which compose his infantry squads. He can do this by noting on a piece of paper the ID numbers of the Fireteams concerned. (A simpler way is to assign Dragons to every "odd" numbered Fireteam and then compose each squad with an odd numbered team and an even numbered team.)

The LAW is considered a round of ammunition and in **Firefight** every U.S. Fireteam and M.G. team is considered to possess LAW's and is capable of firing them.

[6.81] No more than one Dragon may be assigned to any one U.S. team. A Player may assign two Dragons to a squad, but if he does, each team in the squad must have only one Dragon.

[6.82] When a Fireteam which has an assigned Dragon fires at a Soviet vehicle, the U.S. Player must state he is using the assigned Dragon. He then uses the Dragon column on the appropriate Fire Table. Since every Fireteam is presumed to possess a LAW, it is very possible that a Soviet vehicle or vehicles could be fired on by a team possessing both LAW and an assigned Dragon. But, the U.S. Player may not fire both Dragon and LAW from the same Fireteam on the same Game-Turn. He may only fire one or the other at his choice.

[6.83] A U.S. Fireteam may not fire at Soviet personnel **and** fire at a Soviet vehicle using assigned Dragon or LAW on the same Game-Turn. The U.S. Player must choose what target he will engage. The rule that a unit may only fire once per Game-Turn at one target holds, regardless of the variety of weapons systems it may possess.

[6.84] Once assigned, the Dragons may not be reassigned to different teams.

[6.85] If a team possessing a Dragon is destroyed or suppressed, the Dragon is destroyed or suppressed.

[6.9] SAGGER AND RPG-7

Every Soviet infantry squad has one LAW (RPG-7). The Soviet Player must assign this weapon to either of the teams which compose each squad. He does this when he initially deploys his units in a fashion similar to the one the U.S. Player uses to assign Dragons.

The Soviet SAGGER ATGM system is mounted on the BMP and BRDM vehicles.

Its effects are shown on the various Fire Tables. Additionally, there are a couple of Sagger team units which represent the dismounted Sagger man-pac system and crew found in the battalion anti-tank platoon.

[6.91] A Soviet Fireteam possessing an RPG-7 may fire at a U.S. vehicle (using the RPG-7 line) or it may fire at U.S. personnel. It may not do both on the same Game-Turn.

[6.92] Once the Soviet Player has assigned the RPG-7's, he may not exchange them with different teams.

[6.93] If a team possessing an RPG-7 is destroyed or suppressed, the RPG-7 is destroyed or suppressed.

PLAYERS' NOTE: The Soviet dismounted infantry squad does not have a trained Sagger operator. In the combat situation that **Firefight** deals with, the Sagger will be found mounted on the BMP and BRDM vehicles, or with the special Sagger teams of the battalion AT platoon.

[7.0] MOVEMENT

GENERAL RULE:

During the Movement Phase, the Players alternate moving their units one by one. A Player may move any unit which **has not fired** during the current Game-Turn, and which is not suffering a Combat Result which prohibits it from moving. Within these limitations, a Player may move one, some, none or all of his units. A unit moves hex by hex. The distance a unit can travel in a Turn is dependent on its Movement Allowance and the cost of the terrain it crosses and enters. Whenever a unit moves and enters a hex it may be fired at by Enemy units using Opportunity Fire.

PROCEDURE:

The Player moves a unit by placing his fingers on it and moving it from hex to hex. He may move an "infantry" unit one hex and only one hex, regardless of the terrain it crosses or enters. He may move a vehicle up to its Movement Allowance, which means that the distance the vehicle can move will depend on the terrain it traverses.

A vehicle has a Movement Allowance of **three** Movement Points. When it enters a hex, it must pay a cost in Movement Points to enter that hex. The cost depends on the terrain in the hex. For example, it costs one Movement Point to enter a Clear terrain hex. Therefore, a vehicle could move up to three hexes through Clear terrain. The Terrain Effects Chart lists the Movement Point cost of terrain (see page 20).

CASES:

[7.1] EFFECT OF ROADS AND TRAILS

When a vehicle moves so that its path coincides with the path of a Road or Trail, it pays only the cost for moving along the Road or Trail. It ignores any other terrain. It costs a vehicle $\frac{1}{2}$ Movement Point to move along a hex with a Road. This means it could travel

up to six hexes so long as it moved through Road hexesides.

[7.2] RESTRICTIONS ON MOVEMENT

[7.21] A Player may move his units in any order he desires, but once he has moved a unit he may not return to that unit later in the same Turn and move it again. He would have to wait until a later Game-Turn.

[7.22] A Player may not move a unit which has fired during the current Game-Turn. Nor may he move a unit which is suffering a Combat Result that prohibits it from moving.

[7.23] A unit may not expend more Movement Points than its total Movement Allowance. For example, a T62 has a Movement Allowance of three Movement Points. It may not move through four Clear terrain hexes in the same Game-Turn because this would require it to spend four Movement Points.

[7.24] A unit must always move from hex to hex. It may never stop halfway between hexes (any more than a piece in checkers can straddle the line between two squares). A unit must always be stopped in a specific hex.

[7.25] A unit may not enter a hex containing an Enemy unit.

[7.26] A Player may move a unit off the map. It is removed from play and may not return to the game. A unit must expend one Movement Point to exit the map.

MOVEMENT EXAMPLE:

The Soviet Player wishes to advance his two units. First he moves the BMP two hexes along the road paying $\frac{1}{2}$ Movement Point for each Road hex and then moves it into the Forest hex as shown, paying 2 Movement points to enter the Forest hex. This exhausts the Movement Allowance of three Movement Points and the BMP must stop in the Forest hex.

After allowing the U.S. Player a chance to move one unit, the Soviet Player returns to

the T62. He wants to get the tank over the river. Two possibilities exist. First, he could move directly to hex 1938 and then cross the river into hex 1837, consuming all his Movement Allowance. Or, second, he could take a step backward into hex 2138, spending one Movement Point (and getting on the road) and then tool along the road into the center of town. One thing he cannot do is move directly into town from across the river, since this would cost four Movement Points.

[7.3] STACKING

A Player may place up to **four** Friendly units in the same hex. This is called **stacking**. He simply places one unit on top of the other. There is no expense for units to stack or unstack, except when such action represents mounting or dismounting (see Case 7.4). The stacking limit applies only at the **end** of the Movement Phase. During the Movement Phase, a Player may have any number of units in the same hex, as long as he obeys the limit by the time he finishes moving.

[7.31] When a vehicle is transporting non-vehicle units (personnel) it is, by definition, placed on top of the passenger units (see 7.4). For purposes of the stacking limit, a vehicle with passengers is treated as one unit. Thus, a Player could have up to four vehicle units (each with passengers) stacked in the same hex.

[7.32] Stacking has no effect on a unit's ability to attack. Units in the same stack may fire at different targets, the same target or no targets at all at the whim of the Owning Player, just as though they were not stacked.

[7.33] Stacking has no effect on a unit's vulnerability to Enemy fire. The Enemy units may fire at a unit in a stack and ignore any other units in the stack (exception: see Case 7.4).

[7.34] Units stacked together in a hex are all vulnerable, in turn, to any Indirect Fire which impacts on the hex.

[7.4] TRANSPORT

Transport is a specialized form of movement which allows a vehicle unit to carry one or more personnel units. It is the only time that the Player is allowed to move more than one unit at a time. Transport requires two separate distinct operations: **Mounting** and **Dismounting**. Mounting represents a personnel unit (such as a Fireteam) boarding a vehicle (such as an APC). Dismounting is the opposite act. While onboard a vehicle, the personnel unit is called a mounted unit.

[7.41] To mount, the Player places the vehicle unit on top of the personnel unit. To dismount, he placed the vehicle underneath the personnel unit. Transporting simply involves the Player moving the vehicle unit with its passengers underneath as one stack just as though the Player were moving the vehicle alone. In other words, the mounted units just ride along with their transport unit.

[7.42] Units must mount and dismount in the same hex and mounting or dismounting consume an entire Game-Turn during which neither the passenger units nor the transporting vehicle may fire or move. In other words, a Player may mount or dismount instead of moving normally.

[7.43] BMP's, M113's and MICV's carry 8 men (2 fireteams or 1 fireteam and 2 two-man teams, etc.). Vehicle X used as a scout car (BRDM or M114) carries 4 men; used as a larger transport (truck or BTR50), it carries 12-16 men.

[7.44] When a transporting vehicle is hit, it is either destroyed or loses mobility or firepower. If it is destroyed, then any passenger units are also destroyed. If it suffers a mobility kill or firepower kill, the passengers are not affected. The Player may dismount them or retain them in the vehicle.

[7.5] OPPORTUNITY FIRE

A Player must pause each time his unit moves into a hex to allow the Enemy Player a chance to fire at the moving unit. (This pause permits the Enemy Player to calculate ranges, etc., before he announces the attack.) Only the unit actually being moved may be fired at. The attack is resolved exactly as detailed in Section 6.0.

[7.51] If a moving unit survives Opportunity Fire, it may continue moving. However, it may be fired at again when it enters a new hex. (The Enemy Player would have to use a different unit, since no unit may fire more than once per Game-Turn.)

ATTENTION PLAYERS: Section 8.0 deals with Indirect Fire. You may now wish to skip to Scenario Nr. 1, which does not use Indirect Fire.

[8.0] INDIRECT FIRE

GENERAL RULE:

Players are allocated Indirect Fire units (mortars, artillery, etc.) by the Scenario Instructions. These may be used by a Player to fire onto the map, hitting an Impact hex and thereby attacking on-map units which are in the Impact Zone (the Impact hex and

Movement Example



surrounding hexes). The Indirect Fire unit is back mounted on the flip side with cross-hairs. When not in use, the Indirect Fire units are kept off the map. (They are presumed to be in range of the battle area.) When fired, they are placed on the map cross-hairs up to denote the Impact hex. Indirect Fire must be plotted in writing by the Firing Player one or more Turns before it is applied to the map. The Procedure describes how a Player plots fire and then exactly how he applies it. Indirect Fire is applied during the Indirect Fire Phase of the Game-Turn. The Indirect Fire unit (marking the Impact) is left on the map until the next Game-Turn (see case 8.8). Note: **The flip side of an Indirect Fire unit is called its Impact Marker.**

PROCEDURE—FIRE PLOT:

To plot a fire mission, the Player lists on a piece of paper:

1. The identification of the firing unit (printed on the counter)
2. The target hex number
3. The number of the Game-Turn when the fire is due to impact (see Case 8.3, Computing Delay)
4. The type of Fire Mission (target of opportunity, suppression, on call, smoke, etc.).

PLAYERS' NOTE: The Players must construct their own fire plot sheet. We suggest that each Player prepare a form similar to the one illustrated below, prior to the start of the game. Using this type of form will simplify plotting once play begins.

SAMPLE INDIRECT FIRE PLOT

<i>Target List—0331, 3421, 2212, 3006</i>			
Game	81	81	81
Turn #	201	202	203
			#211
1			
2	X	X	X
3			
4	3421	3421	3421
5	C-SM		
6	C-SM	X	X
7	C-SM		
8	C-SM	3006	3006
9	X	C	C
10		C	C
11	3006	C	C

Plot Key

X=Start of Plot.

SM=Smoke Mission.

Sp=Suppression Fire.

C=Continuous Fire.

A. The U.S. Player has three 81mm mortar units and one 4.2" mortar unit.

B. He has composed a target list of four hexes where he feels he might need supporting fire.

On Game-Turn Two his lead element comes under fire from Soviet infantry in hex 3423 (close to one of the Planned Target hexes).

C. So, he writes a Fire Plot for his three 81mm mortars. Because he is able to specify one of his planned target hexes as the target (3421) he is able to write the impact on Turn Four. This is **On Call Fire**.

D. While the 81's are committed to fire, a new target reveals itself in hex 0505, on Game-Turn Three. The U.S. Player assigns his remaining 4.2" mortar unit to it. Because the target is nowhere near a planned target hex, he must engage it as a **target of opportunity** (a four-Turn delay, rather than a three-Turn delay).

PROCEDURE—APPLICATION OF FIRE: After a Player writes a fire order, there is a delay of one or more Game-Turns before he can apply that fire to the map. (The Player has calculated this delay when he wrote the plot and listed the impact Game-Turn.) When the Indirect Fire Phase of the impact Game-Turn rolls around, the Firing Player takes the following steps to apply his plotted fire to the map.

1. He announces that he has Indirect Fire plotted to arrive. He then determines if it actually is available or if it will be delayed even further (see Case 8.4).
2. Assuming that he receives the fire, he then announces what his plotted target and what adjustment, if any, he is making to the plotted target hex (see Case 8.5).
3. Having pin-pointed the target hex, he then follows the scatter routine to determine exactly where the fire impacts (see Case 8.5).
4. Having determined the exact Impact hex, he places the Impact Marker in the hex which corresponds to the firing unit.

5. Using this Impact Marker as a reference and the information on the Indirect Fire Data Table, the Player can calculate and state the Attack Rating of the Indirect Fire on units which are located in the Impact Zone (see Case 8.6).

6. Finally, he simply attacks each and every unit found in the Impact Zone using the Indirect Fire CRT (see Case 8.6).

CASES:

[8.1] PRE-GAME FIRE SUPPORT PLANNING

At the very beginning of a Scenario, prior to any deployment, both Players may pre-plan the use of Indirect Fire. This consists of creating a Target List, which is nothing more than a listing of hex numbers. Each hex so listed is by definition a Planned Target.

In creating this list, a Player is roughly simulating what a maneuver element commander and his forward observer would do in a real combat situation. That is, try to anticipate where fire may be needed when operations are conducted.

[8.11] On Call/Target of Opportunity

On Call Fire, by definition, is nothing more than Indirect Fire which the Player plots to hit a Planned Target. For example, let's say it is Game-Turn Three and the U.S. forces moving down Hwy. 1A come under fire from a BMP in Gerlafingen, hex 2039 (Map B).

The U.S. Player decides to use Indirect Fire against the BMP. He consults his target list and writes a fire plot. If the target hex he plots is one of the hexes on his Target List, then, by definition, he is using On Call Fire.

Fire against a Target of Opportunity, by definition, is Indirect Fire which a Player plots to hit a hex which is not on his Target List.

[8.12] Scheduled Fire

In addition to creating a Target List, a Player may Schedule Fires. This is nothing more than plotting Indirect Fire before the Scenario begins. The Player uses his Indirect Fire Plot and assigns his Indirect Fire units to hit target hexes on predetermined Game-Turns.

[8.13] Target List Restriction

In combat, while there is theoretically no limit to the number of planned targets a commander might wish to list, there is a limit to the number of targets a Forward Observer, Fire Direction Center or Fire Support unit would accept. After all, the whole purpose of composing a Target List is to allow the fire support system to anticipate and shorten its response time if it has to fire. Too many Planned Targets may result only in confusion and lessened responsiveness. Accordingly, in **Firefight**, a Player may not list more than four hexes for each Indirect Fire unit available. For example, the U.S. Player is given three 81mm mortar units. He could conceivably list up to twelve hexes on his Target List. [Note: In actual practice, small unit leaders are encouraged to plan even less than that.]

[8.2] REQUESTING FIRE

When a Player plots a Fire Mission, he is requesting fire. (The terms requesting fire and plotting fire are the same for purposes of the game. We will use the term "request" because the military player is probably more comfortable with it.) When the Player writes a mission on his plot sheet, it is the equivalent roughly to him telling his observer, "When the troops cross that space, get some fire on the front of that hill."

The number of Fire Missions a Player may request at one time depends on the number of Indirect Fire units he has available. A fire support unit may only fire one mission at a time. For example, if the U.S. Player has only one 81 mortar available, he may only request one Fire Mission at a time.

[8.21] A unit is presumed to be engaged in firing a Mission from the turn in which the Player requests it to fire until the Turn in which its fire is applied to the map. A Player may not request a Fire Mission from a unit which is already engaged in executing a previous Mission. He must wait until that unit completes its mission.

[8.22] Indirect Fire may only be requested at the end of the Indirect Fire Phase of each Game-Turn (see Sequence of Play). [Exception: Scheduled Fire is requested before the game begins. See Case 8.12.]

PLAYERS' NOTE: The sample Indirect Fire Plot is constructed so that the Player can tell at a glance what units he has available and what units are engaged in a Mission.

[8.3] COMPUTING DELAY

When a Player requests Indirect Fire, he must compute the delay (in Game-Turns) before he receives that fire, so that he can write down the Impact Game-Turn. The delay will depend on the unit he requests the fire from, and on the type of fire he is requesting (On Call, Target of Opportunity or Suppressive).

In reality, Indirect Fire is provided by organic and supporting units. "Organic" units include the infantry company mortars (81's) and the battalion heavy mortars (4.2's). These organic units are usually quick to respond to a request for fire from within their own "unit."

Supporting Indirect Fire is received from units in a "direct support" role. These are usually field artillery units and are not as quick to respond as organic units.

[8.31] Every Indirect Fire unit is given a delay period in Game-Turns. This represents the time it would take for the unit to respond to a fire request. This is an average figure and simulates the real time spent in the Fire Mission being requested, acknowledged and processed, fired and adjusted for effect. These delay periods are listed on the Indirect Fire Data Table. When a Player requests a Fire Mission, he cross-references the fire unit with the type of fire he is requesting to derive the delay for that Fire Mission.

[8.32] In the Turn that a Fire Mission is applied to the map (Impact Markers placed and results determined) the Player may request Continuous Fire by the firing unit for the next Turn. He may designate a new target hex no more than two hexes from the current Impact hex. This rule simulates the repeat and/or shifting of fires once received. It is nothing more than a continuation of the present Mission.

[8.4] DETERMINING AVAILABILITY

In combat, a maneuver element CO/FO may request any number of Fire Missions. Depending on the situation, he may receive a response to none, some or all of these requests. In *Firefight*, a Player is limited to requesting one Fire Mission from one fire unit at a time. What is more, the request is no guarantee that he will receive the fire exactly on the plotted Game-Turn. The Scenario Instructions will allocate Indirect Fire units according to two classifications:

1. Organic Units: These are almost 100% guaranteed to respond on time to the Player's request. In a sense, he "owns" them. He knows that if he requests fire from an organic unit, it will respond after the appropriate delay.

2. Direct Support Units: These are units which are available to him and will respond on time most of the time. They are also available to some off-map sister company or platoon and occasionally a Player will not

receive their fire on the Turn he had calculated because they are supporting someone else.

[8.41] On the Turn in which a Fire Mission is due to impact, the Player must determine if fire from Direct Support units does, in fact, arrive on that Turn or if they will be delayed to a future Turn. He does this by rolling one die. If the roll is a "1" through "5," the fire arrives and impacts on the current Turn. If the roll is a "six," then the fire is further delayed. The Player rolls the die again. The result indicates the number of Turns the Player must wait. Based on this information, he notes the new Impact Game-Turn on his Fire Plot.

[8.42] Fire from an organic unit always arrives on the plotted Impact Game-Turn. Continuous Fire, whether it be from an organic or direct support unit, always arrives. (Which is logical, since the Player is simply telling the firing unit to keep shooting.)

[8.43] Scheduled Fire always arrives on time. (Remember, this is fire that the Player had plotted before play even began.)

[8.5] EXECUTION

The Player has written his Fire Plot (requested fire). He has waited the necessary delay in Game-Turns. This Turn he has just announced that such and such units' fire are due and he has determined that, in fact, the fire arrives. He is now ready to place this fire on the map and find out what it does to the units it hits.

[8.51] The Player states what his plotted target hex is. He is then allowed to adjust this up to two hexes from the plotted hex. (This simulates the final adjustment of fire prior to the battery firing for effect.) He says, "This is my plotted target hex, I am (or am not) shifting to this hex."

[8.52] Having stated his final target hex, the Player now finds if the fire impacts on this hex or if it scatters into an adjacent hex. To do this, he rolls a die. An even number and the fire does not scatter. An odd number and the fire scatters. He rolls the die again and consults the Scatter Diagram, which tells him into which adjacent hex the fire impacts. (The chance of scatter can be attributed to error by the forward observer, Fire Direction Center, gun crews and unforeseen changes in humidity and wind factors.) He then places the Impact Marker on the Impact hex. (He takes the Indirect Fire unit from off-map and puts it cross-hairs side up in the Impact hex.)

[8.53] The Player repeats the Impact process for each of his firing units until he determines the impact for each of his firing units.

[8.54] After the Player has placed all of his Impact Markers, he determines the Attack Rating of the fire in each hex in the Impact Zone. An Impact Zone is the area of hexes described by the Impact hex, adjacent and surrounding hexes. (The term "impact hex" is really the mean center point that the firing unit is hitting with its dozen or so rounds.) Though the Player only places an Impact Marker in this hex, the fire effects are

extending into adjacent and surrounding hexes. This represents the spread from center of stray rounds and blast/fragmentation patterns. The Attack Rating of a given unit's Indirect Fire is at its highest in the Impact hex, less in adjacent hexes and least of all in the surrounding hexes two hexes away from the Impact hex, and is shown on the Indirect Fire Tables.

[8.55] To determine what the Attack Rating of Indirect Fire is in a given hex, the Player simply adds up the individual Attack Ratings of each unit's fire as it bears on the hex.

[8.6] INDIRECT FIRE COMBAT RESULTS TABLE

The effect of Indirect Fire against both exposed personnel and vehicles is reflected on the Indirect Combat Results Table. To show the lesser vulnerability of armored vehicles to Indirect Fire, only part of the field of results applies to vehicles.

[8.61] **Indirect Fire Combat Results Table**
(See separate sheet.)

[8.62] Using the Table

Having determined the Indirect Fire Attack Rating bearing on the hex in question, the Player simply rolls the dice and cross-references the roll result with the Attack Rating. This locates a Result.

Personnel are affected by any result. Vehicles are only affected if the result lies within the part of the Table labeled "results apply to vehicles."

[8.63] Any Results are applied immediately.

[8.64] Effect of Terrain on Indirect Fire

Personnel in Town hexes receive a benefit from their position with regard to Indirect Fire. Results coded in gray are considered a miss if the target hex is a Town hex. Forest hexes do not benefit personnel. Defilade does not benefit personnel. Vehicles receive no benefit from terrain of any type.

[8.65] Explanation of Indirect Fire Results

S=Suppression: Place a Suppression Marker on the affected unit. Same effect as suppression from Direct or Opportunity Fire (see Case 6.5).

K=Killed: Target is Killed.

Kms=Missile Kill: (This is a special result to illustrate the effect of many high explosive bursts in close proximity to vehicle mounting missiles.) First, any dismounted personnel are killed. Second, any vehicles are suppressed. Finally, any vehicle mounted missile armament is destroyed (exception: M60A2). Other vehicle armament remains intact. (A BMP suffering a Kms hit could still fire its 73mm gun.)

[8.7] RESTRICTIONS ON USE OF INDIRECT FIRE

[8.71] A Player may not request fire on a hex if none of his units can see the hex. A Player may not adjust fire if his unit(s) cannot see both the plotted Impact hex and the hex to which the fire is being shifted. A Player may not plot continuous fire if his unit(s) cannot see the Impact hex.



Example of the Effect of Indirect Fire

[8.72] Each Indirect Fire unit may only fire one Mission at a time. A Player may not plot a new Mission for a unit so long as that unit has a Mission plotted.

EXAMPLE OF THE EFFECT OF INDIRECT FIRE (above)

The attack rating of a 4.2" mortar section is shown. Units in hex 2623 (the **impact hex**) are attacked by 8 Points, units in the six adjacent hexes are attacked by 4 Points and units in the hexes surrounding the adjacent hexes and two hexes from the impact hex are attacked by 2 Points.

A Soviet fireteam (TM) is caught by overlapping patterns from two 4.2 mortar units. The TM is in hex 2225. The fire of one mortar section impacts in the adjacent hex 2126; the other's fire impacts two hexes away in hex 2324. The first mortar section attacks the TM with a Strength of 4; the other mortar section attacks with a Strength of 2. Adding the two Strengths together gives an Attack Rating of six.

[8.8] INDIRECT FIRE vs. MOVING UNITS

Indirect Fire Impact Markers are left on the map from the Indirect Fire Phase of the Turn in which they impact until the start of the Indirect Fire Phase of the next Turn. This means they are there during the next Movement Phase. If a unit moves into an Impact Zone, the moving unit is immediately attacked by the Indirect Fire.

9.0 SCENARIOS

GENERAL RULE:

A Scenario is the setting in which the conflict simulation occurs. It is the game that the Players play. The instructions for each Scenario will include a general situation background, a task organization (order of battle), deployment instructions and a mission statement for each force, the number and type of Indirect Fire support units available to each Player, if any, and the Victory Conditions for each Player.

CASES:

9.1 PREGAME ACTIVITIES

[9.11] Each Scenario is designed to illustrate one or more aspects of modern combat. Scenarios are arranged in order of complexity and difficulty with the first being the most simple. The beginning Player should start with the most simple Scenarios. Each Scenario is designed to highlight some aspect of the modern battlefield and should be chosen with an eye toward lessons to be learned as well as fun to be had.

Further, more complicated Scenarios are to be found in Section 29.0, which are suggested for use with Firefight II or III.

[9.12] After choosing a Scenario, the Players should set up the proper map or maps, seat themselves around it and sort out the units they will receive as their Task Organization.

The Scenario Instructions should be studied intently and both Players should plan Indirect Fires (in the military sense of planned fires) basing their plans on information given in the Scenario as to general situation, approximate deployments of Friendly and Enemy units, mission requirements, etc.

[9.13] Having planned Indirect Fires, the Players now deploy their forces on the map as outlined in the Instructions. Normally, this deployment is free within certain general restrictions; i.e., "deploy within four hexes of hex 1234" or "deploy west of the stream and south of Hwy. 1," etc. Within the limits so given, a Player is free to place his units where he wishes. Once both Players are satisfied with their deployment, play may get under way, starting with Game-Turn One and continuing until the final Game-Turn.

9.2 VICTORY CONDITIONS

The Scenario will describe how either Player may win the game. In most cases, this will require one Player or the other to do something concrete and easily measured; "pass five tanks through Ebersburen by the end of the Tenth Game-Turn," or "clear all Soviet units from Hill 492," etc. In the larger, more complex Scenarios, Points will be awarded to a Player for inflicting casualties and/or satisfying geographical objectives, in which case the winner is the Player who has amassed either the most Points or a required number of Points.

To some extent, the Victory Conditions reflect the missions assigned to each Player, but they also are designed to "make a game of it." To allow Players a fairly even chance to "win" in a militarily hopeless situation.

SCENARIO 1 [MAP A]

GENERAL SITUATION

U.S. Forces, elements of the VII Corps are advancing south against flank elements of the 8th Guards Army, 20th Gds. Mot. Rif. Div., which is conducting a mobile defense.

TASK ORGANIZATION

U.S. Forces: Tank Company—seventeen M60A1.

Soviet Forces: Tank Platoon—four T62.

MISSION

U.S. Player: Acting as advance guard, move south along Hwy. 1. Battalion will follow in ten minutes.

Soviet Player: Defend town of Ebersburen.

DEPLOYMENT

The Soviet Player deploys first anywhere along or south of Rte. 298. U.S. Forces deploy in Versbach.

VICTORY CONDITIONS

The U.S. Player must pass five tanks through any hex of Ebersburen by the end of the Tenth Game-Turn. If he does, he wins; if not, the Soviet Player wins.

SCENARIO 2 [MAP A]

GENERAL SITUATION

Soviet commitment of reserve has repulsed the U.S. thrust down Hwy. 1. U.S. mech infantry are left to hold the Versbach area against an exploitative thrust by Soviet armor.

TASK ORGANIZATION

Soviet Forces: Tank Company—thirteen T62.

U.S. Forces: Mechanized Infantry Platoon (+)—four M113, five TM+, one TM, two M150, (three Dragons to be assigned).

MISSION

Soviet Player: Attack north along Hwy. 1 and seize Versbach.

U.S. Player: Defend Versbach.

DEPLOYMENT

U.S. Forces deploy first anywhere at least 1000 meters (20 hexes) north of Rte. 298. Soviet Forces deploy anywhere south of Ebersburen, along Hwy. 1.

VICTORY CONDITIONS

The Soviet Player must have four intact tanks in any hexes of Versbach at the end of Game-Turn Fifteen in order to win; otherwise, the U.S. Player wins.

SCENARIO 3 [MAP B]

GENERAL SITUATION

A company (-) of U.S. "leg" infantry have been ordered to defend the Gerlafingen road junction from a reported Soviet thrust from the east. Arriving in the late evening of the preceding day, the company destroyed several Soviet scout cars and two PT76 light tanks, which drove into town in the early morning. A post planted on the NW slope of hill 492 reports heavy vehicle noise from the other side of the hill as dawn breaks.

TASK ORGANIZATION

U.S. Forces: Lt. Infantry Company(-)—six TM, six TM+, two M150, (six Dragons to be assigned).

Soviet Forces: Tank Battalion(-)—twenty-three T62, three BMP, five TM+.

MISSION

U.S. Player: Defend Gerlafingen.

Soviet Player: Advance from east to west along the axis of Rte. 298.

DEPLOYMENT

All U.S. units except two must be deployed west of stream 2301-2954. Two units must be deployed within four hexes of the summit of Hill 492. Soviet forces enter the map on Game-Turn One on the east edge within five hexes of Rte. 298.

VICTORY CONDITIONS

The Soviet Player receives one Victory Point for each tank or BMP which exits the west edge of the map between hexes 0135 and 0140. The U.S. Player receives one Victory Point for each tank or BMP which does not exit the map accordingly. The Scenario lasts twenty Game-Turns.

SPECIAL RULES

There is no specific counter which shows the TOW as represented in this Scenario, which is the "jeep" mounted TOW issued to the U.S. light infantry. Therefore, the U.S. Player should use the M150 counter since the TOW weapons system is the same whether mounted on an M113 or a "jeep." However, the jeep/TOW should be considered a "personnel" target rather than a "vehicle" target. In other words, treat the U.S. TOW exactly as though it were an infantry team when you shoot at it (though it can move like a vehicle).

SCENARIO 4 [MAP A]

GENERAL SITUATION

Back in the Versbach area, the Soviet 20th Gds. Mot. Rif. Div. continues to put the pressure on along Hwy. 1.

TASK ORGANIZATION

Soviet Forces: Motorized Rifle Company (+)—ten BMP, four T62, two BRDM (with Sagger), twenty-seven TM+, two MG+; Direct Support—two 122mm.

U.S. Forces: Mechanized Infantry Platoon (+)—four M113, four TM+, one TM, two MG+, four M150; Organic Support: three 81mm mtr, one 4.2"mtr. (three Dragons to be assigned).

MISSION

U.S. Player: Defend high ground NW of Versbach.

Soviet Player: Attack through Versbach, north along Hwy. 1.

DEPLOYMENT

U.S. Forces deploy first, anywhere north of Rte. 298. Soviet Forces deploy anywhere south of 298.

VICTORY CONDITIONS

The U.S. Player wins if he exits more units off the north edge of the map than the Soviet Player does by the end of the game. The game lasts twenty Game-Turns. (**Players' Note:** While at first glance it might seem that the U.S. Player has an enormous advantage because he starts so much closer to the north edge, he cannot simply retreat—he must stand and fight.)

SCENARIO 5 [USE BOTH MAPS]

Note: Overlap the west edge of Map A onto the east edge of Map B, so that Feldshlossen lies to the west of Versbach. (See diagram on page 3.)

GENERAL SITUATION

U.S. Forces are deployed to defend Ebersburen and vicinity. A strong Soviet thrust of approximately battalion strength is expected from the NW.

TASK ORGANIZATION

U.S. Forces: "A" Company—five M60A1, four M113, five TM+, one TM, two M150, (three Dragons to be assigned); Organic

Support—three 81mm mtr; Direct Support—two 155mm mines: 25 pts.

Soviet Forces: Two Motorized Rifle Companies—twenty BMP, eight T62, thirty-six TM+, two TM, two MG+; Organic Support—three 120mm mtr; Direct Support—four 152 mm.

MISSION

U.S. Player: Defend the high ground in the vicinity of Asbachhohe, hill 502 and hill 485.

Soviet Player: Advance down Hwy IA, swing east along Rte. 298 and secure approaches to Ebersburen.

DEPLOYMENT

U.S. Player deploys first, anyplace on Map A south of Rte. 12. The Soviet Player deploys anywhere on or west of Hwy 1A and on or north of Rte. 12 (i.e., the NW corner of Map B).

VICTORY CONDITIONS

The Soviet Player must destroy every U.S. unit within ten hexes of Ebersburen. When he does so the game ends. (Note the U.S. Player must keep at least one unit within ten hexes of Ebersburen or he will trigger the end of the game.)

If the game ends before Game-Turn Thirty, the Soviet player wins, regardless of his losses. If the game ends on or after Game-Turn Thirty, the Soviet Player wins if he has destroyed more U.S. units than he has lost. (Note: If the U.S. Player is ahead in the lost column by Turn Thirty, he should retreat from the vicinity of Ebersburen to trigger the end of the game. This is strictly a game ploy as a means to end the Scenario.)

Firefight II

[10.0] INTRODUCTION

Firefight II is a collection of rules which modify and expand the foundation rules of **Firefight I**. If used, they heighten the realism of play. After playing **Firefight I** even briefly a Player may soon be asking for rules such as smoke or mines, or the ability to conceal the position of non-engaged units from his opponent's eyes. These rules and more are all part of **Firefight II**.

Be warned, however, that using these additional rules adds more complexity to the game. The Players will have to work harder and remember more, and play will not move as quickly.

There are no special **Firefight II** Scenarios. Instead, you play the same Scenarios listed in Section 9.0. You will find that using **Firefight II** will change how you play them.

It is not necessary to use all of the **Firefight II** rules together. Rule 13.0 (Effects of Height) in particular can be time consuming to apply and should only be used when the Players can afford it.

Firefight II is designed to merge naturally into **Firefight III**. Feel free to reach ahead into Firefight III and pick out rules you wish to use in addition to those found here.

[11.0] MODIFIED OBSERVATION RULES

GENERAL RULE:

All units are deployed face-down so that only the Owning Player knows what they are. While they are face-down, the Enemy Player does not know exactly what kind of deployment the Friendly forces are making. Units are not to be revealed (turned face-up) until spotted by an Enemy unit. (The Owning Player may look at his own face-down units at any time to refresh his memory as to who is who.) Unlike the **Firefight I** rules, which allowed spotting to occur at unlimited range so long as the Line of Sight was unobstructed, this rule places limits on the distance at which a given unit can be seen if it is not moving/firing.

PROCEDURE:

If a face-down unit fires at an Enemy unit, it is automatically spotted and is turned face-up. If a face-down unit moves within the field of vision of an Enemy unit, it is automatically spotted. If a face-down unit neither fires nor moves, it remains face-down and unspotted until an Enemy unit is close enough to it to be within **observation range**. When asked whether one of his face-down units is personnel or a vehicle, a Player must answer truthfully (**except** when the unit in question is a dummy, in which case he can say anything he wishes; see rule 12.0).

CASES:

[11.1] OBSERVATION RANGE TABLE

Target Unit is		
Located in:	Personnel	Vehicle
Clear	20	60
Forest	5	10
Town	3	5
Defilade	3	5

Example of How to Use Observation Range Table:

A U.S. TM+ is six hexes from a Soviet T62. Both units are face-down and are located in forest hexes with clear terrain between them. The U.S. TM+ could see and spot the T62 because it is within ten hexes of it. However, the T62 cannot spot the TM+. It would have to move within five hexes to spot the TM+.

[11.2] EXPOSURE OF FACE-DOWN UNITS

Whenever a unit is spotted, it is turned face-up. Once spotted, it remains spotted for the length of time that an Enemy unit retains it within its field of vision. If a spotted unit can hide from Enemy observation by ducking behind a hill or diving into the center of a forest, the Owning Player may conceal the unit again by turning it face-down.

[11.21] So long as a unit is face-down (concealed) it may not be fired at.

[12.0] DUMMIES

GENERAL RULE:

Dummies are meaningless counters employed as though they were real units so that an Enemy Player will never know whether a face-down unit is a real unit. Whenever the Players deploy their initial forces, they should also deploy several face-down "Suppression" Markers, which are backed up in the national colors. The number of dummies that a Player may use is left to his good judgement and common sense. Rarely should he use more than six at a time. As play develops and the Players' units spot one another, the "dummies" (Suppression Markers) will be revealed for what they are (that is: nothing). Once spotted and turned face-up, the "dummy" should be removed from the map. The whole object of using dummies is simply to keep your opponent guessing for as long as possible as to where your forces are. If you don't use at least one or two dummies, your opponent will know exactly where all of your units are even if he doesn't know exactly who is who.

[13.0] EFFECT OF HEIGHT AND CONTOUR ON OBSERVATION

COMMENTARY:

In **Firefight I**, we completely ignored the existence of contour lines and, by inference, the relative heights of firing units, target units and intervening terrain. In playing the FF I Scenarios and rules, the Players are permitted to make attacks which are technically physically impossible (FF I permits a unit in hex 1944-Map A to fire at a unit in hex 1946-Map A, even though the intervening hex 1945 is shown to be land some 20 meters higher than either 1944 or 1946). We now modify the **Firefight I** rules as follows:

GENERAL RULE:

Players should ignore defilade positions and defilade hexsides when judging Line of Sight, except for determining Observation Range (see rule 11.0). Defilade no longer blocks Line of Sight. Instead, the Players should determine what height the sighting unit is at, what height the target unit is at and whether the height of the terrain lying between the two units is sufficient to block the Line of Sight. To do this, they use the Height/Line of Sight Display, which graphically displays whether intervening terrain blocks Line of Sight.

CASES:

[13.1] HOW TO DETERMINE WHAT HEIGHT A UNIT IS AT

Any hex on the map is located someplace in relation to the contour lines which serve to define the hills and ridges. For our purposes, we will define all of the bottom land lying between the various 460 contour lines as being 440 meters high. All of the hexes lying between the 460 and 480 meter line we will

define as being 460 meters high; all of the hexes lying between the 480 meters line and the 500 meters line we will define as being 480 meters high; and, finally, all of the hexes encircled by the 500 meters line will be defined as 500 meters high.

By locating the position of a hex in relation to the contour lines, a Player may determine the height of the hex and the height of any unit in the hex.

[13.11] Contour Lines/Hexsides

Unlike the defilade hexsides, the contour lines do not conform exactly to the hex pattern. Instead, they have been drawn freehand to give a natural "real" appearance. To determine the height of a hex which is partially one height or the other, the Player must use common sense and determine that the hex is predominantly at one height or the other. For example, hex 2951-Map B is at 440 meters height, while adjacent hex 3050 is at 460 meters height.

[13.2] HOW TO USE THE HEIGHT/LINE OF SIGHT DISPLAY

(See page 20.)

The Height/Line of Sight Display is used to determine if intervening terrain blocks the Line of Sight.

- Locate the elevation of the firing unit on the "0" (zero) range line.
- Locate the elevation of the target unit on the appropriate range line (i.e., if the target unit is 21 hexes distant and at elevation 480, its location on this Display is the intersection of the 480 line and the 21 line).
- Connect these two points with a straight edge (piece of paper or ruler). This describes the Line of Sight.
- Locate the range and elevation of any potential obstruction to the Line of Sight. If the Line of Sight is lower than the obstruction (i.e., to the left of it on the range line of the obstruction) the Line of Sight is **blocked**; if the Line of Sight is exactly equal to (or higher than) the obstruction, it is **not blocked**. Remember that the height of Forest or Town hexes is calculated to be the height of the ground elevation plus 20.

[13.21] Town and Woods terrain add 20 to the height of a hex when calculating blocking height, but not sighting position. In other words, a unit in Town hex 2410 is at height 440. However, if the Line of Sight is calculated through the hex, the hex is considered to be at height 460.

[13.22] In any given sighting situation, one unit may or may not be higher than the other. Any terrain between the two units which is higher than both units, **must block** the Line of Sight. See also case 13.23.

Example: A Soviet tank is in hex 1304, Map A; a U.S. tank is in hex 1307. The Soviet tank would be height 440, range 0; the U.S. tank would be at height 440, range 4. However, hexes 1305 and 1306 at ranges 1

and 2 are at height 460. Therefore, they would block the Line of Sight between the two units.

[13.23] If terrain exists between the two units which is higher than the lower unit, **but the same height or lower than the higher unit**, then it blocks the Line of Sight only if it is closer (in hexes) to the lower unit than the higher unit (and meets the criteria of Step 4).

Example: A Soviet tank is in hex 3307, Map A; a U.S. tank is in hex 2611. The Soviet tank is at height 460; the U.S. tank is at height 440. Hexes 3308 and 3208 are also at height 460, but, because they are closer to the Soviet (higher) unit than the U.S. (lower) unit, they do **not** block Line of Sight. Assume that the U.S. tank moves to hex 3109. Now hex 3208 (height 460) is closer to the U.S. tank than the Soviet tank and this hex **does** block the Line of Sight between the two units.

[13.3] DEFILADE

If a unit fires at a target lying in a defilade position which is at a **lower** elevation than the firing unit, the defilade is ignored.

Example: A Soviet tank is in hex 3507, Map A; a U.S. tank is in hex 3206. If the Soviet tank fires at the U.S. tank, the U.S. tank does not receive any defilade benefit because the Soviet tank is higher (height 480) than the U.S. tank (height 460).

[14.0] SMOKE

GENERAL RULE:

Mortar or artillery units may fire smoke instead of high explosive.

PROCEDURE:

When plotting his fire mission, the Player notes "smoke" or "S," etc. on his Indirect Fire Plot. Thereafter the mission is executed exactly as though it were a normal mission, except that the Player places a Smoke Marker on the Impact Hex rather than the firing unit counter/impact marker. Unlike Indirect Fire Markers, which are removed automatically from the map each Game-Turn unless renewed via Continuous Fire, Smoke Markers are removed on a die roll of "1" or "2;" otherwise, they remain in place. (Thus a mortar or artillery unit which fires smoke may not have to repeat the fire turn after turn to maintain the smoke.)

CASES:

[14.1] EFFECT OF SMOKE

Regardless of the size of the firing unit or its coverage normally, all smoke attacks are considered the same. Smoke is presumed to cover the Impact Hex of the smoke attack and all adjacent hexes (only). When present on the map, smoke acts to block Line of Sight/Line of Fire just as though it were an "instant forest" that sprang into existence.

[14.11] The Line of Sight/Line of Fire does not pass through a smoke hex any more than it passes through a forest hex.

[14.12] A unit which is fired on in a smoke hex gains the same benefit it would receive in a forest hex. If it is in a hex which is both smoked and naturally a forest, it gains no additional benefit.

[14.13] Smoke has no effect on a unit's ability to move.

[14.14] Occasionally, a Player may fire several smoke attacks into the same area and the resulting Impact Zones may overlap. This doubling up of smoke hexes has no additional effects.

[15.0] Overwatch Fire

GENERAL RULE:

During the **Movement Phase**, a Player may fire at an Enemy unit which has itself fired during the **current Movement Phase**. Heretofore, a Player could only fire at an Enemy unit which was moving, now he fires at a unit which is moving **or** at a unit which has fired.

CASES:

[15.1] Overwatch Fire Effect

Overwatch Fire is identical to Direct Fire or Opportunity Fire, with the limitation that you can only use it to fire at a unit which has just fired at one of your units.

[16.0] MOUNTED COMBAT

Fire from APC's by Mounted Infantry

GENERAL RULE:

Personnel (Fireteams only) mounted in vehicles may fire when mounted in their APC's. The normal range and effectiveness of a mounted Fireteam's fire is reduced.

CASES:

[16.1] SOVIET FIRETEAMS/BMP

One Soviet Fireteam may fire from inside the BMP. Its maximum range is reduced to four hexes. Its Attack Rating at all ranges (1-4 hexes) is reduced by 4. The Soviet Player simply announces that a Fireteam within the BMP is firing. Execution of this mounted fire does not preclude the BMP itself from firing normally. However, the BMP may not move if the Fireteam executes mounted combat.

[16.11] The Soviet Fireteam is considered to be inside the BMP when executing mounted fire. RPG-7's may **not** be fired when mounted.

[16.2] AMERICAN FIRETEAM/M113

One American Fireteam may fire while mounted on an M113. Its normal range is not affected, but its Attack Rating at all ranges is reduced by one.

[16.21] The American Fireteam fires from open hatches. On the Turn in which it fires, the team is considered to be exposed, just as though it were dismounted. Mounted Fireteams **may** fire LAW's or Dragons.

[17.0] SHORT HALT ATTACK/FIRE ON MOVE

GENERAL RULE:

The U.S. M60A1, M60A2 and all Soviet tanks may both fire and move during the Movement Phase. This presumes they are employing the Short Halt technique. The M60A3 (with stabilized fire control) may fire and move **without** halting.

PROCEDURE:

The Short Halt technique means that the unit expends one Movement Point in firing,

leaving two Movement Points to actually move. The M60A3 can move its full Allowance of three Points and still fire. In either case, the Moving Player simply announces that he is firing while he moves the unit. He immediately executes the attack just as in any Direct or Opportunity Fire.

CASES:

[17.1] RESTRICTIONS ON SHORT HALT/FIRE ON MOVE

[17.11] This rule does not mean that a Player may use a tank to fire in the Direct Fire Phase and **then** move it or fire and move during the Movement Phase. A unit which fires during the Direct Fire Phase may not do anything else.

[17.12] The use of the Short Halt technique or even the stabilized Fire on Move is inherently more inaccurate than firing from a full rest. Thus, tanks employing the Short Halt Attack have their Attack Ratings reduced by two Points at all ranges. The M60A3 is reduced by one Point at all ranges. M60A2 may **not** fire missiles in Short Halt.

[18.0] MINES

GENERAL RULE:

Players are given a number of Mine Attack Points in certain Scenario situations. They may deploy these Points in hexes just as they would real units, placing an appropriately colored Mine Marker in the hex. They must also record on a separate sheet of paper the number of Mine Points they have emplaced in each marked hex. (Just as in real combat, they are required to record the location, strength, etc., of the smallest most hasty field.) Naturally, the Enemy Player can see these Mine Markers on the map. He may avoid them or enter them at his peril. If any unit enters a mined hex, the Player who owns the Mine Marker must announce the number of Mine Attack Points he has in the hex. He then attacks the unit with that number of Points just as though the unit were being fired on. (No terrain benefit, however.) Unless otherwise stated, a Player always has ten Mine Points at his disposal at the beginning of a Scenario. He may only emplace Mines before play begins.

[19.0] SUPPRESSIVE FIRE

GENERAL RULE:

Suppressive Fire is a special form of Indirect Fire in which accuracy is sacrificed for speed of response. A Player may request Suppressive Fire from any of his assigned Indirect Fire Units (regardless of whether they are Organic, Direct Support or Dedicated) by noting Suppressive Fire or the equivalent on his Fire Plot. Such Fire is delayed two less Game-Turns than noted on the Indirect Fire Data Table for a normal mission fired at the same target hex. However, on the Impact Turn, the Fire automatically scatters. Unlike normal fire, it may scatter two hexes instead of one hex.

The Player rolls the die with an odd number causing a two-hex scatter, rather than one hex.

Continuous Fire of a Suppressive Fire Mission would automatically scatter.

Firefight III

[20.0] INTRODUCTION

These final modifications give the Players sophisticated play techniques to further heighten realism concerning weapons, munitions and tactical doctrines which are currently being developed and put in use.

[21.0] DEDICATED BATTERY

COMMENTARY:

Recognizing the need for immediate suppressive fires on today's battlefield, the U.S. Army has developed the "dedicated battery" concept. As the title implies, a battery of field artillery is directly linked to the command of a maneuver company team. Its fire is immediately available at all times to suppress enemy direct fire weapons which threaten the team. Using pre-planned fire data and abbreviated procedures, the dedicated battery can in many cases have fire impact on enemy positions within 45 seconds. In fact, if the maneuver element commander and his forward observer are accurate (and lucky) in their pre-planned target list they can receive fire on target in as little as 18 seconds.

Because a dedicated battery is 100% tied to the needs of the maneuver team, it is not available (except in extreme circumstances) to support other units. The technique will usually be restricted to a company team engaged in movement to contact where the enemy situation is vague, but a meeting engagement is likely. As the team moves, the commander/FO will constantly update the situation with the dedicated battery, apprising them of probable enemy positions and particularly defined as a "priority" target any location likely to contain the most serious enemy threats (presumably ATGM's or tanks). (No more than one, two or, at most, three priority targets can be defined at a time because the battery will lay a platoon on each one.) As the company team moves, the FO will identify a new priority target. If a threat materializes in the vicinity of the priority target, the FO calls for immediate suppression on the target. The designated platoon fires as laid immediately (within 20 seconds). Other planned targets can be engaged within 30 seconds by other platoons. (There are two three-cannon platoons in a battery.) Naturally the initial rounds will not be as accurate as an orthodox shoot which has been adjusted on to target, but the speed with which the rounds arrive may make all the difference.

GENERAL RULE:

The dedicated battery is an extension of the direct support mission. This is reflected in **Firefight** on the Indirect Fire Data Table by providing a dedicated support status for the

155mm unit. When the U.S. Player uses a dedicated 155mm unit, he gains speed of response over the use of a direct support unit.

CASES:

[21.1] ASSIGNING A DEDICATED BATTERY

As written, no Scenario specifically provides a dedicated battery for the U.S. Player. Those Scenarios which give the U.S. Player 155mm support list that support as Direct Support. To receive a dedicated battery, the U.S. Player simply tells his opponent that he is switching the status of a 155mm battery from Direct Support to Dedicated Support. He must do this prior to the start of the Scenario. Obviously, it is more advantageous to the U.S. Player (team commander) to have a dedicated battery than a battery in Direct Support, just as it would be in an actual combat situation. Just as obviously, the decision as to whether or not a dedicated battery is provided to a company team is made at brigade level or higher, and reflects the needs of the brigade as a whole. Ideally, a Scenario should be played at least twice; once with artillery in Direct Support and again with one battery dedicated, so that Players may experience the difference.

[21.2] PRIORITY FIRE

Priority Fire is, by definition, Indirect Fire which the U.S. Player has requested to impact on a pre-planned Priority Target. This requires him to identify Priority Targets and list them on his Target List (see 8.1). An asterisk next to the hex number on the Target List will do. List may not exceed number of Dedicated units. Priority Fire has no delay. It is automatically available and impacts on the Game-Turn it is requested. Because the request and the impact occur simultaneously, the Player does not need to write a plot for Priority Fire. He simply states "I am executing Priority Fire on this Priority Target hex." Whereupon he places the appropriate 155mm marker/unit. (Execution still must take place during the Indirect Fire Phase.) Priority Fire automatically scatters and its intensity on the initial Turn it impacts is somewhat diluted.

[21.21] Unlike On Call Fire or Fire at Target of Opportunity, the Player may not adjust Priority Fire up to two hexes away from the Priority Target hex. He simply places the marker on the target hex and rolls immediately for scatter. (The fire must scatter one hex according to the die roll.)

[21.22] As indicated on the Indirect Fire Data Table, the Attack Rating of a Priority Fire Impact varies from the normal Attack Rating of a 155mm unit. Its rating is reduced from "12" to "6" in the Impact Hex. When the Player has both Priority Fire and "normal" fire impacting, he must remember which is which.

[21.23] The Player may request Continuous Fire from a Priority Fire Mission (see 8.32). If he does, the future Attack Rating of the impact will be normal (12-6-3). In other words, the special Attack Rating of a Priority Fire mission applies only to the first Turn of impact.

[21.3] PLANNED FIRE/TARGET OF OPPORTUNITY

If a dedicated battery fires at a Planned Target (one on the Target List, but not singled out as a Priority Target) or a Target of Opportunity, it is treated as a normal On Call or Target of Opportunity Mission, except that its delay is one or two Turns, respectively, and its initial impact is handled exactly like Priority Fire. (It must scatter and may not be adjusted, and its initial Attack Rating is lessened.)

[21.4] DEDICATED SUPPRESSIVE FIRE

Suppressive Fire is built into the rules on a Dedicated Battery. The Player may not apply the provisions of Rule 19.0 to a Dedicated Battery.

[22.0] INDIRECT FIRE SCATTER [Modification]

GENERAL RULE:

To further differentiate between On Call Fire and Fire at Target of Opportunity, rule 8.52 is modified so that On Call Fire has a reduced chance of scatter (to 33%). Furthermore, Continuous Fire probability is reduced (to 16.7%), regardless of whether the original fire was On Call or Target of Opportunity.

PROCEDURE:

When determining scatter for Planned Fire, roll the die. A "one" or "two" and the fire scatters; otherwise it impacts on the final target hex. If it is Continuous Fire, only a roll of "one" causes scatter.

CASES:

[22.1] Continuous Fire of a Suppressive Fire Mission (see 19.0) must always scatter. Continuous Fire of a Dedicated Battery Mission, whether Priority, Planned or Target of Opportunity Fire, has a 16.7% chance of scatter.

[23.0] IMPROVED POSITIONS

GENERAL RULE:

Improved Positions Markers are provided. If in his initial deployment, the Player places a unit under the IP Marker, the unit (or units) is said to be in an Improved Position. Such units benefit from the Improved Position so long as they remain in it. If vacant at the end of a Game-Turn, the Improved Position Marker is removed from the map. Improved Positions apply only to dismounted personnel. The presence of vehicles has no effect on an Improved Position, nor do vehicles benefit from an Improved Position.

CASES:

[23.1] BENEFITS OF IMPROVED POSITIONS

A unit in an Improved Position may only be spotted by an adjacent Enemy unit, so long as the unit does not move or fire. If fired upon, a unit in an Improved Position benefits as though it were in defilade. (If it is already in defilade, it gains no further protection from fire.)

[23.2] DEPLOYMENT OF IMPROVED POSITIONS

Improved Positions may only be deployed at the start of a Scenario. They may not be constructed during play. **Player's Note:** Improved Position Markers and rules are given so Players may selectively modify Scenarios as they see fit.

[24.0] SMALL ARMS FIRE VS. ARMORED VEHICLES

GENERAL RULE:

Rifle and MG Fire directed against tanks and APC's will not injure the vehicle nor any crew or passengers within the armor envelope. However, this fire, if delivered accurately, will cause the vehicle to 'button up' and in particular will cause the vehicle commander to pop into the turret. Forcing the vehicle to button up dramatically reduces the ability of the crew to observe and acquire targets. Thus, in **Firefight III**, we will allow a fireteam or MG to fire at a vehicle. In doing so, they will use the Attack Rating obtained on the **anti-personnel** chart. They will resolve the combat on the **anti-personnel table**. However, any result obtained shall be treated as a **Suppression** and will have exactly the same effect as a Suppression obtained through Indirect Fire; i.e., the Attack Rating of the vehicle is reduced by "three" at all ranges.

[25.0] ARTILLERY DELIVERED MINES

COMMENTARY:

In a fluid mobile situation, U.S. forces will rarely be in a position to mine extensive areas using conventional mining techniques. To provide a mining capability in these circumstances, special artillery munitions have been developed which create an "instant" minefield. These are delivered and scattered by a special shell detonating to scatter mines and triggering sensors. Presumably these would be delivered in a mix of anti-personnel and anti-vehicle sizes. They provide the U.S. force commander with the ability to temporarily delay and divert Soviet movement with Indirect Fire. (An armored column can move through HE artillery fire of considerable intensity if it has to. Moving through an area just seeded with these instant mines without adequate engineer preparation would probably blow too many treads to be worth it.)

GENERAL RULE:

The U.S. Player may opt to fire "mines" from his 155mm batteries. All execution procedures remain the same except that a MINE Marker is placed in the impact hex and a special note is made that this is an artillery-delivered mine. The impact hex and all adjacent hexes are considered to be mines and attack any unit which enters such a hex with an Attack Rating of "8."

[26.0] CLGP

[Cannon-Launched Guided Projectile]

COMMENTARY:

Currently under development is an artillery shell (155mm and larger) which can be fired normally and guided to a target "painted" by a laser designator. (It deploys fins after launch to control flight.) This means if a gun is pointed in the general direction of the target, it can achieve a direct hit with one round. It is a "smart" shell. Rather than bulky Dragon and TOW systems, the anti-tank infantry can be "armed" with less cumbersome laser guns in greater numbers which guide-in a blizzard of lethal shells fired from 20+ kilometers back (and no tank made can withstand a direct hit from a 155mm shell.)

GENERAL RULE:

Every Fireteam is presumed to be armed with a laser gun capable of guiding a 155mm projectile to target. Such an event is a two-Turn process. On Turn One, the U.S. Player announces that he is designating a specific Soviet unit, which must be in the Line of Sight of the designating U.S. unit. He does this during the Direct Fire Phase. If on the Direct Fire Phase of the following Turn the Soviet unit is still sighted by the U.S. unit, it is attacked with a Rating of "9." This attack is supplementary to any conventional attack the U.S. unit may make during either Turn.

Player's Note: Obviously any Scenario in which the U.S. Player has CLGP will tend to be somewhat one-sided. Soviet counter-measures against this threat will have to take the form of heavy counter-battery (to remove the source of the shells) and ECM (to prevent the battery from getting the fire order). Neither is within the scope of this game. Increased use of smoke, terrain and suppressive fire which can kill will become even more important. (You can be sure that the Soviet scientist who develops a laser ray absorbing paint will have it made.)

[27.0] FUTURE AFV's

GENERAL RULE:

Both the U.S. and the Soviet Union are developing new generations of Armored Fighting Vehicles to be placed in service in the late 1970's and early 1980's. These vehicles will offer increased firepower, mobility and protection over the current crop. The increased firepower of these vehicles is noted on the Fire Tables. The other effects are described in the sections which follow.

CASES:

[27.1] M113Z

The present TOW mounting on the M113 APC exposes the gunner and system to fire both indirect and direct. This vehicle (M150) will be replaced by the M113Z. This will be the familiar M113 APC as the vehicle base. However, the gunner will be able to sit inside the armor envelope and control the TOW missile in flight with a TV fiber optics link

with the launcher/tracker. The TOW's themselves will be mounted in an armored dual pod which can be raised and lowered (so that the vehicle can sit in full defilade. This will open up many more possible fighting positions.)

[27.11] Maneuverability

Maneuverability is the same as an M113. The Movement Allowance remains three Movement Points.

[27.12] Vulnerability

When the M113Z is in defilade all dice results of "three" or greater are ignored from Soviet Direct Fire. (It can only be killed on a roll of "2.") For purposes of Indirect Fire, it is treated as a tank (no Kms result).

[27.2] MICV

This vehicle will replace the M113. It is an infantry fighting vehicle rather than an armored personnel carrier, with added armor protection, designed interior infantry fighting positions and topped with a 25mm Bushmaster cannon.

[27.21] Maneuverability

Increase the Movement Allowance to four Movement Points.

[27.22] Vulnerability

Reduce the Attack Rating of Soviet weapons against APC's by one at all ranges.

[27.23] Mounted Fire

Infantry mounted in the MICV has an Attack Rating against Soviet personnel of "7," and a range of 200 meters (four hexes).

[27.3] XM1

This tank will be lower than the M60, and narrowed; with compartmentalized fuel, ammo and crew areas; improved spaced, laminated armor and will mount either one 105mm, 115mm or 120mm gun firing greatly improved munitions, plus a 40mm grenade launcher in place of the 50 cal.; and increased horsepower.

[27.31] Maneuverability

The Movement Allowance is increased to five Movement Points.

[27.32] Vulnerability

The Attack Rating of the Soviet RPG7, SPG9 and BMP cannon are reduced by "3" at all ranges. The Attack Rating of Soviet tanks is reduced by "2" at all ranges. The Attack Rating of the Sagger is reduced by "1" at all ranges.

[27.4] XMBT

This will be the successor to the T62. It has received various designations, such as T-64, T-70 and T-72. We've chosen to call it the XMBT. Like its U.S. counterpart, it will have spaced and laminated armor, improved engine and suspension and it will mount a gun in the 120-125mm class with laser/computer fire control.

[27.41] Maneuverability

Increase the Movement Allowance to five Movement Points.

[27.42] Vulnerability

The Attack Rating of all U.S. units is reduced by "1" at all ranges.

[27.5] FIRE 'ON THE MOVE'

The MICV, XM1 and MBT will all be able to fire "on the move" due to gun stabilization mechanisms. The Soviet BMP will also be given gun stabilization so it will be able to fire its cannon (only) on the move. All Attack Ratings reduced by 1 when firing-on-move.

[27.6] INSTANT SMOKE

The MICV and XM1 will have an "instant" smoke capability far greater than present vehicles have. To reflect this, we will permit the U.S. Player to fire "smoke" into a hex adjacent to the firing vehicle during the Direct Fire Phase in lieu of normal Direct Fire. He simply announces he is firing smoke and places the smoke marker. Once placed, the smoke marker acts the same as smoke placed by Indirect Fire.

[28.0] OVERRUN

COMMENTARY:

Heretofore, the rules have prohibited a Friendly unit from entering a hex containing an Enemy unit (Case 7.25). This rule will permit such an act, which is called an **OVERRUN**.

GENERAL RULE:

During the Movement Phase, a Player may move a Friendly unit into a hex containing an Enemy unit. When he does so all other action ceases and play is conducted according to the Overrun Procedure.

PROCEDURE:

To Overrun, a Player moves his unit into a hex containing an Enemy unit or units. The moving unit must stop in the hex being Overrun. An Overrun firefight must immediately take place. This is executed exactly as though the opposing units were in adjacent hexes (range is one hex for calculating Attack Ratings). The Players roll the die to see who shoots first, and alternate fire until the Overrunning unit and all Enemy units in place have all fired once. Assuming that both the Overrunning unit and at least one Enemy unit survive the fight, the Overrunning Player may either (1) move his Overrunning unit out of the hex, or (2) leave it in the hex. If he chooses the second alternative, another Overrun firefight must ensue. At the conclusion of this second firefight the Overrunning Player must again choose to move out or stay and fight, etc. Inevitably, any Overrun will be resolved when the Overrunning unit vacates the hex or either the Overrunning unit or the Enemy units are destroyed. One or the other must occur.

CASES:

[28.1] EFFECT OF TERRAIN ON OVERRUN

In an Overrun firefight, terrain is completely ignored except that a unit in an Improved Position still benefits as though it were in defilade. Otherwise, the prior positions of the engaged units, the presence of forest, towns, smoke, etc., are forgotten.

[28.2] EFFECT OF PRIOR FIRE ON OVERRUN

An Overrun is a special event. The units engaged in an Overrun situation are not affected by whether or not they have previously fired during the Game-Turn. A unit could conceivably fire during the Direct Fire Phase or Movement Phase and still participate with fire during an Overrun. Fire during an Overrun does not count against the restriction of only firing once per Game-Turn.

[28.3] EFFECT OF OUTSIDE UNITS ON OVERRUN

Once an Overrun situation is created, the Players ignore everything until the Overrun is resolved. Units outside of the hex being Overrun do **nothing**.

[28.4] EFFECT OF INDIRECT FIRE

If an Overrun hex is being subject to Indirect Fire, the Overrunning unit must first be attacked by the Indirect Fire.

[28.5] SOVIET FIRETEAM

Some Soviet Fireteams will not have an RPG7. These teams may attack U.S. vehicles engaged in an Overrun with a rating of "3."

[29.0] SCENARIOS: FIREFIGHT III

SCENARIO 6 [MAP B]

GENERAL SITUATION

A U.S. infantry-heavy company team has been ordered to mop up remnants of a Soviet force operating in the Feldschlossen area.

TASK ORGANIZATION

U.S. Forces: Company-team—five M60A1, nine M113, two M150, fourteen TM+, 2 TM, one MG (6 Dragons to be assigned); Organic Support—three 81mm mtr, two 4.2" mtr; Direct Support—two 155mm.

Soviet Forces: Mot. Infantry Platoon(+)—three BMP, two T62, one BRDM (Sagger), two SPG9 team, one Sagger Team, four TM+, two MG+, thirty Mine Pts.; Direct Support—two 122mm, two 152mm.

MISSION

U.S. Player: Clear Rte. 1A from Gerlafingen to Feldschlossen and occupy the Mittehohe Hill.

Soviet Player: Defend Feldschlossen blocking Rte 1A to the south.

DEPLOYMENT

The U.S. Player deploys first anywhere south of Rte. 298. The Soviet Player deploys north of hexrow 0030-3930.

VICTORY CONDITIONS

The game ends when the U.S. Player has destroyed all Soviet units in Feldschlossen and on the Mittehohe and has at least one U.S. unit each on both terrain features. The Soviet Player receives 1 Point for each Game-Turn after Game-Turn Eight. The U.S. Player receives 1 Point for each destroyed Soviet unit.

SCENARIO 7 [MAP B]

GENERAL SITUATION

A U.S. light infantry platoon has been ordered to advance from Feldschlossen and secure Hill 492. While traveling on Rte. 12, the platoon is informed that suspicious movement and equipment (probable Soviet OP) has been seen on the summit of Hill 492.

TASK ORGANIZATION

U.S. Force: Infantry Platoon—six TM, two MG+; Organic Support—three 81mm mtr.

Soviet Forces: Unknown (see 'Deployment');

MISSION

U.S. Player: Verify existence of Soviet forces on Hill 492, and, if possible, destroy them.

Soviet Player: Varies with deployment.

DEPLOYMENT

U.S. Player deploys along Hwy. 12 anywhere west of Feldschlossen. Soviet Player places four TM+, one MG, and one Veh X, plus six "dummy" counters in a wide mouthed cup (coffee mug), shaking up the cup and then picking six units from the cup blindly. [Conceivably all six could be real units or all six could be dummies; but normally he will pick some real units and some dummies.] He then deploys his units face-down within two hexes of hex 2832. If the Soviet Player picks the Veh X unit, he is entitled to receive Direct Support from three 120mm mortars. Otherwise, he receives no Indirect Fire.

VICTORY CONDITIONS

The Soviet Player receives 1 Pt. for each U.S. unit eliminated. The U.S. Player receives 1 Pt. for each Soviet unit eliminated. The scenario ends when a U.S. unit occupies hex 2832, and all Soviet units within four hexes of hex 2832 have been destroyed. **Players' Note:** It is very conceivable that the Soviet Player could pick a substantial number of real units, in which case the U.S. Player could find it impossible to clear Hill 492 with his available force without heavy casualties. The U.S. Player should use a bounding overwatch technique to prevent his whole force from being decisively engaged by the unknown Soviet force. By the opposite coin, the Soviet force could consist of nothing substantial, in which case a super cautious advance would be (in hindsight) unnecessary. To reflect this, the U.S. Player should be required to state the number of Game-Turns in which he will accomplish his objective.

SPECIAL RULE

The Veh X unit is a communications van. It has no armament. If the Soviet Player is lucky enough to pick this unit he must deploy it within one hex of hex 2832. Thereafter, he may not move it until Game-Turn Ten. (U.S. units may attack this unit with LAW or DRAGON as though it were an APC.)

SCENARIO 8 [USE BOTH MAPS]

Note: See Diagram on page 3.

GENERAL SITUATION

A reinforced Soviet tank battalion is advancing south on Rte. 1A (axis Feldschlossen-Gerlafingen). A U.S. tank-heavy company team is deployed in the vicinity of Gerlafingen.

TASK ORGANIZATION

U.S. Forces: Two armored platoons, one mechanized infantry platoon; Organic Support—two 4.2" mtr.; Direct Support—six 155mm.

Soviet Forces: One tank battalion, 1 motorized rifle company(+); Direct Support: two 122mm, six 152mm.

[At this point, Players should be able to consult the Modern Combat Pamphlet to derive the units in each force.]

DEPLOYMENT

U.S. Forces deploy within fifteen hexes of the Gerlafingen crossroads (hex 2140). Soviet units enter on Game-Turn One at hex 2201 (Map B).

MISSION

Soviet Player: Advance south.

U.S. Player: Stop the Soviet advance.

VICTORY CONDITIONS

The Soviet Player receives 3 Points for each vehicle which exits off the south edge of Map B and two Points for every vehicle which exits off the south edge of Map A. The U.S. Player receives 1 Point for each destroyed Soviet vehicle and 1 Point per U.S. unit (vehicle or

infantry) within ten hexes of the Gerlafingen crossroads at the end of the game.

GAME LENGTH

The game lasts a minimum of twenty Turns. Beginning with the 21st Turn, both Players roll the pair of dice. If they roll the same number, it is the last Game-Turn. Repeat each Turn until condition is met.

SCENARIO 9 [USE BOTH MAPS]

Note: See diagram on page 3.

GENERAL SITUATION

A Soviet force of undetermined size is advancing west along Hwy. 298. A U.S. force of undetermined strength is advancing east along Hwy. 12.

TASK ORGANIZATION

The Soviet Player should place twenty T62's, twelve BMP's, three BRDM's, and fifteen dummies in a cup. The U.S. Player should place thirteen M60A1's, five M60 A2's, ten M113's, and seven M150's, plus fifteen dummies in a cup. Shake both mixtures. Each Player should pick 25 counters from his cup. This is his force. [Any APC (BMP or M113) is presumed to carry an infantry squad.]

MISSION

Soviet Player: Advance west along Hwy. 298 or (alternate) Hwy. 12.

U.S. Player: Prevent Soviet advance west of the line Versbach-Ebersburen.

DEPLOYMENT

The Soviet forces enter Map A at hex 3938 on Game-Turn One. U.S. force enter on Map B at hex 0121 on Game-Turn One. Both forces are in column.

VICTORY CONDITIONS

The Soviet Player receives 1 Point for each unit that exits off the west edge of Map B. He gains 1 Point for each U.S. unit destroyed. The U.S. Player gains 1 Point for each Soviet unit which does not exit off the west edge and 1 Point for each U.S. unit in Versbach or Ebersburen at the game's end.

Players' Note: While it is theoretically possible for the Players to avoid one another, basic bloodymindedness will usually cause a good scrap. Scheduled fires should not be permitted on the entry hex area on the First Game-Turn or so.

TIME LIMIT

Use the same procedure as in Scenario 8.

INDIRECT FIRE

The provision of Indirect Fire Support is left to mutual negotiation. At a minimum, each side should have two (120mm or 4.2") mortars.

DESIGN CREDITS

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CLARIFICATIONS AND ADDENDA

Post-production playtesting has revealed a few areas of the rules that need further clarification. We also take this opportunity to offer some additional optional rules that players may wish to employ.

CLARIFICATIONS (by Case Number)

[4.1] If a Player declines to fire (or move) a unit when it is his option to do so, he does not automatically forfeit all future opportunities to do so in that Game-Turn. Only if his opponent immediately "passes" as well, does the Phase end.

[5.1] Roads running through Forest hexes have no effect on the Line of Sight (i.e., Players may not assume that the forest-road opens a lane of fire down its axis).

[8.51] In a continuous fire situation, a Player may designate the hex to which the Indirect Fire has been shifted as the new plotted hex for the next Game-Turn. This enables the Player to "walk" the fire across

the map. Note that the Player must still fulfill all Line of Sight requirements.

[8.8] Units that begin a Movement Phase in an Impact Zone are affected only if they move, and then only if they move into another Impact Hex. Moving units are attacked for each Impact Hex they enter.

[17.0] It is not explicitly stated, but the Short Halt/Fire on Move rules are an exception to the rules which allow only Opportunity Fire or Overwatch Fire during the Movement Phase.

[21.1] If a Player has a dedicated battery assigned to him this means that he has two platoons, each of which may be fired independently of the other.

ADDENDA

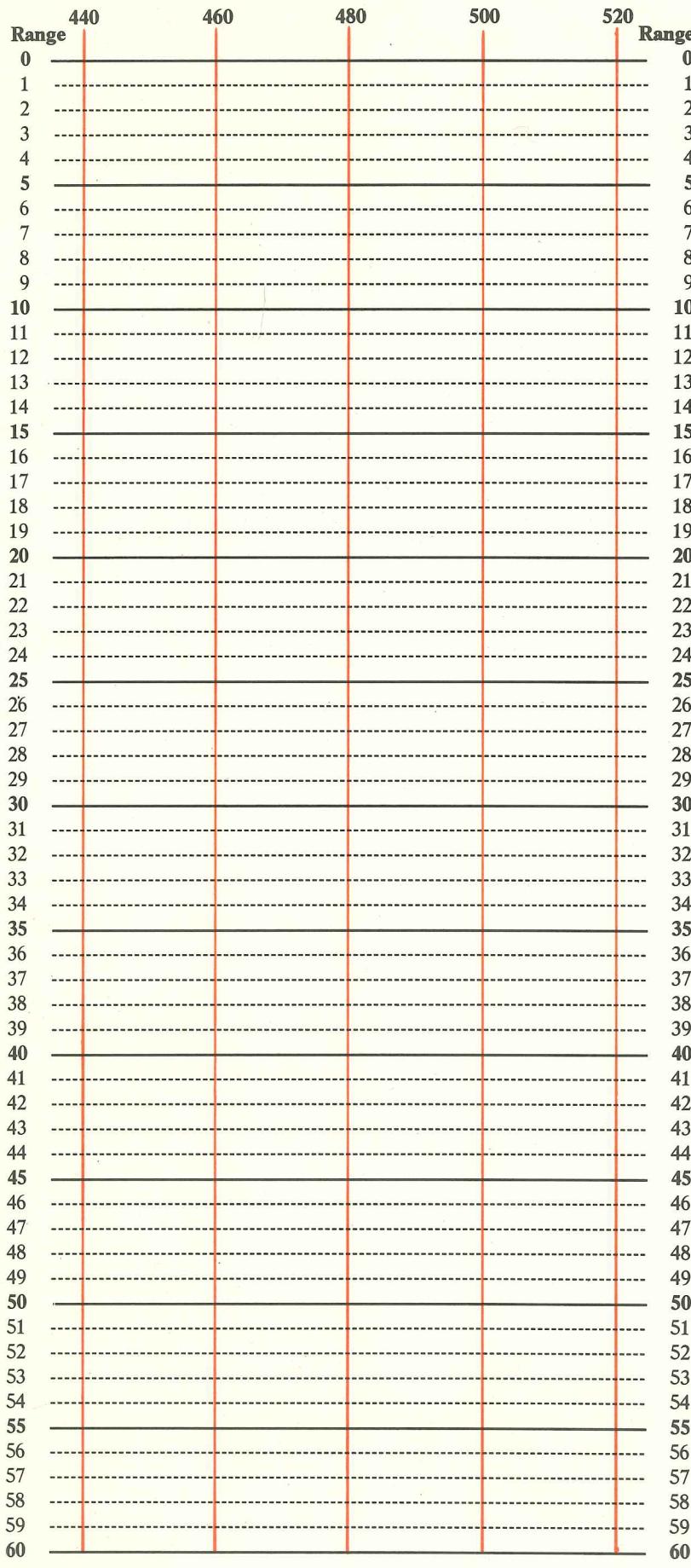
DEMOLISHED BRIDGES AND IMPASSABLE HEXSIDES:

If they wish, the Players may add variety to any scenario by assuming some or all of the bridges on the map to be destroyed at the start of the game (i.e., treating them as unbridged stream hexsides). Players should be aware that none of the units in the game have the capability to destroy bridges by using their organic weapons. Players may also

assume all or certain portions of the streams to be impassable to vehicles (as they wish). Another means to vary the terrain is to designate certain hexsides as impassable for vehicular movement and as blocking terrain for fire.

"FRIENDLY MINEFIELDS"

Players may assume that Friendly units are not affected by their own mined hexes if the Mine Attack Strength in the hex is "5" or less. If the strength is "6" or greater, the mines affect both Players' units. This accounts for the fact that Friendly units, informed of the locations of the mines would be able to avoid them and easily transit the hex. However, when the density of mines in a single hex exceeds a certain level, the information problem makes even Friendly units vulnerable to "attack" by their own mines. Players should be aware that mines are never used up or "cleared" simply because a unit enters the hex and is attacked by them. Within the context of the scenarios, mines may never be cleared or removed by any process. They are always active. Players should also note that personnel and vehicle units are equally vulnerable to mines (using the Attack Rating of the mines on the appropriate Combat Results Table.)

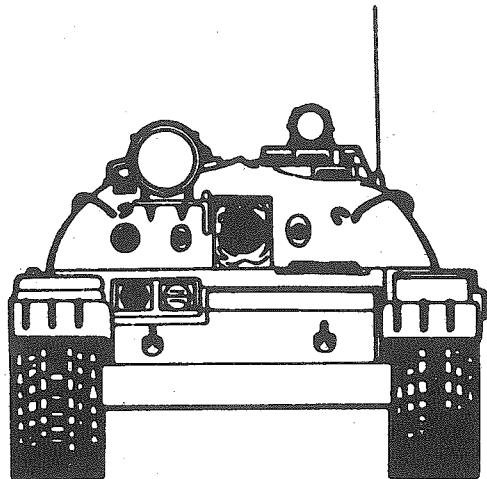
HEIGHT/LINE OF SIGHT DISPLAY See Case 13.2**Elevation****TERRAIN EFFECTS CHART**

Terrain Type	Effect on Vehicle Movement (Movement Point Cost)
Clear	1 Movement Point (MP)
Forest	2 MP
Town	3 MP (when vehicle is not moving along road)
Stream	+1 MP in addition to terrain cost for hex entered
Road	½ MP (when vehicle moves along path of Road) negates other terrain for movement
Trail	1 MP, negates other terrain
Contour	No effect
Defilade	No effect
Bridge	[identifies where a Road crosses stream] No effect, Road rule controls. If demolished, then vehicle must pay Stream cost to cross. INFANTRY (dismounted) moves one hex per Game-Turn, regardless of terrain traversed.

MODERN COMBAT

Reference Data for
Firefight

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MODERN COMBAT

Reference Data for

Firefight

by Irad B. Hardy, Stephen B. Patrick and Frederick Georgian

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FOREWORD

This booklet is meant to supplement the **Firefight** game. It contains a section to guide the novice gamer in making the transition from **Strike Force*** to **Firefight** and an extended section describing a play-by-play account of a scenario, illustrating key concepts in the game. The sections describing the organization of U.S. and Soviet forces and their respective tactical doctrines are supplemented by diagrams in the Data Appendix, which show how the playing pieces in **Firefight** combine to form combat units. Another Data Appendix directly compares the weapons systems used in **Firefight**.

The intent of **Firefight** is to show the effects of modern weapons with their long range and lethality on the tactics and techniques of today's battlefield. The nature of combat is complex, and this game simu-

lation is also complex. In order to keep this complexity within reasonable bounds, it was necessary to ignore certain aspects of the real world that are difficult to quantify. We deliberately did not address questions of morale, training, leadership, etc. Nor did we deal with problems in command control, intelligence and logistics (particularly ammunition resupply).

Firefight is meant to focus on the problems of fighting with combined arms at the lowest levels. As a game, all scenarios are designed to be played in 1 to 3 hours each; to be fun as well as educational. To meet this criteria the components, scenarios and mechanics were kept as simple as possible. The maps, for example, are drawn from real terrain, but altered to emphasize and simplify important features.

***StrikeForce** is an introductory simulation game available from Simulations Publications, Inc.

Leaping from StrikeForce to Firefight

[This section is meant primarily for those readers who are new to the field of board war-gaming; those who have played no other game except StrikeForce.]

After mastering StrikeForce, you have opened the rules to Firefight. Don't panic! They appear longer and more complex than they really are. Let's take the game step by step and compare it to StrikeForce. After the Introduction, General Course of Play, and Game Components, you are given a Sequence of Play. This is a completely different sequence than StrikeForce, but the principle remains the same. In StrikeForce, a Player can move all of his units, then attack Enemy units before his opponent can do anything. In Firefight, the Players alternate these actions. When playing Firefight, you should keep Section 4.0, Sequence of Play, in front of you. **This will tell you when you may move your units and when you may attack with your units.** When you are confused about what to do next in a turn, consult the Sequence of Play. After the Sequence of Play (Section 4.0), the rules are laid out in the order that you will use them. Observation (Section 5.0) described how the units see one another. This is vital because combat can occur over a distance. (Remember, in StrikeForce a unit could only attack if it was next to an Enemy unit.) In Firefight, a unit can attack an Enemy which is many hexes away, but only if that unit can 'see' the Enemy unit. Observation rules are basically common sense; a unit can't see through trees or buildings or way over the crest of a hill. The next rule is Fire (Section 6.0). This is probably the most important rule in the game. It tells you how to attack. In a Firefight Game-Turn, before either Player is allowed to move his units, both Players can shoot at each other's units. What's more, they alternate attacking at each other's units so that neither Player can destroy all his opponent's units before the opponent can shoot back. Movement (Section 7.0) follows Fire. This rule explains how you move your units. Just as in Fire, the Players alternate moving their units so that no Player can move all his units before his opponent moves any. The mechanics for moving a single unit are almost identical to StrikeForce. Each unit has a Movement Allowance and you pay Movement Points to enter each hex according to terrain.

The most critical difference between StrikeForce and Firefight at this point is that a unit in Firefight can attack during the Game-Turn or it can move; but it may not both attack and move in the same Game-Turn. You, the Player, must decide for each unit each Turn; will it fire or will it move? (Or, of course, do nothing.)

Now, having read the first seven Rules Sections, you can play the first Scenario listed in Section 9.0. Ignore all other rules, including Indirect Fire (Section 8.0). At this stage, they are not necessary or desireable. Play Scenario One several times. This will

teach you the fundamentals of firing and moving. When you are comfortable with these basic skills you can move on to the remainder of the rules and play the more complex Scenarios.

Tactical Doctrine MOVEMENT TO CONTACT AND THE OFFENSE

U.S. Doctrine

The entire gamut of U.S. tactical doctrine has undergone examination and revision in the past several years. Movement to contact is one of the major areas which has been changed. In the past, the maneuver battalions either road-marched in columns or moved across country in some variation of line abreast. The most common of those formations was the wedge and, for the infantry, the diamond. But the 1973 Arab-Israeli War showed that regular formations were easily identified and the units picked off by an enemy in a prepared defensive position. In addition, the old concept was to have as much fire power as possible up front. This meant a very strong response to enemy contact, but, by the same token, an enemy ambush could effectively wipe out a force before it could react. This led to the realization that in modern warfare what can be seen can usually be hit and if it can be hit, it can usually be killed. The result was the development of a three-tiered scheme of movement to contact.

The first phase, when enemy contact is not likely, is known as "traveling." Traveling is the most rapid means of advance and it is essentially the old concept of movement in column. The difference is that while there is a lead element, such as a platoon for a company, the following elements can either be in a single column or they can be in two parallel columns. If enemy contact is possible, but not probable, traveling overwatch is used. In light of the possible enemy contact, it is a slower-moving formation since it requires a certain degree of responsiveness not required in the traveling situation. In traveling overwatch, all elements keep moving but the elements which are following the lead element stay close enough so that if contact is made, they can support that element by fire with a minimal amount of maneuvering. This formation requires the ability to respond quickly to unexpected enemy contact. Therefore the distance between the lead elements and those following is determined by the terrain. The lead element will be far enough ahead that if it is fired upon, the following elements are not also endangered, but, at the same time, the following elements must remain close enough that they can quickly support the lead element if it encounters resistance. Finally, if enemy contact is expected, bounding overwatch is used. Under this form of maneuver, one element assumes the bounding role and the other the overwatch role. This is the slowest means of advance. The slowness is dictated by the requirement

that the overwatching element must be in a good overwatching position before the bounding element moves out. This is usually dictated by terrain features, cover and concealment and fields of fire—elements which occur again and again in small unit tactics as key considerations. Once the overwatch element is in position, the bounding element can move forward. It moves as far forward as it safely can and still keep within the area of protective fires of the overwatching element. How far this bound will be is, again, determined by terrain. Open terrain will permit a longer bound than terrain with clumps of trees and a rolling nature, which would obscure the observation and fields of fire of the overwatching element. Since the overwatching element's task is to bring fire on enemy positions, in any event, the length of the bound will be well short of the maximum effective range of the overwatching weapons since it is undesirable for the bounding element to "flush out" the enemy at the extreme range of the overwatching weapons. When the bounding element has reached its next position, it then acts as the overwatching element so that the element which is on the rearward position can move forward. It is the moving element which is most vulnerable to enemy fire. Moreover, movement attracts attention by itself and draws attention away from elements which are not moving. Once the two elements are together again on the same basic line, either the original bounding element moves forward again or the former overwatching element becomes the bounding element. In fact, it is not mandatory that the former overwatching element stop on the same line as the former bounding element. It can move right on past to a more forward position. This leap-frogging technique is more rapid than halting on line with the original bounding element and having that element move forward again.

The important part about all of these techniques of movement is that they afford flexibility in deployment, afford varying degrees of protection for the leading element, and, most importantly, ensure that only a small element will make contact with the enemy initially. This is important as it automatically reduces the number of potential losses if the precise enemy positions are not known. If the enemy has a good defensive position, he will try to destroy as many vehicles or men as possible when he initially opens fire and he will not open fire until the advancing force is within range to ensure kills. In this way, even though the positions are now revealed, the defender will draw "first blood" and so badly cripple the advancing force that it will not be able to effectively fight back. In fact, under the overwatch technique, the advancing force does not have the principle responsibility of returning fire. Its main function is to get to cover or, if possible, overrun the enemy positions while the overwatching forces put down fire to suppress the enemy defensive fires.

Once contact is made, the lead elements must promptly react to find out the size, nature and dispositions of the enemy. As the movement to contact involves using only a small element to lead the way and make initial contact, the following element must be prepared to react. In a battalion, the lead company may be moving by bounding overwatch while the following company or companies may be moving by traveling overwatch to permit rapid deployment in the event of contact. Once contact is made, the preferred technique to use is the hasty attack. Maximum use is made of suppressive fires—both high explosive artillery and mortar fires, as well as smoke, from the indirect fire weapons and the tanks. Smoke is valuable since the goal in a hasty attack is to disrupt the enemy target acquisition means and disrupt his command control. Advance must be rapid and the U.S. control of forces must be firm since indecision can be very costly in a hasty attack. Once enemy strongpoints are encountered, an effort is made to slide off them and drive to the enemy rear between strongpoints. This bypassing of enemy positions represents a departure from older doctrine. Formerly, bypassing was very unusual in the initial breakthrough operations, but the Soviets deliberately design their strongpoints with the goal of having the attacker dash its forces to pieces trying to overwhelm them. Key terrain should be seized when necessary to prevent its use by the enemy or if necessary in order to dominate enemy positions and lines of communications. This, too, is a departure from former technique since past practice turned on key terrain being taken or controlled. Now, if the capture of key terrain is not necessary, that, too, is bypassed. Merely seizing key terrain for its own sake is to be avoided because that may cost time, which could have been better spent in getting into the enemy rear.

If it is necessary to attack an enemy strongpoint, the attack should be made on a narrow front. This minimizes the amount of fires the enemy can bring against the attacking force and permits greater concentration of attacking forces at that point. Preferably attacks should be made at weak points in enemy positions. A rapid, vigorous attack is necessary to ascertain exactly what the enemy situation is. It may be that the enemy positions are too strong for a hasty attack to succeed. As a result, it is imperative that the commander have firm command of his troops, know exactly what is going on and assess rapidly and accurately whether the hasty attack will succeed or whether it will be necessary to make a deliberate attack. In a hasty attack, more than at any other time, rapid and accurate reporting is necessary.

The hasty attack makes use of the principle of fire and maneuver. In execution it is much like bounding overwatch. However, instead of merely watching for the enemy to reveal his positions, the firing element knows where the enemy is and lays down the base of fire necessary for the maneuvering element to

advance. As already mentioned, the bypass is a critical element in the hasty attack. It is executed by having one element engage the enemy strongpoint with sufficient fire both to keep the enemy defensive fire down and to keep the enemy troops in position so they cannot move to block the bypassing force. It is important, however, that bypassing not be done without permission of the next higher headquarters. This is to ensure that that headquarters knows where enemy troops have been bypassed and the general nature of the bypassed force. Then plans can be made to deal with the bypassed strongpoints at a later time.

When well-prepared defensive positions exist, a deliberate attack may be necessary. The advance is halted to permit this type of attack to be made. The enemy positions are reconnoitered, a detailed, well-coordinated plan prepared, the organization of the company/teams rearranged and reinforcements received, as necessary. Since the Soviets use the strongpoint concept in their defense, the key is to isolate a portion of the battlefield, usually by suppressive fire and smoke, and attempt to overwhelm that position. In that isolated area at least a 6:1 advantage for the attacker is considered necessary.

In keeping with the deliberateness of the attack, the attacking force is reorganized into three elements: the breaching force, an assault force and a support force. The breaching force, a single platoon of the company/team, breaches enemy obstacles at key points. The assault force covers the breaching force by fire and, once the breaches are made, moves through them to assault the enemy position with the breaching force resuming its normal function and assisting in the attack. Engineers are used to widen the breach. The assault force, in this type of situation, as well as the breaching force, will normally be dismounted infantry. Finally, the support force—the tanks and infantry carriers—provides supporting and suppressive fires. It is important in the deliberate attack that the assault force does not get bogged down fighting dug-in positions. Penetration and bypass are still used in a deliberate attack.

Once the enemy has been driven from the position, rather than automatically halting and consolidating the objective, pressure is maintained. In this way, the enemy has no time to mount a counter-attack. If a continued advance is not possible, then consolidation is required. The enemy would then be cleared from the objective and plans made to meet any counter-attacks and to continue the attack when it is possible. In addition, the U.S. force will reorganize; that is, take the various necessary steps to maintain combat effectiveness, such as reporting on casualties and fuel and ammunition expenditure, redistribution of supplies and equipment and so forth.

When a breakthrough has been achieved, the U.S. forces then attempt to move into the exploitation phase. This involves deep penetration of rear area support, lines of

communications and disruption of reinforcements. Following a successful exploitation, the advance would then shift to a pursuit. In the pursuit, the objective is the destruction of the enemy. Bypass and encirclement is the practice.

An important change in emphasis is the increased attention paid to night operations in the U.S. Army. In the past, the U.S. Army has been notorious for teaching but rarely practicing night operations. This is changing. A major part of this change is attributable to the passive night vision devices which have recently come into the system and which give much greater visibility in times of limited visibility than ever before. A second factor favoring night operations is the change in emphasis in tactical doctrine. It has now been recognized that keeping the pressure on the enemy is critical. To stop and halt for the night gives the enemy a chance to do the same and can undo any successes of the previous day in terms of breaking the enemy's ability to defend. Night operations are broadly similar to day operations, but, because the night vision devices afford a narrower field of vision, night operations decidedly favor the defender. The major difference between day and night offensive operations will be in the deliberate attack. Because it is only used against a strong defensive position, it should be avoided at night since the strong defensive position already favors the defender considerably. The additional edge of the night makes a successful deliberate attack very hard to achieve.

In the advance, the question of whether tanks or infantry leads is not related to the type of U.S. unit involved; that is, whether it is a tank-heavy team or an infantry-heavy team. It is the tactical and terrain situation which controls. If the terrain has good trafficability and presents no obstacles to mounted movement and if enemy anti-armor fires can be effectively suppressed by fire and/or smoke, then the tanks normally lead and the infantry follows, remaining mounted if mechanized. On the other hand, if there are obstacles to mounted movement which cannot be bypassed, or if effective anti-armor weapons fire cannot be suppressed or destroyed or conditions severely limit the tank's observation and fields of fire, or built-up areas which cannot be bypassed or areas such as marshes or unfordable bodies of water lie across the route of advance, then the infantry will lead and may move dismounted. The tanks would then support their movement by fire.

Obviously, more often than not, the situation will be a mix of factors favoring tanks leading and favoring the infantry leading. The Israelis' had excellent tank terrain against Egypt in 1973, but could not adequately suppress Egyptian anti-tank fires. In Europe, terrain may well prevent long-range fires. In all cases, the emphasis is on making maximum use of terrain to avoid revealing friendly positions and avoid exposing friendly forces to enemy fire.

The battalion/task force will normally have three company-sized units which will, in turn, be cross-attached to give at least two teams. In the offense, one company/team is normally kept in the reserve, following the company/team where the commander expects the greatest resistance or where the company/team can then be committed when the situation requires without moving too far from its initial position, though it can also swing over to assist the other leading company/team if the situation requires.

Soviet Doctrine

The Soviet system in the offense is more rigid than the U.S. system. As has already been noted, the Soviets are more rigid in their attachment system and do not really tailor their units for the combat mission. Rather, they cross-attach as a rule, regardless of whether the situation makes it advantageous or not. On the other hand, the system the Soviets use means that the motorized rifle company will retain its three platoons and gain the attached tank platoon, while the U.S. system leaves the company/team with still only three platoons. The result is to reduce the numerical advantage the U.S. has in having basically larger companies.

In a Soviet movement to contact, the tanks will normally lead, followed by the infantry, mounted in the BMP carriers. The BMP's have four Sagger anti-tank missiles apiece to provide anti-tank fire for the attack. Behind the infantry come the BRDM's, wheeled vehicles attached from the anti-tank company of the regiment. The BRDM carries fourteen Saggers, six ready to fire at any time. Finally, the command element follows, rather than being located in the middle of the formation, as would be common in U.S. practice.

The tanks are to the front for the Soviets because of the emphasis placed on the offensive and the feeling that only tanks can really make the offensive go. The Soviets recognize three forms of the offensive: the movement to contact/meeting engagement, the breakthrough, and the pursuit, with the meeting engagement considered to be the most likely technique. As a result, high emphasis is placed on mobility. This order of march in a movement to contact is one which permits the Soviet forces to deploy rapidly into attack formations. The concept of moving by bounds is not used. Rather, the Soviets are especially fond of mass and will employ a major part of their effort in bringing a substantial amount of firepower to bear at the critical point, both from ground forces and artillery. The Soviets will often have two direct support artillery battalions in support of a maneuver battalion, whereas the U.S. will have, perhaps, two battalions supporting a brigade of three to five battalions. The only counterpart to the Soviet system is the concept of the dedicated battery, discussed elsewhere. The Soviet artillery preparation may involve up to 2000 rounds while the Soviet forces move up to their attack positions.

In a company attack, the tanks will lead the assault, employed in sections or as a platoon. The infantry will remain mounted as long as possible (which is common in U.S. doctrine, also, if tanks lead). Tank fires are either by section or by platoons on a single target, rather than the individual engagements which characterize U.S. tank employment.

When contact is made, a hasty attack will be launched, preceded by a rapid reconnaissance to test enemy strength. The Soviets like to probe with a pair of reconnaissance vehicles, such as the PT-76 or BRDM-2.

A direct comparison between Soviet and U.S. offensive techniques is difficult because the Soviets deploy in echelon, a concept not really used in the U.S. Army. The echelon concept will have an additional element—the first echelon—which consists of two-thirds of the attacking force. The first echelon has the mission of seizing the principal objectives. The second echelon, the remaining third, takes care of secondary objectives and mops up pockets left by the advancing first echelon. The echelon concept is used at regimental level and above, but impacts directly on lower units.

Returning to the company and battalion, if they meet an enemy position which is stronger than they are, they will detail a sufficient force to pin the enemy and bypass with the main force, leaving the second echelon to reduce the enemy pocket. An essential to the Soviet offensive concept is mobility and deep penetration. This is why the main force tries to bypass, rather than destroy the enemy. This concept is carried out in the doctrine of seeking a breakthrough, avoiding the main enemy defensive positions, and driving deep into their rear. The Soviet battalion keeps a small reserve, whereas the U.S. will keep a company/team in reserve—a third of the typical battalion/task force strength. Momentum is the keynote of the Soviet offensive procedures.

In advance of a division, the Soviets make greater use of an advance guard than does the U.S. This advance guard, like the organization of the main body for movement, is rather rigid in organization. It will be about a battalion in strength with a reinforced platoon usually constituting the point. Up to one-half day's movement in front of the point will be either the division recon battalion or the regimental recon company. The vanguard, moving behind the point, will be the remainder of the company furnishing the point platoon and behind that will be the main guard, consisting of the remainder of the advance guard battalion.

Both tank and motorized rifle battalions will attack with tanks forward, regardless of terrain. Of course, the tank battalion will have more tanks forward to reflect its mix. The motorized rifle battalion will also maintain an anti-tank reserve, but this is not used in the tank battalion.

The Soviets regard pursuit as the second phase of an offensive operation. The deliber-

ate attack, as such, has no specific place in the Soviet system, though it must be assumed that they are capable of conducting such an attack, regardless of the name. Likewise, there is no exploitation phase. The Soviets consider that the next step in a successful attack will be the pursuit phase. The Soviets allow their commanders greater freedom in this phase than the U.S. system. The pursuit is automatically initiated in the Soviet system when the enemy tries to break contact and starts to withdraw. In the U.S. system, pursuit is not initiated without approval of higher headquarters. The Soviet pursuit doctrine involves a portion of their force in keeping direct pressure on the withdrawing enemy in order to slow their rate of withdrawal. At the same time, a second force, moving parallel with the withdrawing enemy force, tries to get to the enemy rear. Also, airborne and airmobile forces will at this time be inserted in the rear of the withdrawing enemy to hold them in place while the pursuing force crushes the withdrawing force. In general outline, Soviet pursuit is about like the U.S. concept.

THE DEFENSE

U.S. Doctrine

U.S. defensive operations are also undergoing a major change. The Soviets are expected to enjoy a substantial superiority in numbers in any potential U.S.-Soviet conflict, both due to the actual numbers of the forces involved, and the Soviet doctrine of concentrating a considerable force at the planned breakthrough point. This means that U.S. forces must be especially adept at defending against a superior force.

Basically, the U.S. recognizes two defensive missions: to defend and hold and to fight from battle positions. In the defend and hold mission, the defending forces must retain a specific area or specific positions until ordered to do otherwise. A battle positions mission requires the defender to organize a series of positions in depth which are occupied, abandoned and reoccupied as necessary.

Regardless of the mission, a unit will normally have three echelons of positions to deal with: those which they must initially occupy, those which must be prepared for future occupation (and which are not necessarily to the rear of the initial positions) and a third set of positions to be reconnoitered and prepared as time permits.

In preparing a defensive position, high speed armored routes of advance—not only to the front, but to the flanks and rear—must be identified and covered. Armored kill zones must be selected and positions in depth are required to permit coverage of assigned defensive sectors. Defensive positions, especially those for anti-armor weapons, have to be selected with a view to restricting opportunities for being overrun. However, care should be taken not to occupy obvious cover which will be a logical target for reconnaissance by fire. The objective of the

defense is to slow the enemy advance, force the attacker to deploy and dismount the infantry. Hopefully the enemy will be forced to attempt to bypass, thereby exposing the flanks and rear of their vehicles.

Denial of covered routes of approach is important in order to permit bringing the enemy under long range fires. The use of obstacles—both natural and man-made—performs a key role in doing this. Minefields set out as obstacles and barriers to improve natural obstacles, as well as old but effective means such as felled trees and cratered roads will assist in forcing the enemy out into the open.

A key objective of the defense is to destroy enemy force integrity. Where possible, flank and rear attacks are better than frontal attacks. This not only takes advantage of the fact that armor is weaker on the flanks and rear, but also that advancing forces habitually look to the front. This means that while an anti-tank weapon might get the first round off and destroy an enemy tank, it may well be detected if firing from the front, but chances are better that it will not be seen firing if it fires from the flank and even better if it fires from the rear.

Former doctrine considered accepting a certain amount of penetration which would then be crushed by a pre-planned counter-attack or, in the alternative, destroying the enemy forward of friendly positions by long-range fires. These concepts all tended toward a linear defense with everything on the line except for the reserve.

Newer thinking relaxes the linear defense in favor of a defense in depth. Destruction of the enemy at long range is still a desired goal, but it is recognized that this may not be possible. If the enemy gets in close, to rest everything on a timely counter-attack seems to be an unlikely tactic, since such an overwhelming number of troops will be used by the enemy that there may be critical penetrations in several places, rather than just one neatly foreseen at the time the defense was planned.

The solution has been the strongpoint concept, which makes a defense in depth work. These strongpoints are set up with alternate and supplementary positions to permit the unit occupying them to displace as the tactical situation requires. The strongpoints are integrated with the fields of fire of anti-armor weapons and obstacles to canalize the enemy advance and force the enemy to slow down and deploy.

The large reserve which was typical of the mobile defense is broken up into smaller elements, normally of platoon size in a battalion/task force defense, which are deployed throughout the defensive sector. They are not used to smash the enemy penetration, but, instead, the reserve strengthens the forward area by adding density against a dismounted attack; or it can be used to set up a blocking position to halt an advance which threatens to destroy the integrity of the

defense; or it can be used to restore or reinforce other defensive positions or to attack enemy flanks or rear. The initial location for the reserve will be in the rear of the battle area along the most dangerous armor approach.

The basic defensive position is based on the platoon, though company and battalion sized positions can be used if the terrain and tactical situation favors that. Positions are prepared for 360 degree defense, if at all possible. This is an important change since it implies a willingness to remain in position if bypassed in order to attack the enemy rear.

An innovation is the concept of a tactical area of responsibility (TAOR). The former technique simply divided a battalion into company/team sectors, with boundaries, and left it to the company/team in each sector to handle that sector. The TAOR is used when more than one company is integrated into the defense of a given sector and it is desirable to coordinate their activities. The company/team within a TAOR has total responsibility for defense within the TAOR while the defense outside the TAOR is the responsibility of the battalion/task force commander. The result might be two goose eggs-boundaries representing two company TAOR's. The companies would be solely responsible inside of the goose eggs, but outside of them, and insofar as it is necessary to integrate the fire of the two companies, the battalion/task force would be responsible.

Another major departure is a designated armor kill zone. A major goal of defensive operations, especially when dealing with the Soviets, who emphasize tanks, APC's and high mobility, is to canalize the enemy armor into a location where it can be destroyed. The armor kill zone turns on being able to bring fires on enemy flanks and rear. It is helped by a blocking position, either physically manned or set up using natural and man-made obstacles, in order to restrict the ability of the force trapped in the kill zone to maneuver out of danger. It is the flank and rear fire which is the key to the kill zone since it not only brings fire on the more vulnerable areas of armored vehicles, but it has a major disruptive effect on the enemy advance. The enemy finds itself suddenly attacked from every side, perhaps unable either to advance or to withdraw due to the fire and blocking positions, and forced to give its attention in every direction but the one in which it really wants to go.

The key to the whole defense now becomes a series of pre-planned positions. Previously a unit might fall back to a new position under enemy pressure, but it would normally not leave its sector unless as part of a delay or an advance. Now, units can, as part of their defense, expect to move to multiple positions (rearward, laterally and even forward). For example, if the enemy is coming into the center of the battalion/task force sector, the flanking elements may well move forward in order to concentrate their fires on the proposed kill zones.

This system of multiple positions also permits another departure from past practice. Formerly, it was quite possible for one part of the sector to be attacked and the other part left alone. The inactive section of the sector would simply wait out the results in the active part. Now, if it is determined that the main attack is going into one area, the quiet sectors may be thinned out or even abandoned in order to move the necessary firepower to the critical point in the defense.

The net result of this is that a great deal of activity must now take place in the U.S. defense. Whereas before there were nominally supplemental and alternate positions, which were more often ignored than even planned for, now those positions must not only be selected, but prepared and marked so that, as the situation requires, the unit can move to that position and fight from it.

Soviet Doctrine

The Soviets view defense as a temporary expedient, to be employed locally, while on the offensive elsewhere, or while consolidating an objective. They again use the echelon concept, as was done in the offensive.

The Soviet doctrine allows for a hasty, mobile defense, or a deliberate, area defense. The hasty defense, as its name implies, is set up on a rapid basis. It makes use of a large reserve to crush any enemy penetration and is focused around anti-armor weaponry, as is the case with U.S. doctrine. The principle of armored kill zones is followed by the Soviets and they will accept being bypassed as they, too, use the all-around defense concept. The first echelon will set up the kill zones and have their own counter-attack forces. The second echelon will have the main counter-attack force. The main weakness in this is that of the forces massing for the counter-attack. They are ideal targets for nuclear weapons and, more importantly, the counter-attack is central to the defense. If it fails, the defense is shot since the penetration which triggered the need for the counter-attack will have already gone through most of the first echelon before the counter-attack is launched.

The deliberate defense is more formal. It has a main defense belt consisting of battalion strongpoints on likely avenues of approach in two echelons. A security zone beginning 20 to 30 kilometers in front of the main defense belt has covering troops to locate and determine the axis of the attack. Immediately (5km) in front of the main defense belt is a forward defensive area containing company-sized strongpoints positioned to deceive the attacker as to the location of the main defense and to weaken him early in the battle. Both the motorized rifle division and tank division retain at least a tank regiment in the second echelon of the main defense because ultimately the deliberate defense turns on the counter-attack as did the hasty defense. The counter-attack, in Soviet terms, is based on the tank playing a decisive role. Counter-attacks are formed and executed by elements above battalion level.

The area or deliberate defense is used when the offensive will be halted for more than a few hours. Shorter halts will result in the hasty defense. The principal difference between the U.S. and Soviet defense is in the use of strongpoints. The U.S. will abandon strongpoints as required, while the Soviets, aside from being able to switch for all-around defense, do not do this.

RETROGRADE OPERATIONS

U.S. Doctrine

The third major phase of tactical operations is the retrograde. The retrograde is a planned movement away from the enemy. This, in turn, requires freedom of action in order to accomplish the movement. For the U.S. Army, a primary means of affording this freedom of action is the use of anti-armor weapons positioned along principal enemy armor approach routes. In this context, primary enemy armor approaches mean areas where platoons or larger forces can be deployed in a line formation and keep an adequate rate of movement. Secondary routes are covered by security forces equipped with anti-armor weapons coupled with obstacles or barriers.

Withdrawal of the forces is accomplished in a reverse of the overwatch technique used for the advance. In fact, this area differs the least from the former doctrinal concepts since one element would be pulled out to cover the withdrawal of the remainder. Strictly speaking, the withdrawal involves actually breaking contact with the enemy. Long range anti-armor weapons, such as tanks and TOW's, are important in keeping enemy armor at its distance. The retrograde involves breaking down into a covering force and a withdrawing force. The covering force and withdrawing force are like the overwatching force and the bounding force. Just as platoons are divided to move forward in bounds, they are organized in the same manner for the retrograde.

The second form of retrograde is the delay. In the delay the friendly force does not break contact, but it does give up ground. Traditionally, delay was used to trade space for time and there is no difference under present doctrine. A second purpose of the delay is to inflict casualties on the enemy. The delay may require that the delaying force use long range fires and pull out before the enemy can close, or that it accept decisive engagement (which is a major departure from former doctrine). Delay against armored forces is accomplished with combined arms teams in the main routes of enemy advance and combined arms reserve built around long range anti-armor weapons which can be massed where the enemy is making his main effort. Company- and platoon-sized ambushes and spoiling attacks are used against

enemy forces which are not fully deployed with the purpose of defeating enemy reconnaissance units and advance guard formations.

The over-all effort is to destroy the enemy or force him to slow and deploy by bringing long range fires on him at ranges where he cannot effectively retaliate. U.S. forces will fall back along succeeding delay positions as long as necessary. If they can hold on a given position, they will not necessarily fall back to a rearward one, unless directed to do so. Strict delay lines, characteristic of the older doctrine, are being played down in favor of using all of the terrain in the delay zone.

Security forces are a critical element in the delay. It can be either in the form of LP's/OP's as early warning or on secondary routes of enemy advance as economy of force measures or to cover flanks and to secure critical rearward areas. Like the defense, delay is accomplished in depth with the principal difference being that the delay acknowledges that ground will be given up at a serious cost to the attacker in terms of putting him behind his timetable and also permitting friendly forces to regroup in order to establish a good defensive position or resume the attack.

Soviet Doctrine

The Soviet concept of a withdrawal is somewhat different from that of the U.S. Army. They combine it with a delay and use it to afford the main body a chance to withdraw to a new main defense line. The covering force will delay back on successive delay lines, while the main body simply withdraws behind the cover. In effect, the Soviets, when they decide upon retrograde, determine how much ground they are willing to give up and do give it up, regardless of whether the attacker has enough power to force them to give up that much ground or not. This is because, once the delay and withdrawal has begun, the main body has moved back to the new position and cannot readily move forward again to some intermediate position. Further, that rearward position has been selected because it is suitable for the defense and that presumes that there is no ground closer to the old positions which is as good. The distance withdrawn is on the order of 25 kilometers. The key to all of this is the premise that the covering force will delay the attacking force long enough to permit the main body to dig in. If it does not, the defenders may be knocked back again and again.

ARTILLERY

Doctrine of artillery employment will not be covered in depth here. However, there are certain points which should be touched upon to round out the picture.

The Soviets make extensive use of artillery. This has always been their strong point, dating back to Napoleonic times. During World War II, the Soviets would make little pretense of concealing their attacks and would put out intense artillery barrages,

followed by the massed attacks which they still favor. They have not changed this doctrine appreciably. The multiple-rocket launchers show that the U.S. concept of a few selectively placed rounds being as valuable as a hit-or-miss barrage is not followed. Rather, they seem to favor inundating the enemy defensive positions with such a volume of artillery fire that the defense is demolished as a viable force.

There have been several major changes in U.S. artillery employment, all designed to make the artillery more responsive and more rapid in that response. Recognizing that the unit requesting fire probably already needed it before it got through on the radio, procedures have been introduced to speed up delivery time. One of the most important of these is the dedicated battery.

Under the dedicated battery concept, an artillery battery—six pieces—is temporarily assigned the mission of being responsive to one maneuver company/team. Formerly, the most responsive assignment which could normally be expected was giving a battalion priority of fires. There was nothing to prevent making a battery in direct support of a battalion, but it wasn't done in normal circumstances. The dedicated battery concept presumes that it will be done frequently. In essence, that battery answers no calls for fire except from the supported company/team, with the single exception of those special emergencies which disrupt all such plans. As a result, the artillery pieces of that battery are aimed into the sector of the supported unit. There will be a series of pre-planned positions along the route of advance of that unit, usually in the center of their sector but also in other likely places, and as the unit advances, the artillery is readjusted to make fires available at the next likely position. At the same time a round is kept in the chamber. Thus, if the need arises, a round can be on the way in less than 30 seconds. This is valuable even if the enemy is not conveniently right at the aiming point. A Sagger missile must be flown to its target, for example, and a round going off in the general area stands a good chance of making the gunner jump a little, causing him to send the missile into the ground instead of a friendly tank. Once the first round has hit, subsequent adjustments also come quickly and the next rounds will be closer to the target, if not right on them.

The dedicated battery is used only in limited circumstances. A company/team cannot expect to have such an arrangement as a general rule. But when the need of such rapid response outweighs the value of having that battery as part of the artillery battalion's fires, then a dedicated battery assignment can be made.

SOME COMPARISONS

At this time, the U.S. Army is just beginning to undergo the doctrine change in tactics. Many of the critical field manuals are not even published. The average soldier is familiar with the older doctrine and if war

broke out now, it is a good bet that people would go with what they knew best—the older doctrine. As the new doctrine is used more and more, the Army will approach a cross-over point where a significant number of people are more familiar with the new doctrine, either because it is the only one they know or because they have made the transition successfully. There will remain those who do not adapt so rapidly and this will cause a problem since they are resisting the new concepts and can be expected to react in accordance with the old ideas when the pressure is on or at least to execute the new doctrine improperly from lack of skill. Once that cross-over point is passed, it can be assumed that a fair comparison of the doctrines would then be possible.

As can be seen, the U.S. offensive and defensive doctrine bears a broad similarity to that of the Soviets: the hasty attack of the offense, the strongpoints and defense in depth of the defense. The retrograde doctrines do not really bear any comparison since the Soviets use the retrograde for an entirely different purpose.

The rigidity with which the Soviets organize for combat and the idea of always leading with the tanks would seem to give the U.S. defense an advantage and make the U.S. offensive doctrine somewhat the better. There are times when tanks simply should not lead and to force them into the lead increases the chances of the Soviet tanks being destroyed without accomplishing any end. In that regard, the Soviets do not seem to have learned any lessons from the defeat they inflicted on the Germans at Kursk when the Germans tried to force their way through strong defensive positions with tanks, and were virtually wiped out. Since any U.S.-Soviet War would begin with the U.S. initially in the defense, a well-prepared U.S. defensive position can take good advantage of this doctrinal rigidity. On the other hand, the Soviets have shown a disdain of losses which, when coupled with their doctrine of massing forces, will produce an extremely high concentration of Soviet forces at the point or points where they want to make a breakthrough. A second problem in the Soviet offensive doctrine would seem to be the lack of any real planning on a need for a deliberate type of attack to force their way through a good defense. While it is all well and good to plan a bypass operation, it does not follow that this situation must always arise, and good planning takes into consideration all likely possibilities.

On the U.S. side, offensive technique would appear to be troubled by the greater Soviet numbers. A bypass operation may, in fact, consist of avoiding a strongpoint only to move into its kill zone. With greater Soviet numbers, true gaps in their lines are less likely than in a U.S. defensive position. Whether the exploitation phase really should be differentiated from the pursuit is another question. The Soviets see no need to have a separate exploitation phase. Since the goal of exploitation is to disrupt rear communica-

tions and prevent counter-attacking forces from moving up, if the pursuit not only crushes the front line forces, but also breaks up any counter-attack, communications, as such, are of little avail no matter how good they are. It may be that out of this will evolve a third concept covering both the U.S. concept of the exploitation and the pursuit.

The U.S. defensive doctrine would seem to be the more flexible of the two. The ability to abandon positions and move where the fighting is, is one strong point. Secondly, the Soviet reliance on the counter-attack as the final saving grace of the defense would appear to be putting too much faith in one operation. On the other hand, the U.S. system still must cope with vastly superior Soviet numbers, especially concentrated at any point of potential breakthrough. The best doctrine in the world is of no value if there are inadequate troops to execute it. But that is a problem beyond the scope of these comments.

The Forces

A direct comparison between the Soviet and U.S. forces is not valid. This is because the main combat force is different. In the U.S. Army, the principal building block is the battalion. In the Soviet Army, it is the regiment. In the U.S. Army, the equivalent of the regiment is the brigade, in terms of relative strength, but not in terms of function. U.S. practice puts independence further down the chain than the Soviet system does. The U.S. company is capable of limited self-support (supply, maintenance, administration), the battalion capable of considerable self-support (adding fuel and ammunition delivery capabilities as well as control of the cooks) but the brigade is only a tactical headquarters and furnishes no logistical support beyond certain coordinating functions. By contrast, the Soviet company is not capable of any self-support, the battalion is capable of only limited self-support and the principal logistical elements are located in the regiment. These differences must be kept in mind, over and above the simple and more obvious organizational differences.

THE INFANTRY SQUADS

U.S. Army

The mechanized infantry squad has eleven men: The APC driver, the APC 50 cal. gunner, two four-man fireteams and the squad leader. Each fireteam will have one man equipped with a grenade launcher M203 adaptation to the M16 rifle. One fireteam will have an M60 machine gun. As the situation warrants, the squad may be given an additional M60 MG and a Dragon system by the platoon commander from his "arms room." (The "leg" infantry squad has 11 men with two five-man teams.) The LAW (the Light Anti-tank rocket Weapon) is allocated as ammunition when needed. In Firefight, we do not reflect the squad leader in the counter strengths, we just show the two four-man teams and the APC (with crew),

because in operations the squad leader would be with the "trac" or either of the two teams as the situation dictated.

Soviet Army

Each of the squads in a motorized rifle platoon consists of eleven men. The BMP driver, BMP gunner, eight infantrymen and the squad leader. Each squad has two PKM machine guns and an RPG-7 AT weapon. One or two men per squad have rifle grenades and adaptors. The first squad of the platoon has a sniper with an SVD sniper rifle. The third squad has an SA-7 AA missile system (like our Redeye). The balance of infantrymen are armed with the AKMS rifle. In Firefight we do not reflect the Soviet squad leader in our counter mix nor do we show the sniper or AA capability. For purposes of game design balance we show the squad as being divided into two teams when, in fact, there is no organic division a la the U.S. squad. To reflect this, the Soviet Player should try to always keep his squad "teams" stacked together or in adjacent hexes.

THE PLATOONS

U.S. Army

Each U.S. mechanized infantry platoon consists of three mechanized squads, plus a headquarters section (APC with driver, platoon leader, plt. sgt. and asst. plt. sgt.). The headquarters "trac" has an arms room with two M60 MG's and three Dragon systems, which are parcelled out among the squads as needed.

The platoon of the tank company is composed of five tanks. They are not formally subdivided any further, but informally they may be divided into a light section of two tanks, led by the platoon sergeant, and a heavy section of three tanks, led by the platoon leader. This division is used when moving by bounds and also in the occupation of alternate defensive positions or when engaging in advance by fire and maneuver so that one section will remain still and support the movement of the other section by fire. The U.S. Army does not normally practice cross-attachment at platoon level. Nonetheless, special situations may require reinforcing a tank platoon position with an infantry squad or positioning a single tank or tank section on a piece of terrain having command over a route of advance into an infantry platoon position. Because of certain control considerations, it is not common to make this sort of sub-division as a routine matter.

Soviet Army

The motorized rifle platoon consists of three squads. There is no headquarters section of BMP. The platoon leader is part of the first squad; the platoon sergeant is with the third squad.

The motorized rifle regiment's tank platoon has four tanks, while those of the tank regiments have only three tanks. There is none of the informal sub-division into sections found in the U.S. Army. Likewise, there is none of the informal cross-attachment idea, since each element has its place in the rather rigid Soviet offensive and defensive doctrines.

THE COMPANIES

U.S. Army

In the U.S. Army, although equipped somewhat differently, the line companies of the various forms of infantry are organized similarly. Each has three platoons of their particular type of infantry, and support services in the headquarters section. With the exception of the mechanized company, each company also has a mortar platoon composed of three 81mm mortar squads. In the mechanized company this is replaced by a weapons platoon, which will have a mortar section with three 81mm mortar squads and an anti-tank section of two anti-tank squads.

Each AT squad is four men equipped with the TOW mounted on the M113 chassis (M150). The tank company is more austere.

Again, it has a headquarters element, containing the supply, administration and maintenance elements, as well as a two-tank section—one for the company commander and one for the forward observer, either mortar or artillery. It also has three platoons of tanks.

At the company level, the U.S. also practices the cross-attachment idea. Just as the decision to cross-attach at battalion level, there is nothing mandatory about cross-attachment at company level. A battalion/task force could maintain two companies of one type and one of the other in their pure states. Still, the preferred practice is to further cross-attach by taking a platoon from one type and swapping it for a platoon from the other type of company. The resulting company-sized combined arms force is called a team. Teams, like task forces, can be either infantry-heavy, tank-heavy or balanced. It is quite possible for a task force to cross-attach by giving, for example, one tank platoon to each of the mechanized companies in the mech-heavy task force, and taking a platoon from each of them, thereby creating three mech-heavy task forces, one of which is commanded by a tank company commander, and, of course, the reverse could be true in a tank-heavy task force.

The Soviet Army

The Soviet company also consists of three platoons. However, in both the motorized rifle company and tank company, there are no maintenance or supply elements, nor are there any administrative elements. The Soviet companies are simply fighting entities,

without any capacity for self-support. Under the Soviet system, attachment is also a rule at company level. As a result, each motorized rifle company will have a tank platoon attached. Tank platoons in motorized rifle regiment tank battalions are organized differently from those of the tank regiments. While the tank platoon in a tank regiment tank battalion will have only three tanks, that of the motorized rifle regiment tank battalion has four tanks. The motorized rifle company has no counterpart to the weapons or mortar platoons found in U.S. infantry companies. The motorized rifle company headquarters in a regiment all ride in one BMP amphibious infantry combat vehicle. It is similar to all other infantry squads, except that the company commander and political officer are members of the headquarters squad. Similarly, the tank company has a one-tank headquarters section and that tank carries the company commander.

THE BATTALIONS

U.S. Army

The U.S. Army has a considerable number of types of battalions, in keeping with the varied number of types of divisions and their capabilities. Infantry battalions are organized in regular infantry, mechanized, airborne, airmobile and light. As will be noted, the exact number of battalions per division varies with the mission. Nominally, a division can control anywhere from nine to fifteen, based on the three to five per brigade ratio. Actually, the figure is something around eleven, with two brigades having four battalions and one three. But the only firm rule is that this is not a firm rule.

All of the U.S. maneuver battalions are now organized in five companies: a headquarters and headquarters company (HHC), a combat support company and three line companies. The HHC has all of the administrative, medical, maintenance, communications, transportation and messing elements of the battalion. Formerly, the combat support elements were also part of HHC, but these have been separated into their own company and it is in this area that the greatest differences arise between the various types of battalions. The combat support company of the infantry battalion, both in the infantry division and separate infantry brigade, has a ground surveillance radar section, a scout platoon, a heavy mortar platoon, an antitank platoon and a Redeye section. The scout platoon is organized into two sections, each of four vehicles. It is mounted in $\frac{1}{4}$ ton trucks. The heavy mortar platoon has four of the 4.2" heavy mortars and it, too, is transported in wheeled vehicles. The Redeye section, consisting of five Redeye teams, provides local air defense with the Redeye heat-seeking missile. The anti-tank platoon can vary. Formerly, it was equipped with the 106mm recoilless rifle and, when organized with that weapon, it has eight 106mm RCL's. However, this is being replaced by the TOW anti-tank missile and when equipped with

that, it has three sections and only six launchers. In both cases, the weapons are carried in $\frac{1}{4}$ ton trucks. The light infantry battalion's combat support company is organized similarly, but the reconnaissance platoon has only three scout squads instead of the four found in the infantry battalion. Moreover, it has no transportation for its scouts. The mortar platoon is equipped with the 81mm mortar instead of the heavy mortar and is transported in trucks. The mechanized battalion's combat support company is organized along similar lines to the infantry battalion's, but it is more mobile. The scouts have either the M114 command and reconnaissance carrier or the M113 armored personnel carrier (APC), sometimes modified to give greater firepower from the vehicle. The mortars are mounted in their own carriers, a version of the M113 modified to take the heavier weight of the mortar and to permit the mortar to be fired from the track. The anti-tank platoon, when equipped with the 106mm RCL still has $\frac{1}{4}$ ton trucks, but when equipped with TOW it has a modified M113. It can have either six or twelve TOW squads, depending on the battalion's organization. The combat support company in the airborne infantry battalion is organized like that of the regular infantry battalion, except that it has a special equipment mule when equipped with TOW. The combat support company found in the airmobile infantry battalion is organized like that of the light infantry battalion, except that it has the 4.2" mortar, but that is without organized transportation. Finally, the combat support company of a tank battalion is organized and equipped like that of the mechanized battalion, except that it does not have the anti-tank platoon and, unlike the other battalions, it has an armored vehicle launched bridge (AVLB) section, consisting of two bridges carried on tank chassis. These bridges can span 60 feet and make the difference between getting a tank across a relatively narrow stream with a soft bottom or getting it mired or in crossing a deep, but narrow gully. The fording problems are the most bothersome to tanks and, since the APC and its variants can swim (that is, they float and can propel themselves through the water on their own power), the need is not so pressing in the other types of battalions.

At battalion level, the Army begins the concept of cross-attachment. This is a procedure usually found only in infantry, mechanized and armored divisions, since it involves attaching infantry elements to tank elements and vice-versa. The common practice is to take a tank company and attach it to an infantry battalion and take a company from that infantry battalion and give it back to the tank battalion. The resulting combined arms force then still has three line companies, but, to distinguish it from its un-cross-attached form, it is generally referred to as a task force. There is nothing rigid in the one-for-one exchange idea. What units are cross-attached and how they are cross-attached is determined based

on the tactical situation. The one-for-one system is the most common and the resulting task force would be designated tank-heavy or infantry-heavy, depending on whether there are more tank or infantry companies in the task force. If there are an equal number, the task force would be termed a balanced task force. As the system is envisioned, it is quite possible for a tank battalion to actually end up an infantry-heavy task force, for example. The doctrine of employing a combined arms force requires that both types of battalions be versed in the proper way to employ their counterpart elements. The important thing to note is that cross-attachment is the preferred method, rather than keeping pure tank or pure infantry battalions. Once again, flexibility is the key to the cross-attachment concept and if, in the mind of the brigade commander, he can accomplish his mission better without cross-attachment, he will do so. Moreover, in a brigade with an odd number of battalions, it would not be uncommon for pairs of battalions to cross-attach and the odd battalion to remain pure.

The Soviet Battalion

Each Soviet motorized rifle regiment is composed of three motorized rifle battalions and one tank battalion. By contrast, the tank regiments have only three tank battalions and no motorized rifle elements. As the Soviets practice the attachment concept, attachment must take place in the tank divisions by drawing on the motorized rifle regiment of the division, or from outside sources. In the motorized rifle regiment, attachment is obtained by; in effect, dissolving the regiment's tank battalion and attaching one tank company to each motorized rifle battalion in the regiment. The motorized rifle battalion has three motorized rifle companies, a mortar battery consisting of six 120mm mortars, an anti-tank platoon plus supply, maintenance and communications elements. The tank battalion also has three companies, but it does not have the anti-tank platoon nor the mortar battery. Attachment is more rigidly practiced than cross-attachment in the U.S. forces and, as a result, unless specific attachments are made to the regiment, a motorized rifle regiment would not have a tank-heavy task force as the concept occurs in U.S. cross-attachments. Likewise, in a tank division, it would only be in the motorized rifle regiment of the division that infantry-heavy forces would be found after attachment was completed. In fact, further attachment is quite possible and a tank battalion with an attached howitzer battalion, recon platoon, engineer platoon and chemical radiation reconnaissance squad would be a common addition.

BRIGADES AND REGIMENTS

The next echelon above battalion is the brigade or regiment. The U.S. has adopted the brigade designation, dissolving its regiments of World War II in favor of separate

battalions, loosely tied together with a regimental designation. Only three regiments exist in the U.S. Army: the Armored Cavalry Regiments. The Armored Cavalry Regiment will consist of a regimental headquarters and headquarters troop (HHT), an air cavalry troop and three armored cavalry squadrons. HHT has the communications platoon, an aviation platoon, providing both command and control sections, a transportation section, a scout section and an air defense section. The air cavalry troop is organized along similar lines to the air cavalry troop of the conventional armored cavalry squadron. The major difference lies in the squadron. Like the additional squadrons, they have three armored cavalry troops, but they also have a tank company and an artillery battery. The squadron HHT is organized similarly to that of the divisional squadron, but it has an AVLB section because of the mobility required for its tanks. The armored cavalry troops are identical in organization to those of the divisional squadron. The tank company consists of three platoons of five tanks, plus two tanks in the company headquarters section. It is a conventional tank company of the type found in any armored battalion. The artillery battery is also conventional, and is equipped with six 155mm self-propelled howitzers.

Aside from the Armored Cavalry Regiment, which is in fact under control of the corps, not divisions, the principal subordinate unit to the division is the brigade. Moreover, the U.S. maintains several types of separate brigades which are not found in the Soviet Army. In the division the brigade is a tactical headquarters only. It has only modest administrative and logistical assets and the maneuver battalions look to the division for their principal supply and ammunition.

The brigade headquarters and headquarters company is organized with appropriate staff sections, a communications platoon, an aviation section and is augmentable with a regular infantry platoon. This organization is found in brigades of infantry, mechanized, armored and air mobile divisions. The airborne division brigade is the same, but it lacks the infantry platoon augmentation and has an additional air control section. The infantry platoon's function, when furnished as augmentation, is to provide security, since the brigade HHC is really not manned to provide 24-hour operations over an extended period and provide its own security throughout the same period. The divisional brigades are considered capable of controlling between three and five maneuver battalions simultaneously for an extended period.

The separate brigades are more varied. They are divided into infantry, light infantry, mechanized and armored brigades. Since they are separate, meaning not part of any division, they are organized with much greater logistical and supply capabilities and are in all respects capable of fighting for extended periods under their own control. The separate infantry, mechanized and armored brigades are similar in organiza-

tion. They have an HHC, an armored cavalry troop, organized like the standard armored cavalry troop, an engineer company, a support battalion and a field artillery howitzer battalion. In the mechanized and armored separate brigades, this battalion is organized like the standard 155mm self-propelled battalion and in the infantry separate brigade, it is organized the same as the 105mm towed artillery battalion found in the infantry division. The support battalion contains a medical company, maintenance company, administration company and a supply and transportation company. The maintenance company differs the most among the units, since it is geared to the type of unit it must support. The engineer company is essentially similar in the infantry, mechanized and armored separate brigades. It has a combat engineer vehicle (CEV) section of two CEV's, a bridge platoon consisting of two heavy raft or bridge sections (depending on how organized) and an AVLB section, three engineer platoons with three squads each and, in the mechanized and armored brigades, an equipment and maintenance section, which is only an equipment section in the separate infantry brigade.

The separate light infantry brigade is organized somewhat differently. The armored cavalry troops has its scouts on wheeled vehicles, the mortar section is the 81mm mortar, also moved by wheeled vehicle and it has the standard infantry squad. However, it does have two M551 Sheridans in its tank section, giving it more punch than the airborne or airmobile divisional elements. The engineer company has only an equipment and maintenance section and three engineer platoons, each of three squads. It has no bridging equipment as such, nor does it have the CEV section. The support battalion has only an administrative company, a maintenance and supply company and a medical company. The artillery battalion is similar in organization to the standard towed 105mm artillery battalion, except it does not have a service battery. Instead, the HHB and Service Battery are combined into a headquarters and service battery.

The separate airborne brigade has an admin company, a medical company, an engineer company, a support company and an armored cavalry troop. The artillery battalion is identical to that found in the normal airborne division. The armored cavalry troop is organized the same as that of the separate light infantry brigade, as is the engineer company. The support battalion, however, has an admin company, a medical company, a maintenance company and a support and service (S&S) company.

In all of these types of brigades, whether divisional or separate, the exact number of maneuver battalions the brigade controls is flexible. For the infantry, light infantry and airborne brigades, whether divisional or separate, they only control their own type of infantry unit. But the mechanized and armored brigades, both divisional and

separate, can control a mix of mechanized and armored battalions, depending on the needs of the unit. It should be emphasized that for divisional brigades, the designation mechanized or armored is only reflective of the type of division to which they belong. It is entirely possible to have a divisional mechanized brigade with more tank battalions than mechanized battalions. The general rule among the separate brigades, however, is that they have at least a balanced number of battalions and usually have more of their particular type of battalion. However, this is not to say that, as the need arose, an imbalance could not be created. The headquarters elements are so similar that they can control both types of maneuver battalions.

THE SOVIET REGIMENTS

The Soviets are organized under the regimental system. This is a fixed organization in terms of the composition of subordinate elements, barring certain minor variations. In fact, this fixed organization continues up the line since a tank division has the same number of tank regiments. Essentially, the Soviets have a three and one system. The motorized rifle division has three motorized rifle regiments and one tank regiment; the tank division has three tank regiments and one motorized rifle regiment. Only the airborne division keeps the triangular system of three parachute regiments, and no other form of maneuver regiment.

The regiment has certain standard support troops: a recon company, which includes three PT 76 light tanks, an engineer company, a signal company, a medical company, transportation company, maintenance company and a chemical defense platoon. In addition, it has an anti-aircraft company, equipped with either the ZU-23, ZPU-4 or the quad ZSU-23-4 anti-aircraft weapons. It also has an anti-tank guided missile company in the motorized rifle regiment. The motorized rifle regiment has a mortar or howitzer battery of six 120mm mortars or six 122mm howitzers. The tank regiment lacks the mortar/howitzer battery and anti-tank guided missile battery, but has a second anti-aircraft company. Usually one has six ZSU-23-4's while the second has six ZSU-57-2's. In addition, the engineer company of the tank regiment has either the MTU or TMM vehicle-launched bridges. The parachute regiment, by contrast (and like its U.S. counterpart) is more austere than the ground units. It has an engineer company, a signal company, a medical company, and a chemical defense platoon, but no transportation company or recon company. Its artillery elements are a mortar battery composed of six 120mm mortars, an anti-aircraft battery, composed of six ZU-23's and an anti-tank gun battery, with six 85mm AT guns, rather than the missile battery.

U.S. DIVISIONS

The United States has standardized its division organization with the adoption of the ROAD (Reorganization Objective Army

Division) concept. Under ROAD, all divisions consist of five major commands: three maneuver brigades, a division artillery and a division support command (DISCOM). Outside of these major commands are the military police company, the signal battalion, the engineer battalion, the division headquarters and headquarters company, the cavalry squadron and the aviation element. All divisions nominally have either an aviation battalion or aviation group, but some are simply not assigned due to local organizational differences. In the airmobile division, the cavalry squadron is air cavalry, while in the others it is armored cavalry. Finally, in the regular infantry, mechanized infantry and armored divisions, an air defense battalion is also assigned, consisting of vulcan and chaparral batteries. On to this division base are added the maneuver battalions needed to fulfill the mission of the given type of division.

Within these division types, the various support battalions are organized to suit the needs of the particular division. However, their general functions are the same for their respective divisions. Generally speaking, these support elements are organized similarly in the infantry, mechanized infantry and armored divisions. The engineer battalion consists of four combat engineer companies in the mechanized and armored divisions, though the infantry divisions usually have only three combat engineer companies with provisions to augment by adding the fourth company. The battalion also has a bridge company which is common to all three types of divisions. In all three cases, the combat engineer companies are organized in the same manner; that is, with three engineer platoons, each consisting of three engineer squads. The infantry division's combat engineer companies will have lighter equipment, often with trucks instead of the tracked vehicles found in the mechanized and armored divisions' engineer elements. The bridge company has an armored vehicle launched bridge (AVLB) platoon, consisting of two heavy raft platoons or two bridge platoons; the platoons, in turn, having two sections. The engineer battalion constructs, repairs and maintains roads, bridges, fords and culverts, supports heavy stream crossings, provides fixed bridging for short gaps, assists in the emplacement of obstacles and provides water purification and potable water supply facilities.

In the airborne division, the engineer battalion performs similar functions, but it does not have a bridge company. The engineer companies are organized similarly to those of the infantry, mechanized and armored divisions.

The signal battalion is identical in the infantry, mechanized and armored divisions, consisting of a command operations company, forward communications company and a signal support operations company. The command operations company, as the name implies, is designed to provide internal signal communications for the division command

echelons. The forward communications company has three forward signal center platoons and is designed to provide communications facilities to the forward areas of the division zone of operations, down to the brigade level normally. The signal support operations company provides the communications for the DISCOM, field cable construction, multi-channel communication terminals and certain photographic services. In the airborne divisions, there are only two companies: the signal command operations company, which performs essentially the same mission as the command operations company of the other divisions, and the signal support operations company, which combines the functions of the forward communications company and the signal support operations company in the other divisions, though it does not perform the communications functions for the DISCOM. The airmobile division has only one company, aside from the Headquarters and Headquarters Service Company, in its signal battalion. This is the Command Operations Company. Its functions are limited to providing signal communications for the division headquarters and DISCOM and to provide multi-channel communications. It has no forward signal center type of function.

The armored cavalry squadrons of the infantry, mechanized and armored divisions are identical. The cavalry elements retain the traditional nomenclature of the cavalry with a squadron being a battalion-sized element and a troop, a company-sized element. The armored cavalry squadron consists of three armored cavalry troops and an air cavalry troop. The armored cavalry troops are composed of a headquarters element, which contains a ground surveillance section, a maintenance section and a headquarters section. The troop's maneuver elements are the three armored cavalry platoons, each composed of a platoon headquarters, a scout section of four scout vehicles, a rifle squad, a mortar squad of one 4.2" mortar and a light armor section of three vehicles, currently the M551 General Sheridan AR/AAV. The air cavalry troop has a troop headquarters, which contains a flight operations section and service platoon, an aeroscout platoon of two aeroscout sections, each with four observation helicopters, an aerorifle platoon, which has four aerorifle squads and five utility helicopters. The aerorifle squads are normal infantry squads equipped and trained to fight in an airmobile environment. Finally, there is an aeroweapons platoon composed of two aeroweapons sections, each with four attack helicopters. There is a service platoon, consisting of a maintenance and a supply section. The squadron also has a headquarters and headquarters troop, which contains the transportation, supply, feeding, medical and communications elements, as well as the maintenance elements for the squadron as a whole. In addition, it has the redeye section, consisting of five redeye teams, to provide air defense for the squadron.

The armored cavalry squadron of the airborne division has only two armored cavalry troops, plus one air cavalry troop. Moreover, the term "armored cavalry troop" is more of courtesy than an accurate description, since the troops are in wheeled vehicles, rather than tracked vehicles, and the tank section is really three quarter-ton trucks with anti-tank guns. Moreover, the mortar is the 81mm rather than the heavier 4.2" mortar found in the regular armored cavalry troops. The air cavalry troop is essentially similar to that of the regular armored cavalry squadron, but instead of an aeroweapons platoon, it has an anti-tank rocket platoon, consisting of two sections, each with two helicopters capable of firing anti-tank rockets.

In the airmobile division, there is an air cavalry squadron. It consists of a headquarters and headquarters troop, a cavalry troop and three air cavalry troops. The air cavalry troop is broadly organized along the lines similar to the air cavalry troop of the armored cavalry squadron, though the terminology varies. The aeroscout platoon is simply called a scout platoon, but it has a total of eleven observation helicopters, rather than the nine of the aeroscout platoon. The aerorifle platoon is simply called aeroscout rifle platoon, but is otherwise essentially the same in organization. The aeroweapons platoon is called a weapons platoon and has one more attack helicopter than the air cavalry troop of the armored cavalry squadron. The airmobile division's air cavalry troop does not have a service platoon. The cavalry troop of the squadron is mounted on wheeled vehicles. It is organized like the armored cavalry platoon of the airborne division, except that it has no tank section. Instead, it has an anti-tank weapon. Like the airborne division, the mortar squad is equipped with the 81mm mortar.

The last element of the division troops, and found only in the infantry, mechanized and armored divisions, is the air defense battalion. This unit has two batteries of self-propelled Vulcans and two batteries of self-propelled Chaparrals. The Vulcan battery has three platoons of Vulcans, each of which has four squads with one Vulcan apiece. The Vulcan is a 20mm air defense weapon, which is broadly similar to the old Gatling Gun. It fires at a high rate and performs its mission by filling the air with its 20mm bullets. By contrast, the Chaparral battery, which is similarly organized, fires the Chaparral missile, which is an Army adaption of the Navy's Sidewinder heat-seeking missile.

Support Command furnishes the combat service support for the division. This is the element which differs most among the various types of divisions. The infantry, mechanized and armored divisions have the same general organization: AG Company, Finance Company, Maintenance Battalion, Medical Battalion and Supply and Transportation Battalion. The major difference between the three division types lies in the organization of the maintenance and supply

and transportation battalions, since these are specifically tailored to suit the needs of the division type. In the airborne division, the support command consists of an Administration Company, Supply Company, Quartermaster Air Equipment Company, Medical Battalion and Maintenance Battalion, while the airmobile division has the same organization, except the Quartermaster Air Equipment Company is replaced by a Transportation Aircraft Maintenance and Support Battalion.

The division artillery of the infantry, mechanized and armored divisions is identical in general organization. There are three direct support artillery battalions and one general support artillery battalion. In the infantry division, the direct support or DS battalion is equipped with 105mm towed artillery. Each 105mm battalion consists of a Headquarters and Headquarters Battery, a Service Battery, and three artillery batteries, each of which is composed of six howitzer sections; that is, six separate artillery pieces. It should be noted that the U.S. artillery units often use the term "battery" for both each individual artillery piece and the company-sized unit of artillery battalions. The general support (GS) battalion for the infantry division is a 155mm towed/203mm SP battalion, composed of three 155 batteries, each with six howitzer sections and one self-propelled 203mm (8") battery of four howitzer sections, plus the service battery and headquarters and headquarters battery. In the mechanized and armored divisions, the DS battalions are equipped with the 155mm self-propelled howitzer, each battalion organized into three batteries of six sections, while the GS battalion is equipped with 203mm (8") howitzers, organized into three batteries of four sections in each battery.

In the airborne division, there is no battalion specially equipped to fulfill the GS mission. Instead, it simply has three battalions of 105mm towed howitzers, organized the same way the 105mm battalions of the infantry division are. The division artillery of the airmobile division is different from the others. Aside from the headquarters element, it has an aviation battery, three 105mm towed battalions and an aerial artillery battalion. The 105mm towed battalions are organized as were those of the infantry and airborne divisions, except that the headquarters and service batteries are combined in one. The aviation battery is organized to furnish aviation support to the division artillery. Accordingly, it has sixteen observation helicopters and four utility helicopters. The aerial artillery battalion has three aerial artillery batteries, each of which has, in turn, three aerial artillery platoons. Each platoon has two sections and each section has two utility helicopters equipped with the 2.75 inch rocket launcher.

THE SOVIET DIVISIONS

The Soviets have three types of division: motorized rifle divisions, tank divisions and airborne divisions. They have a division base

concept similar to that of the U.S. The motorized rifle divisions and tank divisions have similar base elements while the airborne has several significant differences. The basic elements are a reconnaissance battalion, a signal battalion, engineer battalion, medical battalion, chemical defense company, maintenance battalion and transportation battalion. Added to this are the division artillery and maneuver regiments.

The Reconnaissance Battalion has a tank company of five light (PT76) tanks, a recon company with nineteen BRDM's and a motorcycle company. The engineer battalion has two combat engineer companies, an amphibious company with twelve light amphibious ferries and a GSP heavy amphibious ferry, a pontoon bridge company with ribbon bridge spans and a technical company equipped with tank and truck launched bridges. The emphasis on bridging and river crossing capabilities, not found in the U.S. engineer battalions, is part of the Soviet doctrine of treating rivers as relatively minor obstacles.

The airborne division is organized similarly to the other two types, but its recon battalion is being equipped with a special airborne tank which will replace the PT 76 light tank. This tank is air-droppable, which makes it the only tank in the world which can be air dropped since the U.S. up-armored the Sheridan to a weight too great to be dropped. In addition, it has a parachute rigging company.

It is the division artillery which differs most widely in the division types. In the motorized rifle division, they have an artillery regiment, an anti-aircraft artillery regiment, a multiple rocket launcher battalion, a FROG (Free Rocket Over Ground) battalion and an anti-tank battalion. The artillery regiment consists of three howitzer battalions plus a target acquisition battery and service elements. The battalion has three batteries, each with six howitzers. These are either 122mm or 152mm, depending on need. The anti-aircraft artillery regiment has four firing batteries, each with six 57mm S-60 anti-aircraft guns. The FROG battalion has two batteries, each with two FROG launchers. The FROG is a large missile, comparable in mission to the U.S. Honest John, but somewhat larger. The multiple rocket launcher battalion contains three firing batteries, each with eight launchers. These are the modern descendants of the World War II Katusha or Stalin Organ. The current standard weapon seems to be the 40-tube 122mm BM-21. The anti-tank battalion of the motorized rifle division has three anti-tank batteries, each with six 100mm anti-tank guns. These are towed instead of being self-propelled, and would, therefore, be more suited for defense than offense. In fact, it should also be emphasized that until recently the Soviet Union did not have a self-propelled artillery piece, though a 152mm SP howitzer has recently been introduced. Presumably it is not yet widespread throughout the army and the towed howitzers still predominate.

The tank division artillery is more spare. It has a similar artillery regiment to that of the motorized rifle division, but apparently no 152mm howitzers. Whether this will continue with the self-propelled howitzer coming in remains to be seen. The division also has similar anti-aircraft artillery, FROG and multiple rocket launcher battalions, but it has no anti-tank battalion. The airborne division has an artillery regiment and an anti-aircraft artillery battalion. The anti-aircraft artillery battalion has three batteries, each with six ZU-23 self-propelled anti-aircraft guns. The artillery regiment is a mixed lot in the airborne division. It is composed of an anti-tank battalion with 85mm anti-tank guns instead of a 100mm, an assault gun battalion with either the ASU 85 or ASU 57 self-propelled assault gun. These are simply adaptions of the idea developed by the Germans in World War II. The assault gun has a low profile and no turret, but is armored like a tank and can, therefore, fill many tank-type roles. It has a multiple rocket launcher battalion, similar to the other divisions, but it is light on artillery, having only one howitzer battalion of eighteen 122mm howitzers. It should be emphasized that although the Soviet divisions are in fact equipped with fewer artillery pieces than the U.S. divisions, the real artillery strength of the Soviet Army is found at higher echelons. The Combined Arms Army has an artillery brigade and the Front (equivalent to an army group) has an artillery division.

Tactics for Firefight

Firefight simulates conflict between armored and anti-armored forces on the modern battlefield. It is the design intent of **Firefight** to show that the lethality and range of modern weapons can destroy a force. The use of terrain and suppressive fire is of the utmost importance for the survival of one's own forces. The necessity of employing a combined arms force to destroy the integrity of the enemy's also becomes evident in the game. The purpose of this section is to describe a few basic tactics for **Firefight**. These tactics reflect that, by proper use of terrain, a small force can bring to bear the lethality of their weapons to destroy a larger enemy armored force.

To illustrate these tactics we will describe the course of a hypothetical scenario. To follow the description of this scenario, the reader should put the units used in the scenario on the map and move them according to the narration of the story. In this scenario, the Players are using all the rules from **Firefights I** and **II**, except Mines, Short Halt, and Effect of Height on Observation. Neither Player has any Indirect Fire capability.

First, let's take a look at a few arms combinations. If one considered the TOW as the backbone of an anti-armored force, one would not be wrong. Consider the fact that at middle to great ranges (100 to 3000 meters or

3 to 60 hexes on the **Firefight** map), the TOW has a 55% to 70% chance of scoring a kill on an armored target. Nevertheless, at close range (50 meters or one hex), there is no chance of destroying a target.

Just at the range where the probability of scoring a kill by a TOW begins to decrease, the hit probability of a LAW starts to increase. In fact, the LAW is an effective weapon for close range engagements. For any engagement beyond 150 meters (3 hexes) the LAW's kill effectiveness is less than 10%.

By combining a TOW section with a LAW section, each weapon covers and protects one another's weaknesses. At far to middle ranges, the TOW can hit and destroy any target and, thus, protect the LAW from enemy weapons which lie beyond the range of the LAW. At close ranges, the LAW protects the TOW by destroying nearby targets. By such an arrangement, one has ensured a high kill probability over an entire range of terrain from near to very far.

Another way to combine arms is to place medium range weapons, such as tanks, at the middle to far range of a TOW. Such an arrangement, as demonstrated in the first scenario, places tremendous firepower near the kill zone. The tank has its own effective range, increasing from 45% to 70%, against other armored targets at ranges less than 1000 meters (20 hexes). Hence, for a tank to make the best use of its firepower, it should be placed near the kill zone. When the tank is properly emplaced with the TOW, they both can direct much firepower onto the kill zone.

Though the discussion of the Dragon has been omitted (because it is an ATGM like a TOW), it operates in a similar fashion, but at a much reduced range (a maximum range of 1000 meters or 20 hexes, rather than 3000 meters or 60 hexes). The principles of emplacements and combinations of the Dragon with other arms are very similar to that of the TOW. The principles governing the use of ATGM's or tanks are the same, regardless of nationality.

The general situation of this scenario is as follows. Map A is used. A small U.S. force is located in Ebersburen. It is the remnant of a company team which had been destroyed in the previous day's fighting. While resting, the commander receives word that a Soviet force of approximately company strength (eight T62's and two BMP's with infantry, to be exact) are approaching west along Rte. 298 and are due to reach Ebersburen within thirty minutes. The U.S. force consists of one M60A1 tank, one M150 (M113 with TOW), and one squad of infantry (two fireteams with one Dragon). The U.S. commander is ordered to prevent the Soviet force from advancing west along Rte. 298 and getting off the map. (Assume if you will, that there are supply echelons to the west that the Soviets can wreak havoc on if they get to them.)

The U.S. commander assumes that the Soviets will likely travel along Rte. 298,

appearing on the map at hex 3938 (because this is their fastest route of advance). Rte. 298, then, is the suspected primary avenue of approach. A secondary avenue of approach would be several hundred meters to the south of Rte. 298, passing to the south of Ebersburen and Hill 485. The U.S. commander must establish a kill zone along each avenue of approach, and he must deploy his units accordingly. When he does so, he must make use of the terrain so that his units are in a covered area relative to the kill zone.

Knowing that the main threat will be tanks and BMP's, the U.S. commander must select his most effective weapon against this threat. This is his M150. (It has a better kill chance than the M60A1 or Dragon at long range.) He knows that he should deploy this weapon so that it can engage the Soviet tanks and BMP's at the longest possible range. This is because the TOW is as effective at 3000 meters as it is at 300 meters, while return fire from Soviet tanks drops off sharply as the range increases. If he deploys the TOW close to his kill zone, he will improve the Soviet chances of killing him. The U.S. commander decides that the best location for his M150 is the ridge saddle to the northeast of Versbach (hex 2906). From this position, it can engage any Soviet vehicles as they emerge from Ebersburen (headed west along Rte. 298). It can also engage any forces moving along the secondary approach when they emerge from the shadow of Hill 485. If he picked positions on Hills 485, 502 or the Asbachhohe, he would be able to engage the Soviets earlier in their advance, but the M150 would be much more vulnerable to return fire. In selecting the best position for his "best" weapon, the U.S. commander is, in effect, selecting his kill zones. Next, he selects hex 0832 on the Asbachhohe as the position for the M60A1. From this position, it can cover the same two kill zones as the M150 and benefit from defilade.

To engage the Soviet element using the secondary avenue of approach (south of Hill 485), a fireteam with a Dragon is placed on Hill 502 (hex 0250). This team can also fire into the primary kill zone. The last fireteam which has only the LAW is positioned on Hill 485. However, from here it can move to cover either avenue of approach. The U.S. Player expects that when he begins to fire on the Soviet forces, any survivors of the initial fire will probably try to reach the defilade offered by Hill 485. Such a move will bring the Soviet vehicles within effective range of the LAW. Having deployed all his forces, the U.S. Player turns them face-down, and scatters dummy counters face-down on the map. This effectively conceals the true location of U.S. units from the Soviet Player.

The game now begins with the Soviet forces coming on the map at hex 3938. They are in column formation. The eight T62's lead, followed by two BMP's (with infantry mounted) stacked two high. Advancing at top speed (six hexes per Turn on the road), the Soviet column enters Ebersburen by Game-Turn Three. On Game-Turn Four,

four T-62's emerge from Ebersburen and proceed west on Rte. 298. The remaining tanks and BMP's stay in Ebersburen. When the first Soviet tank reaches hex 2040, the U.S. Player uses his Dragon to kill it. The Soviet Player moves his second tank to the same hex (because he wants to fire on the now-revealed Dragon fireteam on the following Turn). This tank is destroyed by the M150 (TOW). The next two tanks move to the same hex. The U.S. Player does not fire on them with his still-concealed M60A1, because he hopes that the Soviet Player will move his BMP's into view. The Soviet Player does this, moving a BMP from hex 2641 to 2640. The U.S. Player fires at the BMP, destroying it. The Soviet Player has his four remaining T-62's in hex 1742. He chooses to fire all four of them at the now revealed M60A1. Luckily, because the M60A1 is in defilade and the Soviet Player rolls four high numbers, all four fires fail. (The Overwatch Fire role is being played, allowing a Player to fire on an Enemy unit which has just fired at a Friendly unit during the Movement Phase.) Finally, the Soviet Player moves his remaining BMP into hex 2640. The U.S. Player has no unit which can fire. The U.S. Player does not choose to move his fireteam on Hill 485. The Movement Phase ends. There is no Indirect Fire and the next Game-Turn begins. The Players roll to see who goes first in the Direct Fire Phase of Game-Turn Five. The U.S. Player lucks out. He is the first shooter. He uses the M60A1 to fire on and destroy the BMP, in the town. (Why this particular shot first? Because the M60A1 is the only U.S. unit capable of destroying the BMP—neither the M150 nor the Dragon can see it—and if he doesn't take the shot now, the Soviet Player is going to mass everything on the M60A1 and kill it.) It is now the Soviet Player's turn to shoot. He fires on and suppresses the Dragon-fireteam in hex 0250 with the two T-62's in hex 2040. His reasoning is that the Dragon team is slightly more vulnerable to these two tanks than the M150 and he wants to hit one or the other. The suppressed Dragon-team fires back at one of the Soviet tanks in hex 2040 and misses. The four remaining Soviet tanks still in hex 1742 fire on and this time kill the M60A1. Last, but not least, the U.S. M150 fires on and kills the other Soviet tank in hex 2040. The Direct Fire Phase ends. All Soviet units have fired so they may not move. All U.S. units have fired, except the fireteam on Hill 485, which the U.S. Player does not choose to move. So there is no movement this Turn. The Suppression Marker is removed from the Dragon fireteam and play moves to Game-Turn Six.

To recap at this point: The Soviet Player has five T62's left, four in Ebersburen and one out on a limb in hex 2040. The U.S. Player has lost his M60A1, but his Dragon and M150 (TOW) remain intact and his LAW team remains hidden.

At the beginning of Game-Turn Six, the Soviet Player wins the die roll to shoot first in the Direct Fire Phase. He causes his lone

exposed tank in hex 2040 to fire at the Dragon/fireteam with no result. The Dragon team fires back and destroys the tank. The four remaining Soviet tanks have no targets in sight; neither does the U.S. M150. During the Movement Phase, the Soviet Player moves his four tanks in hex 2646. The U.S. Player does not move any units. On Game-Turns Seven and Eight, the Soviet Player moves his four tanks through hexes 2547, 2446, 2346 to 2245. The U.S. Player moves his LAW/fireteam from hex 1945 to hex 2145. Turn Nine begins with the four remaining Soviet tanks poised adjacent to the U.S. LAW/fireteam. The Soviet Player wins the roll to shoot first. He fires all four tanks at the U.S. fireteam. He achieves a Suppression. The U.S. team fires its LAW back at one of the Soviet tanks with no result. Since the Soviet Player has fired all his units, he has nothing to move. The U.S. Player still doesn't move his M150 or Dragon-team. (There is no reason to. They still cover the avenues of approach.)

Game-Turn Ten begins with the Soviets shoot first again. This time they get lucky and achieve two Suppression results against the U.S. fireteam (which kills the team). The Soviet Player on the following Turns occupies Hill 485, but concedes the end of the Scenario, admitting that if he attempted to move off the hill and advance west, he would lose his remaining force. The Soviet Player has lost this fight. The situation would remain stalemated until one side or the other intervenes with additional forces or fire-power. Which is an event outside the scope of the game.

SUMMARY OF KEY POINTS

Within five minutes of combat, four Soviet tanks and two BMP's have been destroyed for the loss of one U.S. tank and one fireteam. What were some of the contributing reasons for this loss ratio?

First, the U.S. commander made his best guesses which avenues of approach the Soviet forces would take. Second, he converted those avenues of approach into kill zones by combining his available weapons. Third, he placed his weapons in their best possible positions; i.e., ATGM's far from the kill zones and tank nearer the kill zones. By such an arrangement, the most effective range of each weapon was concentrated onto the kill zones.

Fourth, he positioned his weapons in protected areas to gain the defensive benefit of the terrain; preferably defilade. Fifth, he positioned his weapons to minimize the covered areas that the enemy could use in their approach.

Sixth, he had a clear priority of targets which he wanted to destroy. At far and middle ranges, he wanted to destroy the Soviet BMP's first, the T-62's second, and any dismounted infantry last. The reason for destroying the BMP's first is twofold: a) one is destroying any mounted infantry in the BMP's, and b) the more important reason is

that one is destroying the Soviet ATGM capability; i.e., the Saggers on the BMP's. Remember that tanks must close with their targets and, hence, one has more time to engage them before they become a serious menace. BMP's can afford to engage targets at a long distance and hence may never get close enough to be engaged and destroyed by infantry or tanks. Therefore, BMP's should be eliminated first.

On the other hand, at close ranges, the U.S. commander would have changed the order of priority of his targets. At close ranges, the priority order is T-62's first, BMP's second, and dismounted infantry last. The reason is that now at close ranges, the T-62 is the most threatening weapon and should be destroyed first.

By no means is the analysis of the scenario complete. The reader is encouraged to play the scenario and to experiment with other possibilities. The following questions are meant to stimulate your thinking about this situation. What other arrangements of his weapons could the U.S. commander have used? What are three reasons why the U.S. commander didn't put his M60A1 tank in the town of Ebersburen? The Soviet approach in this scenario was actually quite rash. How would you have handled their approach? What differences did it make to the U.S. commander if the Soviet platoon had BMP's attached to them or not?

INDIRECT FIRE WEAPONS

The scenario dealt exclusively with Direct Fire weapons. Their use is quite effective, but nevertheless they cannot do everything. Direct Fire weapons are often impotent either because terrain blocks their line of fire, or the weapon's range is not long enough. In order to convert a covered approach into a kill zone, one must either reposition his Direct Fire weapons, which may be impossible or undesirable, or else use some Indirect Fire weapon, like artillery. (One can also use a passive measure, such as mines.) Such weapons are also very effective in covered approaches which are inaccessible by Direct Fire weapons. Indirect Fire weapons also may be fired into the kill zone to increase the likelihood of destroying the enemy.

From an attacker's point of view, Indirect Fire weapons can be plotted and used on suspected positions to suppress and to destroy the enemy. Indirect Fire weapons can also suppress the enemy by means of smoke.

One disadvantage that an Indirect Fire weapon has that a Direct Fire weapon doesn't have is that there is a considerable delay from the time that a commander sees a target that he wishes to bombard to the time that the target is hit by an Indirect Fire barrage. Some of the causes for the delay simply are because time is needed for plotting the target, communicating the information, adjusting the artillery, choosing the correct ordnance, etc. Contrast the above lengthy procedure to that of a Direct Fire weapon, like a rifle. As soon as a rifleman

sees a target, he can start shooting immediately. This immediate response is not available for an Indirect Fire weapon.

Nevertheless, a considerable amount of time can be saved when a commander preplans his Indirect Fire. The commander should choose well in advance of an expected battle particular points that he expects to bombard. These points are suspected avenues of approach or positions that the enemy may use. He should then inform the personnel of the Indirect Fire weapon of such target points. By preplanning their Indirect Fire, the personnel are prepared and ready to fire at a moment's notice. Nevertheless, problems do not end here.

Consider the U.S. commander's point of view in Scenario One. Just about every point (hex) on the map looms as a potential Soviet threat; hence, there is a tendency to preplan a hundred points as priority A1 for an Indirect Fire weapon. But if there are that many A1 priority points, then there is no priority. There are simply too many points for an artillery commander to keep in mind. He will think up his own list of priority points which may or may not correspond to the points of highest importance on the actual battlefield. If, on the other hand, the U.S. commander lists only three points as priority, then the artillery can concentrate its attention and respond quickly on those few critical points.

At first, allotting three preplot points per platoon of an Indirect Fire weapon may seem absurdly too few. (In *Fireflight*, the Player is allotted four points to preplot; consider the fourth point as a gift). There are too many specific points in which the enemy can approach or maneuver. The above is true, but the following are some suggestions to help minimize the problem.

When preplanning Indirect Fire on the map, it is easier to think of a few large areas than many specific points. These areas are the prominent terrain features (hills, towns, bridge approaches, woods, etc.) and the center of any kill zone.

In selecting the actual hexes to note on your target list, you must select a hex within the target area that your units will be able to see if and when you need to call for fire. For example, let's assume in the scenario just described that the Soviet Player had a battery (two units) of 122mm gun-howitzers assigned to him in direct support. Before play began, he analyzed the situation and was willing to bet his paycheck that at least one U.S. unit was bound to be on the Asbachhohe. Therefore, he targets the Asbachhohe on his target list. And he picks hex 0734 because given his anticipated avenue of approach, this hex will almost always be in sight of at least one of his units. If he has to call for fire on this hex, at least one unit will probably be able to observe the impact and adjust the fire.

SMOKE

Another consideration when plotting Indirect Fire is the use of smoke, rather than HE,

to suppress the enemy. Another way of considering the value of smoke is the ability to create "terrain." By blocking the enemy's vision, smoke prevents the use of the enemy's Direct Fire weapons. An advantage that smoke has is that you can place it where you want it by means of an Indirect Fire weapon, like artillery. Although there are countless variations, there are three basic positions for smoke: on the enemy's position, between the enemy's position and your position and on your position.

One should place smoke on an enemy position when the enemy position is clearly known, in one location and relatively immobile. Let us look at each of these factors. When the enemy position is known this method is a good measure to temporarily blind his vision; however, it is best used when the enemy is in one location. If the enemy is spread out or has many positions, then obscuring his vision in one position does little good because his other positions will be observing and firing on your force. Furthermore, remember that when you place smoke on an enemy position, although he can't see you, you also can't see him. Consequently, if the enemy position is mobile; i.e., tanks and armored personnel carriers, then most likely under the cover of the smoke screen he will withdraw from his present position and reposition elsewhere. You may not be able to see his change of movement and may be lulled into thinking that the enemy remains where your smoke screen is.

Another method is to place smoke between the enemy position and your position. This method is preferable when the enemy location is not that well known and may be spread, and when smoke can be used to fill gaps between terrain.

Lastly, smoke can be placed on your own position. One should choose this method when the enemy position is not known and when it is necessary to cross large areas of clear terrain for the sake of rapid advancement.

ELECTRONIC WARFARE (EW)

Both the Soviet and U.S. Armies have extensive electronic warfare capabilities, intended to influence the battle on an operational level. Every U.S. division has an attached Army Security Agency support company which provides direct EW support to a division and assists the division in using its own organic capabilities. The techniques and nuances of this warfare are blanketed by a spectrum of acronyms to the uninitiated: COMINT, SIGINT, ECCM, ECM, ELINT, ELSEC, etc., etc. To the layman, EW boils down to two areas: passive EW and active EW. Passive EW encompasses intelligence gathering (we listen to and plot the transmissions of enemy radios, radars, etc., in order to learn what his forces are, where they are and, sometimes, what he plans to do with them) and security (we try to prevent or minimize the enemy's intelligence from our electronic transmissions). Active EW involves counter-measures and deception (we jam his

communications, spoof his radars, feed him false information, etc., while preventing him from doing the same to us). To a division commander, information derived from employment of electronic warfare capabilities can, at times, be more valuable than a maneuver battalion or artillery battery. Conversely, a lack of proper communication security or operating procedures can be disastrous to friendly forces.

In the first battle of the next war, the failure of the U.S. Army to win (or at least 'tie') the electronic war would probably be decisive. The key to a successful "active" defense is accurate timely intelligence (provided in a large part by EW) to permit the massing of U.S. forces to crush Soviet thrusts, while manning unthreatened areas with minimal forces.

In *Firefight*, we have assumed that the U.S. is holding its own in passive EW. After all, if that were not the case, the scenarios would be even more unbalanced than they are featuring Soviet battalions motoring practically unmolested down the road. But in the final analysis, passive EW can have little effect during the 15 or 20 minute maximum time of a *Firefight* scenario. The damage will already have been done, or not done, as the case may be. However, the course of the fighting may be decisively influenced by active EW. On this level, active EW means jamming, disrupting and deceiving communications, particularly the radio link between a maneuver element and its Indirect Fire support. Both sides have this capability. Both sides would use it. The U.S. commander will find that his FO cannot get the fire order through to the dedicated battery, now, when he needs it. The Soviet battalion commander will find his request for a change in scheduled fire unheeded.

There is an apocryphal story told of a U.S. brigade conducting recent field exercises accompanied by an ASA unit whose job it was to give the brigade a dose of what operating in a heavy EW environment would be like. After a couple of days, the brigade commander ran the ASA boys out of town because they had so completely fouled up operations to the extent that troops weren't getting fed, were getting lost, etc., zero training was getting accomplished, and complete chaos reigned. We have refrained from introducing EW into *Firefight* for much the same reason. For those Players who wish to get a taste of EW into *Firefight*, we suggest the following:

Anytime the U.S. Player initiates a fire order (plots fire) he must roll a die. If he rolls a "1" or "2," his communications are jammed and he may not plot fire that Turn. The Soviet experience is different. He may plot fire with no hindrance, but on the Turn he is to receive the fire, he must roll a die. If he rolls a "1" or "2," the fire plot is cancelled and he doesn't receive the fire at all.

DATA APPENDIX A

MAIN BATTLE TANKS

Technical Characteristics	M60A1	M60A2	M60A3	T62
Crew	4	4	4	4
Weight	48 tons	58 tons	48 tons	37.5 tons
Length (hull)	6.95m	6.95m	6.95m	6.70m
Width	3.6m	3.6m	3.6m	3.3m
Height	3.3m	3.3m	3.3m	2.4m
Armor Turret	•	•	•	30-210m
Armor hull f/s	•	•	•	100/80mm
Main Armament	105mm	152mm	105mm	115mm
Ammo Type	APDS, HEAT, HEP	Shi, HEAT	APDS, HEAT, HEP	HE, HEAT, APFDS
Ammo Quantity	63	33+13Shi	65	40
Fire Control	Mon coin	Laser	Laser	Stadia
Effective Range	1500m	1500m, 3000m Shi	2500m+	1500m
Cruising Range	500km	450km	500km	480km
Secondary Armament	7.62mm coax 0.5" cdrs	7.62mm coax 0.5" cdr's	7.62mm coax	7.63mm coax 12.7mm AA
Role	MBT	MBT	MBT	MBT

Abbreviations: APDS=Armor piercing Discarding Sabot; APFDS=Fin stabilized DS; HEAT=High Explosive Anti-Tank; HEP=High Explosive Plastic; Shi=Shillaleagh Missile; NBC=Nuclear Biological Chemical; Mon coin=Monocular coincidence; coax=coaxial to main gun; •=none or not applicable; MBT=Main Battle Tank.

M60A1

Can be identified by its needle nose turret. It is fitted with NBC protection and night vision equipment. Existing M60A1's are being upgraded to M60A3 standards.

M60A2

Can be identified by its short main barrel gun. It is capable of firing on the move due to gun stabilization. It is fitted with NBC and night vision equipment. A very sophisticated weapons system. When everything is working, it is the finest anti-tank tank in the world. Deficient in an infantry support role because of ammunition supply.

M60A3

The M60A3 is the final vehicle of the M60 family. Current M60A1's will eventually be converted to A3's by adding or modifying various systems, such as gun stabilization to permit shooting on the move, laser range finder, solid-state ballistics computers, and a 900-hp engine.

T62

Can be identified by the evenly spaced bogie wheels. The bore evacuator is placed near the middle of the main gun. It is fitted with night vision equipment, as well as NBC protection. The smoothbore main gun fires a fin-stabilized AP round at an initial velocity of close to a mile per second. The flat trajectory of this round gives the T-62 an excellent first round kill capability within 1500 meters.

ARMORED PERSONNEL CARRIERS

Technical Characteristics	M113	BMP1	BRDM
Crew	2	3	4
Passengers	9	8	none
Weight	11 tons	12 tons	7 tons
Length	4.9m	6.3m	5.5m
Width	2.7m	3.1m	2.2m
Height	2.2m	1.8m	2.2m
Armor Turret	•	20mm	•
Armor Hull f/s	40mm weld	•	10mm
Main Armament	0.5"	73mm+SA	SA
Ammo Type	MG	HEAT	•
Ammo Quantity	2000	40+5 mis	•
Fire Control	•	optical	•
Effective Range	•	1000m	•
Cruising Range	320km	500km	750km
Secondary Armament	•	7.62mm	•
Role	APC	APC	AT

Abbreviations: weld=welded aluminum; SA=Sagger missile; mis=missile; •=none or not applicable.

M113

The M113 is a highly versatile vehicle. Some of the common adaptions have been for command purposes, recovery & repair, mortar, ambulance, and TOW. It also has water-crossing ability. (The M113 mounting a TOW ATGM system is called the M150.)

BMP

In keeping with the Warsaw Pact emphasis on standardization, the BMP will replace the PT 76 light tanks and various marks BRDM scout cars in the Threat recon forces. Quite probably a modification of this ubiquitous vehicle will replace the BRDM-Sagger in the anti-tank platoons. Its combination of firepower, protection and mobility make it the only Infantry Fighting Vehicle operational in large numbers today. It is also equipped with night vision devices, NBC protection and has an amphibious capability. Standard vehicle for all first line and many second line Soviet motorized rifle units.

BRDM

The standard scout car modified to an ATGM tank destroyer. Carries 14 Saggers, 6 mounted on shielded launch ramp, 8 reloads. Has night vision and NBC protection as well as water-crossing ability. Scout car version has small turret with 14.5mm MG.

ANTI-TANK GUIDED MISSILES

Technical Characteristics	Dragon	TOW	Sagger
Launch Weight	12.3kg	18kg	11.3kg
Guidance	Wire	Wire	Wire
Propulsion	solid	solid	solid
Warhead	HEAT	HEAT	HEAT
Range Minimum	65m	65m	500m
Range Maximum	1000m	3000m	3000m
Role	Platoon AT	Company AT	AT

Abbreviations: HE=High Explosive; HEAP=High Explosive Armor Piercing (Shaped Charge); HC=Hollow Charge; AT=Anti-Tank.

Dragon

The Dragon is light enough to be carried by one man, yet has the necessary firepower to replace the 90mm recoilless rifle. Originally designed as an AT missile for "any" man in actual use the Dragon has been found to require considerable operator knowledge. Still it is easier to operate than the Sagger.

TOW

[Tube launched, Optically tracked, Wire guided]

The TOW is capable of destroying any known vehicle and is also effective against other point targets, such as pillboxes and gun emplacements. Missile flight is computer controlled and the operator need only keep his sight on the target. The minimum range

is dictated by operator safety rather than system performance. The TOW is most commonly mounted on the M113.

Sagger

The Sagger can easily be fitted to BMP's, helicopters (the Hip) or used as a man pack. As a man pack unit, a three-man Sagger unit can prepare a four-missile position in under five minutes. Furthermore, the operator can be up to fifteen meters away from the Sagger position when using remote control. Operators must fly the missile to the target via the joystick command system. Proficiency requires extensive simulator and live practice. Minimum range is the average distance the missile will travel before the operator can "acquire" the missile.

ANTI-TANK LAUNCHERS

Technical Characteristics	LAW	RPG-7
Caliber	66mm	40mm wh: 100mm
Length	89.3cm	95.3cm
Weight/Launcher	1.25kg	5.00kg
Weight/Projectile	1.25kg	2.50kg
Effective Range	75m	200m
Maximum Range	300+m	700+m
Penetration	150-200mm	200-250mm
Role	Squad AT	Squad AT

LAW

The LAW is not as lethal, accurate or as long-ranged as the Soviet RPG-7. However, every infantryman can use it, as opposed to the Soviet squad which only has one trained RPG-7 gunner. LAW replaces the M-20 bazooka. The LAW is issued as a round to the infantryman; after firing, it is discarded.

RPG-7

In the hands of a well-trained gunner, the RPG-7 has a good chance of killing a tank within 200 meters. Reloadable. Infantryman carries three rounds. Rate of fire is 4 rpm, shoulder fired. It can be identified by the two hand grips, large optical sight and the flared cone at the end.

HOWITZERS

Technical Characteristics	US 155mm	SU 122mm	SU 152mm
Crew	10	7	10
Caliber	155mm	122mm	152mm
Ammunition	HE, can chem, nuc	HE, smoke, ill, APHE	HE, smoke, ill, APHE
Range	18,100m	22,000m	18,300m
Weight of Round	43.0kg	21.7kg	48kg
Rounds per Minute	4	5-6	4

Abbreviations: HE=High Explosive; can=cannister; ill=illumination; chem=chemical; nuc=nuclear; APHE=Armor Piercing High Explosive.

MORTARS

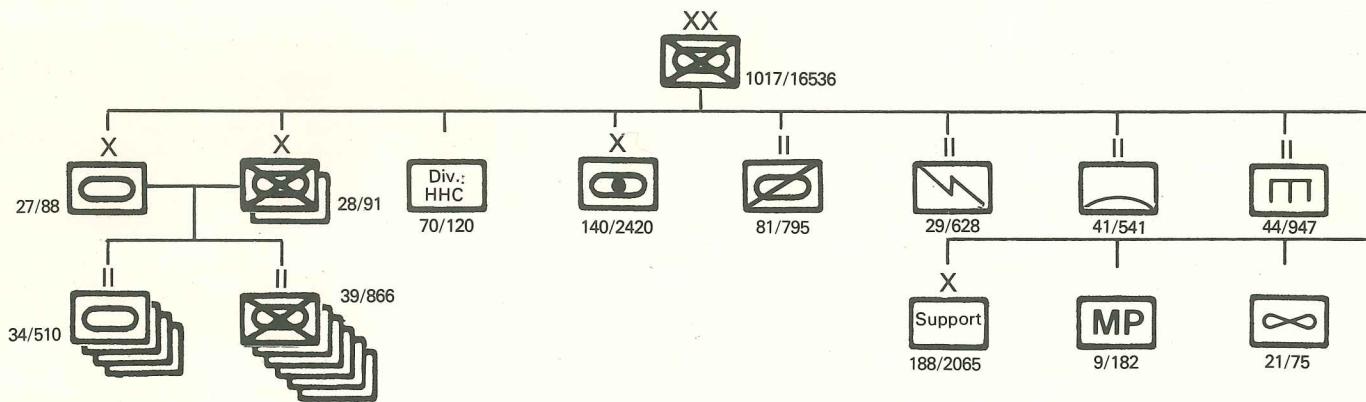
Technical Characteristics	US 4.2"	US 81mm	SU 120mm
Caliber	4.2"	81mm	120mm
Barrel Length	152cm	130cm	156cm
Total Weight	290kg	48.5kg	272kg
Minimum Range	575m	300m	500m
Maximum Range	5500m	3500m	6000m
Rounds per Minute	25	30	15
Role	Battalion	Company	Battalion

MACHINE GUNS & RIFLES

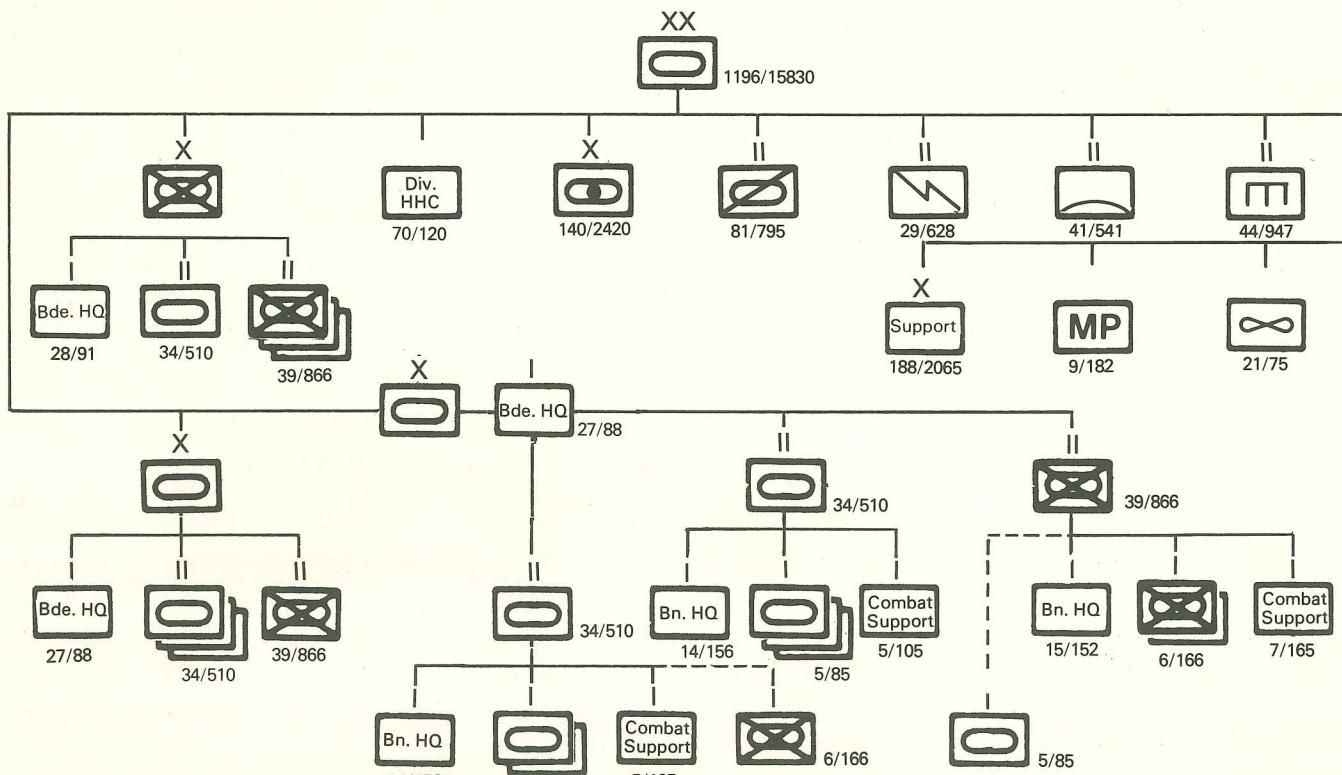
Technical Characteristics	US M60MG	SU PKMG	SU RPKMG	US M16R	SU AKMS(R)
Caliber	7.62mm	7.62mm	7.62mm	5.56mm	7.62mm
Length	111cm	117cm	103cm	97.5cm	87.6cm
Weight	10.4kg	9.0kg	5.7kg	2.8kg	4.02kg
Effective Range	900m	1000m	800m	250m	300m
Maximum Range	3000m	3800m	2500m	1000m	2500m
Rounds per Minute	600	650	400	150-200	100/auto
Role	Squad	Squad	Squad	Individual	Individual

DATA APPENDIX C

★ U.S. Mechanized Division



★ U.S. Armored Division



U.S. Divisional Equipment

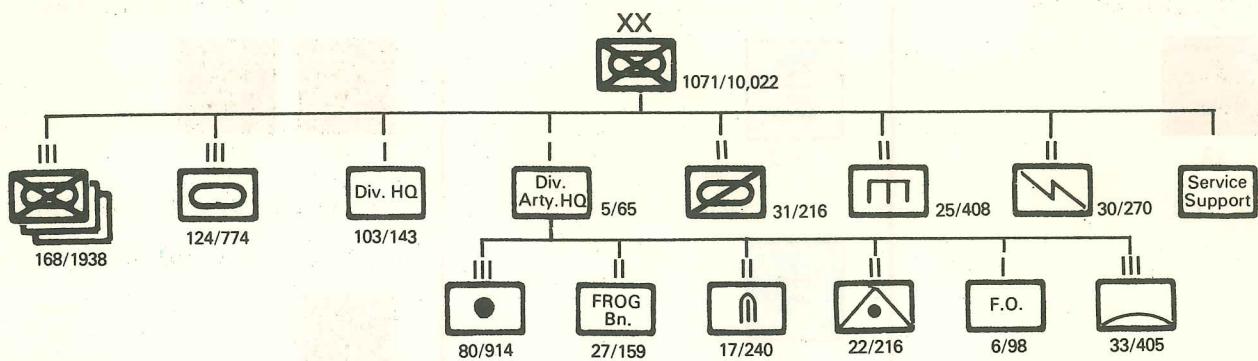
Equipment/Type	Mech. Inf.	Armored
Tanks:		
Lt. Tank (M551)	27	27
MBT (M60A)	216	324
HAW (M150 TOW)	108	90
Anti-Tank:		
MAW (Dragon)	162	135
LAW	*	*
APC (M113)	389	358
Recon (M114)	176	179
Lt. Art + Mtr.	94	89
Med. Art (155)	54**	54**
Heavy Art. (8")	12**	12**

The diagram shows how the six armor and five mechanized infantry battalions of an armored division might possibly be assigned to the three brigade HQ's. An example of how one of the brigades might cross-attach mechanized infantry and armor companies to form tank-heavy task force and an infantry-heavy task force is also shown.

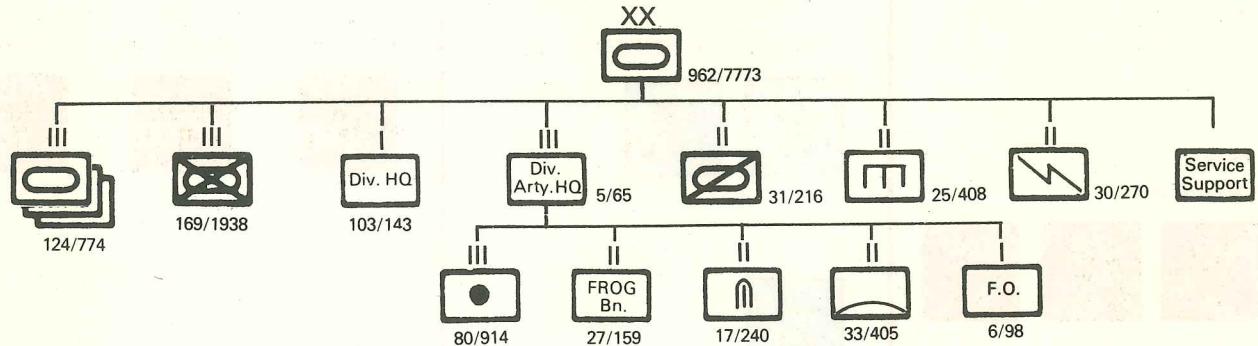
* LAW is issued as ammunition.

** Additional battalions are often attached.

★ Soviet Motorized Rifle Division (+)



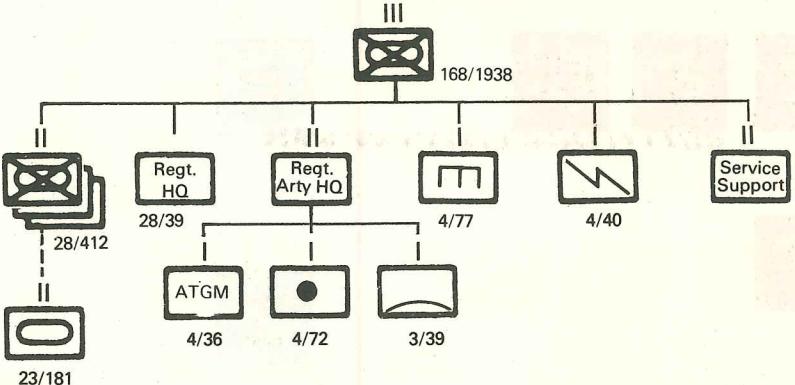
★ Soviet Tank Division



★ Soviet Motorized Rifle Regiment

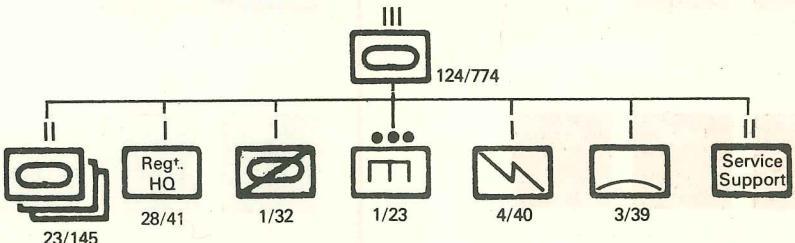
Soviet Divisional Equipment

Equipment/Type	Mot. Rif. Div.	Tank Div.
Tank:		
Light PT76	19	19
MBT (T62)	205	325
Anti-Tank:		
Sagger	399*	133**
MAW (100mm AT)	18	—
SPG-9	18	6
LAW (RPG-7)	261	87
APC:		
BPM	336	112
Other	30	50
Recon:		
BRDM	73	—
Light Artillery:		
120 Mtr.	54	18
Medium Artillery		
122mm & 152mm	72	60
Mlt. Rkt. Ln.	18	18
FROG	4	4



Each company of the tank battalion (there are three) is permanently attached to a motorized rifle battalion.

★ Soviet Tank Regiment

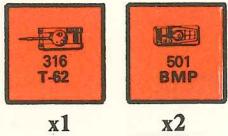


* 336 mounted on BMP. 45 mounted on BRDM.

** 112 mounted on BMP. 15 mounted on BRDM.

Soviet Motorized Rifle Battalion

BATTALION HEADQUARTERS



x1 x2

MORTAR BATTERY



x3

ATGM SECTION

(Attached from Regt.—
strength may vary)



x3

ANTI-TANK PLATOON



x1 x2 x2 x2

1st MOTORIZED RIFLE COMPANY (+) (2nd & 3rd identical)

COMPANY HEADQUARTERS SQUAD



x1 x1 x1

TANK PLATOON

(Attached)



x4

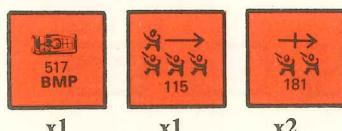
1st PLATOON (2nd & 3rd identical)

1st SQUAD



x1 x2

2nd SQUAD



x1 x1 x2

3rd SQUAD



x1 x2

DATA APPENDIX E

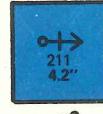
U.S. Mechanized Battalion

ANTI-TANK PLATOON



x12

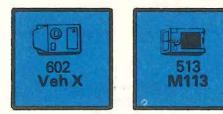
HEAVY MORTAR PLATOON



x2

COMPANY A (B & C identical)

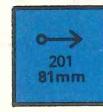
COMPANY HEADQUARTERS



x1

x1

MORTAR SECTION



x3

TOW SECTION



x2

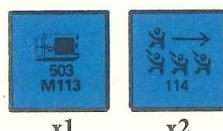
1st PLATOON (2nd & 3rd identical)

HEADQUARTERS ELEMENT



x1

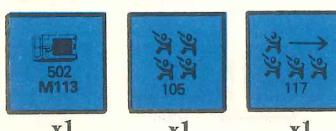
1st SQUAD



x1

x2

2nd SQUAD

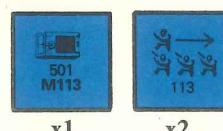


x1

x1

x1

3rd SQUAD

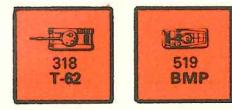


x1

x2

Soviet Tank Battalion

BATTALION HEADQUARTERS

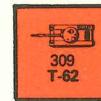


x1

x1

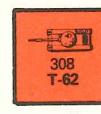
1st TANK COMPANY (2nd & 3rd identical)

COMPANY HEADQUARTERS



x1

1st PLATOON



x3



x3



x3

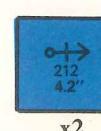
U.S. Armored Battalion

BATTALION HEADQUARTERS



x3

COMBAT SUPPORT



x2

COMPANY A (B & C identical)

COMPANY HEADQUARTERS

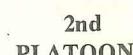


x2

1st PLATOON



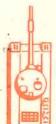
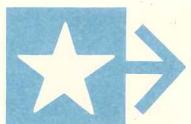
x5



x5



x5



Firefight

ATTACK EFFECTIVENESS RATINGS FOR U.S. UNITS FIRING AT SOVIET VEHICLES

Range (in meters):

50	100	150	200	250	300	350	400	450	500	750	1000	1500	2000	2500	3000
----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------

Range (in hexes):

1	2	3	4	5	6	7	8	9	10	11	16	21	31	41	51
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

										to 15	to 20	to 30	to 40	to 50	to 60
--	--	--	--	--	--	--	--	--	--	----------	----------	----------	----------	----------	----------

U.S.
Firing Unit Soviet
Target Unit

		LAW	Tank or APC	8	7	5	3	2	1	1	1	•	•	•	•	•	•	•	•	•	•	•	•	•
		DRAGON	Tank or APC	•	4	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
		TOW	Tank or APC	•	•	5	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
		M60 A1	Tank	10	10	9	9	9	9	9	9	9	9	9	9	9	8	7	6	4	3	2		
		M60 A1	APC	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	5	4	2	2		
		M60 A2 (gun)	Tank	9	9	9	9	9	9	9	9	9	9	9	9	9	9	7	5	3	•	•		
		M60 A2 (gun)	APC	10	10	10	10	10	10	10	10	10	10	10	10	10	9	9	8	5	3	1		
		M60 A2 (msl)	Tank	•	•	•	•	•	•	•	•	•	•	•	•	10	10	10	10	10	10	10	10	10
		M60 A2 (msl)	APC	•	•	•	•	•	•	•	•	•	•	•	•	11	11	11	11	11	11	11	11	11
		M60 A3	Tank	10	10	10	10	10	10	10	10	10	10	10	10	10	10	9	8	7	6	5	5	5
		M60 A3	APC	9	9	9	9	9	9	9	9	9	9	9	9	9	8	8	7	5	5	4		
		XM1	Tank	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	8	8	8
		XM1	APC	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	9	8	6	
		MICV	Tank	4	4	4	4	4	4	4	4	4	4	4	4	4	4	•	•	•	•	•	•	•
		MICV	APC	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	5	•	•			

ANTI-VEHICLE COMBAT RESULTS TABLE

Dice Roll	Attack Rating of Firing Unit												Dice Roll
	1	2	3	4	5	6	7	8	9	10	11	12	
2	Kf	Kf	Kf	Kf	Kf	Kf	Kf	Kf	K	K	K	K	2
3	•	•	K	K	K	K	K	K	K	K	K	K	3
4	•	•	•	•	K	K	K	K	K	K	K	K	4
5	•	•	•	•	•	•	•	K	K	K	K	K	5
6	•	•	•	•	•	•	•	•	•	K	K	K	6
7	•	•	•	•	•	•	•	•	•	•	•	K	7
8	•	•	•	•	•	•	•	•	•	•	K	K	8
9	•	•	•	•	•	•	•	•	K	K	K	K	9
10	•	•	•	•	•	•	K	K	K	K	K	K	10
11	•	•	•	K	K	K	K	K	K	K	K	K	11
12	•	Km	12										

If vehicle target is in Town hex, a dice roll of "2" is converted to "no effect."

If vehicle is in Forest hex, a dice roll of "3" or "4" is converted to "no effect."

If target is an APC in defilade, all dice rolls of "5" or greater are converted to "no effect."

If vehicle target is a tank in defilade, all dice rolls of "7" or greater are converted to "no effect."

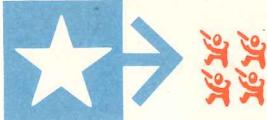
RESULTS KEY (See 6.5 for full explanation.)

• = No effect

K = Kill

Kf = Firepower Kill

Km = Mobility Kill



ATTACK EFFECTIVENESS RATINGS FOR U.S. UNITS FIRING AT SOVIET PERSONNEL

U.S. Firing Unit	Range (in meters):		50	100	150	200	250	300	350	400	450	500	750	1000	1500	2000	2500	3000
	Range (in hexes):		1	2	3	4	5	6	7	8	9	10	11	12	16	21	31	41

→	TM+	8	8	8	8	7	7	6	5	4	3	2	2	•	•	•	•	•
→	TM	7	7	7	7	6	6	5	4	2	1	•	•	•	•	•	•	•
→	MG	3	3	3	3	3	3	3	3	3	3	2	2	•	•	•	•	•
→	MG+ M113	4	4	4	4	4	4	4	4	4	4	3	3	2	2	•	•	•
→	any M60	4	4	5	5	5	5	5	5	5	5	4	4	4	3	2	2	•
→	XM1	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	5	5
→	MICV	8	8	8	8	8	8	8	8	8	8	7	7	5	5	3	3	3

ANTI-PERSONNEL COMBAT RESULTS TABLE

Dice Roll	Attack Rating of Firing Unit									Dice Roll
	1	2	3	4	5	6	7	8	9	
2	S	S	S	K	K	K	K	K	K	2
3	•	S	S	S	K	K	K	K	K	3
4	•	•	•	S	S	S	S	K	K	4
5	•	•	•	•	S	S	S	S	S	5
6	•	•	•	•	•	S	S	S	S	6
7	•	•	•	•	•	•	S	S	S	7
8	•	•	•	•	•	•	S	S	S	8
9	•	•	•	•	•	S	S	S	S	9
10	•	•	•	•	S	S	S	S	K	10
11	•	•	S	S	S	S	S	K	K	11
12	S	S	S	S	S	S	K	K	K	12

If personnel target is in a Town or Forest hex, all dice rolls of "4" or less are converted to "no effect."

If personnel target is in defilade, all dice rolls of "7" or greater are converted to "no effect."

RESULTS KEY (See 6.5 for full explanation.)

• = No effect

S = Suppression

K = Kill

U.S. INDIRECT FIRE DATA TABLE

Type of Unit & Support Status	Type of Fire & Delay	Attack Rating				
		Impc	Adj	Surr		
81mm Mortar						
Organic	On Call	2	2	1	•	
Organic	Trgt. of Opty.	3	2	1	•	
4.2" Mortar						
Organic	On Call	3	8	4	2	
Organic	Trgt. of Opty.	4	8	4	2	
155mm Howitzer						
Direct Support	On Call	4	12	6	3	
Direct Support	Trgt. of Opty.	6	12	6	3	
Dedicated	Priority	0	6	3	3	
Dedicated	On Call	1	12	6	3	
Dedicated	Trgt. of Opty.	2	12	6	3	

When dismounted personnel target is in a Town hex, all dice rolls of "3" or "4" are converted to "no effect."

When target is a vehicle, all dice rolls of "6" or less are converted to "no effect."

RESULTS KEY (See 8.6 for full explanation.)

• = No effect

K = Kill

S = Suppression

Kms = Missile Kill

INDIRECT FIRE COMBAT RESULTS TABLE

Dice Roll	Attack Rating									10 to or more	16 or more	Dice Roll
	2	3	4	5	6	7	8	9	10			
2	S	S	S	S	S	K	K	K	K	2		
3	S	S	K	K	K	K	K	K	K	3		
4	•	•	•	•	S	S	S	K	K	4		
5	•	•	•	•	•	S	S	S	K	5		
6	•	•	•	•	•	•	•	•	S	6		
7	•	•	•	•	•	•	•	•	S	7	Kms	7
8	•	•	•	•	•	•	S	S	S	8	Kms	
9	•	•	•	•	•	S	S	S	S	9	Kms	
10	•	•	•	•	S	S	S	S	Kms	10	Kms	
11	•	•	S	S	S	Kms	Kms	Kms	Kms	K	Kms	11
12	•	S	S	S	Kms	Kms	Kms	Kms	K	K	Kms	12



Firefight

ATTACK EFFECTIVENESS RATINGS FOR SOVIET UNITS FIRING AT U.S. VEHICLES

		Range (in meters):	50	100	150	200	250	300	350	400	450	500	750	1000	1500	2000	2500	3000
Soviet Firing Unit	U.S. Target Unit	Range (in hexes):	1	2	3	4	5	6	7	8	9	10	11	16	21	31	41	51
	RPG7	Tank	8	7	6	5	3	3	2	2	1	1	•	•	•	•	•	•
	RPG7	APC	9	8	7	6	4	4	4	3	2	2	•	•	•	•	•	•
	SPG9	Tank	8	8	8	8	8	8	7	7	7	7	6	4	•	•	•	•
	SPG9	APC	8	8	8	8	7	7	7	7	7	7	6	6	•	•	•	•
	T62	Tank	10	10	10	10	9	9	9	9	9	9	9	8	7	6	4	2
	T62	APC	9	9	9	9	9	9	9	9	9	9	9	8	6	4	3	2
	BMP (gun)	Tank	8	8	8	8	8	8	7	7	7	6	5	3	1	•	•	•
	BMP (gun)	APC	8	8	8	8	8	8	7	7	7	6	5	3	2	•	•	•
	Sagger	Tank or APC	•	•	•	•	•	•	•	•	6	7	7	9	9	9	9	9
	XMBT	Tank	10	10	10	10	10	10	10	10	10	10	10	10	10	9	8	8
	XMBT	APC	10	10	10	10	10	10	10	10	10	10	10	10	10	9	8	5

ANTI-VEHICLE COMBAT RESULTS TABLE

Dice Roll	1	2	3	4	5	6	7	8	9	10	11	Dice Roll
2	Kf	K	K	K	2							
3	•	•	K	K	K	K	K	K	K	K	K	3
4	•	•	•	•	K	K	K	K	K	K	K	4
5	•	•	•	•	•	•	•	K	K	K	K	5
6	•	•	•	•	•	•	•	•	K	K	K	6
7	•	•	•	•	•	•	•	•	•	•	•	7
8	•	•	•	•	•	•	•	•	•	K	K	8
9	•	•	•	•	•	•	•	•	K	K	K	9
10	•	•	•	•	•	K	K	K	K	K	K	10
11	•	•	•	K	K	K	K	K	K	K	K	11
12	•	Km	12									

If vehicle target is in Town hex, a dice roll of "2" is converted to "no effect."

If vehicle is in Forest hex, a dice roll of "3" or "4" is converted to "no effect."

If target is an APC in defilade, all dice rolls of "5" or greater are converted to "no effect."

If vehicle target is a tank in defilade, all dice rolls of "7" or greater are converted to "no effect."

RESULTS KEY (See 6.5 for full explanation.)

• = No effect

K = Kill

Kf = Firepower Kill

Km = Mobility Kill



ATTACK EFFECTIVENESS RATINGS FOR SOVIET UNITS FIRING AT U.S. PERSONNEL

Range (in meters):	50	100	150	200	250	300	350	400	450	500	750	1000	1500	2000	2500	3000
Range (in hexes):	1	2	3	4	5	6	7	8	9	10	11 to 15	16 to 20	21 to 30	31 to 40	41 to 50	51 to 60

Soviet
Firing Unit

	TM+	9	8	8	8	7	7	7	6	5	4	2	1	•	•	•
	TM	8	7	7	7	6	6	6	5	4	2	•	•	•	•	•
	MG	3	3	3	3	3	3	3	3	3	3	2	1	•	•	•
	MG+	4	4	4	4	4	4	4	4	4	4	3	3	2	2	•
	BMP	6	7	7	7	7	7	7	7	7	7	4	4	2	1	•
	T62	4	5	5	5	5	5	5	5	5	4	4	3	2	2	•
	XMBT	6	6	6	6	6	6	6	6	6	6	6	6	5	5	3

ANTI-PERSONNEL COMBAT RESULTS TABLE

Dice Roll	Attack Rating of Firing Unit									Dice Roll
	1	2	3	4	5	6	7	8	9	
2	S	S	S	K	K	K	K	K	K	2
3	•	S	S	S	K	K	K	K	K	3
4	•	•	•	S	S	S	S	K	K	4
5	•	•	•	•	S	S	S	S	S	5
6	•	•	•	•	•	S	S	S	S	6
7	•	•	•	•	•	•	S	S	S	7
8	•	•	•	•	•	•	S	S	S	8
9	•	•	•	•	•	S	S	S	S	9
10	•	•	•	•	S	S	S	S	K	10
11	•	•	S	S	S	S	S	K	K	11
12	S	S	S	S	S	S	K	K	K	12

If personnel target is in a Town or Forest hex, all dice rolls of "4" or less are converted to "no effect."

If personnel target is in defilade, all dice rolls of "7" or greater are converted to "no effect."

RESULTS KEY (See 6.5 for full explanation.)

- = No effect
- S = Suppression
- K = Kill

SOVIET INDIRECT FIRE DATA TABLE

Type of Unit & Support Status Type of Fire & Delay Attack Rating

120mm Mortar
Organic On Call 3 8 4 2
Organic Trgt. of Opty. 6 8 4 2

122mm Howitzer
Direct Support On Call 4 10 5 2
Direct Support Trgt. of Opty. 6 10 5 2

152mm Howitzer
Direct Support On Call 5 12 6 3
Direct Support Trgt. of Opty. 8 12 6 3

When dismounted personnel target is in a Town hex, all dice rolls of "3" or "4" are converted to "no effect."

When target is a vehicle, all dice rolls of "6" or less are converted to "no effect."

RESULTS KEY (See 8.6 for full explanation.)

- = No effect
- S = Suppression
- K = Kill
- Kms = Missile Kill

INDIRECT FIRE COMBAT RESULTS TABLE

Dice Roll	Attack Rating									Dice Roll
	2	3	4	5	6	7	8	9	10 to 15 or more	
2	S	S	S	S	S	K	K	K	K	2
3	S	S	K	K	K	K	K	K	K	3
4	•	•	•	S	S	S	S	K	K	4
5	•	•	•	•	S	S	S	S	K	5
6	•	•	•	•	•	•	S	S	K	6
7	•	•	•	•	•	•	S	S	S	7
8	•	•	•	•	•	S	S	S	Kms	8
9	•	•	•	•	S	S	S	S	Kms	9
10	•	•	•	S	S	S	S	Kms	Kms	10
11	•	•	S	S	S	Kms	Kms	Kms	K	11
12	•	S	S	S	Kms	Kms	Kms	K	K	12

FIREFIGHT (front)

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101	102	103	104	105	106	107	108	109	111
122	123	124	125	126	127	128	129	130	131

112	113	114	115	116	117	118	119	120	121
132	133	134	135	136	137	138	139	140	181

United States Forces

182	183	191	192	201 81mm	202 81mm	203 81mm	204 81mm	205 81mm	206 81mm
303 M60A1	304 M60A1	305 M60A1	306 M60A1	307 M60A1	308 M60A1	309 M60A1	310 M60A1	311 M60A1	312 M60A1

211 4.2"	212 4.2"	221 155mm	222 155mm	223 155mm	224 155mm	225 155mm	226 155mm	301 M60A1	302 M60A1
313 M60A1	314 M60A1	315 M60A1	316 M60A1	317 M60A3	321 M60A3	322 M60A3	323 M60A3	324 M60A3	325 M60A3

326 M60A3	327 M60A3	328 M60A3	329 M60A3	330 M60A3	331 M60A3	332 M60A3	333 M60A3	334 M60A3	335 M60A3
354 XM1	355 XM1	401 M150	402 M150	403 M150	404 M150	405 M150	406 M150	407 M150	408 M150

336 M60A3	337 M60A3	341 M60A2	342 M60A2	343 M60A2	344 M60A2	345 M60A2	351 XM1	352 XM1	353 XM1
409 M150	410 M150	411 M150	412 M150	413 M150	414 M150	415 M150	416 M150	421 M113Z	422 M113Z

501 M113	502 M113	503 M113	504 M113	505 M113	506 M113	507 M113	508 M113	509 M113	510 M113
513 M113	514 M113	515 M113	516 M113	521 MICV	522 MICV	523 MICV	524 MICV	601 Veh X	602 Veh X

511 M113	512 M113								
603 Veh X	604 Veh X								

114	115	116	117	118	119	120	121	122	123
134	135	136	137	138	139	140	141	142	143

124	125	126	127	128	129	130	131	132	133
144	145	146	147	148	149	150	151	152	153

Soviet Forces

154	155	156	157	158	159	160	161	162	163
201 120mm	202 120mm	203 120mm	211 122mm	212 122mm	301 T-62	302 T-62	303 T-62	304 T-62	305 T-62

164	181	182	183	191	192	001 SPG-9	002 SPG-9	011 SA格尔	012 SA格尔
306 T-62	307 T-62	308 T-62	309 T-62	310 T-62	311 T-62	312 T-62	313 T-62	314 T-62	315 T-62

316 T-62	317 T-62	318 T-62	319 T-62	320 T-62	321 T-62	322 T-62	323 T-62	324 T-62	325 T-62
341 XMBT	342 XMBT	343 XMBT	344 XMBT	345 XMBT	346 XMBT	347 XMBT	348 XMBT	349 XMBT	350 XMBT

326 T-62	327 T-62	328 T-62	329 T-62	330 T-62	331 T-62	332 T-62	333 T-62	334 T-62	335 T-62
351 XMBT	352 XMBT	353 XMBT	401 BRDM	402 BRDM	403 BRDM	501 BMP	502 BMP	503 BMP	504 BMP

505 BMP	506 BMP	507 BMP	508 BMP	509 BMP	510 BMP	511 BMP	512 BMP	513 BMP	514 BMP
525 BMP	526 BMP	527 BMP	528 BMP	529 BMP	530 BMP	531 BMP	532 BMP	601 Veh X	602 Veh X

515 BMP	516 BMP	517 BMP	518 BMP	519 BMP	520 BMP	521 BMP	522 BMP	523 BMP	524 BMP
603 Veh X	604 Veh X	605 Veh X	606 Veh X	606 Veh X	221 152mm	222 152mm	223 152mm	224 152mm	225 152mm

S	S	S	S	S	S	Kf
S	S	S	S	S	S	Kf

Kf	Kms	Kms	Kms	A
Kf	Kf	Kms	Kms	G

S	S	S	S	S	S	S	S	S	S

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FIREFIGHT (back)

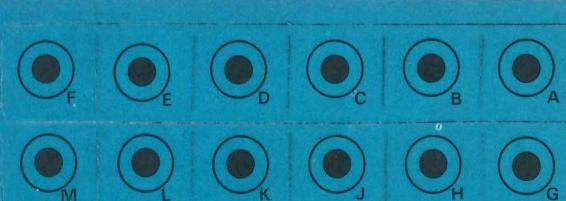
155 155 155 155 155 155 4.2" 4.2"

81 81 81 81 81 81



Blue background area

Orange background area

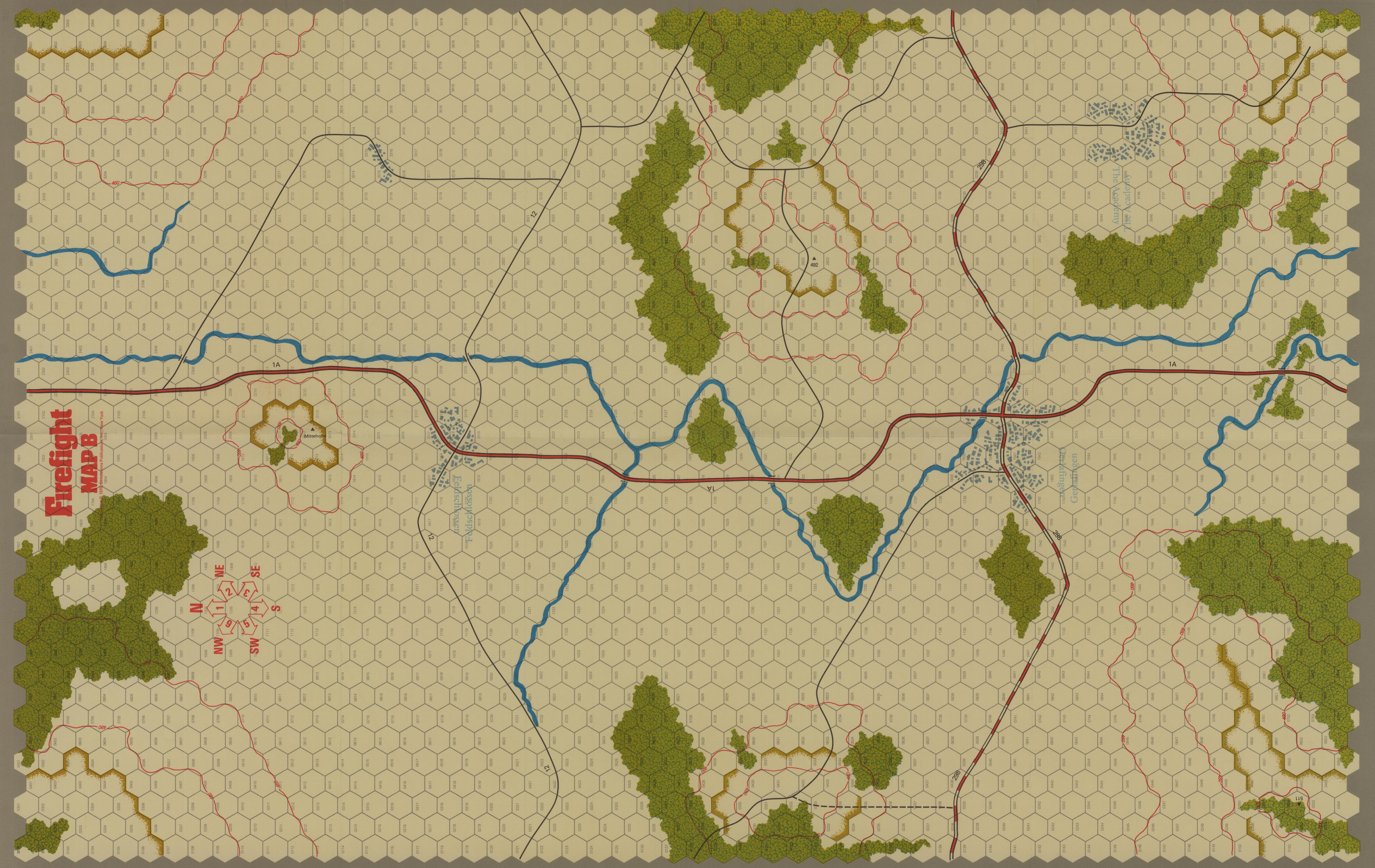


		Km	Km	Km	

122 122 120 120 120

Blue background area

Orange background area



Firefight

MAPA

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