

Living Rules (Aug. 2017)

MBT



BASIC GAME RULES



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This is the "Living Rules" document for the game. It includes errata and clarifications to the original rules. To aid readability, errata is indicated in blue text.

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Introduction

“You start out with a bag full of luck and an empty bag of experience. The trick is to fill the bag of experience before emptying the bag of luck.”

~ Anonymous

MBT is a game of conventional ground-oriented combat set in 1987. It models a hypothetical war between NATO and Soviet forces of the period set in West and East Germany, Czechoslovakia and the surrounding areas. It is designed to test the tactical skills of two or more players.

As a tactical level game, the battles (scenarios) depict small unit actions. As such, any force can theoretically defeat any other force. That is the advantage tactical games have over strategic games.

These rules may seem lengthy, but in reality once the game mechanics are understood, the system is really quite intuitive and straightforward. To assist in the assimilation, the rules are organized by a number code for quick reference. The most commonly used information is contained on the various Game Cards, Data Cards and Reference Cards for easy accessibility during play.

There is no reason to sit down and open this rulebook with an intention of reading it cover to cover, memorizing each section along the way. Start with the Basic Game Rules, play a few vehicle on vehicle encounters and then advance on to the Advanced Game rules.

However, take it in stages. Keep in mind that it is quite a step from the Basic Game to the entire Advanced Game. Even given that, not all of the Advanced Game elements need be included in every single scenario.

The Optional Rules add additional depth, but they should only be tackled once the players are comfortable with the Basic and Advanced Game rules. The Optional Rules build on those concepts, so a complete understanding is important to get the most out of the Optional Rules.

In all cases, consider the Advanced Game and Optional Rules modular—add them as tastes and interests dictate.

The various text in this format are examples of play; expanding on the rules and concepts.

The various text in this format are design notes; the reasons why things are what they are, and general comments and background information.

Scale

The scale is structured to support its predominate one-to-one presentation. With that in mind, the game scale is composed of three distinct elements: force representation, ground scale, and time scale.

The force representation is one-to-one for vehicles, towed weapons and aircraft. The main leg units are squads, half-squads and sections. Leg crew-served weapons are grouped into sections of 2-3 HMGs, mortars, ATGMs, etc. Off-map artillery units are batteries of 2-6 gun tubes.

The horizontal ground scale is 1 hex equals 100 meters; the vertical ground scale is one level equals 3 to 8 meters.

The time scale is fluid with each complete turn representing approximately 15 seconds to 15 minutes.

1.0 Components

Players should familiarize themselves with all game components before starting play. Some components are not used in the Basic Game and are marked with (AG) or (OR) indicating their use with the Advanced Game or Optional Rules.

1.1 Rulebooks

All of the information required to play the game is contained in the two rulebooks. For ease of use, they include diagrams, illustrations, and examples of play to speed up the learning process. A table of contents, glossary and index are also available to facilitate quick reference.

The rulebooks are divided in to the Basic Game, and the Advanced Game (AG) and Optional Rules (OR) sections.

Some of the rule sections refer to units or capabilities for units included in the *FRG* and *BAOR* expansions or to possible future expansions. Where specific references are included, (*FRG*) or (*BAOR*) is noted.

1.2 Geomorphic Mapboards

The five double-sided geomorphic mapboards (also referred to as maps) are used to battle it out through the included scenarios. These also enable a wide variety of configurations when setting up or designing scenarios. The terrain depicted is representative of the area of West Germany garrisoned by the US V and VII Corps.

The superimposed hex grid regulates movement and determines combat results.

- They may be flipped and combined along the short or long edge to form many different configurations.
- Each hex has a specific terrain type that clearly dominates the hex. It affects both movement and combat.
- Partial hexes are playable. They are part of the mapboard containing the hex identifier when they link on two connecting maps.
- Each mapboard has a directional hex. The number in the center identifies the mapboard in play. Its hex is also used for special setup conditions and other random events.
- Each hex has a center white dot that is used when determining line-of-sight.
- Textual notations including hill and village identifiers are typically utilized for setup and victory determination. Villages have coded names (NATO phonetic alphabet and mapboard number) to support encrypted communications.

- Each hex contains a unique alpha-numerical identifier, e.g., E9. Certain partial hexes may be numbered 0, e.g., E0. When referring to a hex, the first character is the mapboard number followed by a specific hex identifier, e.g., 2E9.



Note that the geomorphic mapboards from the *Panzer* series are fully compatible with *MBT*.

1.3 Game Cards

There are two identical Game Cards with sides A and B. These cards contain all of the combat and support tables and contain all of the tables and charts required for play. Find the Combat Effects Summary card on the back cover of the Playbook. This card summarizes combat effects.

Whether it is combat determination, command control, morale, the combat effects summary, or the sequence of play, all of that information is found on one of the Game Cards.

Game Card tables and charts of similar function all have the same color title bar to help organize and direct players to similar use tables. The various tables and charts are explained throughout this rulebook.

1.4 Data Card Keys

The Data Card Keys provide a summary of the information found on the numerous Data Cards. The land and air units share a great deal of common information, but also possess information unique to the particular type of unit. It is a good idea to become familiar with the various format types and presentation of data.

1.5 Data Cards

All of the specific unit information is provided on the various Data Cards. Some contain information for multiple units.

Review the various Data Cards in conjunction with their respective keys. The various sections are explained throughout this rulebook.

1.6 Game Counters

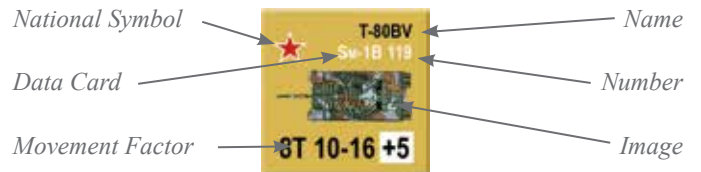
The various die-cut counters are punched out to provide playing pieces and are interchangeably referred to as counters or markers. They are used to show information and track status. Note that with the exception of the Command counters all the other counters are two-sided. The side used depends on what information a situation requires; their use is described throughout this rulebook.

1.6.1 Units

These counters represent an assortment of Soviet (tan color) and US (green color) units.

The larger counters represent vehicles, towed guns and aircraft and contain the name, national symbol, image of the unit represented, Data Card reference, individual identification number, and movement factor.

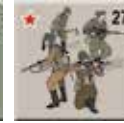
The smaller counters represent leg units and contain a national symbol, image of the unit represented, and an individual identification number. For ease of use, squads have their corresponding half-squads on the reverse side; helicopters have their two altitude options front-to-back.



Vehicle



Squads



Half Squads



HMG Section



GrnLnchr Section



ATGM Sections



MANPADS Sections



Other Sections



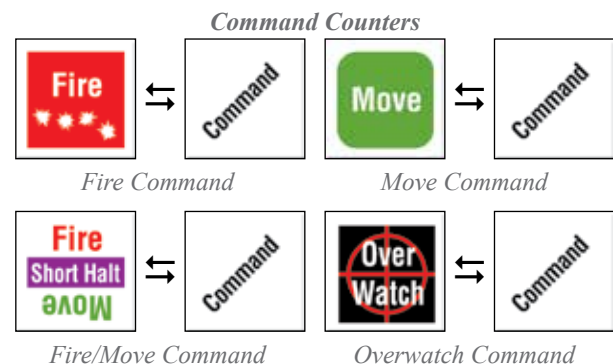
Helicopter

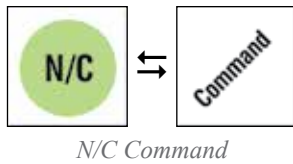


Towed Gun

1.6.2 Command Counters (Unit Orders)

The 5 Command counters determine the actions each unit will conduct during an upcoming turn. In the Basic Game, each vehicle receives its own dedicated Command counter. When the Advanced Game's Command Control rules are employed, one or more units typically must share a single Command counter thereby executing the same action.



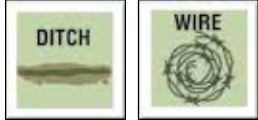


1.6.3 Information Counters



These are placed on the mapboard or directly on units to record game information or to track the status of units, e.g., KO and BU, for knocked out and brewed up vehicles.

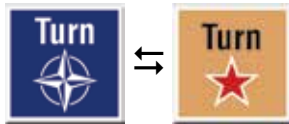
1.6.4 Terrain Counters



These are placed on the mapboard to alter a hex's terrain, e.g., DITCH and WIRE.

1.7 Turn Track, Transport & Summary & Hidden Unit Card

The two Turn Track, Transport & Summary & Hidden Unit cards include a Turn Track, and sections for Transport & Summary and Hidden Units.



While each card features a Turn Track, only one is used to track the current turn and the force designated as the First Player. If one force is utilizing the Hidden Unit rules (OR) (see 7.2), it is probably easier to use the Turn Track on the other card.

The Transport & Summary Track helps organize units that are either being transported or are held off the mapboard as instructed by the scenario rules, a special condition, or just to better organize a hex containing a large number of units and other counters.

For transport purposes place the passenger unit(s) in one of the 10 numbered hexes. Then place its corresponding Summary counter on the transporting vehicle.



For summary purposes place the units and counters from a hex again in one of the 10 numbered hexes. Then place its corresponding Summary counter in the appropriate hex on the mapboard. Be careful to position vehicles and towed guns along the edges of the summary hex so as to maintain their correct facing.



When used to organize hidden or off-map units, it is best to place the card somewhere away from the mapboard or under a cover sheet to hide the units from view. Place the hidden units in one of the numbered boxes. Then place its corresponding Hidden Unit counter in the appropriate hex on the mapboard.

1.8 Formation Summary (Playbook)

The Formation Summary is used to record information about each formation in a player's force. Is not required for the Basic Game or for most elements of the Advanced Game, but becomes essential when employing the Command Control (AG) and Morale rules (OR).

It also helps players to organize their forces and keep track of various other information items. Please feel free to copy or print the page as needed.

1.9 Percentile Dice

Two sets of percentile dice are included. To keep play moving in larger games of 3 or more players, provide each player with their own set of dice.

What are percentile dice? They are a set composed of two different colored 10-sided dice each numbered from 1-10 or 0-9. They are commonly called d10s.

1.10 Other Items (not included)

A straightedge is very useful when determining any questionable lines-of-sight. Some Optional and scenario rules require random mapboard events; a standard six-sided die (commonly called a d6) is used for resolution.

Each player may also want to have a pencil handy for making notations on the Formation Summary or a notepad for any other pertinent information necessary for Advanced Game or Optional Rules situations.

2.0 Preparation for Play

Select one of the available scenarios or feel free to design your own. Review the scenario information and position the mapboard based on the sides played.

The Setup Section of the scenario provides any special or unique requirements. In addition, the Special Conditions Section may also provide notes for the preparation of play.

Select the required unit counters and also select their corresponding Data Cards.

Give each side a set of dice, a Game Card and position a Turn Track, Transport & Summary & Hidden Unit Card for ease of tracking the current turn. It is now time to open fire.

3.0 General Procedures & Rules

The following rules have an impact on more than one phase or step of the Sequence of Play, so it is a good time to review them at this point.

3.1 Definition of the Phasing Player

Players perform all actions and dice rolls for the vehicles they command—their Force. Therefore, a player is designated as the *phasing player* for his own vehicles. Within that context, after determining the Initiative a player is either the First or Second Player on any given Turn.

3.2 Reading the Dice

A set of two d10s (one colored and one white) generates a result from 01-00 (100), where a single d10 generates a result from 1-10 (where 0 equals 10). When rolling both d10s, players should be clear which color represents the *ten's* value and which color represents the *unit's* value. Keep it consistent.

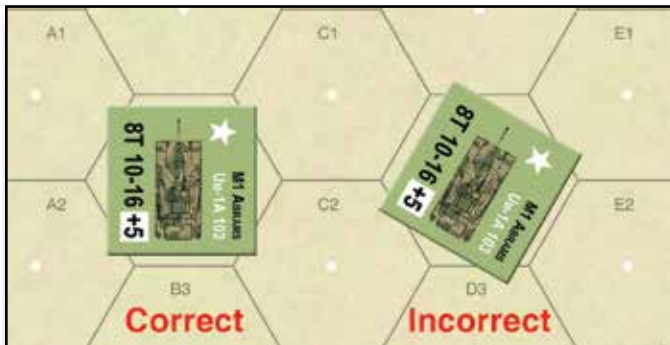
With a colored d10 & white d10 combination, if a 2 is rolled on the colored die and a 7 is rolled on the white die, the result is 27. If a 0 is rolled on the colored die and a 1 on the white die, the result is 1. If a 0 is rolled on the colored die and a 0 on the white die, the result is 100.

When a 1-100 result is required to resolve an action, roll (100) is stated; when a 1-10 result is required, roll (10) is stated.

3.3 Vehicle Facing

All vehicles have a front, side and rear facing. The fronts are shown as the top of the vehicle's pictures on each of their Data Cards; i.e., the direction in which it is facing. Vehicles must at all times face towards a hexside, not towards the angle of a hex.

Except during reverse moves, vehicles must always move with the front of the vehicle facing towards the direction of movement. During reverse moves, the vehicle moves in exactly the reverse of its front.



3.4 Counter Use & Facing

Counters are placed on or near a vehicle to display information about that vehicle and to indicate its Command for the current turn. Some counters have different information on the various faces of its counter that are further identified this rulebook.

The applicable information is always that which is on the face that matches the front of the vehicle. For example, the facing of the SPOT counter placed with the M1 Abrams tank indicates that it was spotted by its fire. Rotate the counter 180 degrees and it would be spotted through movement. The side and facing determine what counter information is active in any given situation.

One of the Command counters, SHORT HALT, possesses two distinct commands—both FIRE and MOVE. For this Command, face the command that was just executed to the front of the vehicle. All FIRE commands are executed first, and then MOVE commands. Players are able to keep track of unmoved SHORT HALT vehicles, since the FIRE side is facing front until those vehicles move.



A counter's active component is identified in these rules by its name/active component, if any, e.g., SPOT/FIRE.

3.5 Range

Range is the distance from one vehicle to another and is always expressed as range in hexes.

3.5.1 Range in Hexes

The range in hexes is determined by counting hexes from one vehicle to another vehicle along the shortest route. Count the hex that the target vehicle occupies but not the hex that the spotting/firing vehicle occupies.

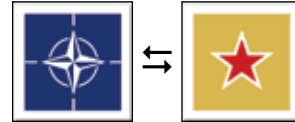
3.5.2 Maximum Ranges

All weapons have a maximum range beyond which they may not fire. Note that most vehicles have more than one ammunition type and some have more than one weapon.

The maximum range of a weapon, for an ammo type, is the range value found on a vehicle's Data Card in the E column (Extreme Range) along the R row (Range). Vehicles may never engage targets beyond their maximum range.

Reference the Vehicle Data Card Key, the T-80BV's 125mm gun's APFSDS ammo has a maximum range of 33 hexes.

3.6 Controlling Objectives



Scenarios usually call for meeting certain objectives beyond just the destruction of opposing vehicles. Typically, these objectives are geographic features, e.g., a bridge, ford or building hexes, hills, or exiting the mapboard, both are worth a number of victory points that are used in determining the victorious side in a scenario.

For on mapboard objectives, utilize the Control counters to track which force has control.

The Victory Conditions section of the scenarios list the conditions that must be met to capture an objective. Most require a vehicle to occupy an objective for one or more complete turns. The occupying vehicle need not be the same one that occupied an objective at the start of the turn, as long as the objective is still occupied by a friendly vehicle at the end of the turn. Once captured, continuous occupation is not required.

Unarmed vehicles may not capture objectives.

If contested, e.g., opposing units adjacent to a building hex that is On Fire, neither side controls the objective.

The turn requirement prevents players from moving vehicles in a mad dash on the very last turn to capture objectives.

3.7 Modifiers & Adjustments

Certain combat conditions call for spotting at greater than or less than the base spotting ranges.

AP Combat includes modifiers to the base spotting ranges and combat values. It typically adds or subtracts a modifier value or values from the base on the Spotting Ranges and AP Hit Tables.

SHORT HALT commands and Damage results call for vehicles to reduce their movement speed allowance by $\frac{1}{4}$ or $\frac{1}{2}$ —always round down. If a Damaged vehicle has a SHORT HALT command, it moves at $\frac{1}{4}$ of the available movement speed allowance. A movement speed allowance is never less than 1.

If the original Movement Speed Allowance is 5, $\frac{1}{2}$ is 2; $\frac{1}{4}$ is 1.

3.8 Stacking

A 100 meter hex is actually quite a large area (approximately 6,500 square meters), but there still is a physical limit as to what could reasonably occupy a hex before visual overcrowding occurs.

In game terms, any number of vehicles may stack in a single hex. However, if at any time a hex contains 6 or more vehicle counters (Wrecks do not count for stacking purposes), it is considered to be over-stacked and negative spotting, combat, and movement effects come into play. Those effects are outlined in the Spotting (see 4.1.3.2), Combat (see 4.4.3.2.2), and Movement (see 4.5.1.1.5) Phases sections.

4.0 Sequence of Play

A scenario starts after all setup and preparation is complete. During a scenario, each side uses its forces in attempting to meet the scenario objective(s). A scenario is played in Turns. Each turn is divided into Phases, which may be further divided into one or more Steps.

These phases and their corresponding steps (see Sequence of Play on Game Card B) are executed in the exact order listed.

For the Basic Game, ignore those phases and steps with red notations for the Advanced Game, or blue notations for Optional Rules.

4.1 Basic Game Spotting Phase

“If the enemy is in range, so are you.”

~ Anonymous

Even though players can see the opposing vehicles on the mapboard, this does not necessarily mean that the vehicles can see each other in the context of the game.

Before a vehicle can fire on a target vehicle, that target vehicle must be spotted by the firing vehicle as described by the rules of spotting. Obviously, it makes no sense to give a FIRE command to a vehicle that cannot see any opposing vehicles.

Determining who is seen during the Spotting Phase is what makes it possible to give vehicles FIRE or SHORT HALT commands during the following Command Phase.

The spotting determination process is also followed when determining when an OVERWATCH command is triggered.

Players may freely check spotting at any time. However, keep in mind that this may “give away” a key shot or strategy. On the other hand, it just might mislead the opposing side into falling for a deceptive plan of action.

4.1.1 Who may Spot?

Any vehicle *combat* unit may spot opposing vehicles. For spotting purposes, a vehicle *combat* unit is defined as one possessing some form of offensive firepower or fire support sighting capability, e.g., US M981 FISTV.

Unarmed vehicles, e.g., M60 AVLB, MT-55A AVLB, Biber AVLB (FRG), Chieftain AVLB (BAOR), and trucks (FRG), may not spot.

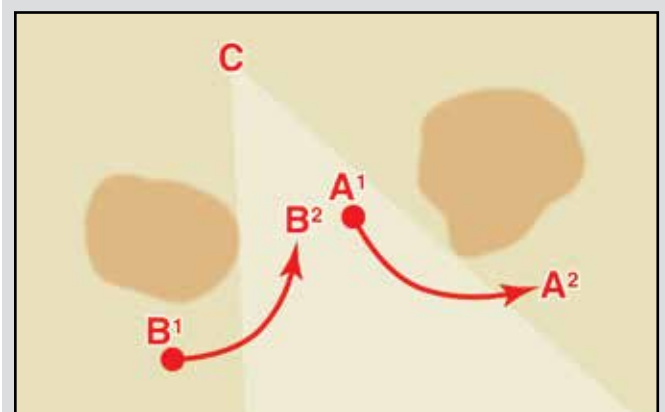
A continuity of spotting exists throughout a turn and from turn-to-turn. For ease of flow and game play, the different activities performed during a turn are broken down into phases and steps. In real life these actions actually occur simultaneously, but in the context of the game, and ease of play, they are conducted sequentially.

Once an opposing vehicle is spotted, it remains so as long as at least one friendly vehicle meets the range and line-of-sight requirements. Vehicles hand off spotted targets to one another as vehicles move

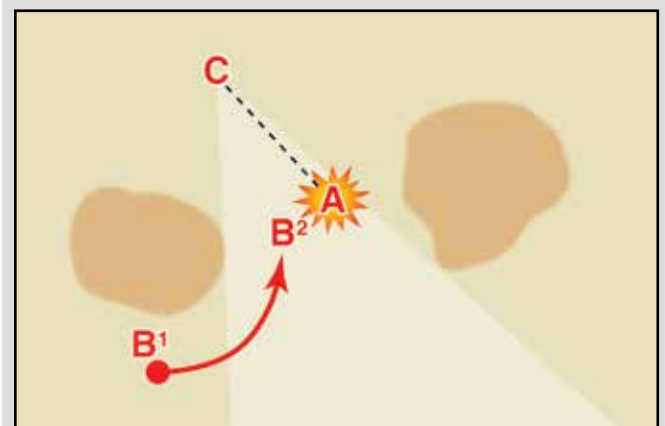
into the area, move out, or are eliminated. As long as a single vehicle meets the spotting criteria during the Spotting Phase, an opposing vehicle remains spotted.

To fire on an opposing vehicle, it must be individually spotted by the firing vehicle as described by the rules of spotting. Handing off spotting targets does not mean friendly units are spotting for one another.

Unless the spotted vehicle moves away or all friendly vehicles move out of line-of-sight or are eliminated, the vehicle is still considered spotted.



1) A spots C since it has a SPOT/FIRE counter. B does not spot C due to blocking terrain. 2) During the following Movement Phase, while C remains stationary, A moves behind blocking terrain while B moves from behind its blocking terrain to a clear line-of-sight to C. 3) C continues to be spotted by B since it still has its SPOT/FIRE counter.



1) C spots A. B does not spot C due to blocking terrain. During the Combat Phase, C eliminates A and is marked with a SPOT/FIRE counter. 2) During the following Movement Phase, B moves from behind the blocking terrain to a clear line-of-sight to C. C is now spotted even though B moved during a later phase of the same turn.

If a spot is lost, it must be reacquired through the normal spotting and line-of-sight rules. A vehicle is not automatically spotted again if a condition changes even by the original spotting vehicle.

Once a vehicle is spotted, it just doesn't disappear from view at the end of a turn—it remains spotted. It is not realistic for spotted vehicles to automatically disappear from view at the end of a turn.

4.1.2 Spotting Orientation

Vehicle *combat* units spot in all directions (360°), not just in the direction their front faces. They may spot any and all opposing vehicles that may be spotted from their current hex.

4.1.3 Determining Spotting Ranges

Spotting ranges are based on the terrain type of the hex occupied by the target vehicle. Terrain provides both cover and concealment for vehicles; hereafter collectively referred to as Cover. It is classified as providing None, Light, Medium or Heavy Cover.

The terrain Cover types are listed in the fourth column of the Terrain Effects Table on Game Card B, cross-referenced by the terrain type listed in the first column. The Cover type in a spotting vehicle's hex has no impact on spotting.

The corresponding spotting ranges are found in the Spotting Ranges Table on Game Card B. When attempting to spot a vehicle, cross-reference the V column with the base 0 row. The V column is the general spotting category for all vehicles.

The base spotting range for all vehicles is 20 hexes. In the Basic Game, this base range may increase or decrease due to the target vehicle's Cover and whether or not it fired or moved. All spotting modifiers are cumulative. A net modifier greater than +2 is treated as +2; less than -5 is treated as -5. Note that vehicles spotted via base range only are not marked with a SPOT counter.

At any time, a vehicle may be marked with either a SPOT/FIRE counter or a SPOT/MOVE counter, not both.

Adjust the base spotting range by applying the Cover modifier, if any, of Light Cover -1, Medium Cover -2, or Heavy Cover -3, by moving that many rows down the table.

A Soviet BMP-2 is located in a Woods hex; it is spotted out to 7 hexes.



If the target vehicle moved it is marked with a SPOT/MOVE counter; apply the +2 modifier by moving 2 rows up on the table.

A Soviet BMP-2 moves into a Woods hex and is marked with a SPOT/MOVE counter; it is now spotted out to 20 hexes.

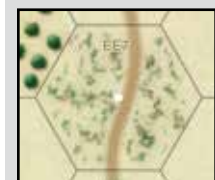


If the target vehicle fired, it is marked with a SPOT/FIRE counter; apply the +3 modifier by moving 3 rows up on the table. Use the +2 row for all modifiers greater than +2.

A Soviet BMP-2 fires from a Woods hex and is marked with a SPOT/FIRE counter; it is now spotted out to 30 hexes.

If the terrain is in any way mixed, e.g., in an Improved Position (AG) in a Woods hex, use the terrain type that is the most advantageous to the target vehicle; in this case utilize Heavy Cover.

If the terrain lists *Other* as its Cover type, use the other terrain type in the same hex to determine the Cover type, if any.



If a vehicle is on a Path in Scrub hex, Light Cover is in effect.

4.1.3.1 Vehicle Size

The vehicle Target Size Modifier does not impact spotting ranges.

4.1.3.2 Over-Stacked Hex

If a vehicle is located in an over-stacked hex, treat any Cover in the hex as None.

4.1.4 Line-of-Sight

A second aspect of spotting is line-of-sight. It is a very basic concept, and works hand-in-hand with the spotting ranges. It is defined as a straight line between two vehicles. If a line-of-sight is blocked by some obstacle located between the two vehicles (not including the two vehicles themselves or any intervening vehicles) they may not spot each other even if they fall within spotting range.

Line-of-sight is measured from the center dot in the hex containing the spotting vehicle to the center dot of the hex containing the target vehicle. An obstacle blocks line-of-sight even if it passes through only a fraction of its hex or along its hexside.

4.1.4.1 Terrain Features

Broad categories are used to represent the various terrain types in the game.

Terrain comes in two flavors, that which fills an entire hex and that which covers just a hexside. Included are terrain features printed on the mapboard and that added by placing Terrain counters. The specific Terrain types are found in the Terrain Effects Table on Game Card B and the Terrain Key located on the back of this Rulebook.

Terrain types may potentially block line-of-sight based on their Height, as found on the second column in the Terrain Effects Table. Height is measured starting at 0 for ground-level terrain. Some terrain types have an inherent height while others add height to the terrain they occupy. Vehicles, whether friendly or enemy, have no Height and never block line-of-sight.

4.1.4.1.1 Non-Blocking Terrain

Terrain with a Height of 0 or -1, e.g., Clear, Brush, Crops, Rough, Railroad Track, Scrub, Shellhole, Stream, or Wall, does not block line-of-sight.

4.1.4.1.2 Blocking Terrain

Terrain with a Height of 1 or more may block line-of-sight depending on the Height of the spotting and target vehicles and their relationship to the potential blocking terrain.

4.1.4.1.3 Building Hexes

Since each hex equals 100 meters, Building hexes are not made up of single structures, but represent a cluster of structures of a particular type—Brick, Stone, or Wood. They are usually found along Paths or Roads.



Vehicles may freely enter Building hexes, as they are not actually entering the Buildings themselves, but are in the Alleyways between the Buildings. Therefore, any vehicle located in a Building hex is actually occupying Alley type terrain.

Building hexes have a height of 1 per story above ground level; a two-story Building hex has a Height of 2. All Building hex types may block line-of-sight.

Roads and Paths in a hex negate the blocking effects for units spotting along a straight line into or through a Building hex.

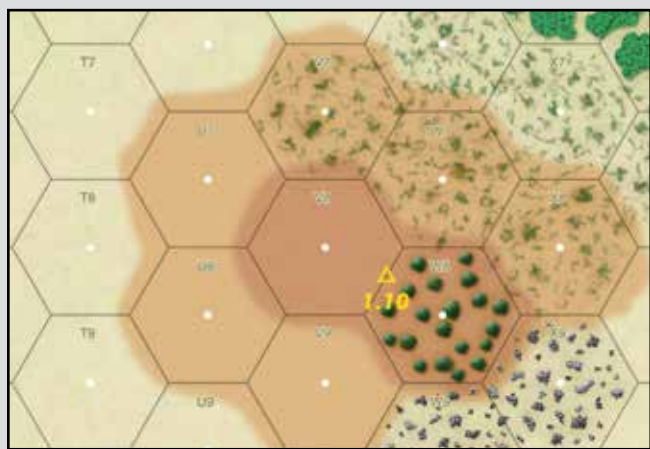
A vehicle in hex 5Q5 has a clear line-of-sight to hex 5N4. However, it does not have a line-of-sight to hex 5N3.

All Buildings are considered to be 1 story high unless indicated otherwise by a scenario's Special Conditions.

4.1.4.1.4 Hill Hexes

Unlike other terrain that possess inherent Height, Hills add elevation to the mapboard. However, Hills do not represent terrain—they are covered by terrain. If Rough terrain is in a Hill hex, it does not make the Hill hex any higher since Rough has a Height of 0. However, the Hill hex is Rough terrain.

Each level of a Hill adds a Height of 1. Hills are stacked in individual levels of varying colors up to any height. Heights of 4 to 5 are typically the limit.



The Hill is 2 Heights at its maximum elevation.

4.1.4.1.5 Slope & Crest Hexsides

Slope hexsides are the transition points from one Height or elevation, either up or down, to another. They are found only in conjunction with Hills. If a Hill is depicted without a Slope on an edge or side, that creates a sheer edge or cliff, that hexside is impassable to vehicles.



Slope Hexsides

Crest hexsides are elevation transitions or small rises in terrain. They may be found anywhere on the mapboard, but typically form breaks along hills.

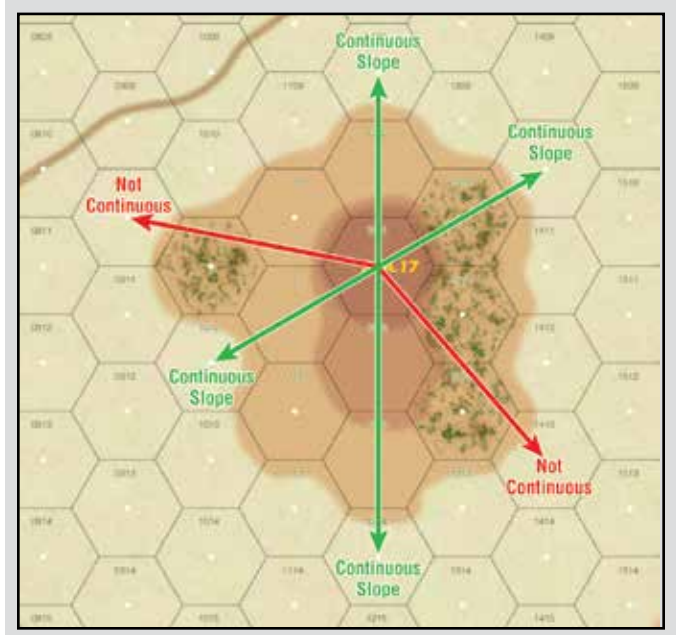
Both Slope and Crest hexsides have a Height of +1. However, only Crest hexsides may individually block line-of-sight. Slope hexsides are part of a Hill formation and any line-of-sight checks are made from the Hill hexsides.



This Crest hexside equally divides Hill 1.7. Any vehicles in hexes V2 and W1 may not spot one another due to the fact that they are at Height 1, while the Crest hexside is at Height 2.

4.1.4.1.5.1 Continuous Slopes

A series of contiguous hexes with slope hexsides such that the level of each hex is one or more heights lower than the adjoining higher hex is a Continuous Slope and doesn't block line of sight as long as no other blocking terrain exists in the hexes.

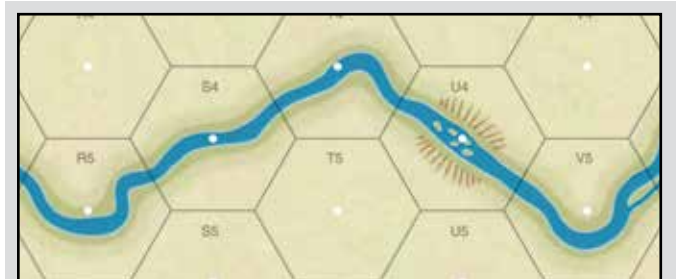


4.1.4.1.6 Gully, Ford & Stream Hexes

Gully, Ford and Stream hexes have a Height of -1; they are actually one Height lower than the surrounding terrain. These Terrain types do not block line-of-sight.

A Bridge hex that crosses a Stream hex is at Height 0, since a bridge crosses above a stream at a higher elevation.

There is a special spotting rule for Gully, Ford and Stream hexes. When spotting to a Height 1 level above their Height, only adjacent hexes may be spotted. Like Roads and Paths, units may spot along a straight line in Gully or Stream hexes.



These Stream hexes are at Height -1. The Clear hexes in the vicinity of the Stream are all at Height 0. Only those hexes adjacent to the Stream hexes may be spotted from the Stream hexes and vice versa.

4.1.4.1.7 Woods Hexes

Light Woods and Woods hexes represent stands of trees that provide cover for vehicles. Vehicles may never enter Heavy Woods hexes unless on a Road or Path.

Light Woods and Woods hexes both have a Height of 3, while Heavy Woods hexes have a Height of 4 above ground level; they may block line-of-sight.

Roads and Paths in a hex negate the blocking effects for units spotting along a straight line into or through a Woods hex.

Note that vehicles in Light Woods or Woods hexes are actually at the ground level of the terrain not up at the maximum Height of the terrain.

4.1.4.1.8 Wrecks



A Wreck is created whenever a vehicle suffers a Knock-Out (KO) or Brew-Up (BU) result from AP combat. The Wreck may also be a source of Brew-Up Smoke if that was the result of the combat.

Wrecks have a Height of 0; they do not block line-of-sight.

A hex may never contain more than a single WRECK counter, although a KO counter is replaced by a BU counter due to combat results; not vice-versa.

In a similar manner to Illumination rounds Brew-Up Wrecks increase spotting ranges during night/limited visibility conditions (OR) (see 7.27).

4.1.4.1.9 Smoke, Brew-Up

Whenever a vehicle is Brewed-Up as a result of AP combat, it also creates Brew-Up Smoke as represented by the BU counter. Brew-Up Smoke has a Height of 2, but does *not* block line-of-sight. It hinders AP combat.

4.1.4.1.10 Hedgerow Hexsides

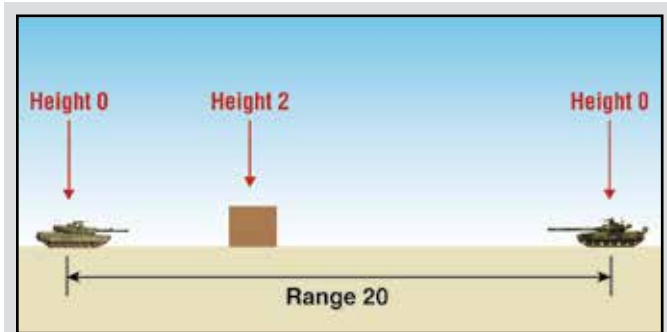
Hedgerow hexsides have Height of 1 and block line-of-sight depending on the Height of the spotting and target vehicles and their relationship to the potential blocking terrain. An Optional Rule, Hedgerow Spotting (see 7.10) expands on the limitation.

4.1.4.2 Determining Line-of-Sight

The line-of-sight for AP combat is checked from the spotting vehicle to the Height of the target vehicle. Obstacles—the highest point of any intervening terrain—affect line-of-sight based on the following conditions:

4.1.4.2.1 Obstacle Higher than Both

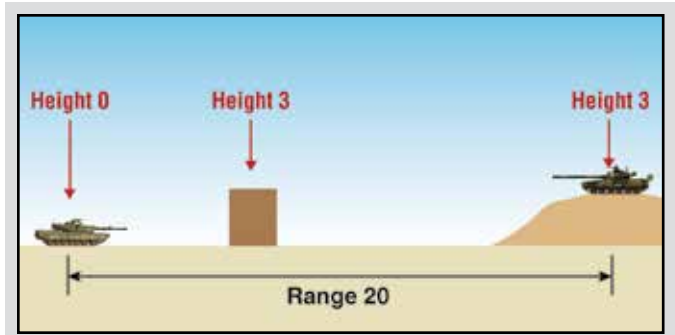
If the line-of-sight crosses an obstacle and it is higher than the Heights of both the spotting vehicle and the target vehicle, the line-of-sight is blocked.



The obstacle blocks line-of-sight at any range.

4.1.4.2.2 Obstacle Higher or Equal

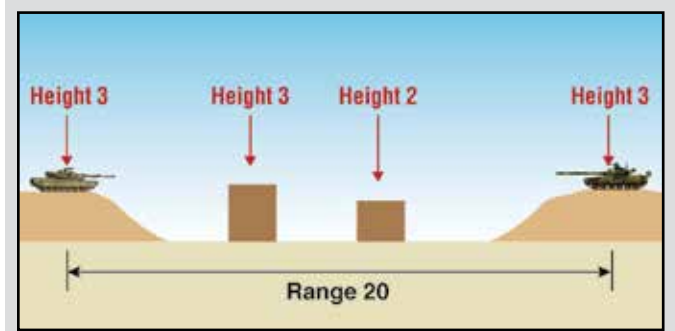
If the line-of-sight crosses an obstacle which is equal in Height to either the spotting vehicle or to the target vehicle, and is higher than the other vehicle, the line-of-sight is blocked.



The obstacle blocks line-of-sight behind it at any range.

4.1.4.2.3 Obstacle Equal or Lower

If the line-of-sight crosses an obstacle which is equal to or lower than the Height of both vehicles, the line-of-sight is not blocked.



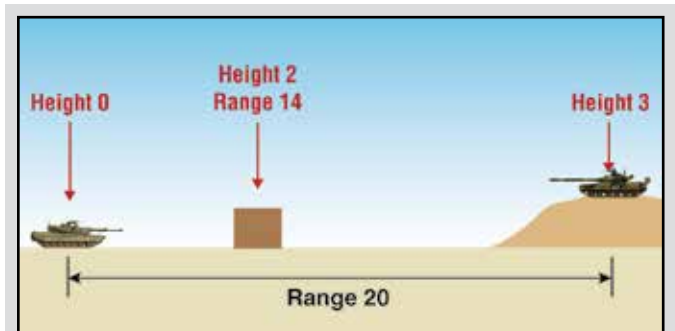
The line-of-sight is not blocked.

4.1.4.2.4 Obstacle Higher and Lower

If the line-of-sight crosses an obstacle which is higher than one vehicle but lower than the other vehicle, a line-of-sight check must be made using one of the following procedures. Count the hex that the potential obstacle occupies but not the hex the spotting vehicle occupies. A calculated Blind Zone is never less than 1 hex.

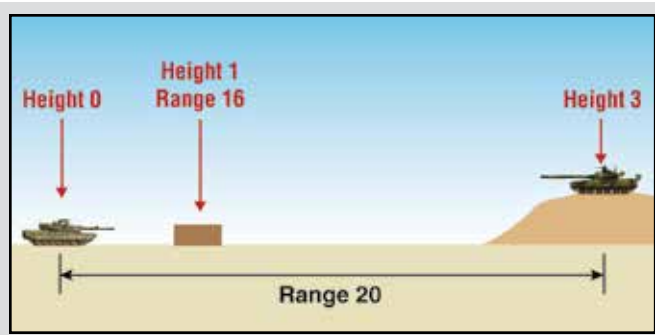
Note that in all cases the reverse is also true whether the spotting vehicle is the higher or lower vehicle in Height.

Lower by 1 Height: The obstacle creates a blind zone behind it, where no line-of-sight is possible, equal to 1/2 the range in hexes (round down) from the higher vehicle to the obstacle.



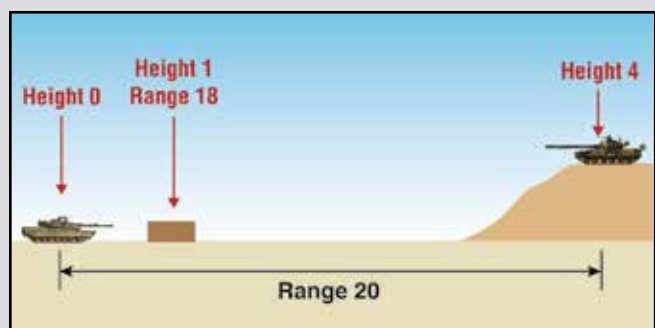
The obstacle creates a blind zone of 7 hexes (14 divided by 2) behind it. Any vehicle located at a range from 15-21 hexes from the higher vehicle may not be spotted.

Lower by 2 Heights: The obstacle creates a blind zone behind it equal to 1/4 the range in hexes (round down) from the higher vehicle to the obstacle.



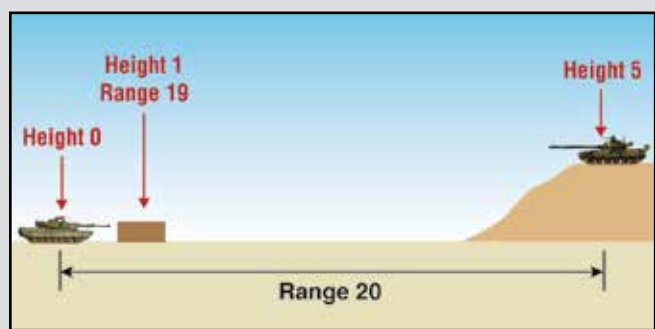
The obstacle creates a blind zone of 4 hexes (16 divided by 4) behind it. Any vehicle located at a range from 17-20 hexes from the higher vehicle may not be spotted.

Lower by 3 Heights: The obstacle creates a blind zone behind it equal to 1/8 the range in hexes (round down) from the higher vehicle to the obstacle.



The obstacle creates a blind zone of 2 hexes (18 divided by 9) behind it. Any vehicle located at a range from 19-20 hexes from the higher vehicle may not be spotted.

Lower by 4 Heights or more: The obstacle creates a blind zone behind it equal to 1 hex from the higher vehicle to the obstacle.



The obstacle creates a 1 hex blind zone behind it. Any vehicle located at a range of 20 hexes from the higher vehicle may not be spotted.

4.1.4.2.4.1 Lower Height Other Than 0

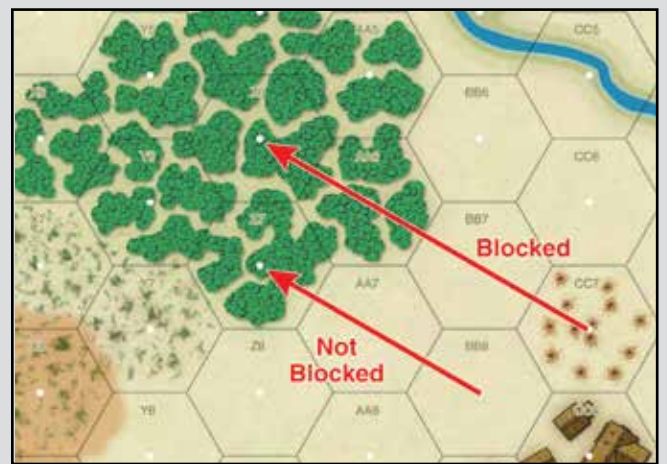
In those cases where the lower unit is above Height 0, add the lower unit's Height to the divisor when calculating the Blind Zone, e.g., the lower unit is at Height 1, the divisors now become 3, 5 or 9.

In those cases where the lower unit is at Height -1, subtract 1 from the divisor, minimum 2, e.g., 2 remains 2, 4 becomes 3, and 8 becomes 7.

4.1.4.2.5 Spotting Into/From Obstacles

Vehicles may spot up to 1 hex into or from any Terrain type that would normally block line-of-sight unless blocked by an intervening hexside, e.g., if a target vehicle is located in a group of Woods hexes, a 1 hex spotting perimeter exists around the edge of the Woods.

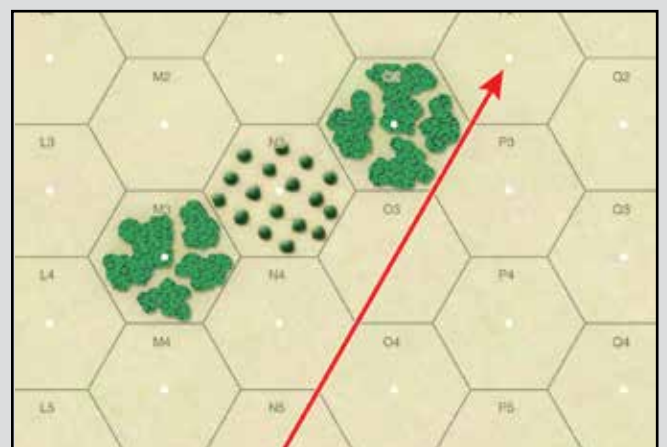
The 1 hex spotting range is also applicable to vehicles located within terrain that would normally block line-of-sight. For example, if two opposing vehicles are moving through a group of Woods hexes, they spot one another if the range is 1 hex.



Line-of-sight into blocking terrain.

4.1.4.2.6 Obstacle Hexsides

A hex containing blocking terrain blocks line-of-sight even if it passes through only a small fraction of the hex. In all cases, if a hex or hexside can block line-of-sight and the line-of-sight runs exactly along one of its hexsides, the line-of-sight is blocked.



Line-of-sight is blocked by the intervening Woods hex.

4.1.5 Extraneous Spot Counters

If it is determined that a vehicle is not spotted, remove any SPOT/FIRE or SPOT/MOVE counter it may have.

In many cases, it may not be necessary to mark all vehicles that fired or moved with SPOT counters, as the spotting ranges may be obvious, e.g., vehicles located in Clear terrain. This should help keep the mapboard a little tidier.

4.2 Basic Game Command Phase

“There are no bad regiments, there are only bad colonels.”
~ Napoleon Bonaparte

At the heart of the game is the Command system. With just five individual commands, players prepare and manage their vehicles for the current turn.

Each of the five Command counters has unique characteristics that distinguish its purpose.

The Commands include:

- **Fire:** enables any vehicle combat unit to fire at a spotted vehicle during the First or Second Player Direct Fire Step (see 4.4).
- **Move:** enables any vehicle to move during the First or Second Player Movement Step (see 4.5).
- **Short Halt:** enables any vehicle combat unit to fire at a spotted vehicle during the First or Second Player Direct Fire Step (see 4.4) and then move during the First or Second Player Movement Step (see 4.5).
- **Overwatch (OW):** enables any vehicle combat unit to *voluntarily* fire at a spotted vehicle that fired in an earlier step or in response to a spotted vehicle moving during the Movement Phase. Note that the target vehicle may be spotted as a result of its current action, fire or movement; it need not have been previously spotted during the Spotting Phase.
It is key to note that OVERWATCH Fire is never required. The command may never be executed.
- **No Command (N/C):** tells the vehicle to sit tight and not perform any actions. This is the default stature for all vehicles not marked with a command.

Note that the Command Phase is executed prior to the Initiative Phase. Players must therefore commit their Commands without the knowledge of who is going to be the First or Second Player. Welcome to the fog-of-war!

4.2.1 Place Commands Step

Place a Command counter with the *Command* side visible on or adjacent to the vehicle so that the opposing side does not know what command was given. Each command enables a vehicle to perform only certain actions during specific phases or steps. When the time comes to carry out those actions, players are bound by them. Only OW and N/C commands allow a vehicle to take no specific action. If a vehicle has a command to FIRE, MOVE, or SHORT HALT, it must execute that command—it is not an option. Care must therefore be taken when assigning commands.

In some cases, a vehicle may be Knocked Out or Brewed Up, therefore making it impossible to carry out a command.

Until a player reveals a command to perform some action; i.e., fire or movement, the command is maintained with its command side up. This also helps keep track of those vehicles that have not yet executed their commands.

Vehicles may not be given commands that cannot be executed. A vehicle that does not have any spotted targets may not have FIRE or SHORT HALT commands.

In the event a vehicle is given an illegal command, it is automatically converted to an N/C command.

4.3 Basic Game Initiative Phase

“Commanders at every level must therefore act with audacity, dash and determination, seizing the initiative and thus subordinating their opponent’s will to their own.”
~ Marshal Mikhail Tukhachevsky

Initiative is a key aspect of the game. Through its careful use, players control the flow of the game by controlling the First and Second Player steps.

Since the Command Phase takes place before the Initiative Phase, players must make command decisions without the advantage of looking into a crystal ball as to the order of execution.

A superior force should more often than not find itself controlling the initiative. This really comes into play in the Advanced Game where the superior force receives a positive die-roll modifier and therefore should win the initiative more often than not. Through this, it is able to dictate and control the course of battle. However, as with all things in life (and war), it is not guaranteed.

4.3.1 Determining Initiative



During the Initiative Phase, each Force rolls (100); reroll ties unless instructed otherwise in the scenario Special Conditions. The Force rolling the higher result determines who is the First Player for the current turn. Flip the TURN counter to indicate the First Player.

Staggered Initiative (OR) (see 7.5) expands the Initiative process based on formations.

4.3.2 How Initiative Works

The First Player always performs the actions listed as First Player in the Sequence of Play. The Second Player follows suit by performing the actions listed as Second Player in the Sequence of Play. It is very important to remember that combat and movement actions are performed sequentially.

Quickdraw (OR) (see 7.44) enables the possibility of simultaneous fire.

If the Second Player has a vehicle with a FIRE command that is Knocked Out during the First Player’s Direct Fire Step, that vehicle is Knocked Out and removed from play before the Second Player can execute its FIRE commands.

Simultaneous actions do not have First or Second Player as part of their Phase or Step. These actions are resolved in any agreeable order.

4.4 Basic Game Combat Phase

“Battles are won by superiority of fire.”
~ Frederick the Great

The players execute fire combats sequentially based on the order determined previously in the Initiative Phase. In the Basic Game all fire is classified as Direct Fire.

The Basic Combat Phase includes a single Step—Direct Fire. Only Armor Piercing AP Direct and Overwatch Fire is addressed at this time. This section encompasses vehicle-to-vehicle AP combat.

Nuclear, Biological and Chemical Weapons (NBC) weapons? Their use holds no standing in *MBT*. Let alone the devastating impact on the battlefield, the morality of such weapons is better suited for another discussion and not modeled in a simulation of modern warfare.

4.4.1 Direct Fire Step

The First Player announces and resolves Direct Fire by revealing the Command for every vehicle with a FIRE or SHORT HALT command as they announce their fire.

The Second Player then announces and resolves Direct Fire by those vehicles still able to fire and marked with FIRE or SHORT HALT commands by following the same procedures.

Direct Fire is resolved under the following rules and conditions:

- FIRE and SHORT HALT commands require a legitimate spotted target that was identified during the previous Spotting Phase. Players may never place FIRE or SHORT HALT commands in anticipation of spotting a target.
- Vehicles fire in the order described in the Sequence of Play. First Player vehicles fire first during that Fire Step; Second Player vehicles fire second during that Fire Step.
- Shots are resolved individually.
- Each vehicle only fires once per turn.
- Fire in each step is resolved from the positions and facings the vehicles occupy at the point the fire is resolved. The terrain occupied by the firing vehicle or its SPOT counter has no impact.
- All fire on a single opposing vehicle must be announced before any fire is resolved. If that target vehicle is eliminated before all the announced vehicles have fired, they are assumed to still have fired at the announced target. They may not then shift their fire to a new target.
- All combat results are applied immediately.
- If the vehicle does not have an existing SPOT/FIRE counter or it has a SPOT/MOVE counter, place the new SPOT/FIRE counter partially under its Command counter to signify that it is a new status. That way, there is no confusion as to the vehicle's status as of the previous Spotting Phase.
- All vehicles with FIRE or SHORT HALT commands must declare fire unless the command was placed in error; i.e., no visible targets are available.

4.4.2 Overwatch Fire

Overwatch Fire is a triggered event in response to opposition fire (during the Combat Phase) or movement (during the Movement Phase)—it fires at targets of opportunity.

After resolving Direct fire, announce and resolve all desired Overwatch Fire by those vehicles marked with OW commands at opposing vehicles that fired during Indirect Fire or Direct Fire Step.

Overwatch Fire is voluntary; vehicles with OW commands are not required to fire. Since Overwatch Fire has built in penalties, it is not intended as a method of engaging spotted targets. It does, however, act as a deterrent to opposition fire and movement.

Overwatch Fire is resolved under the same rules and limitations as described for Direct Fire with the following additions:

- All First and Second player Direct Fire is resolved before any Overwatch Fire is announced.
- Additional Overwatch Fire may be triggered as a result of earlier Overwatch Fire. Consider it a cascading effect where one initial OW shot could trigger a whole series of follow on shots. Again, Direct Fire takes precedence.
- Spotting is confirmed at the time the Overwatch Fire is announced. A previously spotted target is not required.

4.4.3 AP Firing Sequence and Rules

Only those vehicles with an AP row in the Offensive Information section of their Data Cards may fire. AP Type fire is directed only at vehicles; it is never used against any other target type.

There are other types of AP ammo, e.g., APFSDS, APDS, HEAT, HEAT-MP, and HESH, these are also classified as AP Type fire.

While ATGMs are also AP Type weapons, they are not utilized in the Basic Game; they are addressed in the Advanced Game

To fire at a target, it must be spotted, in range of the weapon firing, and fall within the firing vehicle's Field-of-Fire.

4.4.3.1 Fields-of-Fire

All combat vehicle units have a defined Field-of-Fire. Some have a limited field-of-fire. Those include non-turreted vehicles with fixed gun mounts.

4.4.3.1.1 Turreted Vehicles

Turreted vehicles have all-round Fields-of-Fire. Turreted vehicles are those with a TT Factor of 1, 2 or 3 in their Weapon Data section.

An Optional Rule, Turrets (see 7.8) expands on turret Fields-of-Fire and use.

4.4.3.1.2 Turretless 360° Vehicles

Like turreted vehicles, vehicles with a TT Factor of 360 are classified as Turretless 360° and have all-round Fields-of-Fire. Their pivot guns, mounted behind gun shields or in open gun mounts, are able to engage opposing vehicles in any direction.

In the Basic Game, they are essentially the same as turreted vehicles.

4.4.3.1.3 Non-Turreted Vehicles

Non-Turreted vehicles have weapon mounts with limited fields-of-fire. They are those with a TT Factors of 60, 120 and 180. Virtually all have their weapons facing to the front, although a few have their weapons facing to the rear. Non-Turreted vehicles are only able to engage targets that fall within their front or rear Field-of-Fire depending on the position of their weapon.

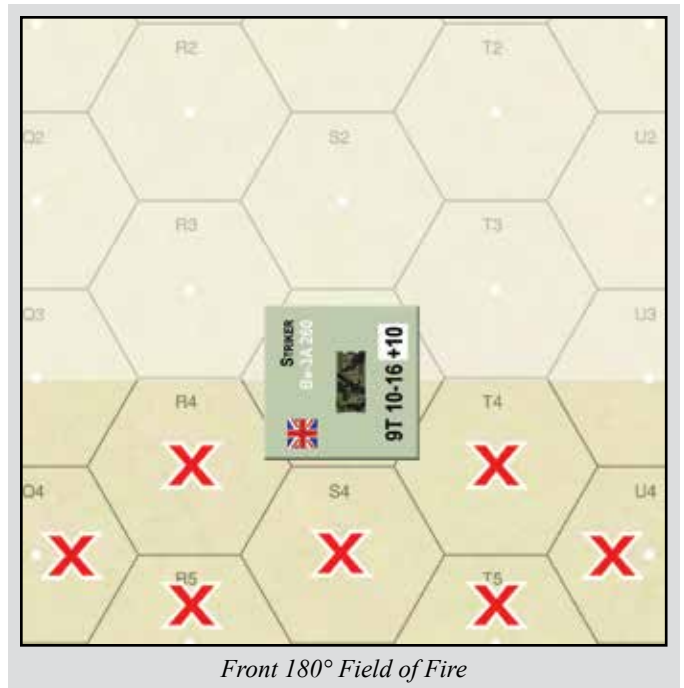
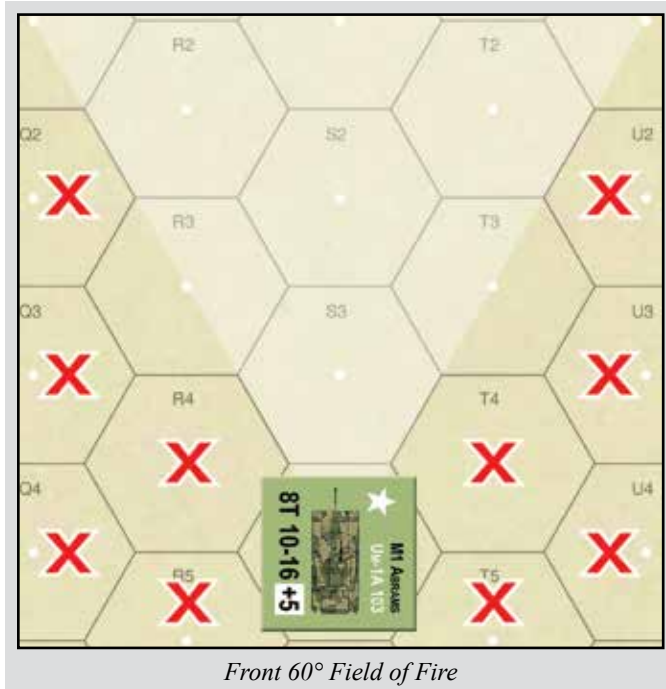


4.4.3.1.4 Front Fields-of-Fire

A vehicle that has a limited Field-of-Fire to its front is indicated by an underscored ammo notation on its Data Card.

A Front Field-of-Fire, in this case, is defined as the area that falls within the Front 60°, 120° or 180° of its counter. All hexes bisected by the respective arc fall within its Field-of-Fire.

No fire may be directed at a target falling outside of the area described by the appropriate Front Field-of-Fire.



4.4.3.1.5 Rear Field-of-Fire

A vehicle that has a limited Field-of-Fire to its rear is indicated by an overscore ammo notation on its Data Card.

A Rear Field-of-Fire, in this case, is defined as the area that falls within the Rear 60°, 120° or 180° of its counter. All hexes bisected by the arc fall within its Field-of-Fire. It is the direct opposite of a Front Field-of-Fire.

No fire may be directed at a target falling outside of the area described by the Rear Field-of-Fire.



4.4.3.2 Resolving AP Fire

The firing player flips the firing vehicle's Command over to demonstrate that it is correct and announces the target.

Since the SHORT HALT command is a two part Command, face the FIRE half of the Command counter towards the front of the vehicle. This way when it comes time to move those same vehicles, players can easily identify which vehicles have not yet moved.

4.4.3.2.1 The AP Range Factor

Find the portion of the Data Card with the name of the weapon to fire in the Ammo Type column of the Offensive Information section. Some vehicles have multiple AP ammo types as mentioned earlier. Some vehicles also have multiple AP weapons. The weapons and their AP ammo are clearly labeled to assist in matching the proper sets. In the Basic Game, only AP Type ammo should be used.

Vehicles with multiple weapons may have different Fields-of-Fire for those weapons. In all cases, shots are resolved individually.

Determine the range in hexes from the firing vehicle to the target vehicle. Move along the R – Range sub-row for the AP row until finding the value that is greater than or equal to the value that corresponds to the range in hexes.

Above that value is one of five possible outcomes:

- P – Pointblank
- S – Short
- M – Medium
- L – Long
- E – Extreme

That factor found above the range is the AP Range Factor.

Reference the Vehicle Data Card Key for the T-80BV. Assume the range to be 15 hexes. The AP Range Factor at that range is M – Medium.

4.4.3.2.2 AP Hit Modifiers

The AP Hit modifiers are now checked to determine their effect, if any. These modifiers are found on the AP Hit Modifiers Table found on Game Card A. Many of the listed AP Hit modifiers are not utilized in the Basic Game.

All AP Hit modifiers are cumulative, and together are called the Net Modifier.

If the target vehicle is Moving (-2) in Light Cover (-1), the Net Modifier is -3.

Target Size

The Size of a target vehicle is found in the Defensive Information section. The possible values range from +2 to -2.

Reference the Vehicle Data Card Key for the T-80BV. Its Target Size modifier is 0.

Target Moving

If the target vehicle has a MOVE or SHORT HALT command—the modifier is -2.

If the target vehicle's command is not yet visible, the controlling player must reveal it to receive the modifier (turn the Command counter face down again to show it is not yet executed).

Note that in this case, the controlling player is not required to reveal the command; respond that the command has no effect. If player chooses not to reveal the command, the modifier is 0. This limits players from taking low-odds reconnaissance-by-fire shots just to reveal commands.

Target in Light, Medium, or Heavy Cover

If the target vehicle is located in terrain classified as Light, Medium, or Heavy Cover—the modifier is -1, -3, or -5, respectively. If a vehicle is located in an over-stacked hex, treat any Cover in the hex as None.

Short Halt: SB: 0, Other

If the firing Vehicle has a SHORT HALT command and is SB: 0—the modifier is -4.

All vehicles have a Stabilization Rating.

This represents the greater challenge of hitting a target while firing and then moving with a SHORT HALT command. SB: 1 is the best rating, while SB: 0 is non-stabilized.

Short Halt: SB: 1/2/3

If the firing Vehicle has a SHORT HALT command and is SB: 1, 2 or 3, the modifier is -1, -2, or -3, respectively.

All vehicles have a Stabilization Rating.

Shooter Damaged

If the firing vehicle was Damaged during a previous turn or previous action during the current turn—the modifier is -3.

Brew-Up Smoke

If Brew-Up Smoke originates in the firing vehicle's hex, passes through, or enters the target vehicle's Brew-Up Smoke hex—the modifier is -2.

The modifier is applied for each unique occurrence of Brew-Up Smoke the Line-of-Sight starts from or encounters; it is cumulative.

All Brew-Up Smoke created during the current Player step does not take effect until the conclusion of that step.

Overwatch/CIS

If the firing vehicle is executing Overwatch Fire at a target located within its Front (or rear) 60°, 120°, or 180° Field-of-Fire—the modifier is -1. This is applicable whether the vehicle is Turreted, Turretless 360°, or Non-Turreted.

If it is equipped with a Commander Independent Sight (see 7.48)—the modifier is 0.

The Rear Field-of-Fire is used for those Non-Turreted vehicles with a rear facing gun.

Keep in mind that the Target Moving modifier is also applicable in addition to this modifier if triggered by movement.

Overwatch Adjust/CIS

If the firing vehicle is executing Overwatch Fire at a target located outside of its Front (or Rear) 60°, 120°, or 180° Field-of-Fire—the modifier is -3. Only Turreted and Turretless 360° vehicles may execute Overwatch Fire at target vehicles located outside of the firing vehicle's Front (or Rear) Field-of-Fire.

If it is equipped with a Commander Independent Sight (see 7.48)—the modifier is -2.

Again, the Target Moving modifier is also applicable in addition to this modifier if triggered by movement.

Since vehicles typically focus their view on the area described by their primary weapon, this modifier represents the additional time required to quickly spot and engage a target located to its side or rear.

4.4.3.2.3 AP Hit Number

Reference the AP Hit Table on Game Card A. Cross-reference the AP Range Factor (see 4.4.3.2.1) with the Net Modifier (see 4.4.3.2.2). The number found there is the AP Hit Number.

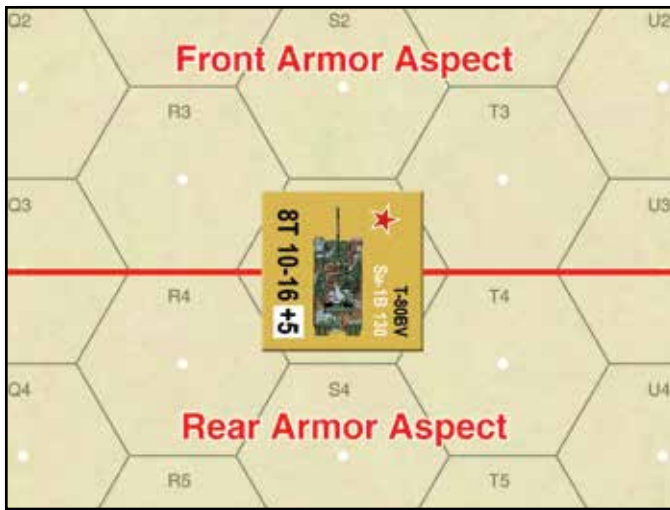
If the Net Modifier is greater than +5, use the +5 row. If it is less than -10, use the -10 row. Note that with a Net Modifier of -10 and an AP Range Factor of E, it is not possible to hit a target vehicle.

If the Net Modifier is -2 and the AP Range Factor is S, the AP Hit Number is 56. If the Net Modifier is -6 and the AP Range Factor is P, the AP Hit Number is 36.

Roll (100), if the result exceeds the AP Hit Number, the shot missed. If less than or equal to the AP Hit Number, the shot hit.

4.4.3.2.4 Basic Game Hit Angle Determination

The orientation of the target vehicle to the firing vehicle is used to determine where a vehicle is hit. In the Basic Game, vehicles have either a Front or Rear Armor Aspect.



If the line-of-sight runs exactly down a hexside dividing the Front and Rear aspects, the player controlling the target vehicle determines which aspect to utilize.

4.4.3.2.5 Determining Armor Penetration

The Basic Game utilizes a streamlined method of determining armor penetration. The armor information found in the Defensive Information section is only used in the Advanced Game (AG).

The armor information in the Basic Game is found in the target vehicle's Notes Section as Armor Front Factor/Rear Factor.

Reference the Vehicle Data Card Key for the T-80BV. Its Front Armor Factor is 90; its Rear Armor Factor is 34.

For armor penetration, find the portion of the firing vehicle's Data Card with the name of the firing weapon Type column of the Offensive Information section. Move along the P – Penetration sub-row for the AP row until finding the value that is just below the value that corresponds to the range in hexes. That value is the AP Penetration Factor.

Reference the Vehicle Data Card Key for the T-80BV. Assume the range to be 15 hexes. The AP Penetration Factor for APFSDS Type ammo is 86.

If the firing vehicle's AP Penetration Factor is greater than or equal to the target vehicle's Armor Factor, the shot penetrated. If less than the Armor Factor, the shot has no effect.

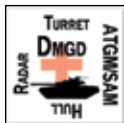
4.4.3.2.6 Basic Game AP Damage & Effects

If the shot penetrates, apply the following:

- If the Penetration Factor is equal to or greater than the Armor Factor by 1-3, the target suffers a Damage Hit.
- If greater by 4-9, it suffers a KO.
- If greater by 10 or more, it suffers a BU.

Damage effects are also summarized on Combat Effects Summary (back cover of the Playbook).

Damaged



The target vehicle was damaged by the hit. Place a DMGD counter on or next to the target vehicle.

If a damaged vehicle receives a second Damaged result, it is considered KO—Knocked-Out instead and those results apply.

If Damaged, a vehicle:

- Must apply Damage AP Hit modifiers to all future fire.
- Immediately has its remaining and future movement speed allowance reduced by $\frac{1}{2}$ (round down).

Note that the DMGD counter has Turret, Hull, Radar and ATGM/SAM listed. Turret and Hull are specific damage areas and are utilized in the Advanced Game; Radar and SAM/ATGM are used with the Optional Rules.

KO – Knock-Out



The vehicle was knocked out by the hit. It is no longer operable and is totally out of action.

It is considered to be eliminated and is now a Wreck in the context of the game. Remove the vehicle counter from the hex and replace it with a KO counter. If a KO or BU counter is already in the hex, do not place a second counter.

BU – Brew Up

The vehicle was brewed up by the hit. It suffered a catastrophic hit, exploded, and caught fire. It is now a source of Brew-Up Smoke.



It is considered eliminated and is now a Wreck in the context of the game. Remove the vehicle counter from the hex and replace it by a BU counter. If a KO counter is already in the hex, replace the counter; if a BU counter is already in the hex, do not place a second

counter.

The Situation

A Soviet BMP-2 (Data Card SM-4B) located in a Clear hex and a US M2A1 Bradley (Data Card UM-4A) located in a Woods hex are engaging one another at an unblocked range of 3 hexes.



The BMP-2 has a SHORT HALT command while the M2A1 Bradley has a FIRE command. The Soviet player is the First Player. As such, the BMP-2 resolves its fire first. Its SHORT HALT counter is revealed and placed with the FIRE side facing the front of the vehicle counter.

The M2A1 Bradley is within spotting range as the actual range of 3 hexes is less than 7 hexes, which is the maximum spotting range when attempting to spot a vehicle in Medium Cover.

At a range of 3 hexes for the APDS ammo type, the AP Range Factor is P – Point Blank.

The AP Hit modifiers are now checked for any effect. The Net Modifier is –6 as a result of the following modifiers:

- Target in Medium Cover –3
- Shooter Short Halt, SB: 3, –3

The P Range column on the AP Hit Table is cross-referenced with the -6. The AP Hit Number is 36.

The Soviet player rolls (100), the result is a 27; a hit is made on the M2A1 Bradley. The BMP-2 is marked with a SPOT/FIRE counter under the edge of its Command counter.

It is determined that the M2A1 Bradley's Rear Armor Aspect is applicable. That results in an Armor Factor of 9. Since the BMP-2's APDS ammo penetrates 12 at range 3, the shot penetrated.

Comparing the Penetration Factor of 12 to the Armor Factor of 9 (+3); the US vehicle is damaged. The M2A1 Bradley is marked with a DMGD counter.

Now the M2A1 Bradley resolves its fire. Its FIRE counter is revealed. Had it been Knocked-Out or Brewed-Up by the BMP-2 during the First Player Step, it would not now have a shot. However, it must apply the just incurred Shooter Damaged modifier of -3.

The BMP-2 is within spotting range as the actual range of 3 hexes is less than 20 hexes which is the maximum spotting range when attempting to spot a vehicle in None Cover. Note that the just placed SPOT/FIRE counter does not yet come into play.

At a range of 3 hexes, for the APDS ammo type, the AP Range Factor is P.

The AP Hit modifiers are now checked for any effect. The Net Modifier is -6 as a result of the following modifiers:

- Target Size -1
- Target Moving -2
- Shooter Damaged -3

The P Range column on the AP Hit Table is cross-referenced with the -6. The AP Hit Number is 36.

The US player rolls (100), the result is a 36, a hit is made on the BMP-2. The M2A1 Bradley is marked with a SPOT/FIRE counter under the edge of its Command counter.

It is determined that the BMP-2's Front Armor Aspect is applicable. That results in an Armor Factor of 5. Since the M2A1 Bradley's APDS ammo penetrates 12 at range 3, the shot penetrated.

Comparing the Penetration Factor of 12 to the Armor Factor of 5 (+7), results in a Knock-Out for the Soviet vehicle. The BMP-2's counter (and any other counters) is removed from play and replaced with a KO counter.

4.5 Basic Game Movement Phase

“Aptitude for war is aptitude for movement.”

~ Napoleon Bonaparte

The players execute movement sequentially based on the order determined previously in the Initiative Phase.

The Second Player announces and resolves movement for every vehicle marked with a MOVE or SHORT HALT command. Vehicles are marked with SPOT/MOVE counters as they move.

While the Second Player is moving, the First Player announces and resolves all desired Overwatch Fire by vehicles marked with unrevealed OW commands at opposing vehicles as they move.

The First Player then announces and resolves movement. While the First Player is moving, the Second Player announces and resolves all desired Overwatch Fire by vehicles marked with unrevealed OW commands at opposing vehicles as they move.

As is the case with Direct Fire, Overwatch Fire taken in the Movement Phase can result in a series of triggered Overwatch Fire re-

sponses. A vehicle that fires at a moving vehicle could then receive fire from a vehicle with unrevealed OW commands, and so on.

Note that vehicles with MOVE or SHORT HALT commands are not required to actually move from their current hex, but must still reveal their Command counter. In fact, there are certain actions that are covered in the Advanced Game rules, that require movement without actually exiting a hex. However, even if they do not move from their hex, they are still considered to be moving and are marked with SPOT/MOVE counters.

4.5.1 General Movement Rules

A player may move all, some or none of the commanded vehicles up to the maximum Movement Speed Allowance.

All vehicles are marked with SPOT/MOVE counters. This replaces the SPOT/FIRE counter for the fire portion of a SHORT HALT command that was placed during the Combat Phase.

4.5.1.1 Movement Procedure

Vehicles move one at a time and must complete their entire move before the next vehicle moves. Movement costs should be called out as expended.

If there is a possibility a move may trigger Overwatch Fire, the movement should be slow enough to permit the opposing player to observe and to decide if and when to fire.

Use the Command counter to mark the start of the move in case the player decides to retrace the move or if the accuracy of a move is called into question. Move the Command counter forward once the move is completed.

When a vehicle moves, it must always move in the direction its front faces, except for reverse moves where it is directly opposite, and keep its facing towards the direction of movement.

Vehicle facing is critical when determining the correct aspect for AP fire.

4.5.1.1.1 Movement Factor

Each vehicle has a Movement Factor that determines the distance it can move during a turn. A vehicle's Movement Factor is listed on its Data Card in the General Information section following the M:

Reference the Vehicle Data Card Key for the T-80BV. Its Movement Factor is 8T 10-16.

With vehicles, the Movement Factor is made up of four distinct elements. The first two are listed in combination and determine the Cross-Country movement speed allowance and the Mode of Traction. From the example above, 8T gives a Cross-Country movement speed allowance of 8 and Mode of Traction of T=Tracks. Other vehicles have H=Half-track or W=Wheeled for their Mode of Traction.

The third element is the vehicle's Path movement speed allowance, and the fourth is the Road movement speed allowance. From the above example, Path equals 10 and Road equals 16.

Vehicles with MOVE commands may expend any portion of the available movement speed allowance.

Vehicles with SHORT HALT commands may expend up to ½ of the available movement speed allowance (round down). Vehicles with SB: 1 stabilization may expend up to ¾ of the available movement speed allowance (round down).

Damaged vehicles may expend up to ½ of the available movement speed allowance (round down). All Damaged vehicles, regardless of their SB rating, with SHORT HALT commands may expend ¼ of the available movement speed allowance (round down).

While a vehicle may use any part of its available movement speed allowance, the unused portion does not carry over from one turn to another. It may also not be transferred from one vehicle to another vehicle.

The movement speed allowance is expended by performing various movements which have various costs depending on the Terrain type and the vehicle's Mode of Traction.

4.5.1.1.2 Movement Costs

The cost for a vehicle to enter a hex or cross a hexside is listed on the Terrain Effects Table on Game Card B. All movement is considered to be Cross-Country unless the vehicle is utilizing Path or Road movement.

The movement cost varies for each new hex entered or hexside crossed based on the type of terrain in the hex along with the vehicle's Mode of Traction.

Moving 1 hex in Clear terrain costs 1, while moving 1 hex in Rough terrain costs 4 for a T type vehicle.

Tracked (T) and Half-tracked (H) vehicles pay the same movement costs while Wheeled (W) vehicles pay their own movement costs. Use the appropriate column for the Mode of Traction. No movement is allowed into prohibited (P) type terrain, e.g., vehicles may not enter Heavy Woods hexes.

Pay close attention to the information in T, H column on the table. While available to tracked vehicles, some terrain types are prohibited to half-tracked vehicles, e.g., crossing a Wall hexside.

Slope and Crest Hexsides

Movement between terrain of different Heights (crossing a Slope or Crest hexside) has a value added (+1 or +2) to the cost of the terrain in the destination hex. Height change costs vary per the number of levels changed, up or down, when the move is made.

Tracked and half-tracked vehicles may not change elevation by more than 2 Heights in a single 1 hex move while wheeled vehicles are limited to a single Height change.

A tracked (T) vehicle moves from ground level (Height 0) across a Slope hexside at Height 1 into a Hill hex containing Scrub type terrain. The vehicle expends 3 of its available movement speed allowance, 2 for the Scrub terrain and +1 for the change of 1 Height.

Wall and Hedgerow Hexsides

Movement across these hexsides does not result in a change of Height, but costs a value added to the cost of the terrain in the destination hex. Note moving a tracked vehicle across a Hedgerow hexside costs the vehicle its entire speed allowance (see 4.5.1.1.3 Exceeding Movement Costs).

Brew-Up Smoke

Movement into or through a Brew-Up Smoke hex adds +1 to the cost of the other terrain type in the hex when moving or turning in a hex.

4.5.1.1.3 Exceeding Movement Costs

A vehicle may always move just 1 hex during its move if it has MOVE or SHORT HALT commands even if the cost of moving 1 hex exceeds the vehicle's available movement speed allowance. This exception also applies to reverse moves.

This is allowed as long as the vehicle does not expend any of its movement speed allowance while turning and does not exceed height change limitations. Otherwise, vehicles may not exceed their available movement speed allowance.

4.5.1.1.4 Turning

Turning costs apply only to vehicles. Vehicles turn by pivoting in place and then moving in a new direction. Turn costs apply only if the vehicle makes a turn in excess of one hexside (60°).

Vehicles receive one free hexside turn for each hex they occupy or enter. This could be at the beginning of a move, during a move, or at the very end of a move.

Turn costs are based on the Terrain type, not the magnitude of the turn. If the vehicle turns 2 or 3 hexsides in a hex, the turn cost is subtracted from the available movement speed allowance. Turn costs are the same during forward or reverse moves.

Turn costs are listed on the Terrain Effects Table on Game Card B in the Turn column. Vehicles may never exceed their available movement speed allowance by turning. Turning can trigger Overwatch Fire.

Reference the Vehicle Data Card Key for the T-80BV. It enters a Woods hex and then turns 3 hexsides expending 5 of its available Movement Speed Allowance of 8.

4.5.1.1.5 Path and Road Movement

Vehicles move faster when traversing the battlefield via Paths or Roads. Wheeled vehicles typically receive the greatest advantage while fully tracked vehicles receive the least.

Vehicles moving at Path or Road speed ignore the actual terrain costs in a hex expending only 1 of its Movement Speed Allowance for each hex entered (2 for reverse moves).

To move at the Path or Road speed, the vehicle must start its move on a Path or Road hex and follow the route described by the Path or Road for its entire move, ending its move on a Path or Road. While a vehicle may face any direction at the start the move, it must maintain its facing along the route described by the Path or Road for the entire move. It may not adjust its facing to a more advantageous angle, during or even at the end of the move. In other words, it is always facing the Road or Path as it would enter the next hex.

If a vehicle combines Path or Road movement with non-Path or Road movement, it must use its Cross-Country movement factor for the entire move.

If a vehicle moves along a route that combines Path and Road movement, it uses the rate based on the greatest number of hexes traversed. If equal, it utilizes the Path movement rate.

Reference the Vehicle Data Card Key for the T-80BV. It is moving along a route consisting of 10 Road hexes and 6 Path hexes. It may use its Road Movement Factor of 16 for the entire move.

A Wreck (KO or BU) counter or an opposing vehicle located in a Path or Road hex does not prevent movement but does stop a vehicle from using its Path or Road movement factor. If the route crosses a Wreck or an opposing vehicle, the vehicle must use its Cross-Country movement factor for the entire move.

A friendly vehicle located in a Path or Road hex does not stop a vehicle from using its Path or Road movement factor unless the hex is over-stacked. If the route crosses an over-stacked hex (including the moving vehicle), the vehicle must use its Cross-Country movement factor for the entire move.

Vehicles may enter prohibited terrain hexes, e.g., Heavy Woods, while moving on a Path or Road. However, they may never exit from the Path or Road into prohibited terrain hexes that do not include a Path or Road.

Vehicles may also move at the road/path rate of 1 of its movement speed allowance per hex (not at the bonus movement rate or change elevation bonus) when on a road/path through terrain even if they did not start on a road/path when moving along a road/path. It must maintain facing while moving.

Vehicles that change height while moving along a Path or Road treat the cost of changing height as if it were 1 less than the actual value. Vehicles may still not add more than +2 for changing heights within a 1 hex move.

A vehicle is moving along a Road and is required to change 2 heights, it costs only +1 speed rather than the normal +2 for the height change.

4.5.1.1.6 Movement Over Bridges

Bridge hexes along a Path or Road are of a terrain type that matches the connecting Path or Road hex. If a bridge is connected on one end by a Path on the other end by a Road, the Bridge is treated as a Road hex.

Vehicles may not enter or exit a Bridge hex other than from its connected Path and/or Road hexes. Bridges are considered a continuation and part of its connected Path and/or Road hexes.

4.5.1.1.7 Reverse Moves

Vehicles may move in reverse during any portion of their move. When moving in reverse, the vehicle moves in the direction directly opposite from its front face.

Reverse moves cost the vehicle twice the normal movement cost for the terrain entered. Turn costs are unaffected during reverse moves.

4.5.1.1.8 No Move Moves

Vehicles with MOVE or SHORT HALT commands may remain in their current hex, they are not required to move from that hex, but they are still considered to be moving and are still marked with a SPOT/MOVE counter and are still subject to Overwatch Fire. Vehicles may also just turn in place.

4.5.1.1.9 Off Mapboard Moves

Any vehicle that moves off the mapboard is considered out of the scenario and may not return to play. It is not counted as eliminated, but it no longer has any impact on the scenario.

To move off the mapboard, a vehicle expends its movement speed allowance based on the terrain type in the hex it is exiting from.

An exception to this rule are vehicles that are not yet committed to play and are being held off the mapboard. Once they enter play, if they then move off the mapboard, they may not return to play.

In addition, vehicles may be required to exit the mapboard to meet certain victory conditions. These vehicles may not return to play once they exit, but still figure into the scenario's victory conditions.

4.5.1.1.10 Vehicle Coexistence

Vehicles may freely pass through Wrecks, and friendly and opposing vehicles without additional cost other than for the cost of the terrain entered. However, opposing vehicles may never end their movement in the same hex. Stacking limits are a consideration when moving through a hex containing opposing or friendly vehicles.

Since movement is resolved sequentially, there can never be a case of contention for a specific piece of ground. One side always grabs the hex first.

This is the one case where the player controlling the initiative may choose to be the Second Player, since the Second Player completes all movement before the First Player.



4.6 Adjustment Phase

The players resolve the final actions for the turn and prepare for the next turn by clearing off excess counters, and advancing the Turn counter to the next turn.

4.6.1 Adjust & Remove Counters Step

Simultaneously flip over all Command counters that were not revealed. Unused OW and N/C commands are ignored.

Note any unused FIRE, SHORT HALT, or MOVE commands. Any occurrence of this situation is an illegal play as all FIRE, SHORT HALT and MOVE commands must be revealed during those respective First or Second Player Steps. Players should make certain this situation does not occur. Players may decide if these units should be subject to unexecuted Overwatch Fire.

Mark all units with unused FIRE or SHORT HALT commands with SPOT/FIRE counters and units with MOVE commands with SPOT/MOVE counters. Remove all Command counters from the mapboard.

4.6.2 End Turn Step

The current turn is now complete. If it is the last turn of the scenario, the Victory Conditions are reviewed to determine the outcome of the scenario. If it is not the last turn of the scenario, the scenario continues on to the next turn.

Glossary

(-): Under-Strength Formation	Command: Special unit classification
(+): Over-Strength Formation	Cover: Terrain benefit
4 CMBG: 4th Canadian Mechanized Brigade Group	Coy: Company
AFNORTH: NATO Allied Forces Northern Europe	CP: Cohesion Point
ATG: Anti-Tank Gun	D: Laser Designator
A: Ammo limits	Danger Close: Indirect fire affecting friendly units
A: Amphibious	DF: Direct Fire
AA: Anti-Aircraft	Div: Division
Active Unit: Combat units still in action counted for Command Control.	DMGD: Damage Hit
ACR: Armored Cavalry Regiment	DS: Discharger Smoke
AG: Advanced Game component or rule	E: Extreme range
AP: Armor Piercing	Elements: Only a portion of a unit is present
APC: Armored Personnel Carrier	Engineer: Special unit classification
APDS: Armor Piercing Discarding Sabot	ERA: Explosive Reactive Armor
APFSDS: Armor Piercing Fin Stabilized Discarding Sabot	F: GP Factor
ARM: Anti-Radiation Missile	F: Fast rate-of-fire
Arm Car: Armored Car	FASCAM: Family of Scatterable Mines
ATG: Anti-Tank Gun	FISTV: Fire Support Team Vehicle
A-Type: Armored Type Vehicle	FlaK: Fliegerabwehrkanone (anti-aircraft gun)
B: Bog modifier	Flakpanzer: Armored anti-aircraft vehicle
BAOR: British Army of the Rhine	FO: Forward Observer, special unit classification
Bat: Battalion	FRG: Federal Republic of Germany – West Germany
Battle Group: A combined arms force	Füchs: Fox
Bgd: Brigade	Full Cover: Increased defense for Leg and Towed units
BHQ: Battalion headquarters	GDR: German Democratic Republic – East Germany
Block: Prevent line-of-sight	Gebirgsjäger: Mountain Light Infantry
BMP: Boevaya Mashina Pehoty (infantry combat vehicle)	Gepard: Cheetah
BRDM: Boyevaya Razvedyvatelnaya Dozornaya Mashina (combat patrol vehicle)	GP Defense: Alphanumeric defensive classification
BRM: Boevaya Razvedyvatel'naya Mashina (combat reconnaissance vehicle)	GP Factor: Numerical weight of GP Firepower
BTR: Bronyetransportyer (armored transporter)	GP: General Purpose
Broken: A Morale categorization for units	GPD: General Purpose Defense
Bty: Battery	GR: Ground-Based Radar
BU: Subject to brew-up modifier	GSFG: Group of Soviet Forces Germany
BU: Brew-up Hit	Gun Tube: Individual artillery unit
Bunderswehr: FRG Army	H: Half-tracked mode of traction
C: CLGP ammo limit	Half-Track: Partially-tracked combat vehicle
CE: Chemical energy ammo type or defense	HD: Hull-Down
CENTAG: NATO Central Army Group	HE: High Explosive
CFV: Cavalry Fighting Vehicle	HEAT: High Explosive Anti-Tank
CGF: Soviet Central Group of Forces	HEAT-MP: High Explosive Anti-Tank Multi-Purpose
CHQ: Company headquarters	HESH: High Explosive Squash Head
CIS: Commander Independent Sight	Hesitation: A Morale categorization for units
CL: ATGM Class, from 1-4	HHATW: Hand-held anti-tank weapon
CLGP: Cannon Launched Guided Projectile	Hinder: Modifies combat effects
cm: Centimeter	HMG: Heavy Machinegun
CM: AA counter-measures	HOW: Howitzer
Coax MG: Coaxial machinegun.	HQ: Headquarters
Combat Unit: Any armed unit or fire support sighting capability.	HT: Half-Track
	I: Illumination ammo limit
	ICM: Improved Conventional Munition
	IF: Indirect Fire

IFV: Infantry Fighting Vehicle	Q: Quick rate-of-fire
I2: Image Intensification night fighting	R: Dual Driving Controls
IL: Illumination	R: Range
Iltis: Polecat	R: Rapid rate-of-fire
IMP POS: Improved Position	Range Factor: For AP or GP fire. P, S, M, L, or E
IR: Infrared searchlight night fighting	Recce: Reconnaissance
Jagdpanzer: Hunting Tank	Recon: Reconnaissance, special unit classification
Jäger: Hunter (Light Infantry)	Reg: Regiment
KE: Kinetic energy ammo type or defense	RHQ: Regiment or brigade headquarters
KO: Knock Out Hit	ROF: Rate-of-fire
L: Leg mode of traction	Roll (10): Rolling a single 10-sided die
L: Laser sight	Roll (100): Rolling two 10-sided dice
L: Long range	RakJPz: Rakete Jagdpanzer (Rocket Hunting Tank)
Leg: Collective term for units on foot	S: Short range
Lüchs: Lynx	S: Stereo sight
M/C: Motorcycle	S: Smoke ammo limit
M: Movement Factor	SACLOS: Semi-automatic command to line-of-sight
M: Medium range	Sapper: Combat Engineer
M: Ranging Machinegun sight	SB: Stabilization rating
M: FASCAM ammo limit	Sec: Section
MA: All Aspect MANPADS	SHEAF: Indirect fire pattern
MANPADS: Man-Portable Air-Defense System	Smk: Smoke
MCLOS: Manual command to line-of-sight	SP ATGM Speed
Mech: Mechanized	SP: Self-propelled
Mechanized: Collective term for transported forces	Spähpanzer: Scout Tank
mm: Millimeter	Sqd: Squad
MMG: Medium Machinegun	Sqn: Squadron
MMS: Mast-Mounted Sight	ST: Sight type
Mot: Motor	S-Type: Soft Type Vehicle
Motor: Transported by wheeled units	: Thermal Imager night fighting
MT: Tail-chase MANPADS	T: Tracked mode of traction
N: Normal rate-of-fire	Task Force: Battle Group
N/A: Not Applicable	TF: Task Force
NATO: North Atlantic Treaty Organization	TK: Track Hit
NORTHAG: NATO Northern Army Group	TO&E: Table of Organization and Equipment
O: Optical sight	TR: Transport
OB: Order of Battle	Trp: Troop
Observer: A unit able to call indirect fire	TT: Turret Turn rating
OR: Optional component or rule	TW: Tandem Warhead
P: Passive IR night fighting	Under Armor: Best defense for transported units
P: Point Blank range	Under Cover: Increased defense for transported units
P: Penetration Factor	UNL: Unlimited
P: CLGP ammo limit	VP: Victory Point
PAH: Panzerabwehrhubschrauber (Tank Defense Helicopter)	W: Wheeled mode of traction
Panzer: Tank	WL: White Light searchlight night fighting
Pz. Grenadier: Armored Infantry	WT: Weight in metric tons
Pionier: Combat Engineer	ZSU: Zenitnaya Samokhodnaya Ustanovka (anti-aircraft self-propelled mount)
PGM: Precision Guided Munition	
Plt: Platoon	
PTS: Points	
P-Type: Protected Type Vehicle	



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Note: Topics with multiple entries may have one or more primary sections highlighted in **bold** text.

Main section references, e.g., 4.6, 5.9.1, 6.10, or 6.7.3.1, and some highlighted primary sections typically have additional references for the topic in the subsections immediately following the entry.

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Cover Art: Eric Williams

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Playbook: Mark Simonitch

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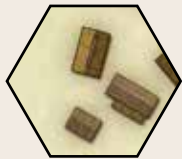
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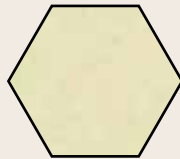
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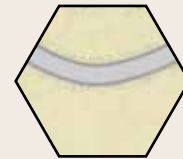
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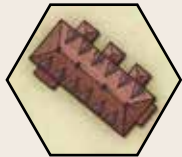
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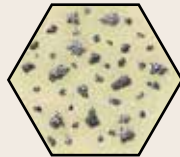
Clear



Road



Brick building



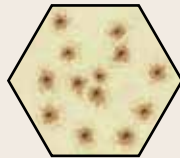
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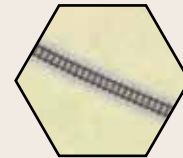
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Stone building



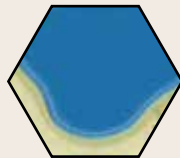
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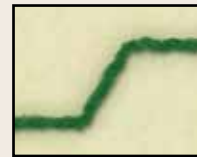
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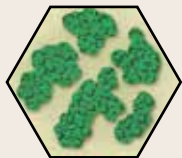
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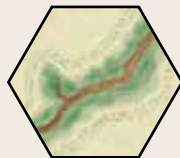
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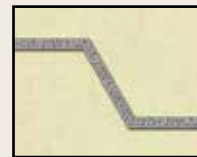
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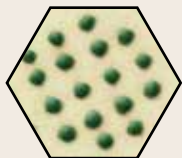
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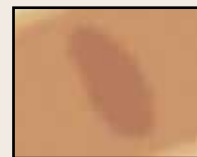
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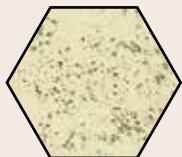
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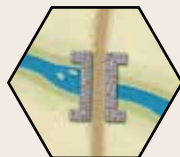
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Crest



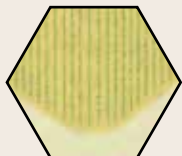
Brush



Bridge



Slopes



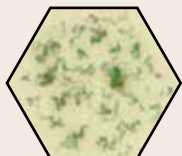
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