

3rd Printing

PANZER



BASIC & ADVANCED RULES



GMT Games, LLC • P.O. Box 1308, Hanford, CA 93232-1308

www.GMTGames.com

© 2012, 2015 GMT Games, LLC

Basic Game Table of Contents

INTRODUCTION.....	5		
SCALE	5		
1.0 COMPONENTS.....	5		
1.1 Rulebook	5		
1.2 Mapboard	5		
1.3 Geomorphic Mapboards.....	6		
1.4 Game Cards.....	6		
1.5 Data Card Keys	6		
1.6 Data Cards.....	6		
1.7 Game Counters.....	6		
1.7.1 Units	6		
1.7.2 Command Counters (Unit Orders)	6		
1.7.3 Information Counters.....	7		
1.7.4 Terrain Counters	7		
1.8 Turn Track, Transport & Summary & Hidden Unit Card ...	7		
1.9 Formation Summary (Scenario Book)	7		
1.10 Percentile Dice	7		
1.11 Other Items (not included)	7		
2.0 PREPARATION FOR PLAY.....	7		
3.0 GENERAL PROCEDURES & RULES.....	8		
3.1 Definition of the Phasing Player	8		
3.2 Reading the Dice	8		
3.3 Vehicle Facing.....	8		
3.4 Counter Use & Facing.....	8		
3.5 Range.....	8		
3.5.1 Range in Hexes.....	8		
3.5.2 Maximum Ranges.....	8		
3.6 Controlling Objectives	8		
3.7 Modifiers & Adjustments	9		
3.8 Stacking.....	9		
4.0 SEQUENCE OF PLAY.....	9		
4.1 Basic Game Spotting Phase	9		
4.1.1 Who may Spot?	9		
4.1.2 Spotting Orientation	10		
4.1.3 Determining Spotting Ranges.....	10		
4.1.3.1 Vehicle Size	10		
4.1.3.2 Over-Stacked Hex	10		
4.1.4 Line-of-Sight	10		
4.1.4.1 Terrain Features.....	10		
4.1.4.1.1 Non-Blocking Terrain	11		
4.1.4.1.2 Blocking Terrain.....	11		
4.1.4.1.3 Building Hexes.....	11		
4.1.4.1.4 Hill Hexes	11		
4.1.4.1.5 Slope & Crest Hexsides	11		
4.1.4.1.6 Gully, Ford & Stream Hexes	11		
4.1.4.1.7 Woods Hexes.....	12		
4.1.4.1.8 Wrecks.....	12		
4.1.4.1.9 Smoke, Brew-Up.....	12		
4.1.4.2 Determining Line-of-Sight.....	12		
4.1.4.2.1 Obstacle Higher than Both	12		
4.1.4.2.2 Obstacle Higher or Equal	12		
4.1.4.2.3 Obstacle Equal or Lower.....	12		
4.1.4.2.4 Obstacle Higher and Lower	12		
4.1.4.2.5 Spotting Into/From Obstacles	13		
4.1.4.2.6 Obstacle Hexsides	14		
4.1.5 Extraneous Spot Counters	14		
4.2 Basic Game Command Phase	14		
4.2.1 Place Commands Step	14		
4.3 Basic Game Initiative Phase.....	14		
4.3.1 Determining Initiative	15		
4.3.2 How Initiative Works.....	15		
4.4 Basic Game Combat Phase	15		
4.4.1 Direct Fire Step.....	15		
4.4.2 Overwatch Fire	15		
4.4.3 AP Firing Sequence and Rules	15		
4.4.3.1 Fields-of-Fire.....	15		
4.4.3.1.1 Turreted Vehicles.....	15		
4.4.3.1.2 Turretless 360° Vehicles	16		
4.4.3.1.3 Non-Turreted Vehicles	16		
4.4.3.1.4 Front Field-of-Fire	16		
4.4.3.1.5 Rear Field-of-Fire	16		
4.4.3.2 Resolving AP Fire.....	16		
4.4.3.2.1 The AP Range Factor	16		
4.4.3.2.2 AP Hit Modifiers	16		
4.4.3.2.3 AP Hit Number.....	17		
4.4.3.2.4 Basic Game Hit Angle Determination	17		
4.4.3.2.5 Determining Armor Penetration.....	17		
4.4.3.2.6 Basic Game AP Damage & Effects	18		
4.5 Basic Game Movement Phase.....	19		
4.5.1 General Movement Rules	19		
4.5.1.1 Movement Procedure	19		
4.5.1.1.1 Movement Factor	19		
4.5.1.1.2 Movement Costs	20		
4.5.1.1.3 Exceeding Movement Costs.....	20		
4.5.1.1.4 Turning	20		
4.5.1.1.5 Path and Road Movement.....	20		
4.5.1.1.6 Movement Over Bridges.....	21		
4.5.1.1.7 Reverse Moves.....	21		
4.5.1.1.8 No Move Moves.....	21		
4.5.1.1.9 Off Mapboard Moves	21		
4.5.1.1.10 Vehicle Coexistence	21		
4.6 Adjustment Phase.....	21		
4.6.1 Adjust & Remove Counters Step.....	21		
4.6.2 End Turn Step.....	21		

Advanced Game Table of Contents

INTRODUCTION TO THE ADVANCED GAME (AG) 22	
5.0 ADVANCED GAME GENERAL PROCEDURES & RULES 22	
5.1 Leg Units..... 22	
5.1.1 Squads & ½ Squads..... 22	
5.1.2 Sections..... 22	
5.1.3 Attached Crew-Served Weapons 22	
5.1.3.1 Mortars 22	
5.1.3.2 HMGs..... 22	
5.1.3.3 Anti-Tank Rifles 22	
5.1.3.4 Hand-Held Anti-Tank Weapons 23	
5.1.3.5 Flamethrowers..... 23	
5.2 Towed Units 23	
5.3 Artillery Units..... 23	
5.4 Aircraft Units..... 23	
5.5 Advanced Game Unit Facing 23	
5.6 Minimum Range..... 23	
5.7 Small Arms..... 23	
5.8 Grade 23	
5.8.1 Force Grade 24	
5.8.2 Formation Grade..... 24	
5.8.3 Unit Grade 24	
5.9 Command, Recon, Engineer, and FO Units..... 24	
5.9.1 Command Units..... 24	
5.9.2 Recon Units 24	
5.9.3 Engineer Units..... 24	
5.9.4 FO Units 24	
5.10 Suppression 24	
5.11 Coexisting Fire, Smoke & Barrages..... 24	
5.12 Modifiers & Adjustments 24	
5.13 Stacking..... 24	
5.14 Dual Fire..... 24	
5.15 Bailing Out..... 25	
5.16 Ammo Limits 25	
5.16.1 Special Ammo Availability..... 25	
5.16.2 Determining Ammo Limits..... 25	
5.16.2.1 Basic Ammo Limits..... 25	
5.16.2.2 Special Ammo Limits..... 26	
5.16.2.3 Smoke & Illumination Ammo Limits..... 26	
5.16.2.4 Leg & Towed Ammo Limits 26	
5.16.2.5 Off Map Artillery Ammo Limits 26	
5.16.2.6 Aircraft Ammo Limits 26	
5.16.2.7 German Tungsten Supply 26	
6.0 ADVANCED GAME SEQUENCE OF PLAY 26	
6.1 Advanced Game Spotting Phase 26	
6.1.1 Who may Spot? 26	
6.1.2 Spotting Orientation 26	
6.1.3 Determining Spotting Ranges..... 27	
6.1.3.1 Suppressed Units 27	
6.1.3.2 Full Cover Units 27	
6.1.4 Line-of-Sight 27	
6.1.4.1 Hull Down & Partial Hull Down..... 27	
6.1.4.1.1 Hull Down..... 27	
6.1.4.1.2 Partial Hull Down 27	
6.1.4.1.3 Automatic Partial Hull Down..... 27	
6.1.4.2 Full Cover..... 27	
6.1.4.3 Terrain Features..... 28	
6.1.4.3.1 Building Hexes..... 28	
6.1.4.3.2 Wall Hexsides..... 28	
6.1.4.3.3 Block 28	
6.1.4.3.4 Ditch..... 28	
6.1.4.3.5 On Fire 28	
6.1.4.3.6 Hasty Entrenchment..... 29	
6.1.4.3.7 Improved Position 29	
6.1.4.3.8 Mines..... 29	
6.1.4.3.9 Rubble 29	
6.1.4.3.10 Smoke and Barrages..... 29	
6.1.4.3.11 Wire 29	
6.2 Advanced Game Command Phase 30	
6.2.1 Determine Available Commands Step..... 30	
6.2.1.1 Determining Available Commands 30	
6.2.1.1.1 Available Commands Procedure 30	
6.2.1.1.2 Command Range..... 30	
6.2.1.1.3 Sharing Available Commands 30	
6.2.1.1.4 Executing Shared Commands 31	
6.3 Advanced Game Initiative Phase 32	
6.3.1 Determining Initiative 32	
6.3.2 Force Grade Initiative Modifiers 32	
6.4 Advanced Game 1st Air Phase 32	
6.5 Advanced Game Combat Phase 32	
6.5.1 Indirect Fire Step 32	
6.5.1.1 Announcing Indirect GP Fire..... 32	
6.5.1.1.1 FOs – Forward Observers 33	
6.5.1.1.2 Command Observers..... 33	
6.5.1.1.3 Recon Observers 33	
6.5.1.1.4 On-Map Units 33	
6.5.1.2 Types of Indirect Fire Units..... 33	
6.5.1.3 Level of Attachment 33	
6.5.1.3.1 Attached 33	
6.5.1.3.2 Organic3 33	
6.5.1.3.3 Unattached 33	
6.5.1.4 Pre-Registered Points 34	
6.5.1.5 Indirect Fire SHEAF 34	
6.5.1.6 Indirect Fire Types..... 34	
6.5.1.6.1 GP & Smoke Types 34	
6.5.1.6.2 Illumination Type..... 35	
6.5.1.7 Called Indirect Fire..... 35	
6.5.1.8 Continuous or Adjusted Indirect Fire 35	
6.5.1.8.1 Continuous Called Indirect Fire 35	
6.5.1.8.2 Adjusting Called Indirect Fire..... 35	
6.5.1.9 Checking Indirect Fire..... 35	
6.5.1.10 Danger Close Indirect Fire 35	

6.5.1.11 Planned Indirect Fire	35	6.6.4.1 Leg Movement Factors.....	52
6.5.1.11.1 Plotting Planned Indirect Fire	36	6.6.4.2 Quickmarch	52
6.5.1.11.2 When Planned Fire Arrives	36	6.6.4.3 Crawling	52
6.5.1.11.3 Adjusting Planned Indirect Fire.....	36	6.6.4.4 Motorcycles & Bicycles	53
6.5.1.11.4 Smoke & Illumination Limited Ammo	36	6.6.4.5 Cavalry	53
6.5.1.12 Determining Indirect Fire Response	36	6.6.5 Towed Movement – Manhandling.....	53
6.5.1.12.1 Called Indirect Fire Response Modifiers ...	36	6.6.6 Barrage Movement	53
6.5.1.13 Indirect Fire Resolution.....	37	6.6.7 Transporting.....	53
6.5.2 Direct Fire Step – AP Fire	38	6.6.7.1 Transport & Passenger Capacity	53
6.5.2.1 AP Number of Hits	38	6.6.7.1.1 Mounting & Dismounting.....	54
6.5.2.2 AP Hit Angle.....	38	6.6.7.1.2 Emergency Bailout.....	54
6.5.2.2.1 Track Hits.....	39	6.6.7.2 Transported Fire	54
6.5.2.2.2 Deck Hits.....	39	6.6.8 Hasty Entrenchments.....	54
6.5.2.2.3 Hull Down Hits	39	6.6.9 Searching for Hull Down.....	54
6.5.2.3 Armor Determination	39	6.6.10 Overrun Combat	55
6.5.2.3.1 Level, Rising & Falling Shots.....	40	6.6.10.1 Overrun Combat Resolution.....	55
6.5.2.3.2 Front or Rear Hit Angles.....	40	6.6.10.2 Overrun Combat Results	55
6.5.2.3.3 Front/Side or Rear/Side Hit Angles	40	6.6.11 Command Control with Close Assault, Hand-to-Hand and Overrun.....	56
6.5.2.3.4 KE vs. CE Ammo Types	40	6.7 Advanced Game 2nd Air Phase.....	56
6.5.2.4 AP Hit Modifiers	40	6.7.1 Aircraft Weapon Loads	57
6.5.2.5 AP Damage & Effects.....	41	6.7.2 Aircraft Movement – Flying.....	57
6.5.2.6 Bailout – AP Fire.....	41	6.7.2.1 Aircraft Appearance & Loitering.....	57
6.5.2.6.1 Crew	41	6.7.2.2 Aircraft Speed & Altitude.....	57
6.5.2.6.2 Passengers	41	6.7.2.3 Aircraft Movement Procedure	57
6.5.3 Overwatch Fire – GP Fire.....	42	6.7.2.3.1 Turning Aircraft.....	57
6.5.4 Direct Fire Step – GP Fire	42	6.7.2.3.2 Dive Bomber Movement.....	57
6.5.4.1 The GP Factor.....	42	6.7.3 Aircraft Combat	57
6.5.4.2 The GP Defense Factor	42	6.7.3.1 Aircraft Spotting	57
6.5.4.2.1 Vehicle GP Defense Factors	42	6.7.3.1.1 Aircraft Acquiring Targets.....	57
6.5.4.2.2 Leg and Towed GP Defense Factors	42	6.7.3.1.2 Observers Spotting for Aircraft.....	58
6.5.4.2.3 Transported GP Defense Factors.....	43	6.7.3.1.3 Blocking Terrain For Aircraft.....	58
6.5.4.2.4 Aircraft GP Defense Factors	43	6.7.3.2 Strafing	58
6.5.4.2.5 Terrain GP Defense Factors	43	6.7.3.3 Bombs.....	58
6.5.4.3 GP Fire Modifiers	43	6.7.3.4 Rockets	59
6.5.4.4 GP Fire Determination	45	6.7.3.5 Aircraft Combat Modifiers	59
6.5.4.4.1 No Effect Result – All Units.....	45	6.7.4 Anti-Aircraft Combat.....	59
6.5.4.4.2 Vehicle Suppression & Effective Results...	45	6.7.4.1 Anti-Aircraft Spotting	59
6.5.4.4.3 Leg, Towed & Terrain Suppression & Effective Results	46	6.7.4.1.1 Anti-Aircraft Tracking Targets	59
6.5.4.5 Bailout – GP Fire.....	46	6.7.4.1.2 AA Fields-of-Fire	60
6.6 Advanced Game Movement Phase.....	47	6.7.4.2 AA Procedure	60
6.6.1 Close Assault/Hand-to-Hand Combat Step	47	6.7.4.2.1 AA Fire Results	60
6.6.1.1 Close Assault Combat	47	6.8 Advanced Game Adjustment Phase	60
6.6.1.1.1 Close Assault Combat Resolution.....	48	6.8.1 Pivot Step.....	60
6.6.1.1.2 Close Assault Combat Modifiers.....	48	6.8.2 Adjust Full Cover Step	60
6.6.1.1.3 Close Assault Combat Results	48	6.8.3 Adjust/RemoveSuppressions Step	60
6.6.1.2 Hand-to-Hand Combat	49	6.8.3.1 Adjust/Remove Suppression Modifiers	60
6.6.1.2.1 Hand-to-Hand Combat Resolution.....	50	6.8.3.1.1 Command other than N/C	61
6.6.1.2.2 Hand-to-Hand Combat Modifiers	50	6.8.3.1.2 Under Direct or Indirect Fire	61
6.6.1.2.3 Hand-to-Hand Combat Results	50	6.8.3.2 Adjust/Remove Suppression Results.....	61
6.6.2 Suppression Effects – Movement	51	6.8.4 Adjust/Remove Counters Step.....	61
6.6.3 Vehicle Building Movement.....	51	GLOSSARY.....	62
6.6.4 Leg Movement.....	52	INDEX.....	64



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

Panzer is a game of conventional ground-oriented combat set during World War II. 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 set at any time during the war. The Soviets actually won many small unit actions in 1941, as did the Germans in 1945. That is the advantage tactical games have over strategic games. The time-bias has a much smaller impact.

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, ATRs, 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 Rulebook

All of the information required to play the game is contained in this rulebook. For ease of use, it includes 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 rulebook is divided in to Basic Game, Advanced Game (AG) and Optional Rules (OR) sections.

1.2 Mapboard

The 22" x 34" mapboard included in this set is used to battle it out through the included scenarios. The superimposed hex grid regulates movement and determines combat results.

Also included:

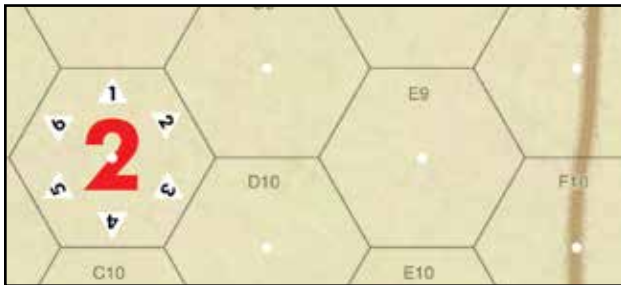
- Each hex has a specific terrain type that clearly dominates the hex. It affects both movement and combat.
- Each hex has a center white dot that is used when determining line-of-sight.
- Each hex has a unique numerical identifier that is used for scenario setup, victory determination, and other reference notations.
- Textual notations including hill identifiers and village names are typically utilized for setup and victory determination.
- A directional hex is used for special setup conditions and other random events.



1.3 Geomorphic Mapboards

The Expansion Sets each contain one or more double-sided geomorphic mapboards (also referred to as maps). These enable a wide variety of configurations when setting up or designing scenarios. They have a slightly different presentation than the 22" x 34" mapboard.

- They may be flipped and combined along the short or long edge to form many different configurations.
- 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.
- Each hex contains a unique alpha-numerical identifier, e.g., C10, certain partial hexes may be numbered 0, e.g., C0. When referring to a hex, the first character is the mapboard number followed by a specific hex identifier, e.g., 2C10.



1.4 Game Cards

There are two sets of four Game Cards identified as A, B, C and D. These cards contain the tables and charts required to play. 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 four 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.

1.5 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.

1.6 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.

1.7 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.

1.7.1 Units

These counters represent an assortment of Soviet (tan color) and German (gray color) units that served in combat during World War II.

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.



Vehicle



Squads

Half Squads

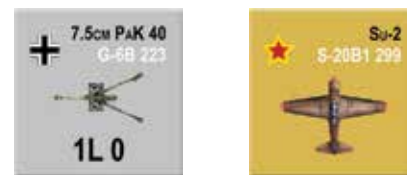


HMG Sections

Mortar Sections



Other Sections



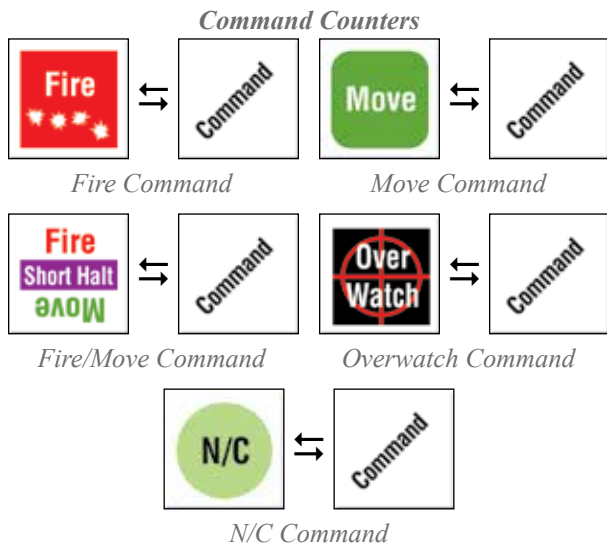

Towed Gun

Aircraft

This set also includes some unit counters that are addressed in *Panzer Expansion 1*.

1.7.2 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 may share a single Command counter thereby executing the same action.

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.

1.9 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.

1.10 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.

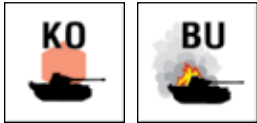
What are percentile dice? They are a set composed of two different colored 10-sided dice each numbered from 1-10 or 0-9. They are commonly called d10s.

1.11 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, and a notepad for any other pertinent information necessary for Advanced Game or Optional Rules situations.

1.7.3 Information Counters



These are placed directly on the mapboard or units to record game information or to track the status of units, e.g., KO and BU.

1.7.4 Terrain Counters



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

1.8 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), 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.

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 set of Game Cards 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

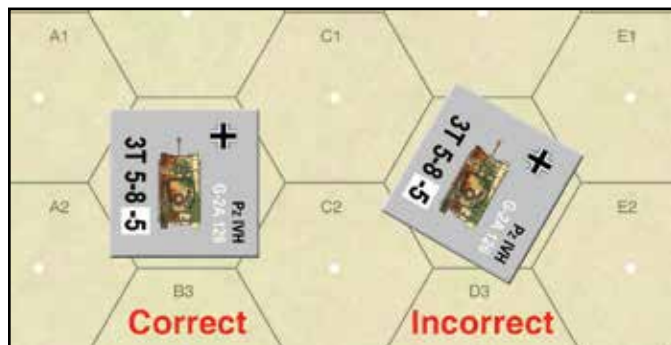
A set of two d10s (one colored and one white) generates a result from 01-00 (100), where a single d10 generates a result from 1-10 (where 0 equals 10). When rolling both d10s, players should be clear which color represents the tens value and which color represents the units value. Keep it consistent.

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.

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 must be further identified.

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 PzKpfw IVH tank indicates that it was spotted by its fire. Rotate the counter 180° 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 unremoved 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

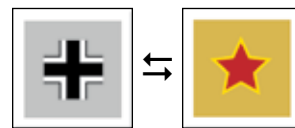
All weapons have a maximum range beyond which they may not fire. Note that most vehicles have more than one ammunition type and some have more than one weapon.

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 SU-76M M43's 76.2mm gun's AP ammo has a maximum range of 17 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 each calls for vehicles to reduce their movement speed allowance by $\frac{1}{2}$ —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, 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 C) 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 map-board, 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 can not 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?

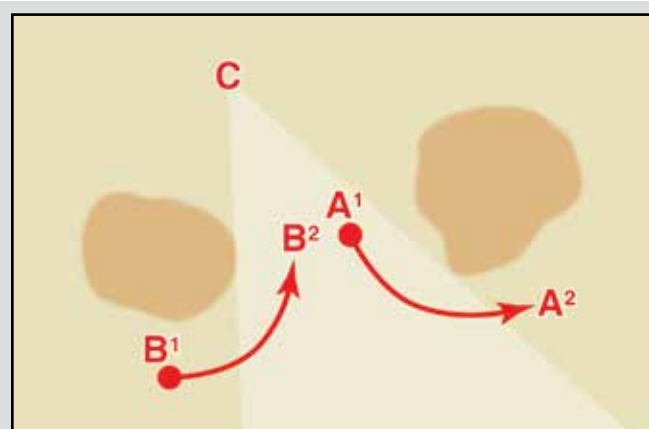
Any vehicle *combat* unit may spot opposing vehicles. For spotting purposes, a vehicle *combat* unit is defined as one possessing some form of offensive firepower. Unarmed vehicles, e.g., trucks and prime movers, may not spot.

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.

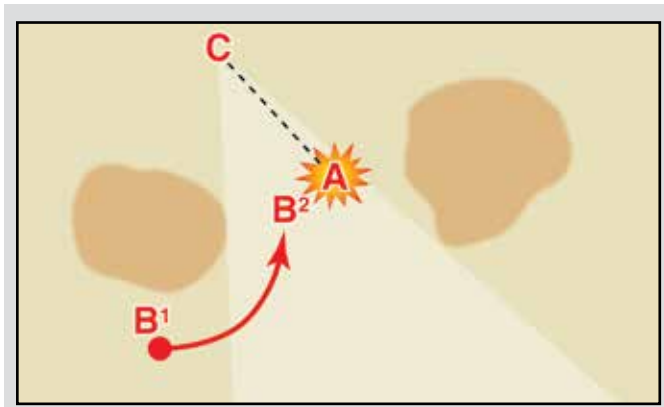
Once an opposing vehicle is spotted, it remains so as long as at least one friendly vehicle meets the range and line-of-sight requirements. Vehicles hand off spotted targets to one another as vehicles move into the area, move out, or are eliminated. As long as a single vehicle meets the spotting criteria 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.

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 A, 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 A. 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 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 German PzKpfw IIIIM 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 German PzKpfw IIIIM moves into a Woods hex and is marked with a SPOT/MOVE counter; it is now spotted out to 20 hexes.

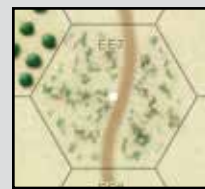


If the target vehicle fired, it is marked with a SPOT/FIRE counter; apply the +3 modifier by moving 3 rows up on the table. Use the +2 row for all modifiers greater than +2.

A German PzKpfw IIIIM 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 A and the Terrain Chart 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, Rough, Scrub, Shellhole, or Stream, 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 Alleyway 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.

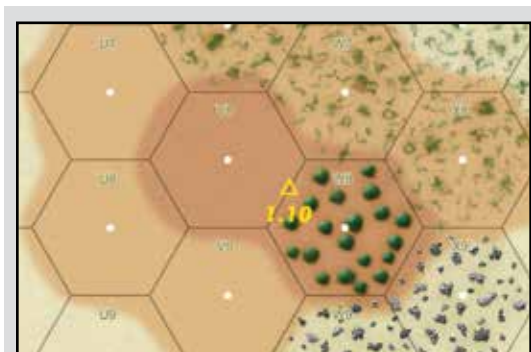
A vehicle in hex 3116 has a clear line-of-sight to hex 3415. However, it does not have a line-of-sight to hex 3514.

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.



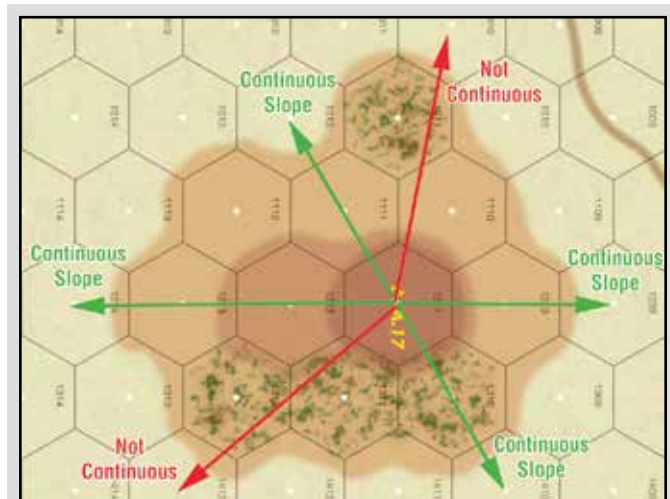
Slope Hexsides

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.



Continuous Slope examples

4.1.4.1.5.1 Continuous Slopes

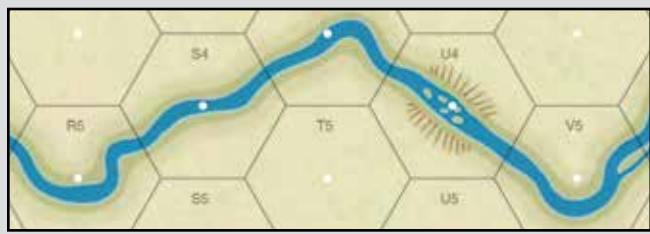
A series of contiguous hexes with slope hexsides such that the level of each hex is one or more heights lower than the adjoining higher hex is a Continuous Slope and doesn’t block line of sight as long as no other blocking terrain exists in the hexes.

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

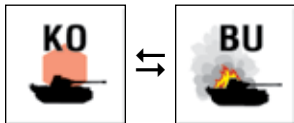
Light Woods and Woods hexes represent stands of trees that provide cover for vehicles. Vehicles may never enter Heavy Woods hexes unless on a Road or Path.

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.

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 may block line-of-sight depending on the Height of the spotting and target vehicles and their relationship to the potential blocking terrain.

4.1.4.2 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

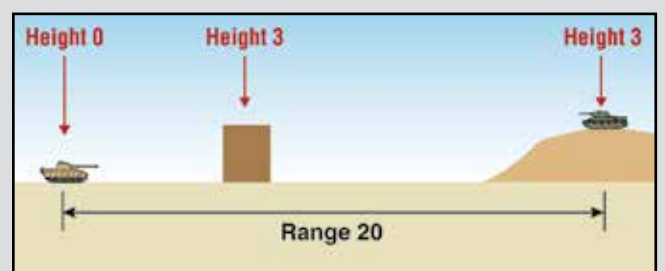
If the line-of-sight crosses an obstacle and it is higher than the Heights of both the spotting vehicle and the target vehicle, the line-of-sight is blocked.



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.

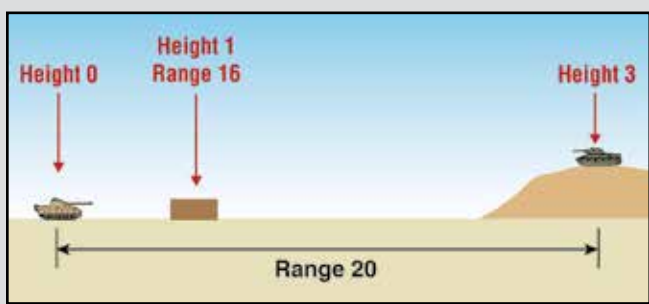
Note that in all cases the reverse is also true whether the spotting vehicle is the higher or lower vehicle in Height.

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



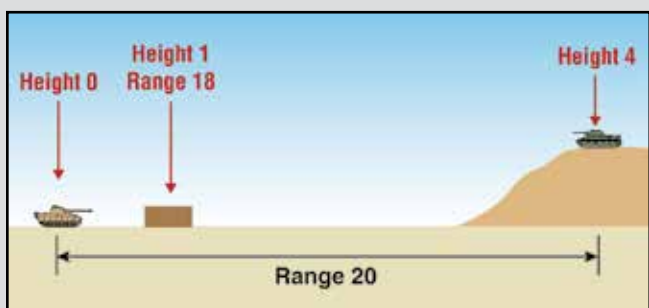
The obstacle creates a blind zone of 7 hexes (14 divided by 2) behind it. Any vehicle located at a range from 15-21 hexes from the higher vehicle may not be spotted.

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



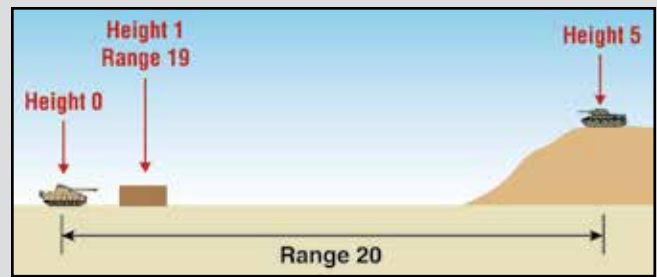
The obstacle creates a blind zone of 4 hexes (16 divided by 4) behind it. Any vehicle located at a range from 17-20 hexes from the higher vehicle may not be spotted.

Lower by 3 Heights: The obstacle creates a blind zone behind it equal to $\frac{1}{8}$ 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

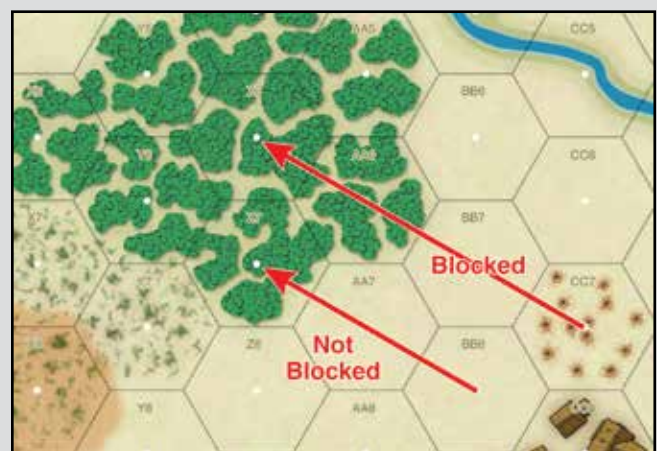
In those cases where the lower unit is above Height 0, add the lower unit's Height to the divisor when calculating the Blind Zone, e.g., the lower unit is at Height 1, the divisors now become 3, 5 or 9.

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.

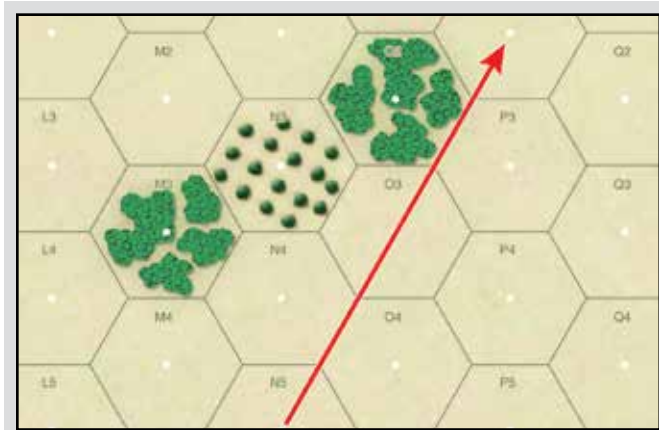
The 1 hex spotting range is also applicable to vehicles located within terrain that would normally block line-of-sight. For example, if two opposing vehicles are moving through a group of Woods hexes, they spot one another if the range is 1 hex.



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 counters 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

“During war the ball is always kicking around loose in the middle of the field and any man who has the will may pick it up and run with it.” ~ Brigadier General S.L.A. Marshall

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 7.42) 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.

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.

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., APCR, APDS, HEAT, and HVAP, but those ammo types are addressed in the Advanced Game (AG) rules.

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.

4.4.3.1.2 Turretless 360° Vehicles

Like turreted vehicles, vehicles with a T_T 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 fixed gun mounts. They are those with a T_T Factor of 0. Virtually all have their guns fixed to the front, although a few have their guns fixed 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 gun.

4.4.3.1.4 Front Field-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° of its counter. All hexes bisected by the 60° arc fall within its Field-of-Fire.

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



Reference the Vehicle Data Card Key, the Soviet SU-76M M43 has a 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° of its counter. All hexes bisected by the 60° 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 the AP ammo type 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 SU-76M M43. Assume the range to be 9 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 in Light Cover (-1) and the firing vehicle has a SHORT HALT Command (-4), the Net Modifier is -5.

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 SU-76M M43. Its Target Size modifier is -1.

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—the modifier is -4 .

All vehicles have a Stabilization Rating. It is the SB: 0 in their Weapon Data section.

This represents the greater challenge of hitting a target while firing and then moving with a SHORT HALT command. While some WWII era vehicles were equipped with rudimentary stabilization systems, in the context of this game, they do not provide any measurable advantage.

Shooter Damaged

If the firing unit 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.

Combat modifiers for Brew-Up Smoke created during the current Player step do not take effect until the conclusion of that step.

Overwatch

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

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

If the firing vehicle is executing Overwatch Fire at a target located outside of its front (or rear) 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.

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.

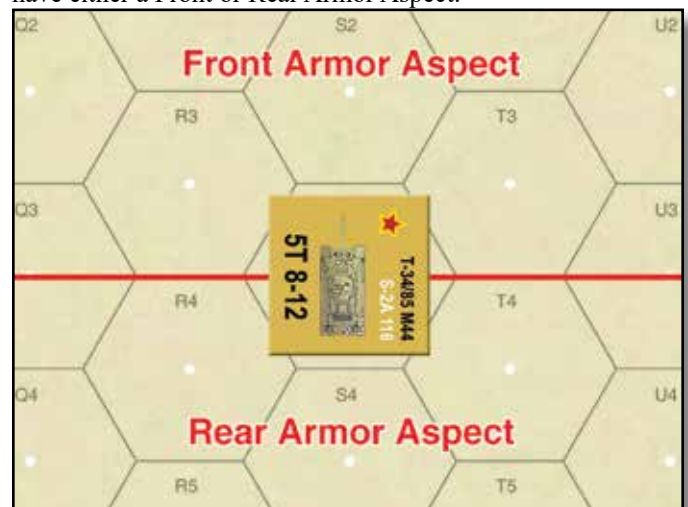
If the Net Modifier is greater than $+5$, use the $+5$ row. If it is less than -10 , use the -10 row. Note that with a Net Modifier of -10 and an AP Range Factor of E, it is not possible to hit a target vehicle.

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 SU-76M M43. Its Front Armor Factor is 11; its Rear Armor Factor is 3.

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 SU-76M M43. Assume the range to be 9 hexes. The AP Penetration Factor for AP Type ammo is 15.

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.

Bigger is not necessarily better. The finest Soviet anti-tank gun produced during the war was the 100mm L/56. Its anti-armor performance was superior to both the 122mm L/46 and the 152mm L/29. Why didn't more units field it? The Soviets had many more 122mm and 152mm guns in hand and they also preferred the explosive advantage those guns offered since soft targets dominated the battlefield at the end of the war.

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 Game Card D.

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 ½ (round down).

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 T-34/76 M43 (Data Card S-1B) located in a Clear hex and a German PzKpfw IVH (Data Card G-2A) located in a Woods hex are engaging one another at an unblocked range of 3 hexes.

The T-34/76 M43 has a SHORT HALT command while the PzKpfw IVH has a FIRE command. The Soviet player is the First Player. As such, the T-34/76 M43 resolves its fire first. Its SHORT HALT counter is revealed and placed with the FIRE side facing the front of the tank counter.

The PzKpfw IVH 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 AP ammo type, the AP Range Factor is P – Point Blank.

The AP Hit modifiers are now checked for any effect. The Net Modifier is -7 as a result of the following modifiers:

- Target in Medium Cover -3
- Shooter SHORT HALT -4

The P Range column on the AP Hit Table is cross-referenced with the -7. The AP Hit Number is 27.

The Soviet player rolls (100), the result is a 12; a hit is made on the PzKpfw IVH. The T-34/76 M43 is marked with a SPOT/FIRE counter under the edge of its Command counter.

It is determined that the PzKpfw IVH's Front Armor Aspect is applicable. That results in an Armor Factor of 18. Since the T 34/76 M43's AP ammo penetrates 19 at range 3, the shot penetrated.

Comparing the Penetration Factor of 19 to the Armor Factor of 18 (+1); the German tank is damaged. The PzKpfw IVH is marked with a DMGD counter.

Now the PzKpfw IVH resolves its fire. Its FIRE counter is revealed. Had it been Knocked-Out or Brewed-Up by the T-34/76 M43 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 T-34/76 M43 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 AP ammo type, the AP Range Factor is P.

The AP Hit modifiers are now checked for any effect. The Net Modifier is -5 as a result of the following modifiers:

- Target Moving -2
- Shooter Damaged -3

The P Range column on the AP Hit Table is cross-referenced with the -5. The AP Hit Number is 45.

The German player rolls (100), the result is a 45, a hit is made on the T-34/76 M43. The PzKpfw IVH is marked with a SPOT/FIRE counter under the edge of its Command counter.

It is determined that the T-34/76 M43's Front Armor Aspect is applicable. That results in an Armor Factor of 18. Since the PzKpfw IVH's AP ammo penetrates 25 at range 3, the shot penetrated.

Comparing the Penetration Factor of 25 to the Armor Factor of 18 (+7), results in a Knock-Out for the Soviet tank. The T-34/76 M43'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 responses. 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 SU-76M M43. Its Movement Factor is 5T 6-10. The U surrounding the 5T is covered in the Advanced Game.

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, 5T gives a Cross-Country movement speed allowance of 5 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 6 and Road equals 10.

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).

Damaged vehicles may expend up ½ of the available movement speed allowance (round down). Damaged vehicles 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 A. 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 for tracked vehicles only 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 A 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 SU-76M M43. It enters a Woods hex and then turns 2 hexsides expending its movement speed allowance of 5.

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 SU-76M M43. It is moving along a route consisting of 6 Road hexes and 4 Path hexes. It may use its Road Movement Factor of 10 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 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.



Introduction to the Advanced Game (AG)

The Advanced Game adds many new concepts and processes that expand on those found in the Basic Game. In some cases, the Advanced Game just adds more depth to the Basic Game. However, in other cases it adds completely new concepts. When reviewing the Advanced Game keep in mind that all Basic Game rules still apply.

In many cases, the Advanced Game may be treated as *drop-in*, modular rule sets. They can be used as called for or as desired, but in many cases they are not required for play.

5.0 Advanced Game General Procedures & Rules

5.1 Leg Units

Squads are the largest leg units fielded, followed in order of size, by half-squads and sections.

Leg units are typically armed with AP and GP or AP only or GP only weapons. Their combat resolution is the same as any other AP or GP weapon. All leg units have a 360° Field-of-Fire unless suppressed.

Leg units may be further classified as motorcycle, bicycle or cavalry units. Other than for their mode of transport, they function essentially the same as their foot-bound counterparts.

5.1.1 Squads & Half-Squads

Squads and half-squads are the primary leg units found in infantry formations. In fact, squads are actually made up of two half-squad units. Combat results may call for a squad to be reduced to a half-squad rather than total elimination. Half-squads are not reduced further, they are eliminated from play.

Squads may never voluntarily split into two half-squads. They may only be reduced to a single half-squad as a result of combat. Similarly, two half-squads may never combine to form a squad.

Squads and half-squads are always of a certain unit type as instructed by the Force List in a scenario.

Reference the Leg Data Card Key, German squads and half-squads may be one of Rifle, Infantry or SMG unit types in any given scenario.

Squads and half-squads are armed with their intrinsic GP weapon, plus in some cases with attached crew-served weapons. Unsuppressed squads may utilize their basic GP weapon plus all attached crew-served weapons when executing combat. Suppressed squads and half-squads may utilize their intrinsic GP weapon or a single attached weapon.

5.1.2 Sections

Sections are fielded without attached weapons, i.e., Command or FO Sections, or may attach crew-served weapons, e.g., HMGs, mortars or ATRs.

Sections have two Movement Factors. The first, 2L 3, is for sections without (w/o) any attached crew served weapons; and the second, 1L 0, is for sections with attached crew-served weapons.

All Sections are armed with their intrinsic GP weapon in addition to any attached crew-served weapons. Sections may utilize their intrinsic GP weapon or a single attached weapon when executing combat.

5.1.3 Attached Crew-Served Weapons

Many leg units have AP and/or GP Fire capable crew-served weapons attached. These include mortars, heavy machine guns, anti-tank rifles, anti-tank rocket launchers and flamethrowers.

Crew-served weapons are never fielded individually; they must be attached to a squad, half-squad or section unit. The scenarios dictate which leg units have attached crew-served weapons. When necessary, use the Formation Summary to indicate which units are so equipped. While there is no specific limit as to the number of crew-served weapons a leg unit may have attached, logic should dictate what is employed.

Reference Data Cards G-8B and S-8B, to be fielded, each of the six German and the five Soviet crew-served weapons must be attached to a leg unit.

The Notes Section of their Data Cards classify crew-served weapons as to their type and any other special factors.

5.1.3.1 Mortars

Mortars loft their explosive bombs through a high arc. Some mortars have two GP Gunnery sections on their Data Cards. One is for GP Direct Fire and the other is for GP Indirect Fire. The appropriate Gunnery Table is referenced based on the type of fire. Mortars do not have an AP Direct Fire capability. Crew-served mortars may not fire while being transported or located in the upper floors of buildings.

Mortars are considered Small Arms (see 5.7) for spotting purposes. Some mortars have a minimum firing range (see 5.6). They may utilize indirect fire out to their maximum range from Full Cover (see 6.1.4.2). Some vehicles carry them as their primary weapon.

Reference Data Card G-8B, the German 8cm GrW 34 and 5cm GrW 36 are crew-served mortars.

5.1.3.2 HMGs

Heavy machineguns are tripod, platform, or wheeled-carriage mounted automatic weapons. HMGs are GP Direct Fire weapons; they do not have an AP Direct Fire capability. Crew-served HMGs may not fire while being transported.

HMGs are considered Small Arms (see 5.7) for spotting purposes. Some vehicles carry them as their primary weapon.

Reference Data Card S-8B for the Soviet crew-served HMG.

5.1.3.3 Anti-Tank Rifles

Anti-tank rifles were the first ant-tank weapons to fire high-velocity bullets to defeat armored vehicles. They are AP Direct Fire weapons; they do not have a GP Fire capability. They may fire while being transported.

Anti-tank rifles are classified as Small Arms (see 5.7) for spotting purposes. Some vehicles carry them as their primary weapon.

Reference Data Card S-8B, the Soviet PTRD-41 ATR is a crew-served anti-tank rifle.

5.1.3.4 Hand-Held Anti-Tank Weapons

Hand-Held Anti-Tank Weapons fire HEAT (CE) rounds to defeat armored vehicles. They fire either rocket-propelled or spigot-projected shells. They may not fire while being transported or located in the upper floors of buildings unless otherwise indicated (see Data Card Notes Section).

They are AP Direct Fire weapons, but they also have a non-range dependent GP Direct Fire capability (same range as AP). The fixed GP Factor is listed in their Ammo Type column. GP Direct Fire is used only when these weapons fire at a leg or towed unit. A few Hand-Held Anti-Tank Weapons are classified as Small Arms (see 5.7) for spotting purposes, e.g., the British PIAT (see Data Card Notes Section).

Reference Data Card G-8B, the German Panzerfaust and RPzB 43/54 are crew-served, hand-held anti-tank weapons. Their GP Direct Fire Factors are 14 and 8, respectively.

If fired at a vehicle transporting leg or towed units, the GP Factor is applied against the passengers in addition to the AP fire directed at the transporting vehicle.

5.1.3.5 Flamethrowers

Flamethrowers are devastating short range weapons. When attached to leg units, they are treated only as combat die roll modifiers in Hand-to-Hand or Close Assault combats. Crew-served flamethrowers may not fire while being transported. They must be attached squad, half-squad or section units.

When mounted on vehicles they are treated as GP Direct Fire weapons.

5.2 Towed Units

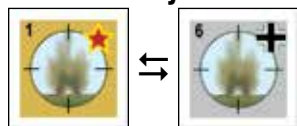
Towed units are anti-tank and anti-aircraft guns that require some form of transport as their *primary* means of mobility. Their crews are built-in and are not represented by separate counters. All towed units have a leg component as part of their transport capacity. A towed gun's crew never detaches from its gun. All combat results are applied to the towed gun and its crew as a single unit; they suffer the effects equally.

Most towed units may move a single hex, referred to as man-handling, without the aid of transport.

Towed units are typically armed with AP/GP or AP or GP only weapons. Their combat resolution is the same as any other AP or GP weapon. All towed units have a Front Field-of-Fire. Platform Gun Mounts (OR) (see 7.16) expands on this limitation.

Some towed units have two GP Gunnery sections on their Data Cards. One is for GP Direct Fire and the other is for GP Indirect Fire. The appropriate Gunnery Table is referenced based on the type of fire.

5.3 Artillery Units



Artillery batteries are represented *off-board*. Soviet (tan color) and German (gray color) ARTILLERY

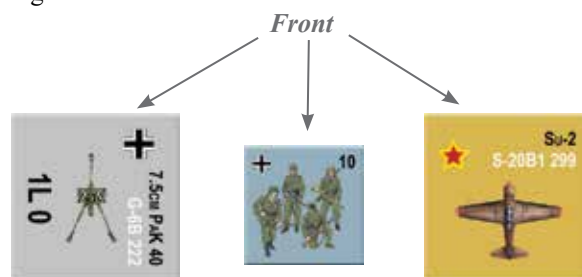
IMPACT counters are used to mark the impact hex of their fire. Their combat resolution is the same as any other indirect fire GP weapon.

5.4 Aircraft Units

Aircraft are all fixed-wing units. They are armed with GP weapons classified as strafe, bombs or rockets. The mix and availability of these weapons varies from aircraft to aircraft type. Their combat resolution is the same as any other GP weapon.

5.5 Advanced Game Unit Facing

Leg, towed, and aircraft units have a front facing. Just like vehicles, they must at all times face towards a hexside, not towards the angle of a hex.



Leg and towed units may move in any direction. Aircraft may only move into the hex their front is facing.

5.6 Minimum Range

Some weapons have a minimum range (the projectile must travel a certain distance before it is able to hit a target). Weapons may never engage targets at a range less than their listed minimum range. If no minimum range is listed, the unit has a minimum range of 1 hex.

Reference Data Card G-8B, the German 8cm GrW 34 mortar has a minimum range of 2 hexes (min-2).

5.7 Small Arms

Certain weapon types are classified as Small Arms. Their fire impact is less significant and their fire signature is less identifiable than larger weapons, like tank guns, and are therefore sighted at shorter ranges when fired.

Those weapons classified as Small Arms are listed in the Offensive Information section of their Data Cards in the GP or AP/GP Effectiveness column or in the Notes section.

Reference Data Cards S-8B and G-5A, the Soviet HMG and German SPW 251/1 are both classified as or carrying Small Arms weapons.

5.8 Grade

Grade denotes troop quality and is rated at three different levels; from highest to lowest: Force, Formation, and Unit; of five different qualities, from best to worst: Elite, Veteran, Seasoned, Regulars and Green.

The scenario description outlines the Force, Formation and Unit Grade for the forces. Grade is an inherent trait; it never changes during a scenario.

5.8.1 Force Grade

Force Grade is the single overall rating of the Forces' collective effectiveness. Formations or the individual units within a formation may have a grade greater than, equal to, or less than the Force Grade.

Force Grade is also used to represent unbalanced situations where high-quality troops have weak leadership, e.g., Veteran troops with a Regulars Force Grade, or lesser quality troops with superior leadership, e.g., Green troops with Veteran Force Grade.

Force Grade is used as a dice roll modifier when determining the current turn's Initiative.

5.8.2 Formation Grade

A side's force is composed of one or more formations. These formations organize the individual units of a force into distinct elements for command control and morale purposes, typically at the company level.

Through the course of a scenario, individual units may not transfer from one formation to another; they remain part of that formation for the entire scenario.

5.8.3 Unit Grade

Formations are composed of individual units, each having a Unit Grade. Unit Grade is the same as a unit's Formation Grade unless otherwise indicated in a scenario's force listing. Unit Grade is used in a number of situations including: all types of combat resolution, Suppression recovery, Quickmarch, Bail Out, Indirect Fire Response, and morale status and recovery.

Individual off-map artillery units do not have a Unit Grade rating. The observer's Unit Grade is used for all artillery combat situations.

5.9 Command, Recon, Engineer, and FO Units

Special unit types have Command, Recon, Engineer and/or FO labels. These designations empower those units with unique capabilities. The notations may also be combined. In those cases, the units possess multiple capabilities.

5.9.1 Command Units

Mounted or dismounted leg units and vehicles with a Command label, CHQ (company, battery, troop (USA), or squadron (UK and France '40) headquarters), BHQ (battalion or squadron (USA) headquarters), or RHQ (regiment or brigade headquarters), are the only command units within a headquarters formation. Most HQ formations are composed of a number of units including the command units, security forces, reconnaissance units, transport units, and forward observers.

Only those units with a Command label may exercise *command* authority over subordinate units.

5.9.2 Recon Units

Mounted or dismounted leg units and vehicles with a Recon label possess special reconnaissance capabilities that typify their independent role and higher level of training.

5.9.3 Engineer Units

Dismounted leg units with an Engineer label possess special combat engineer capabilities that typify their unique role within combat formations.

5.9.4 FO Units

Mounted or dismounted leg units and vehicles with an FO label possess special forward observer capabilities that enable them manage and control indirect fire capable units and aircraft.

5.10 Suppression

In the Advanced Game, units may also be Suppressed as a result of GP combat or other actions, e.g., Bail Out. Suppression reduces the effectiveness of a unit for spotting (see 6.1.3.1), combat (see 6.5.2.4 and 6.5.4.3) and movement (see 6.6.2) purposes. Suppressed units have either the SUPPRESSION/ON or SUPPRESSION/OFF side of the counter facing front to indicate the status. The Suppression effects are the same for either SUPPRESSION/ON or SUPPRESSION/OFF.

Multiple Suppression results do not cause any additional impact. However, a new Suppression result on a unit is recorded by placing a SUPPRESSION/ON counter; or by rotating an existing SUPPRESSION/OFF counter to SUPPRESSION/ON.

5.11 Coexisting Fire, Smoke & Barrages

It is possible to have Fire, Smoke and/or a Barrage in the same hex and to have a line-of-sight pass through these multiple instances. In the case where coexistence occurs, apply the single largest combat modifier that provides the greatest advantage to the target unit.

If a FIRE counter and a Closed SHEAF Barrage is located in the same hex, apply the On Fire -5 AP Combat modifier or -20 GP Combat modifier. Ignore the Barrage Closed SHEAF -3 AP Combat modifier and -10 GP Combat modifier.

5.12 Modifiers & Adjustments

GP combat adds or subtracts a modifier value or values from the combat dice roll. In all cases, the indicated modifiers are cumulative.

If a GP combat calls for a +10 modifier and a -20 modifier, the net dice roll modifier is -10.

Some GP combat results require a comparison against $\frac{1}{2}$ of the shooter's GP Factor. Always round down unless the original GP Factor is a 1; in that case $\frac{1}{2}$ of the GP Factor is still 1.

SHORT HALT commands, Suppression and Damage results each call for units to reduce their movement speed allowance by $\frac{1}{2}$, always round down.

5.13 Stacking

If a hex, at any time, contains 6 or more vehicles and/or dismounted towed units, it is considered to be over-stacked and applies the over-stacked hex effects.

Wrecks, leg and aircraft units do not count for stacking purposes.

5.14 Dual Fire

Some vehicle units carry two weapons types, while squads and half-squads may have multiple weapon types. These units have the ability to fire any or all of the weapons at the same time. While sections may carry multiple weapons, they may utilize only a single weapon at a time.

Dual Fire simulates the challenge of managing the fire of multiple weapons against the same or different targets.

No Dual Fire vehicles are included in the base set.

The controlling player announces the fire normally, but must indicate if one or all of the weapons are firing and if they are firing on the same or different targets. If only one of the weapons is firing, regardless which one, the modifier is ignored.

Note that ammo limits (see 5.16) may individually apply to one or all of the weapons.

Suppressed units may not employ Dual Fire; they must select a single weapon.

If firing at different targets, the unit is bound by Combat Command Control Limitations if the unit is sharing a command with other units. If it has its own unique command, it may fire on any legitimate targets (see 6.2.1.1.3).

The Dual Fire AP/GP modifier only applies to the weapon displayed as a reverse image on the vehicle Data Card and all attached leg crew-served weapons. The other weapon is treated normally.

Dual Fire does not apply to Overrun Combat (see 6.6.10).

Reference Data Card G-21B (found in Expansion 1), the SPW 251/2 may fire both its 8cm mortar and its MMG. Only the MMG is subject to the Dual Fire modifiers if both weapons fire.

5.15 Bailing Out

Even though a vehicle was not Knocked Out or Brewed Up as a result of combat, the crew and/or passengers may still decide that the shot was just too close for comfort and elect to abandon it. In addition, when a vehicle transporting one or more leg or towed units is eliminated, those passenger units must determine if they are able to exit the vehicle safely or are also eliminated.

When a vehicle receives a No Damage, Damage, Knock Out, Brew Up or a Track hit from AP Fire (see 6.5.2.5), or it receives a Knock Out or Brew Up from GP Fire (see 6.5.4.4.2), there is a chance that the vehicle's crew and any leg or towed passenger units may bail out.

When a leg or towed passenger unit is Suppressed as a result of Direct or Indirect GP Fire, there is a chance that unit may bail out.



A vehicle's bailed out crew is not represented by a counter; it just melts into the battlefield. Once a vehicle is abandoned it is out of action and may not be reoccupied, by either side, for the remainder of the scenario. Place a BAIL counter on or next to the vehicle.

If there is any chance of bail out, the attempt must be made immediately after all combat is resolved affecting the vehicle, and any leg or towed passenger units, by referencing the Bail Out Table on Game Card B.

If more than one bail out condition applies, the condition affecting the transporting vehicle is resolved first. The condition affecting the passenger unit(s) may still be applicable or it may change due the vehicle's bail out outcome.

A transporting vehicle is Knocked Out by Direct GP Fire; its passenger leg unit is Suppressed by the same GP Fire. The passenger leg unit does not use the Suppressed – DF row in the Bail Out Table (20–) to determine if it bails out. It must use the Knock Out Leg row (21+) to determine if it survives the bail out.

A transporting vehicle is Damaged by Indirect GP Fire; its passenger towed unit is Suppressed by the same GP Fire. The vehicle's crew bails out. The passenger leg unit does not need to check the Bail Out Table as it automatically bails out since the vehicle crew bailed out.

5.16 Ammo Limits

All AP special ammo types, and Smoke and Illumination rounds are only available in limited numbers and some only after certain time periods in the war. Some combat units are only able to carry a limited amount of basic AP and GP rounds. Most units carried sufficient basic AP and GP rounds so that in the time frame modeled in a typical scenario ammo limitations are no issue.

All of these situations and units are subject to the Ammo Limit rules. The Ammo Limit rules are structured so that the players are not required to track ammo usage or shots fired. No record keeping is required, except for aircraft.

5.16.1 Special Ammo Availability

Special Ammo types include APDS, APCR, HVAP, HEAT, Smoke, and Illumination rounds. The Notes section of the Data Cards indicates when special ammo types are available. Prior to the listed date, the special ammo type may not be employed. If no date is present, the special ammo type may be used whenever the unit is available.

Reference the Vehicle Data Card Key for the SU-76M M43. Its HVAP ammo is available from late-43 until the end of the war.

5.16.2 Determining Ammo Limits

If a combat unit is subject to ammo limits, it has an A: in its Weapon Data section on its Data Card followed by a number or letter-number combinations along the same row. For units with multiple weapons, the ammo limits, if any, are listed for each weapon. If it is not subject to ammo limits, it does not have any A: type information.

If the Ammo Limit does not have a letter prefix (just a number is displayed), that means its basic AP and GP ammo has an Ammo Limit. If the Ammo Limit has a letter prefix, that means one or more of its special ammo types has an ammo limit.

The prefixes include:

- A: APDS, APCR and HVAP
- H: HEAT
- S: Smoke
- I: Illumination
- D: Smoke Dischargers (OR) (see 7.9)

Reference the Vehicle Data Card Key for the SU-76M M43, while its AP and GP ammo are not subject to a limit, its HVAP special ammo has a limit of 3.

Reference the Soviet SU-152 M43 (Data Card S-5A), it has a limit of 5 for its basic AP and GP ammo.

Reference the German 7.5cm PaK 40 ATG (Data Card G 6B), it has a limit of 6 for its basic AP and GP ammo; 4 for Smoke, and 4 for its APCR ammo types.

To determine if a unit suffers the effects of an ammo limit, before resolving the actual AP or GP combat, roll (10) and compare the result to the listed ammo limit value. If the result is greater than the ammo limit value, the unit must apply the ammo limit effects.

5.16.2.1 Basic Ammo Limits

Resolve the shot, but the unit's rate-of-fire is reduced to N if not already N.

If AP Fire, apply the -3 Ammo Limit AP Hit modifier to the shot resolution.

If GP Fire, apply the -10 Ammo Limit GP Hit modifier to the shot resolution.

If HEAT is the only ammo type listed for a particular unit (the unit does not have an AP row on its Data Card), the unit follows this procedure for its AP and GP Fire.

5.16.2.2 Special Ammo Limits

With APDS, APCR or HVAP (A prefix) or HEAT (H prefix, see exception above), the unit resolves the fire utilizing the Gunnery section for its basic AP ammo type. It must follow the procedure for basic AP Ammo Limits.

If the unit's basic AP ammo type is also subject to an Ammo Limit, that must be determined before the fire is resolved. If it is determined that its basic AP Ammo is also subject to Ammo Limits, a -6 Ammo Limit AP Hit modifier (-3+-3) is applied.

Reference the Vehicle Data Card Key for the SU-76M M43. The Soviet player decides to fire HVAP with this vehicle. Before resolving the AP Combat, the Soviet player rolls (10); the result is a 7. Since 7 is greater than the Ammo Limit of 3, it fires its AP ammo instead; it is not subject to Ammo Limits. The SU-76M M43's rate-of-fire is already N; it must apply the -3 Ammo Limit modifier to the AP Combat resolution.

5.16.2.3 Smoke & Illumination Ammo Limits

With Smoke (S prefix) or Illumination (I prefix), the fire is not resolved; do not place a SMOKE counter on the mapboard. If indirect fire, do not place the ARTILLERY IMPACT counter on the mapboard. The unit is still marked with a SPOT/FIRE counter.

5.16.2.4 Leg & Towed Ammo Limits

Some leg crew-served weapons and all towed units have Ammo Limits, including limits on their basic ammo. However, unique conditions apply to the limits on their basic ammo. The limits on special ammo types are always in effect.

These units have unlimited basic ammo as long as their transporting vehicle unit is within 1 hex of the towed unit or leg crew-served weapon, or the towed unit or leg crew-served weapon was

placed on the mapboard at the start of the scenario, in which case there is a nearby ammo dump in the same hex.

If the transporting unit moves away or is knocked out or brewed up, or if the towed unit or leg crew-served weapon moves away from its transporting unit or its ammo dump, the limit on its basic ammo is immediately applicable.

If the transporting unit moves back within 1 hex, or the towed unit or leg crew-served weapon returns to its starting hex by its ammo dump, the supply of basic ammo returns to unlimited. Only the original transporting vehicle may be used to supply ammo for that unit. It may be necessary to make a notation to track units.

If the towed unit or leg crew-served weapon starts the scenario placed on the mapboard and it also has a transporting unit, it may draw its ammo supply from either source.

5.16.2.5 Off Map Artillery Ammo Limits

Only Smoke and Illumination fire missions are subject to Ammo Limits; roll (10) for those fire missions. Off-Map Artillery Batteries have an unlimited supply of GP ammo.

5.16.2.6 Aircraft Ammo Limits

Due to the combat multiplying effect of aircraft in combat, the listed ammo limits are the *exact* number of strafing shots, bomb loads or rocket launches that an aircraft may employ. Do not roll for aircraft Ammo Limits. In this single case, players should note the number of actual shots taken for each weapon type.

5.16.2.7 German Tungsten Supply

As the war progressed, the German supply of Tungsten, which is used in the manufacture of APCR ammo, steadily declined. What was available was more often than not diverted to the manufacturing of aircraft components.

While the German Data Cards support full availability of APCR ammo throughout the war, players may want to impose some restrictions on its availability.

Starting in late-1943 until the end of the war, it is not unreasonable to restrict the availability of APCR completely or to have the German player apply a modifier of +1 or +2 to the ammo limit roll (10).

6.0 Advanced Game Sequence of Play

6.1 Advanced Game Spotting Phase

6.1.1 Who may Spot?

All leg, towed and aircraft units may spot opposing units. However, aircraft may never hand off spotted targets to or have spotted targets handed off by other aircraft, vehicle, leg or towed units.

In the Basic Game only combat units could spot. In the Advanced Game a leg or towed passenger unit being transported by an unarmed vehicle can spot normally.

6.1.2 Spotting Orientation

Eligible units spot in all directions (360°), unless Suppressed. Aircraft may only spot to the area identified and described as their Front Field-of-Fire.

6.1.3 Determining Spotting Ranges

When attempting to spot a leg or towed unit, cross-reference their size by using the L or S column, with the base 0 row. The S column is the general spotting category for leg units unless otherwise indicated; towed units may be either L or S. Leg and towed unit size is found in the Defensive Information section of their Data Cards.

Reference Towed Data Card Key, the German 8.8cm FlaK 36 ATG/AAG is size L.

The base spotting range for all L-sized units is 15 hexes; for S-sized units it is 10 hexes.



If the target unit fired a weapon classified as Small Arms (see 5.7), it is marked with a SPOT/FIRE counter; apply the +1 modifier by moving 1 row up in the table. If the target unit fired both Small Arms and non-Small Arms weapons (even if firing Small Arms in subsequent turns), utilize the non-Small Arms modifier for spotting. If there is any difficulty recalling which units fired just Small Arms, place their SPOT counter sideways.

Passenger leg and towed units are not spotted as individual units when being transported. They are part of their transporting vehicle and are therefore spotted when that vehicle is spotted.

Passenger leg or towed units that dismount from their transporting vehicle are moving and are therefore marked with a SPOT/MOVE counter.

Aircraft are an exception; they do not have a unit size. All AA capable ground units may spot aircraft.

6.1.3.1 Suppressed Units

All Suppressed units can only spot to the area identified and described as their Front Field-of-Fire (or Rear Field-of-Fire) and apply a -2 modifier by moving 2 rows down on the Spotting Ranges Table.

Turreted, Turretless 360° and Non-Turreted vehicles can only spot to the area identified and described from the front (or rear) of the vehicle and apply a -2 modifier by moving 2 rows down on the table.

6.1.3.2 Full Cover Units

Leg and towed units in Full Cover (see 6.1.4.2) are spotted by applying a -2 modifier; move 2 rows down on the table.

Leg and towed units spotting from Full Cover apply a -4 modifier by moving 4 rows down on the table.

6.1.4 Line-of-Sight

6.1.4.1 Hull Down & Partial Hull Down



Vehicles in Hull Down and Partial Hull Down positions mask part of the vehicle from AP Direct Fire. They do not affect sighting or the chance to actually hit the target vehicle, but negate track hits and the hits on some or most hull locations. To signify that a vehicle is hull down mark it with a LOCATION counter with the HD side facing front. See 6.5.2.2.3 for effects.

6.1.4.1.1 Hull Down

Vehicles may find hull down positions when moving (see 6.6.9) or by occupying certain terrain types.

6.1.4.1.2 Partial Hull Down

Vehicles may find Partial Hull Down positions when moving (see 6.6.9), by occupying certain terrain types, or due to the height difference when determining line-of-sight.

Due to the configuration of their hull-mounted guns, some vehicles are unable to occupy a Hull Down position and bring those weapons to bear.

The affected vehicles have a special notation in the Notes section of their Data Cards indicating the *Limited* weapon. These vehicles may still occupy a Hull Down position, but the limited weapon may not fire. No vehicles of this type are included in the Basic Set.

As an alternative, the vehicle may occupy a Partial Hull Down position and still utilize the listed weapon normally. To indicate that a vehicle is in a Partial Hull Down position, mark it with two HD LOCATION counters.

When occupying an Improved Position, a vehicle can designate it as only a Partial Hull Down position by adding a HD LOCATION counter. When occupying a Brick or Stone building a unit with a limited hull-mounted weapon may not fire the listed weapon since it is hull down.

Any vehicle, not just those with limited weapons, may occupy a Partial Hull Down position.

6.1.4.1.3 Automatic Partial Hull Down

A vehicle is automatically in a Partial Hull Down Position when receiving AP Direct Fire from a unit at a lower height from a range equal to or less than the target vehicle's height advantage over the firing unit.

If the target vehicle's Height is 3 and the firing unit's Height is 0, the target vehicle is Partially Hull Down if the range is 3 or less.

6.1.4.2 Full Cover

Dismounted leg units (including motorcycle, bicycle and cavalry units) and dismounted towed units can utilize Full Cover to make maximum use of the natural cover offered by the terrain type they currently occupy. They may not enter Full Cover in Bridge, Ford or Stream hexes. Vehicles and aircraft units may not enter Full Cover.

Leg and towed units may freely enter into or move out of Full Cover, regardless of their orders, during the Adjust Full Cover Step of the Adjustment Phase. This does not require any portion of a unit's movement speed allowance and is not considered movement for spotting purposes.

The Full Cover status selected during the Adjust Full Cover Step determines a unit's status for the next turn.



To signify that a leg unit is in Full Cover mark it with a LOCATION counter with the FC side facing front.

Full Cover impacts both the spotting of the Full Cover unit and its ability to spot other units, combat, and the unit's GP Defense Factor.

Full Cover towed units may never have MOVE commands. Full Cover leg units may never have SHORT HALT commands. Sec-

tions with any attached crew-served weapons may never have MOVE commands.

Full cover leg units may initiate Close Assault and Hand-to-Hand combats against adjacent units.

Full Cover units defend against Hand-to-Hand Combats normally; there is no advantage or disadvantage.

6.1.4.3 Terrain Features

The Advanced Game adds functionality to terrain features outlined in the Basic Game and also adds the Terrain counters Block, Ditch, Fire, Hasty Entrenchment, Improved Position, Mines, Rubble, Smoke, and Wire. With the exception of Stream, Ford, Water, and Building hexes, they are placed on the mapboard to alter a hex's terrain type. They are positioned as instructed by the Setup or Special Conditions in a scenario.

In addition, some terrain types are now subject to destruction through combat or other means (see 6.5.4.4.3).

6.1.4.3.1 Building Hexes

Tracked vehicles with overhead protection may attempt to enter (or exit) the actual buildings located in a Building hex (see 6.6.3). However, they may suffer Damage or a Track hit as a result of that movement. No other vehicle types may attempt to enter buildings.

Reference the Vehicle Data Card Key, the Soviet SU-76M M43 is an open-topped tracked vehicle. It may not enter buildings.

Reference Data Card G-1A, the German PzKpfw IIIM is not an open-topped tracked vehicle. It may enter buildings.



Vehicles located inside of a building, are marked with a LOCATION counter with the INB side facing front. They receive the Cover provided by the building terrain type. In addition, vehicles located inside Brick or Stone Buildings are Hull Down from all angles. An HD LOCATION counter is not required.

Just like vehicles, towed units may freely enter Building hexes, as they are not actually entering the Buildings themselves, but are in the Alleyways between the Buildings. Therefore, any towed unit located in a Building hex is actually occupying Alley type terrain.



Towed units may not move inside of buildings nor may they dismount from their transport inside of buildings. In some cases, towed units may setup inside of buildings as instructed by a scenario's Setup or Special Conditions. If set up inside a building, they may not move from that position; they may still pivot. Towed units located inside of a building are marked with a LOCATION counter with the INB side facing front. They receive the Cover provided by the building terrain type.

Leg units in building hexes automatically occupy the buildings. There is no need to mark them with a LOCATION counter. They receive the Cover provided by the building terrain type.

Motorcycle, bicycle and cavalry leg units also occupy buildings just like their cousins on foot. Their transport is kept in close proximity; it is not represented by a separate counter.



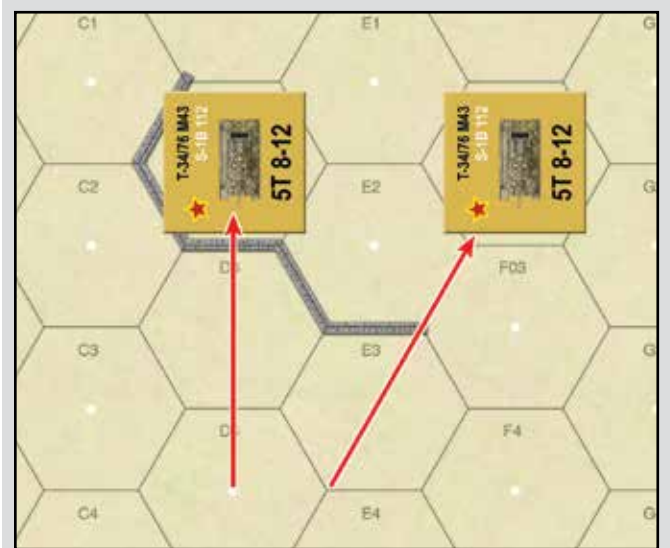
Leg units may move up to the top floor of multi-story buildings, i.e., buildings with a Height of 2 or more. For spotting considerations their Height is

considered to be 1 less than the actual Height of the Building hex. Leg units located on the top floor of a building are marked with a LOCATION counter with the UP side facing front.

A squad is located up in a 3 story building. For spotting, it is at a Height of 2.

6.1.4.3.2 Wall Hexsides

Vehicles are Hull Down when the target of AP Direct Fire that crosses or runs exactly along an adjacent Wall hexside.



Both vehicles are Hull Down.

6.1.4.3.3 Block



Blocks are man-made obstacles constructed to impede vehicle and towed unit movement. Vehicles and towed units are prohibited from entering Block hexes. Block hexes provide Light Cover for leg units.

6.1.4.3.4 Ditch



Ditches are man-made obstacles constructed primarily to impede vehicle and towed unit movement. Vehicles and towed units are prohibited from entering Ditch hexes. Ditch hexes provide Light Cover for leg units.

Ditch hexes have a Height of -1. They follow the same sighting rules as Streams and Gullies.

6.1.4.3.5 On Fire



A Fire (OR) (see 7.35) may start in a Building or Rubble hex as a result of GP Combat. In some cases, fires may also start in other terrain types as instructed by the Special Conditions in a scenario.

A Fire hex is marked with an ON FIRE counter. Fire has a Height of 5 above ground level. All units, with the exception of aircraft, are prohibited from entering a Fire hex.

Vehicle, leg and towed units may not remain in a Fire hex once it starts. A unit that has not exited a Fire hex by the end of the next turn immediately after the fire starts is eliminated and removed from play.

Like Brew-Up Smoke, Fire does not block line-of-sight. It hinders combat. If a line-of-sight passes through a Fire hex, a modifier is applied when determining the combat results.

6.1.4.3.6 Hasty Entrenchment



Hasty Entrenchments are constructed by leg and towed units to provide additional cover by applying a -10 GP Combat die roll modifier.

They are large enough for only a single unit unless otherwise instructed by the Set Up or Special Conditions in a scenario. To designate which unit is in a hex with a Hasty Entrenchment, place the HASTY ENTRENCHMENT counter on top of the unit occupying the position.

If abandoned, another single friendly or enemy leg or towed unit may reoccupy it. They are interchangeable between leg and towed units, i.e., if a towed unit creates a Hasty Entrenchment, any other towed or leg unit may occupy it. In some cases, leg and towed units may also start a scenario in Hasty Entrenchments.

6.1.4.3.7 Improved Position



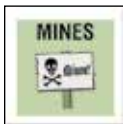
Improved Position is a collective term for any number of fortifications, built-up areas, bunkers, or revetments found across the battlefield. Vehicles, leg, and towed units may occupy Improved Positions. Improved Positions provide Heavy Cover for both combat and spotting. Vehicles may not Overrun Improved Positions.

They are large enough for only a single unit unless otherwise instructed by the Set Up or Special Conditions in a scenario. To designate which unit is in a hex with a an Improved Position, place the IMPROVED POSITION counter on top of the unit occupying the position.

If abandoned, another single friendly or enemy unit may reoccupy it. In some cases, units may also start a scenario in Improved Positions.

Vehicles within an Improved Position are Hull Down from all angles except the Rear Angle (or Front Angle if it reversed into the position) based on its initial setup. An HD LOCATION counter is not required. If a vehicle pivots within an Improved Position the non-HD angle remains in its original position.

6.1.4.3.8 Mines



Mines (OR) are used to deny or channel the opposition movement. They are dispersed as either Hasty or Deliberate Minefields.

Both anti-personnel and anti-vehicular mines, or a combination of the two types may be dispersed in a minefield hex. Minefields are typically placed in contiguous hexes and may either be hidden or marked as known (visible) minefields.

Mines are not consumed by attacking vehicles, towed, or leg units. They are distributed throughout a hex and in a dense enough manner to maintain their full potency unless cleared.

6.1.4.3.9 Rubble



Rubble is typically the end result of the destruction of building or bridge hexes. Half-tracked and wheeled vehicles and towed units are prohibited from entering Rubble hexes. Rubble hexes provide Cover for tracked vehicles and leg units equivalent to the type of terrain it replaced.

to the type of terrain it replaced.

In the case of Building hexes, units in Rubble hexes are spotted based on the type of terrain it replaced, i.e., Rubble located in a Wood or Brick Building hex provides Light and Medium cover for spotting, respectively.

6.1.4.3.10 Smoke and Barrages

On-map units as well as Artillery Batteries are capable of firing Smoke Shells (Smoke) in Indirect Fire.

Some vehicle, towed, and mortar units have the ability to Direct Fire smoke rounds instead of normal AP or GP fire. The Data Cards indicate which vehicle, towed, and mortar units are capable of firing smoke. Engineer leg units also have the ability to Direct Fire smoke rounds into an adjacent hex.

To Direct Fire smoke rounds, the unit must have a FIRE or SHORT HALT command; announce a target hex that is within the unit's line-of-sight, Field-of-Fire and range (same as GP); and does not contain any friendly units. This Closed SHEAF smoke occupies just a single hex. Direct Fire smoke does not require a spotted target to fire.

Reference Data Card G-2A, the German PzKpfw IVH may fire smoke shells; it has Smk listed in its Weapon Data section.

Reference Data Card S-8B, the Soviet 82mm BM41 Mortar may fire smoke shells; it has Smk listed in its Type of Unit column.



When a unit executes an Indirect Fire mission a Barrage area is created that is defined by its SHEAF Pattern. A SHEAF Pattern also defines the size of its Smoke area if firing smoke. If an on-map or mortar unit creates smoke, it occupies just a single hex. Both Smoke and Barrages have a Height of 4 above ground level.



Smoke has either SMOKE/ON or SMOKE/OFF counters to indicate its status. New smoke is recorded by placing a SMOKE/ON counter; or by rotating an existing SMOKE/OFF counter to SMOKE/ON.

Like Brew-Up Smoke, Smoke and Barrages do not block line-of-sight. They hinder combat. If a line-of-sight passes through a Smoke or a Barrage hex, a modifier is applied in determining the combat results. Combat modifiers for Smoke and Barrages created during the current Player step do not take effect until the conclusion of that step.

Smoke created during the Indirect Fire Step takes effect in the following Direct Fire Step. Smoke created during the Direct Fire Step takes effect in the following Close Assault/Hand-to-Hand Combat Step.

In most cases, SMOKE counters are placed individually on the mapboard; they are not attached to German or Soviet units. To properly orient their ON and OFF sides they must be faced to a consistent hexside. Use the Directional hex as a point of reference. Typically direction 1 is used for facing counters.

6.1.4.3.11 Wire



Wire is a man-made obstacle deployed to impede leg and towed units and some vehicle movement. Half-track and wheeled vehicles and leg and towed units are prohibited from entering Wire hexes.

Wire is destroyed after a fully tracked vehicle (T) enters its hex. If destroyed, Wire is removed from the mapboard.

6.2 Advanced Game Command Phase

In the Basic Game, each vehicle received its own individual command. When employing the Command Control rules, the Determine Number of Available Commands Step is added to the Command Phase as its first Step. Each individual Formation in a Force receives a finite number of unique commands of any combination that are allocated to all of its member units.

The ability to command multiple units performing many different tasks is representative of the unit's Formation Grade. An Elite formation is understandably much more able to quickly respond to the changing battlefield conditions and to perform a greater number of tasks over a greater range than a same sized Green formation. A Green formation just does not possess the training, experience, or for that matter, the élan of an Elite formation.

Units are not forced to sit by idly while other units perform actions due to a lack of available commands. Instead, the formation's units may share the available commands.

The Formation Summary is used to record each formation's unique information, i.e., grade, command, engineer and recon units and the other member units of that formation.

6.2.1 Determine Available Commands Step

At the start of the Command Phase, the players must determine the number of Available Commands per formation within their Force. The typical Formation size is a Company. The scenarios provide Formation information on a company-level basis.

6.2.1.1 Determining Available Commands

Each Formation's Force Grade, along with its current number of active units, is used to determine its number of available commands. These two elements are cross-referenced on the Available Commands Table found on Game Card C.

For command purposes, only those units that are not eliminated, bailed-out, knocked out, brewed up, or currently not on the mapboard may be active units.

All combat units including damaged vehicles and vehicles with Track hits are counted as active units. Suppressed units or units Hesitating (OR) (see 7.1.5) are also counted as active units. Broken (OR) (see 7.1.5) units are not active units.

Unarmed units, e.g., trucks and prime movers, are not active units unless they are within the Command Range of a combat unit from the *same* formation. Otherwise, they are not active units even though they are on the mapboard.

In addition, no more than one unarmed unit may be activated per combat unit. This prevents all the trucks from a formation congregating in a safe, out of the way spot on the mapboard along with a single combat unit just to reap the benefits of extra commands. Combat units are not required to be within Command Range of one another to be active units.

Units currently being transported (see 6.6.7) are not active units. However, if the transporting unit is an unarmed unit, it is counted as an active unit since by default it is within the Command Range of the combat unit it is currently transporting. Even

if an unarmed unit is transporting more than one combat unit, it is still counted as a *single* active unit. If the transporting unit is a combat unit, it is counted normally as a single active unit regardless if transporting any units.

Recon units (see 5.9.2) are not included in a formation's active unit count even though they are part of that formation. They are a special case for command purposes. Command, Engineer, and FO units are counted normally.

For reference purposes, the scenarios summarize the total number of combat units in a formation. When Recon units are present in a formation, the summary is presented as two values, e.g., 26(24), for total units and (total less Recon units).

6.2.1.1.1 Available Commands Procedure

At first, the makeup of the Available Commands Table may seem a little different, but it is actually quite straightforward.

Across the top of the table are values from 1 to 10. The 10s column is treated as the multiplier, while columns 1 to 9 are individual values. A formation never receives less than 1 Command even if 0 is listed.

If the Formation Grade is Regulars, and the total number of active units is 7, the number of Available Commands would be 3. The 3 is found in the 7s column opposite the Regulars row.

If the Formation Grade is Veteran, and the total number of active units is 12, the number of Available Commands would be 8. The 7 found in the 10s column is added to the 1 found in the 2s column opposite the Veteran row.

If the Formation Grade is Seasoned, and the total number of active units is 27, the number of Available Commands would be 16. Two times the 6 found in the 10s column (since the number of active units is 27, the value found in the 10s column is multiplied by 2) is added to the 4 found in the 7s column opposite the Seasoned row.

6.2.1.1.2 Command Range

Command Range is based on Formation Grade and is found in the Available Commands Table on Game Card C.

Command Ranges:

- Elite – 2 hexes
- Veteran – 1 hex
- Seasoned – 1 hex
- Regulars – 0 (same hex)
- Green – 0 (same hex)

One important point to note is that Command Range is measured from any combat unit in a formation to any other combat unit in the same formation not just to or from Command units.

An Option Rule, Command Span (see 7.52), expands on Command Range.

6.2.1.1.3 Sharing Available Commands

Only FIRE, MOVE, SHORT HALT and OW are unique commands. N/C is not a unique command.

Combat units and activated unarmed units that are within Command Range of one another may all utilize the same unique Command counter; place a single unique Command counter in the vicinity of the units sharing the command. If units sharing

commands do overlap, players must point out which units are sharing which commands.

Do not place a unique Command counter next to each unit unless they are each receiving a unique command, as each unique command placed on the mapboard counts as one towards the total of available commands.



The four German vehicles are all part of the same Company with Seasoned Formation Grade. A1, A2, A3 are within the 1 hex Command Range of one another. A4 is counted as an active unit because it is within the 1 hex Command Range of combat unit A3. However, A4 is not within Command Range of units A1 and A2. Units A1, A2 and A3 may share the same unique command. A4 could have its own unique command or share with A3, but may not share with the other two vehicles.

Commanding Vehicles on Roads and Paths

All vehicles on a road or path, moving at the road or path rate, that are stacked with or adjacent (regardless of Command Range) to the vehicle to its immediate front (except the lead vehicle) may all share a single MOVE command.

The vehicles must maintain their starting order and may not exceed stacking limits.

Commanding Inactive Unarmed Units

Inactive unarmed units may still be commanded. They just may not share a command with other units except on a road or path. This is a one-for-one proposition; each inactive unarmed unit must receive its own unique command.

Commanding Recon Units

Due to their independent role and typically superior training, each Recon combat and unarmed Recon unit automatically receives a unique command. This unique command does not count towards the total of available commands for its parent formation. Remember that Recon units were not counted in the total number of active units.

Non-Recon units may not share commands with Recon units. These commands are assigned and used by each individual Recon unit.

Formation Command Limitations

Formations may not share or trade available commands with units from other formations. Formations may not save unused

commands from turn to turn. The total of available commands is recalculated for each new turn.

N/C (No Command) Commands

Since N/C commands are not unique commands, players may place any number of this type of command without counting towards a formation’s total.

The N/C command does have a very important purpose. Suppressed units (see 6.8.3) and units with a Broken (OR) Morale status (see 7.1.5) have a much greater chance of recovery if they perform no other action.

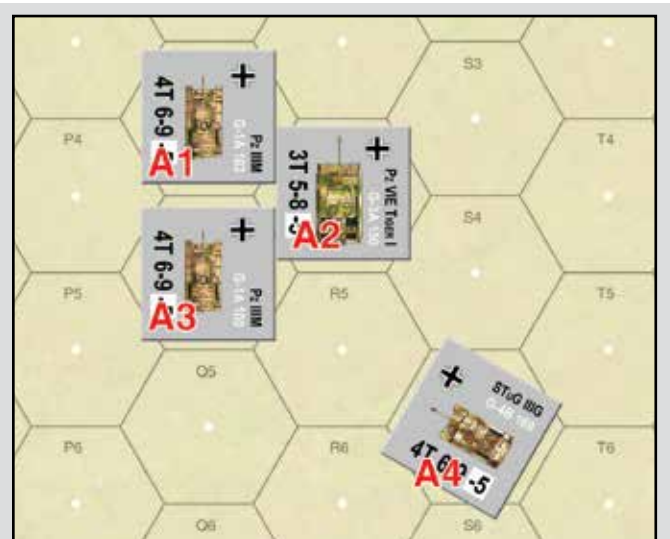
By default, any unit without a marked command is considered to have an N/C command. Tactically speaking, in some cases it is a good plan to physically mark N/C commands so as to disguise intent.

6.2.1.1.4 Executing Shared Commands

When two or more units share the same FIRE, SHORT HALT, MOVE, or OW command they must coordinate their fire and move actions.

Firing – FIRE or SHORT HALT

The targets must all be within the firing unit’s Command Range of one another to be legitimate targets. This Command Range check is measured from the targets to one another. The targets must still be within legal range from the firing units.



Three Soviet units with Seasoned Formation Grade are sharing a single FIRE Command. They elect to fire on three separate German targets. The three targets must all be within 1 hex of one another. A1, A2 and A3 are legitimate targets. A4 is not. With Regulars or Green Formation Grade, they could select only one of the four possible targets.

Even Elite Formation Grade would not encompass all four of the possible targets, since A4 is 3 hexes from A1. Although it could include A2, A3 and A4.

If there are more units sharing a command than available legitimate targets, more than one unit can certainly fire on the same target. If a target is eliminated before all of the units have a chance to resolve their fire, they may not shift their fire to another target.

Moving – SHORT HALT and MOVE

The units must all be within Command Range of one another at the completion of their move. If the units have different movement speed allowances, their movement is adjusted to meet the Command Range requirement.

Three units are with Regulars Formation Grade sharing a single MOVE command move during the Movement Phase. The three units must all be in the same hex at the completion of their move.

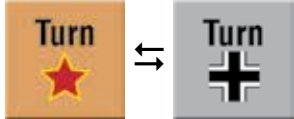
OVERWATCH

The units must all announce their fire at the same time and fire on the *same* target.

If for some reason, e.g., one or more units have a blocked line-of-sight, or the wrong ammo type, etc., they may not then fire at a different target; their Overwatch action is complete.

6.3 Advanced Game Initiative Phase

Each side's *Force* Grade Modifier is used to modify the dice roll when determining who controls the Initiative for the current turn.

6.3.1 Determining Initiative

During the Initiative Phase, each Force rolls (100) and applies their Force Grade Modifier to their roll; the net result may be greater than

100 or less than 0. 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 7.42) expands the Initiative process based on formations.

6.3.2 Force Grade Initiative Modifiers

- Elite: +40
- Veteran: +20
- Seasoned: 0
- Regulars: -20
- Green: -40

6.4 Advanced Game 1st Air Phase

See 6.7 Advanced Game 2nd Air Phase for all aircraft and AA operations. First review 6.5 Advanced Game Combat Phase.

6.5 Advanced Game Combat Phase

Advanced Game Combat adds the Indirect Fire Step, AP hit locations, AP number of hits, special AP ammo types, smoke and illumination ammo, ammunition limits, unit grade, bail out, and GP Combat for vehicle, leg, towed, and aircraft units.

In the new Indirect Fire Step, on-board units with Indirect Fire capability as well as off-board artillery units resolve their fire.

6.5.1 Indirect Fire Step

Indirect Fire is a method of engaging targets with units that are unable spot the targets themselves due to intervening terrain, spotting range or they are located off-map. There are two types of indirect fire, Called (see 6.5.1.7) and Planned (see 6.5.1.11).

Called Indirect Fire requires a Forward Observer (FO), a Command unit, or a Recon unit who can spot the target unit to call for and observe the fall of the Indirect Fire. Units spotting for Indirect Fire are collectively called observers.

Planned Indirect Fire fires at a point on the map, on a specific turn, does not require an observer, and does not require a spotted target.

Only those units possessing a GP-IF row in the GP Gunnery section of their Data Cards may employ Indirect GP Fire. If a unit has both a GP-DF and a GP-IF row for the same weapon, only the GP-IF row is used for Indirect Fire.

Reference Data Card S-6B, the Soviet 76.2mm M39 ATG has both GP-DF and GP-IF rows in its GP Gunnery section. It may fire Direct or Indirect GP Fire.

Units may not utilize Indirect Fire for Overwatch Fire. Overwatch Fire must be Direct Fire. Also, units may not utilize Indirect Fire against targets they can personally spot; they must use Direct Fire.

Units fire in the order described in the Sequence of Play. The First Player executes his fire before the Second Player. The Second Player must apply all Indirect Fire results inflicted by the First Player before resolving his Indirect Fire.

On-map units must have a FIRE command to execute Indirect Fire; units may not use Short Halt commands.

Observers must have an OW command to call for and observe Indirect Fire. They may not perform any other Overwatch related actions.

Indirect Fire is resolved from the positions and facings the units occupy at the point the fire is resolved. The terrain occupied by a firing unit or its SPOT/FIRE or SPOT/MOVE counters has no impact.

Within the following restrictions, each player may resolve Indirect Fire in any desired order.

- Each Indirect Fire shot is called for and resolved individually.
- Each unit fires only once per turn.
- After a unit fires, immediately mark it with a SPOT/FIRE counter.
- Each ground unit (friendly or enemy) or Terrain Type (see 6.5.4.4.3) that falls within the SHEAF Pattern is attacked individually.
- Observer units are not spotted; observing Indirect Fire is a passive action that does not involve fire or movement.

6.5.1.1 Announcing Indirect GP Fire

The firing player announces Planned Indirect Fire or calls for an Indirect Fire mission. The firing player may resolve the shots in any desired order. All Called Indirect Fire is controlled from the observer unit not the firing unit. The ability to spot a target and measure spotting range is determined from the observer unit. An individual observer may only call fire to a single target hex.

While Called Indirect Fire may involve more than one distinct source of Indirect Fire, they all fire at the same target hex. A distinct source of Indirect Fire can be any off-map artillery battery or any on-map unit capable of Indirect Fire.

Planned Fire is not called, it is plotted to arrive on a certain turn in the scenario.

6.5.1.1.1 FOs – Forward Observers

Typically, FOs are section-sized leg units most often found in company, battalion or higher echelon HQs. They may even be vehicles. They utilize the FO row in the Called Indirect Fire Response Table on Game Card B.

Their role is to manage and control both off-map and on-map Indirect Fire units. These highly trained troops are in communication with a formation's Indirect Fire assets. Therefore, they are the most capable and reliable units for managing Indirect Fire.

In addition, FOs are the only units that have the ability to call Indirect Fire from more than one distinct source of Indirect Fire, whether off-map or on-map.

USA FOs

Due to their multi-linked communication network, USA FOs may manage the largest number of distinct sources of Indirect Fire. They may call fire from up to four distinct sources of Indirect Fire.

Other Forces FOs

The FOs from all other forces may call fire from up to two distinct sources of Indirect Fire.

6.5.1.1.2 Command Observers

Command units may call fire from one distinct source of Indirect Fire. They utilize the appropriate row, for their command level, in the Called Indirect Fire Response Table on Game Card B.

Command observers may also be classified as Recon units. In that case, they are Command Recon Observers.

Command FO

Some Command units may also possess FO capabilities. In those cases, use the FO row instead of the unit's Command row.

Soviet Command Observers

Due to a limited communications infrastructure and a rigid artillery doctrine, Soviet Command units may only call fire from Attached (see 6.5.1.3.1) off-map artillery batteries and Attached on-map units. They may not call fire from Organic (see 6.5.1.3.2) off-map artillery batteries or Unattached (see 6.5.1.3.3) off-map artillery batteries or Unattached on-map units.

6.5.1.1.3 Recon Observers

Recon units may call fire from one distinct source of Indirect Fire. Recon units are the only non-FO or non-Command units that may call Indirect Fire. They utilize the Recon row in the Called Indirect Fire Response Table on Game Card B.

Command Recon Observers

Command observers may also be classified as Recon units. In that case, they are Command Recon Observers. They utilize the appropriate row, for their command level, in the Called Indirect Fire Response Table on Game Card B.

Soviet Recon Observers

Soviet Recon units must follow the same limitations as Soviet Command Observers.

6.5.1.1.4 On-Map Units

A special case exists for on-map units. Two on-map units may be considered a single distinct source of Indirect Fire if they are within Command Range of one another (see 6.2.1.1.2); not within Command Range of the observer unit. They still resolve their fire response and combat as individual units.

6.5.1.2 Types of Indirect Fire Units

Off-map Indirect Fire units are all collectively referred to as artillery units and are presented in a somewhat abstracted manner. They are classified as Light, Medium, Heavy or Super Heavy Batteries.

Reference Data Cards G-7A and S-7A for off-map artillery batteries.

As opposed to off-map artillery batteries, on-map Indirect Fire units are all specific combat units. They are typically mortars and field and infantry guns.

Reference Data Cards G-8B, S-6B and S-8B for on-map Indirect Fire capable units.

6.5.1.3 Level of Attachment

Attachment Levels represent the degree that each Indirect Fire unit is dedicated to a specific formation, and consequently, the expected chance of response.

There are three Attachment Levels, from best to worst, Attached, Organic, and Unattached.

When dealing with Attachment Levels, it is very important to keep the hierarchy of formations in mind. In the TO&Es, formations are organized and read from the top down, i.e., the highest level formations and combat units are listed first, followed by the subordinate formations and combat units.

6.5.1.3.1 Attached

Off-map artillery batteries may be classified as Attached. While not specifically listed as part of their designation, all on-map Indirect Fire units are considered Attached to their immediate parent formation and only that formation. They are considered Unattached to all other formations.

Reference the German Panzer Kampfgruppe late-43 found in the German TO&Es, its Panzer Grenadier Battalion (gepanzert) has an Attached Medium Battery. This battery is available to any of its battalion's eight observers as an Attached asset.

6.5.1.3.2 Organic

Only off-map artillery batteries are classified as Organic. These batteries are found only at the highest level of a formation. They are available as Organic artillery assets to its headquarters and all of the subordinate formations.

Reference the German Panzer Kampfgruppe late-43 found in the German TO&Es, it has one Heavy and two Medium Organic Batteries. These three batteries are available to all observers in the Kampfgruppe as Organic assets.

6.5.1.3.3 Unattached

Indirect Fire units are never specifically classified as Unattached. Indirect Fire units classified as Organic or Attached are considered Unattached to all other units outside of their immediate formations.

Reference the German Panzer Kampfgruppe late-43 found in the German TO&Es, the Attached Medium Battery in the Panzer Grenadier Battalion (gepanzert) is Unattached to any other observer unit that is not part of that battalion including those found in the Regimental HQ.

6.5.1.4 Pre-Registered Points

In certain situations, especially with defensive artillery fire, off-map artillery batteries are able to *zero-in* on certain points on a battlefield. These unique hexes on the mapboard are called Pre-Registered Points. There is a higher probability that artillery fire will respond when called to a Pre-Registered Point. The scenarios indicate if Pre-Registered Fire is available and to what extent.

On-map units and unassigned off-map artillery batteries may be called to a Pre-Registered Point, but they do not receive any fire response advantage. It is only applicable to off-map artillery batteries assigned to specific Pre-Registered Points. Multiple batteries may have the same Pre-Registered Point.

Pre-Registered Points are written down before the scenario begins, after all Terrain counters are placed but before any force's units are placed on the mapboard. Use the back of the Formation Summary or any other handy source. The notation must include the Pre-Registered Point's hex and its assigned off-map battery or batteries.

6.5.1.5 Indirect Fire SHEAF

The hex area covered or impacted by Indirect Fire is called the SHEAF Pattern.

What is a SHEAF? The word finds its roots in the definition of "a collection of items bound or held together." In artillery fire it is the lines of fire that produce a desired pattern of bursts from rounds fired by two or more guns.

There are four possible Indirect Fire SHEAFs. The smallest SHEAF is used just for on-map fire; it affects just a single hex –the Target Point. On-map units always use this Closed SHEAF Pattern for GP Indirect Fire

The other three SHEAF Patterns are used only for off-map Indirect Fire. The largest is the Open SHEAF; it impacts the Target Point and covers two hexes radiating out from the Target Point. Next is the Closed SHEAF; It impacts the Target Point and covers one hex radiating out from the Target Point. Last is the Closed Linear SHEAF Pattern; it impacts the Target Point and runs in a straight line out 6 hexes from the Target Point.

Indirect Fire SHEAFs



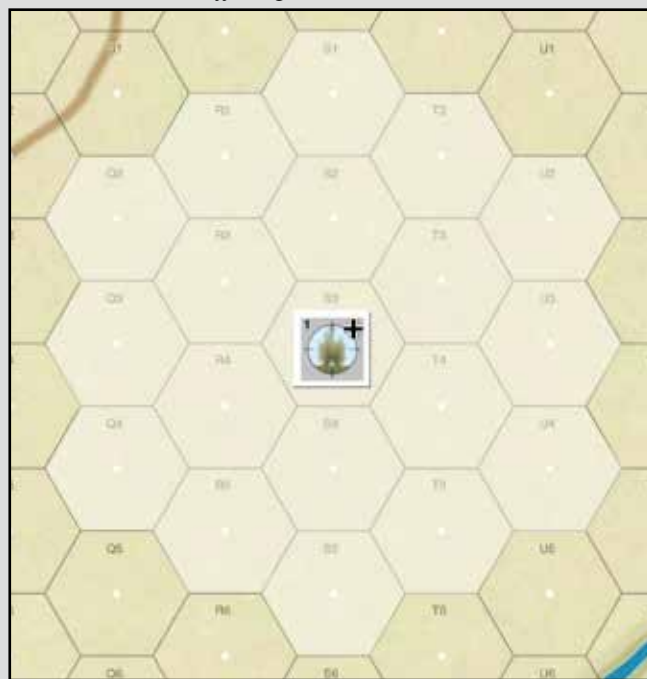
On-Map Closed SHEAF



Off-Map Closed Linear SHEAF



Off-Map Closed SHEAF



Off-Map Open SHEAF



Whenever Indirect Fire impacts the mapboard, the player places an ARTILLERY IMPACT counter for the appropriate force in the impact hex.

The ARTILLERY IMPACT counters are numbered to track different Indirect Fire missions. The counter remains in the hex until the fire is Checked (see 6.5.1.9) or it no longer responds. If necessary, make notations for the various Indirect Fire missions.

6.5.1.6 Indirect Fire Types

There are three possible types of Indirect Fire, GP, Smoke and Illumination (OR) (see 7.27). The Data Cards indicated which types are available to the various units.

6.5.1.6.1 GP & Smoke Types

GP and Smoke fire missions may fire in Closed, Open and Closed Linear SHEAFs. Place a SMOKE/ON counter on the ARTILLERY IMPACT counter to denote a Smoke fire mission.

6.5.1.6.2 Illumination Type

Illumination Fire Missions may fire only in Closed SHEAFs, excluding the Closed Linear SHEAF.

6.5.1.7 Called Indirect Fire

The action of requesting Indirect Fire is referred to as *Calling* for fire support. Only observers may call for Indirect Fire. To call Indirect Fire, the observer must have a *spotted* target. Indirect Fire may not be called to open areas or against unspotted targets; this is often referred to as reconnaissance by fire. An Optional Rule, Artillery Reconnaissance by Fire (see 7.37) expands on this limitation. Called Indirect Fire may utilize all Indirect Fire types and Indirect Fire SHEAFs.

It can only take place when the observer unit can spot at least one non-terrain target unit. The actual Target Point of the Called Indirect Fire must be placed directly on a spotted target. The Target Point must be within the maximum range of all firing unit(s).

Just by the nature of the size of an Indirect Fire SHEAF, any number of units including both friendly and enemy units, whether spotted or not, as well as Terrain Types may be affected by a Called Indirect Fire mission.

Called Indirect Fire Response

Called Indirect Fire is subject to Fire Response (see 6.5.1.12). This represents the possibility of units not responding to a fire call. The Attachment Level of the firing unit and the type and unit grade of the observer unit determine Fire Response. The unit grade of on-map units has no impact on Fire Response.

Each firing unit being called must individually determine Fire Response, including combined units. The success or failure of one unit has no bearing on other units responding to the same call. If an individual firing unit fails to respond, it is considered to have completed its orders for that turn. It may not be used for any other Indirect Fire if an off-map unit or any other actions if an on-map unit.

Why did they not answer the call? The off-map units may be responding to other fire calls from another observer or a higher echelon, or off-map and on-map units may not receive the fire call, the call was garbled, or they are unable to correctly align their fire in time to respond.

6.5.1.8 Continuous or Adjusted Indirect Fire

Continuous and Adjusted Indirect Fire is used to maintain existing Called Indirect Fire missions from turn-to-turn. The observer unit must have an OW command and all on-map firing units must have FIRE commands.

Players may never change observer units as part of continuing or adjusting Indirect Fire.

6.5.1.8.1 Continuous Called Indirect Fire

A Called Indirect Fire mission may be continued at the current Target Point hex with the existing fire SHEAF without having to roll again for Indirect Fire Response. The Indirect Fire type may be freely changed between GP and Smoke fire mission. A switch to an Illumination fire mission or back from one requires the fire be adjusted.

A continuation may take place as long as the Target Point is still spotted by the original observer unit and there is at least one

spotted target unit in or adjacent to the Target Point hex. If both of these two conditions can not be met, the Indirect Fire must be adjusted or checked.

6.5.1.8.2 Adjusting Called Indirect Fire

A Called Indirect Fire mission may be adjusted up to 3 hexes from the current Target Point and/or change the existing fire SHEAF. The Indirect Fire type may also be freely changed. With Indirect Fire adjustments, the player must again roll for Indirect Fire Response for all firing units, but applies a +1 Fire Response modifier to those units currently firing. Adjustments are very much like initial Indirect Fire calls. The 3 hex adjustment must be able to reach a spotted target unit.

If the observer has the capacity, it may call fire from additional units not currently firing as part of the Called Indirect Fire. The player must roll for Indirect Fire Response for any additional firing units. They do not apply the +1 Fire Response modifier.

6.5.1.9 Checking Indirect Fire

During a player's Indirect Fire Step, if desired, any existing Called Indirect Fire where the observer unit can still see the Target Point, may be *checked* (cancelled). Checked Indirect Fire is not resolved for the current turn.

If an Indirect Fire mission is checked, none of the firing or observer units may participate in any other Indirect Fire missions, including Planned Indirect Fire missions, during the turn in which its fire is checked. On-map units may perform any non- Indirect Fire actions, including Direct Fire.

Due to the break in communication, Called Indirect Fire missions that are no longer observed, i.e., Danger Close (see 6.5.1.10); or are now out of the observer's line-of-sight; the observer unit has orders other than Overwatch; or it was eliminated, automatically check. Fire missions may never be handed-off to another observer.

Called Indirect Fire must be checked before an observer may call a new Indirect Fire Mission and before any firing units may attempt to respond to a new Indirect Fire Mission.

Planned Indirect Fire missions are never checked; they must follow their fire plot.

6.5.1.10 Danger Close Indirect Fire

When Indirect Fire is called or adjusted (not continuous fire) to a Target Point hex that is within 5 hexes of spotted friendly units, it is possible that due to inaccuracy on the part of the observer or a firing unit the fire may instead miss the desired Target Point and instead hit a friendly unit.

Always pay close attention when calling or adjusting Indirect Fire in the proximity of friendly units. During the next turn, all Danger Close Indirect Fire automatically checks.

6.5.1.11 Planned Indirect Fire

Planned Indirect Fire missions are those plotted before the scenario begins and are scheduled to arrive sometime in the future. The advantage of Planned Indirect Fire is that it does not require an observer, does not require a spotted target, and is not subject to Fire Response.

The scenarios indicate if Planned Indirect Fire is available and to what extent.

In fact, due to the limited number of Soviet FOs and the structure and organization of their communications network, Planned Indirect Fire was the preferred method, especially during offensive operations. Yes, it is much less flexible—welcome to the Soviet Army.

6.5.1.11.1 Plotting Planned Indirect Fire

Planned Fire is employed only by off-map artillery batteries. It is plotted before the scenario begins, after all Terrain counters are placed but before any forces' units are placed on the mapboard. Use the back of the Formation Summary or any other handy source. The Target Point for Planned Indirect Fire is plotted in the same manner as Pre-Registered Point hexes. However, Planned Indirect Fire requires a few additional pieces of information.

In addition to the Target Point hex, players must plot the turn the fire is scheduled to arrive, the type of fire mission (GP, Smoke or Illumination), the SHEAF Pattern, and the duration (number of turns) for the mission.

The maximum duration for a Planned Fire mission is five turns; it may be less. With any multi-turn Planned Fire mission, players may freely switch between GP, Smoke and Illumination fire types and Open, Closed and Closed Linear SHEAFs as indicated by the mission plot.

At the conclusion of a Planned Indirect Fire mission, the battery is unavailable for any fire missions for the next turn. A Planned Indirect Fire mission may never continue beyond its indicated plot. A battery may not be used for other fire missions as long as they are part of a Planned Indirect Fire mission or during the one turn wait period.

A five turn Planned Indirect Fire plot could read: Turn 6 (the turn of arrival), GP (the fire type), Closed (the SHEAF Pattern), 0308 (the Target Point hex) for 2 turns (the initial duration), Smoke (new fire type), Open (new SHEAF Pattern), 1 turn (duration), GP (new fire type), Open, 2 turns (final duration for a total of 5 turns).

6.5.1.11.2 When Planned Fire Arrives

Due to the nature of the game's time scale, players may actually announce a Planned Indirect Fire mission one turn earlier or one turn later than the actual plot. Once the fire arrives, it executes sequentially as indicated by the plot.

6.5.1.11.3 Adjusting Planned Indirect Fire

On each turn of a fire mission, Planned Indirect Fire may be plotted to adjusted up to 5 hexes from its current Target Point hex. It is not subject to Danger Close (see 6.5.1.10).

6.5.1.11.4 Smoke & Illumination Limited Ammo

If ammo limits are in effect for Smoke or Illumination fire, neither the ARTILLERY IMPACT counter nor the SMOKE/ON counter is placed on the mapboard. However, this does not cancel or lengthen the Indirect Fire mission.

If the next turn of the plot calls for GP fire, it is placed as plotted. If the fire plot again calls for Smoke or Illumination, the player must still check for ammo limits.

6.5.1.12 Determining Indirect Fire Response

After announcing the Indirect Fire, including its type and SHEAF Pattern, place the ARTILLERY IMPACT counter in the Target Point hex. If Planned Indirect Fire, the fire automatically responds. If Called Indirect Fire (including adjusted Called Indirect Fire), Fire Response must be determined. Each fire unit must individually determine Fire Response.

Reference the Called Indirect Fire Response Table on Game Card B. Cross-reference the observer type with the Attachment Level of the artillery battery or on-map Indirect Fire unit. The value found is the Fire Response Factor.

The firing player rolls (10). The Called Indirect Fire Response modifiers are now checked to determine their effect, if any. These modifiers are found in the Called Indirect Fire Response Modifiers Table found on Game Card B.

If the modified result is equal to or greater than the Fire Response Factor, the fire responds and impacts at the Target Point as marked. An Optional Rule (see 7.26) expands on this. If the modified result is less than the Fire Response Factor, the fire fails to respond; remove the Artillery Impact counter if all of the firing units fail to respond.

If the result is an unmodified 1, a Danger Close friendly fire incident may occur (see 6.5.1.10). If one or more spotted friendly units are within 5 hexes of the announced Target Point, the opposing (originally targeted) player repositions the ARTILLERY IMPACT counter over one of the spotted friendly units as if that player called the fire. If no spotted friendly units are within 5 hexes of the Target Point, the fire automatically fails to respond regardless if any modifiers would have resulted in the fire responding. It may be necessary to place additional ARTILLERY IMPACT counters if there are multiple units firing.

6.5.1.12.1 Called Indirect Fire Response Modifiers

The Indirect Fire Response roll may be subject to one or more modifiers. All Called Indirect Fire Response modifiers are cumulative.

Note that if a 1 is rolled before any modifiers are applied, the Indirect Fire is subject to Danger Close or does not respond.

Preregistered Point

If the Target Point is a plotted Pre-Registered Point for an off-map battery—the modifier is +2.

Command Recon Observer

If the observer unit is a Recon Company, Battalion, Regiment or Brigade level Command unit—the modifier is +1.

Adjusted Fire

If the fire was adjusted Called Indirect Fire (adjusted Planned Indirect Fire is not subject to Fire Response)—the modifier is +1.

Observer Suppressed

If the observer unit is Suppressed—the modifier is -2.

Observer Damaged

If the observer unit is Damaged—the modifier is -2.

Observer Hindered

If Brew-Up Smoke, Smoke, Barrage, and/or Fire originates in the observer unit's hex, passes through, or enters the Target Point

hex, including its own barrage,—the modifier is –1. The modifier is –1 regardless if the SHEAF Pattern is Open or Closed.

The modifier is applied for each unique occurrence of any and all types the line-of-sight starts from or encounters; not per each hex. It is cumulative.

Observer Heat Haze

Heat Haze is a visual anomaly that occurs during hot conditions in the desert and also in arid environments. The shimmering effect caused by dynamic atmospheric turbulence from rising ground heat, and the distortion of light passing through it, is a hindrance to clearly engaging targets. Heat Haze is in effect as instructed by a scenario's Setup or Special Conditions.

Heat Haze applies a –1 modifier. The spotting range at which the modifier is applicable depends on the size of the target.

The range is:

S-Sized Target: ≥ 3 hexes

L-Sized Target: ≥ 5 hexes

V-Sized Target: ≥ 8 hexes

Observer Hesitating

If the observer unit is Hesitating (OR)—the modifier is –1.

Observer Broken

If the observer unit is Broken (OR)—the modifier is –2.

Observer Grade

Only the observer's unit grade affects Indirect Fire, and then only whether or not Called Indirect Fire missions respond. The firing unit's grade, does not affect Indirect Fire. In fact, off-map artillery units are not graded.

Reference the Unit Grade Modifiers Table on Game Card B. Apply the listed modifier, if any, found in the IF RSP column.

- Elite: +2
- Veteran: +1
- Seasoned: 0
- Regulars: –1
- Green: –2

6.5.1.13 Indirect Fire Resolution

For Called Indirect Fire on-map units, range is measured from the firing unit or the observer unit, whichever is greater, to the Target Point hex for all units that fall within the SHEAF Pattern, regardless of their actual range. For Called Indirect Fire off-map artillery batteries, the range is measured from the observer unit to the Target Point. In either case, the range must be equal to or greater than the firing unit's minimum range and less than or equal to its maximum range.

For Planned Indirect Fire, the range is always M-Medium.

For GP Fire, use that procedure in determining the results of the fire (see 6.5.4).

For smoke, place a SMOKE/ON counter on the ARTILLERY IMPACT counter to indicate that it is a Smoke fire mission.

For illumination, make a notation if necessary to track its fire mission.

The Situation

A German FO section, Seasoned Unit Grade, is attempting to call fire from both an off-map Organic Heavy Artillery Battery and an Attached off-map Medium Artillery Battery.

The FO has a spotted target: a Soviet 57mm M43 ATG (Data Card S-6B) located in a Woods hex at a range of 12 hexes; it is marked with a SPOT/FIRE counter. An unspotted Soviet T-34/76 M43 (Data Card S-1B) is located in an adjacent Woods hex.

No spotted German units are within 5 hexes of the Target Point; Danger Closer is not a possibility.

The Soviet is the First Player. The German FO is marked with an OW command. The 57mm ZIS-2 M43 ATG has a FIRE command, while the T-34/76 M43 has a MOVE command.

Even though the German is the Second Player, Indirect Fire is resolved in the Indirect Fire Step of the Combat Phase, which precedes the Direct Fire Step. Therefore, the Germans resolve their Indirect Fire first. The German FO section attempts to call Indirect Fire from the two off-map batteries. As a Forward Observer it may call fire from two distinct units.

In summary, it has OW orders; there is no blocking terrain; the 57mm M43 ATG is within spotting range as the actual range of 12 is less than 15, which is the maximum spotting range for a small target in Medium Cover with a SPOT/FIRE counter.

The German player announces the fire as GP with a Closed SHEAF and places an Artillery Impact counter in the hex with the 57mm M43 ATG. The area covered by the SHEAF Pattern also includes the adjacent T-34/76 M43.

Since the two German batteries have different Attachment Levels, they have different Response numbers. The FO row is cross-referenced with the Attached column where 2 is found for the Medium Battery; under the Organic column 4 is found for the Heavy Battery. The announced Target Point hex is a Pre-Registered Point for the Heavy Battery.

The German player first rolls (10) for the Medium Battery (the order is up to the German player); the result is a 5. No modifiers apply. Since 5 is not less than that battery's Response number of 2, the Medium Battery responded.

The German player now rolls (10) for the Heavy Battery; the result is a 1. An unmodified 1 normally indicates Danger Close. However, Danger Close is not possible. In any event, the Heavy Battery automatically fails to respond.

The German player first attacks the 57mm M43 ATG. At a range of 12 hexes (measured from the FO section), for the GP ammo type, the GP Factor is 8 (Data Card G-7A); the GP Range Factor is S. The 57mm M43 ATG's GP Defense is 5S; it is located in Medium Cover. The GP Fire modifiers are now checked for any effect; the Net Modifier is 0.

The 8 GP Factor column on the GP Combat Table is cross-referenced with the GP Defense of 5. The two numbers found are 40 for the N-Effect and 72 for the S-Effect.

The German player rolls (100). The result is 59, so the net roll is 59. Since 59 is greater than 40, but not greater than 72, the combat is a Suppressed result. The Soviet anti-tank gun is marked with a SUPPRESSION/ON counter.

The German player now attacks the T-34/76 M43. The range is still measured to the Target Point hex even though the T-34/76 M43 is located in a different hex. Its GP Defense is 4A.

The GP Fire modifiers are now checked for any effect. The Net modifier is -40 as a result of the following modifiers:

- Target Vehicle Moving IF: -20
- Target A-Type Vehicle: -20

Note that cover for the Woods terrain does not apply to Indirect Fire. The 8 GP Factor column on the GP Combat Table is cross-referenced with the GP Defense of 4. The two numbers found are 36 for the N-Effect and 68 for the S-Effect. Note that with the -40 modifier, it is not possible to achieve an Effective result.

The German player rolls (100). The result is 88, so the net roll is 48 (88 - 40). Since 48 is greater than 36 but not greater than 68, the T-34/76 M43 is Suppressed. The Soviet tank is marked with a SUPPRESSION/ON counter.

6.5.2 Direct Fire Step – AP Fire

The Advanced Game adds a number of new concepts to the Basic Game. Now, in addition to vehicles other units may also employ AP Direct Fire.

AP Fire is still directed only at vehicles, but no special counters are required for the various choices; they are declared at the time of the fire.

6.5.2.1 AP Number of Hits

AP weapons do not necessarily have the same Rates-of-Fire. Four distinct Rates-of-Fire are modeled in the game. They are identified by a single character:

- N – Normal
- Q – Quick
- R – Rapid
- F – Fast

The Rate-of-Fire for a specific weapon is listed on the same row as the weapon's name following ROF.

Reference the Vehicle Data Card Key, the SU-76M M43's Rate-of-Fire for its 76.2mm L43 gun is N – Normal.

Reference the Towed Data Card Key, the 8.8cm FlaK 36's Rate-of-Fire for its 88mm L/56 gun is Q – Quick.

Why do towed units typically have a higher Rate-of-Fire than vehicles for the same gun? Most towed guns have multiple ammunition handlers, and they are not lugging shells around a vehicle's close confines.

No additional die roll is required when determining the number of hits. The same AP Hit Number Roll (100) is used by referencing the AP Number of Hits Table on Game Card A.

Multiple hits are not a consideration with GP Fire. The impact of Rate-of-Fire is already factored into the weight of GP Fire.

N Rate-of-Fire

The N Rate-of-Fire is not referenced in the table. If the result is equal to or less than the AP Hit Number, one hit is made. If the result exceeds the AP Hit Number, the shot missed.

Q, R and F Rates-of-Fire

With these three Rates-of-Fire, it is possible to achieve multiple hits on a target or targets. All additional hits are resolved individually for Hit Location and Damage. Find the row containing the AP Hit Number in the left or right hand column of the table.

Cross-reference the Hit Number row with the columns corresponding to the weapon's Rate-of-Fire. If the result exceeds the AP Hit Number, all shots missed. If the result is equal to or less than the AP Hit Number, one or more hits were made. The number of hits made is found at the top of the sub-column in whose die-roll range the result falls.

A shot has an AP Hit Number of 56, with a Rate-of-Fire of F. The values listed in the table are 01-11 in the F: 3 sub-column, 12-22 in the F: 2 sub-column, and finally, 23+ in the F: 1 sub-column. So, if the result was from 01-11 three hits are made; from 12-22 two hits are made; from 23-56 one hit was made; and if 57 or higher, the shot missed.

An added bonus of Q, R or F Rates-of-Fire is that additional hits may spread to other target vehicles. To spread additional hits to other targets, all the additional targets must be within the firing unit's Command Range of the original target vehicle. This Command Range check is based on the firing unit's Unit Grade (not its Formation Grade, as is the case with sharing commands) and is measured from the original target to any other potential targets.

The additional targets must still be legal targets and fall within the same AP Range Factor (or closer) as the original target. The additional hits are spread *before* determining damage from the hits.



A unit with Veteran Unit Grade and a R Rate-of-Fire fires at A3. It may spread any additional hits to A1 and/or A2; they are both within 1 hex of A3. It may not spread any hits to A4. With Regulars or Green Unit Grade, it is not possible to spread any additional hits; Elite Unit Grade would include A4.

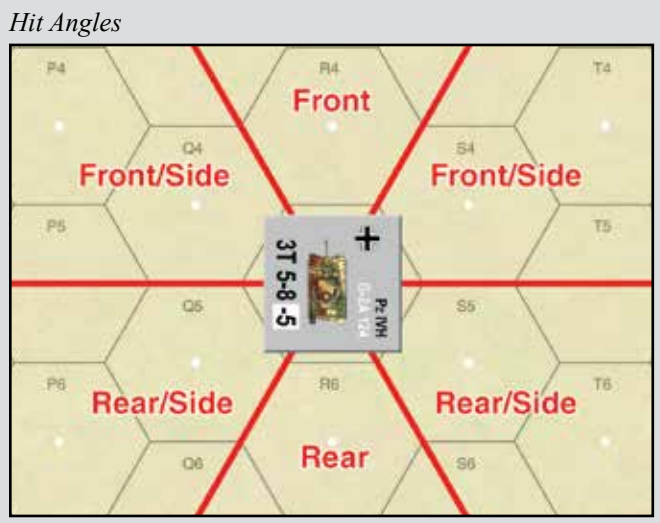
6.5.2.2 AP Hit Angle

In the Basic Game, the orientation of the target vehicle to the firing unit was based on just two Hit Angles—Front and Rear. The Advanced Game has six Hit Angles—Front, Front/Side (right and left), Rear/Side (right and left), and Rear. Within these Hit Angles there are now eight unique Hit Locations.

- TF – Turret Front
- TS – Turret Side
- TR – Turret Rear
- HF – Hull Front
- HS – Hull Side
- HR – Hull Rear
- TK – Track
- DK – Deck

Note that all vehicles have turret-hit locations even those classified as Non-Turreted or Turretless 360°. This is because those vehicles typically have turret-like superstructures or gun shields. It also allows for a uniformity of data presentation.

The six Hit Angles (Front, Front/Side, Rear/Side and Rear) are oriented around a vehicle with the right and left side as mirror images of one another. The orientation of the target vehicle to the firing vehicle’s line-of-sight is used to determine where a vehicle is hit.



If the line-of-fire runs exactly along a hexside dividing two angles, the player controlling the target determines which of the two angles to utilize.

After determining the Hit Angle, roll (100). Compare the *tens* result to the values listed in the Hit Angle row in the AP Hit Locations Table on Game Card A. Do not lose sight of the *units* result of the dice roll as that is used for damage determination (see 6.5.2.5).

With a Front/Side Hit Angle, a 76 is rolled. The 7 indicates a HS—Hull Side Hit Location. The 6 is used when determining damage.

6.5.2.2.1 Track Hits

With a result of 10, the Hit Location is TK – Track, the vehicle suffers damage immediately. Skip any further damage determinations. Any subsequent Track hits do not cause any additional damage and are ignored.



Track Hit is a generic term used to describe a mobility hit on a vehicle; it applies equally to tracked, half-tracked and wheeled vehicles. An Optional Rule, Variable Track Damage (see 7.21) adds vari-

ability to the automatic damage. Place a TRACK counter on or next to the target vehicle. A vehicle may have both a Track Hit and a Damage Hit.

A vehicle with a Track Hit may not move or pivot for the remainder of the scenario including the MOVE portion of any command not yet executed. If the vehicle is currently moving, it immediately stops and may not change its facing. It is also subject to Bailing Out.

Any combat not yet resolved still treats the vehicle as if it is moving.

A vehicle with a SHORT HALT command receives a Track Hit from fire from the First Player. When it resolves its fire as the Second Player, it is still considered to be moving.

A vehicle with a MOVE command receives a Track Hit during the Indirect Fire Step. It is still considered to be moving during the subsequent Direct Fire Step.

Vehicles sharing MOVE or SHORT HALT commands must maintain Command Range upon completion of their move. However, if one or more of those units receive a TK Hit preventing movement, the remaining units may move normally, leaving the tracked unit behind, as long as the those remaining units maintain Command Range upon completion of their move.

Vehicles sharing Move (small caps font) or Short Halt (small caps font) commands must maintain Command Range upon completion of their move. However, if one or more of those units suffer Hull Dmgd (small caps font) or bogging, thereby limiting movement, all attempts must be made to maintain Command Range upon completion of their move. If this is not possible, there may be cases where the moving units may not be able to maintain Command Range.

6.5.2.2.2 Deck Hits

If the hit is from falling shot, i.e., the firing unit’s Height is greater than the target vehicle’s Height, there is a chance that the target vehicle’s Deck Armor is hit.

With a result of 1 and falling shot, the Hit Location is DK – Deck. The Deck Armor is hit, and it is used when determining if the shot penetrated. The other Hit Location listed in the table is ignored.

With a Rear/Side Hit Angle and falling shot, a 14 is rolled. The 1 would normally indicate a TS – Turret Side Hit Location. However, since it is falling shot it is treated as a DK Hit instead. The 4 is used when determining damage.

6.5.2.2.3 Hull Down Hits

When Hull Down or Partial Hull Down, portions of the vehicle are protected from AP Fire, rendering those hits ineffective.

When in a Hull Down position, all Hull, Hull* and TK Hit locations are treated as a miss instead of a hit.

With a Front/Side Hit Angle and Hull Down, Hit Locations 5 through and including 10 are treated as a miss instead.

When in a Partial Hull Down position, all Hull* and TK Hit locations are treated as a miss instead of a hit.

With a Front/Side Hit Angle and Partial Hull Down, Hit Locations 6, and 8, 9, 10 are treated as a miss instead.

6.5.2.3 Armor Determination

The values found in a vehicle's Data Card Defensive Information section represent its Armor Factor (armor thickness adjusted for armor composition and shot angle) for each Target Angle and each Hit Location.

From a defensive standpoint, vehicles are classified as A-Type (Armored), P-Type (Protected) or S-Type (Soft). Both A-Type and P-Type vehicles carry armor, however, P-Type vehicles usually have an unarmored Hit Location typically the TR, and are open-topped. S-Type vehicles are unarmored.

A-Type and P-Type vehicles have the specific Hit Locations listed while S-Type vehicles have an Armor Factor of 0 for all Hit Locations.

Reference the Vehicle Data Card Key, the SU-76M M43's GP Defense Factor is 2P. The P suffix indicates that it is a P-Type vehicle.

6.5.2.3.1 Level, Rising & Falling Shots

In the Basic Game, all AP Direct Fire was treated as Level Shot. In reality, changing a shot's angle of inclination, either above or below a target, affects the geometry of the target's armor basis. In most cases, falling shots decreases armor effectiveness while rising shots increase armor effectiveness.

For Level Shots (firing Height and target Height equal), use the Level row; for Falling Shots (firing Height greater than target Height), use the Falling row; for Rising Shots (firing Height is less than target Height), use the Rising row. An Optional Rule, Lower Hull Hits (see 7.13) expands on Rising Shots.

6.5.2.3.2 Front or Rear Hit Angles

TF, TR, HF and HR Hit Locations are listed. It is impossible to hit the TS or HS at these angles.

Reference the Vehicle Data Card Key, a Front Angle, Rising Shot hitting the HF. The SU-76M M43's Armor Factor is 18.

6.5.2.3.3 Front/Side or Rear/Side Hit Angles

TF, TS, TR, HF, HS, and HR Hit Locations are listed.

Reference the Vehicle Data Card Key, a Front/Side Angle, Level Shot hitting the HF. The SU-76M M43's Armor Factor is 17.

6.5.2.3.4 KE vs. CE Ammo Types

AP ammo types are classified as either KE – Kinetic Energy or CE – Chemical Energy, as listed in the Ammo Type or Types of Unit columns of the Data Cards. This information matches the Defensive Information section of the vehicle Data Cards.

Whether the hit is from KE or CE type ammo, the vehicle Armor Factors are as listed. An Optional Rule (see 7.10) expands on CE ammo types.

6.5.2.4 AP Hit Modifiers

The Advanced Game adds a number of new AP Direct Fire modifiers.

Shooter Suppressed

If the firing unit was Suppressed during a previous turn or previous action during the current turn—the modifier is –5.

Smoke – Open/Closed SHEAF

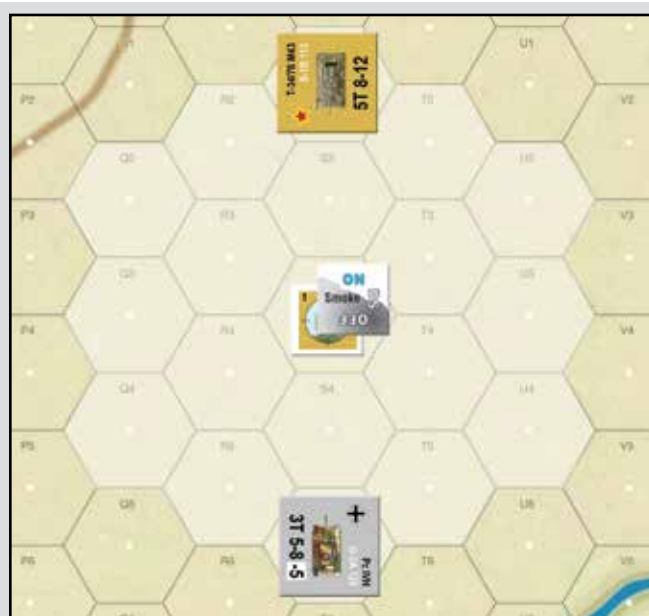
If Smoke originates in the firing unit's hex, passes through, or enters the target unit's Smoke hex—the modifier is either –3 or –5 depending whether the Smoke's Fire SHEAF is either Open or Closed. It is Closed for all on-map units.

The modifier is applied for each unique occurrence of Smoke that the line-of-sight starts from or encounters; not per each hex in its Fire SHEAF. It is cumulative.

Barrage – Open/Closed SHEAF

If a Barrage originates in the firing unit's hex, passes through, or enters the target unit's Barrage hex—the modifier is either –1 or –3 depending whether the Barrage's Fire SHEAF is either Open or Closed. It is Closed for all on-map units.

The modifier is applied for each unique occurrence of a Barrage that the line-of-sight starts from or encounters; not per each hex in its Fire SHEAF. It is cumulative.



Both the German PzKpfw IVH and the Soviet T-34/76 M43 fall within the same Open SHEAF Smoke Barrage; the modifier is –3. Only one unique occurrence of Smoke is in play, and the Smoke modifier takes precedence over the Barrage modifier (see 5.11).

On Fire

If the line-of-sight passes through a Fire hex—the modifier is –5. The modifier is applied for each unique occurrence of Fire that the line-of-sight encounters; it is cumulative.

On the rare occasions that a target unit or a firing unit is located within a Fire hex, the modifier is also applied for each of those situations.

Ammo Limit

If the firing unit has Ammo Limits in effect (see 5.16)—the modifier is –3.

Transported Fire

If a passenger leg unit is firing an attached AP type weapon—the modifier is –2.

Heat Haze

Heat Haze is a visual anomaly that occurs during hot conditions in the desert and also in arid environments. The shimmering effect caused by dynamic atmospheric turbulence from rising ground heat, and the distortion of light passing through it, is a hindrance to clearly engaging targets. Heat Haze is in effect as instructed by a Scenario's Setup or Special Conditions.

Heat Haze affects the combat results by applying a -3 modifier to AP Direct Fire. The spotting range at which the modifier is applicable depends on the size of the target.

The range is:

- V Sized Target: ≥ 8 hexes

All vehicles are considered as V Sized targets regardless of their listed Target Size Modifier.

Dual Fire

If the Dual Fire weapon (see 5.14) is firing at the same target as the unit's primary weapon—the Dual Fire modifier is -1. However, if the Dual Fire weapon is firing at a different target—the modifier is -3.

Note that the Dual Fire modifier only applies to the Dual Fire weapon, the one displayed as a reverse image, on vehicle Data Card or any attached leg weapon.

A German Rifle squad fires both its GP small arms and an attached Panzerfaust. The Panzerfaust must apply the Dual Fire modifier of -1 if it fires at the same vehicle or -3 if it fires at a different vehicle than the GP small arms.

Shooter Hesitating (OR)

If the firing unit is Hesitating (see 7.1.5.1) due to a Morale Check during a previous turn or previous action during the current turn—the modifier is -3.

Shooter Broken (OR)

If the firing unit is Broken (see 7.1.5.2) due to a Morale Check during a previous turn or previous action during the current turn—the modifier is -5.

AP Unit Grade

The AP Direct Fire Unit Grade modifiers are referenced in the Unit Grade Modifiers Table on Game Card B. It is based on the firing unit's Unit Grade. The Force or Formation Grade of the firing unit or the target Unit's Grade has no impact.

The AP and GP Unit Grade Modifiers share space in the table; the AP modifiers are those preceding the slash.

The AP Range Factor is used to determine the applicable modifier, if any. Note that Seasoned Grade is considered the baseline and, therefore, does not have any modifiers.

With Regulars Unit Grade and an AP Range Factor of M the AP Unit Grade modifier is -2.

6.5.2.5 AP Damage & Effects

If the shot penetrates, the Offensive Information section, AP Damage, on the firing unit's Data Game Card is referenced to determine the amount of damage caused by the penetrating hit. An Optional Rule, Variable AP Penetration (OR) adds variability to the AP Penetration Factor (see 7.12).

Now the unit's result from the Hit Angle roll (see 6.5.2.2) is applied. One of four distinct outcomes is possible: ND – No Damage, DM – Damaged, KO – Knocked Out, or BU – Brew Up.

If the target is an S-Type vehicle, a -2 modifier is applied to *unit's* result; the net result is never less than 1. This reflects the reduced effectiveness of AP ammo versus unarmored vehicles. An Optional Rule expands on Brew Up results (see 7.11).

ND – No Damage

The shot penetrated, but did no appreciable damage—it is a dud. The vehicle suffers no ill effects from the hit, but is subject to Bailing Out.

DM – Damaged

In addition to the effects outlined in the Basic Game, the vehicle is subject to Bailing Out.

KO – Knock Out

In addition to the effects outlined in the Basic Game, any passenger units are subject to Bailing Out.

BU – Brew Up

In addition to the effects outlined in the Basic Game, any passenger units are subject to Bailing Out.

When a vehicle suffers a brew up result, all *friendly* ground units in the same hex are immediately Suppressed. It does not apply to passengers under cover (see 6.5.4.2.3).

6.5.2.6 Bail Out – AP Fire**6.5.2.6.1 Crew**

If the target receives a No Damage, Damage or Track Hit result, its crew may decide to abandon the vehicle. Find the appropriate *Crew* row on the Bail Out Table on Game Card B for the result, e.g., if the vehicle suffered a Track Hit, the dice roll value for TK – Crew is 30– (30 or less).

Roll (100). If the vehicle's Unit Grade is Elite, a +5 modifier is applied; if Green Unit Grade, a -5 modifier is applied. If the result is equal to or less than the value, the crew Bails Out.

If the vehicle is transporting leg and/or towed units when its crew Bails Out, all passenger units automatically Bail Out; no roll is necessary. They are placed in the same hex as the transporting vehicle. They may face in any direction and are marked with a SUPPRESSION/ON counter.

Vehicles that receive multiple No Damage results must check for Bail Out for each occurrence; additional Track Hits are ignored.

6.5.2.6.2 Passengers**No Damage, Damage or Track Hit**

If a vehicle transporting leg and/or towed units receives a No Damage, Damage or Track Hit result, and its crew does not Bail Out, its passengers may each still decide to Bail Out. Find the appropriate *Pass* row for the result, e.g., if the vehicle suffered a No Damage Hit, the dice roll value for AP No Damage—Pass is 50–. If the vehicle provides Under Cover transport, do not roll for Bail Out (see 6.5.4.2.3).

Roll (100); roll separately for each passenger unit. If the passenger's Unit Grade is Elite, a +5 modifier is applied; if Green Unit Grade, a -5 modifier. If the result is equal to or less than the value, the passenger unit Bails Out. It is placed in the same

hex as the transporting vehicle. It may face in any direction and is marked with a SUPPRESSION/ON counter.

For vehicles that receive multiple No Damage or Track Hit results, their passengers must check for Bail Out for each occurrence.

Knock Out or Brew Up

If a vehicle transporting leg and/or towed units receives a Knock Out or a Brew Up result, the passenger units must each determine if they *successfully* Bail Out or are eliminated along with the transporting vehicle. Find the appropriate *Pass* row for the result, e.g., if the vehicle suffered a Knock Out Hit, the dice roll value for Knocked Out – Towed is 61+ (61 or more).

Roll (100); roll separately for each passenger unit. If the passenger's Unit Grade is Elite, a +5 modifier is applied; if Green Unit Grade, a –5 modifier. If the result is equal to or greater than the value, the passenger unit successfully Bails Out; otherwise, it is eliminated. If successful, it is placed in the same hex as the transporting vehicle. It may face in any direction and is marked with a SUPPRESSION/ON counter.

The Situation

Continuing the AP Direct Fire example from the Basic Game, everything remains the same with the exception of the Hit Angle, Hit Location and Damage determinations.

It is determined that the PzKpfw IVH's Front/Side Hit Angle is applicable. The Soviet player rolls (100) with a result of 63. The 6 tens result indicates a HF Hit Location. Comparing the Penetration Factor of 19 to the Armor Factor of 19, the shot penetrated. The 3 units result indicates that the German tank is damaged (from the T-34/76 M43's Data Card). The PzKpfw IVH is marked with a DMGD counter.

The PzKpfw IVH must check for Bail Out; it has Seasoned Unit Grade. The German player rolls (100). The result is 57; there is no modifier. Since 57 is greater than 30, the crew stays put.

It is determined that the T-34/76 M43's Front Hit Angle is applicable. The German player rolls (100) with a result of 47. The 4 tens result indicates a TF Hit Location. Comparing the Penetration Factor of 25 to the Armor Factor of 18, the shot penetrated. The 7 units result indicates that the Soviet tank is Knocked Out (from the PzKpfw IVH's Data Card). The T-34/76 M43's counter (and any other counters) is removed from play and replaced with a KO counter.

6.5.3 Overwatch Fire – GP Fire

The rules for GP Overwatch Fire are the same as outlined for AP Overwatch Fire (see 4.4.2) except for the application of the GP Fire modifiers.

6.5.4 Direct Fire Step – GP Fire

In the game, GP (for General Purpose) is a collective term representing all types of fire that rely on explosive force (HE shells from guns, artillery, mortars, etc.) or weight of fire (rifles, machineguns, etc.) for their effect.

GP Fire comes in two flavors—Direct and Indirect. The procedures for GP Direct Fire are the same as AP Direct Fire in that it is directed at a single target. Whereas GP Indirect Fire affects each unit and terrain individually in an area based on the size

of the SHEAF Pattern. Most units may employ only Direct or Indirect GP Fire. However, a few units have the ability to utilize either type.

Only those units possessing a GP row in the Offensive Information section of their Data Cards may employ Direct or Indirect GP Fire.

As a Direct Fire action, all rules for Direct Fire are applicable to GP Direct Fire.

6.5.4.1 The GP Factor

Determine the range in hexes from the firing unit to the target. Move along the R – Range sub-row for the GP row until finding the value that is greater than or equal to the value that corresponds to the range in hexes. That value found directly below the appropriate range along the F – Factor sub-row is the GP Factor.

Reference the Vehicle Data Card Key for the SU-76M M43, the range is 7 hexes. Its GP Factor is 4.

Reference the Leg Data Card Key, for the Rifle Squad. The range is 5 hexes; its GP factor is 5.

6.5.4.2 The GP Defense Factor

All units have a GP Defense Factor. That value is cross-referenced with the GP Factor on the GP Combat Results Table on Game Card B to resolve GP Fire.

6.5.4.2.1 Vehicle GP Defense Factors

Vehicle GP Defense Factors are listed on their Data Cards. It is an alphanumeric value that indicates both the GP Defense Factor and the Target Type. Vehicles are Target Types A, P or S. The vehicle GP Defense Factor is a fixed value.

Reference the Vehicle Data Card Key, the SU-76M M43's GP Defense Factor is 2 and its Target Type is P.

6.5.4.2.2 Leg and Towed GP Defense Factors

Leg and towed GP Defense Factors are listed on their Data Cards. It is an alphanumeric value that indicates both the GP Defense Factor and the Target Type. All leg and towed units are Target Type S.

The GP Defense Factors for these units is based on the terrain occupied, whether or not it is in Full Cover or whether or not it is moving. The GPD (GP Defense Factor) is listed for all Terrain types classified as None for Cover. The remaining GP Defense Factors are for Terrain types classified as Light Cover, Medium Cover, or Heavy Cover.

If in Full Cover add 1 or 2 to the listed GP Defense Factor. If moving (it has a MOVE or a SHORT HALT command) subtract 2. The net GP Defense Factor is never less than 1 or greater than 10.

If there is more than one Terrain type in a target's hex, e.g., an Improved Position in Rough terrain, use the Terrain type with the highest GP Defense Factor. 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.

Note that while Wood and Brick Buildings are considered Heavy Cover for spotting purposes, they are considered Light and Medium Cover, respectively, when determining the GP Defense Factor.

Reference the Leg Data Card Key, for any German leg unit. If occupying a Clear hex, not in Full Cover, and not moving, its GP Defense Factor is 2S.

If occupying a Woods hex, not in Full Cover, but moving, its GP Defense Factor is 4S – 6S for Medium Cover and –2 for moving.

If occupying an Improved Position, in Full Cover, and not moving, its GP Defense Factor is 10S – 8S for Heavy Cover and +2 for Full Cover.

6.5.4.2.3 Transported GP Defense Factors

When GP Fire is directed at a vehicle transporting leg and/or towed units, the transporting vehicle and all passengers are attacked by the same GP Fire. Passengers are never attacked separately from the transporting vehicle. They are only attacked as part of GP Fired directed at the transporting vehicle.

The firing unit's GP Factor is first compared against the transporting vehicle and then against each individual passenger. Each unit has its own GP combat roll (100) to determine the results. The combat results, if any, are applied as they occur.

If there is a chance of Bail Out, the attempt(s) is made after all combats affecting the transporting vehicle and passenger units are resolved.

Passenger leg or towed units transported by an *Under Cover* capable vehicle have a set GP Defense of 3S. Passenger leg or towed units transported by a *non-Under Cover* capable vehicle have a set GP Defense of 1S. The Terrain type and movement status of the transporting vehicle has no impact on the passengers' GP Defense Factor.

Reference the Vehicle Key Card for the Under Cover transport indicator.

6.5.4.2.4 Aircraft GP Defense Factors

Aircraft GP Defense Factors are listed on their Data Cards. It is an alphanumeric value that indicates both the GP Defense Factor and the Target Type. All aircraft units are Target Type S.

6.5.4.2.5 Terrain GP Defense Factors

Blocks, Bridges, Buildings, Improved Positions, Mines, and Wire may be destroyed as a result of non-small arms GP Fire; they have GP Defense Factors. The Terrain Effect Table on Game Card A lists GP Defense Factors for terrain in the GP Def column.

They are all S-Type targets and are attacked by Direct or Indirect GP Fire. AP Fire has no effect against terrain targets. No other Terrain types have a GP Defense Factor. Terrain types are never Suppressed. The combat either results in their elimination or has no effect.

The scenarios indicate the GP Defense Factor for variable defense terrain features, i.e., Blocks, Bridges and Wire. If none is listed, they may not be attacked. Terrain types lacking a GP Defense Factor are not subject to destruction unless instructed otherwise by a Scenario's Setup or Special Conditions.

Terrain is only attacked by GP Direct Fire when a target occupies a vulnerable terrain type when it is attacked. Engineers (OR) (see 7.19) are the only combat units that may directly attack Terrain. They do not require a target. Their special abilities enable them to attempt to destroy terrain features.

Terrain is also incidentally attacked by GP Indirect Fire and aircraft bombs and rockets. If a vulnerable Terrain type falls within

an Indirect Fire SHEAF or bomb or rocket impact patterns, it is attacked whether or not co-located with a target.

6.5.4.3 GP Fire Modifiers

The GP Fire modifiers are now checked to determine their effect, if any. These modifiers are found on the GP Fire Modifiers Table found on Game Card B. Unless otherwise indicated, a modifier is applicable to both GP Direct Fire (DF) and GP Indirect Fire (IF).

GP Fire modifiers affect the GP combat dice roll (100). All GP Fire modifiers are cumulative, and together are considered the Net Modifier.

If the target is an A-Type Vehicle (–20) and the firing unit is damaged (–10), the Net Modifier is –30.

Target Vehicle Moving DF/IF

If the target vehicle has a MOVE or a SHORT HALT command—the modifier for Direct Fire (DF) is –10 or –20 for Indirect Fire (IF).

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 the player chooses not to reveal the command, the modifier is 0.

The IF modifier is not applicable with Planned Indirect Fire or vehicles that voluntarily move within a Barrage.

Target P-Type or A-Type Vehicle

If the target is a P-Type or an A-Type vehicle—the modifier is –10 or –20, respectively.

Target Vehicle in Medium or Heavy Cover

If the target vehicle is located in terrain classified as Medium or Heavy Cover—the modifier is –10 or –20, respectively. If a vehicle is located in an over-stacked hex, treat any Cover in the hex as None.

For Indirect Fire and aircraft, this modifier only applies to vehicles located in Cover that provides overhead protection. Medium Cover—inside of a Brick Building; Heavy Cover—inside of a Stone Building or in an Improved Position. All other terrain is treated as None.

Target Cavalry

If the target is a cavalry unit—the modifier is +10.

Leg Crawling

If the target is a crawling leg unit—the modifier is +10.

Target Leg/Towed DF over Wall Hexside

If a leg or towed unit is the target of GP Direct Fire that crosses or runs exactly along a Wall hexside (see 6.1.4.3.2)—the modifier is –10.

Shooter Short Halt, Other

If the firing unit has a SHORT HALT command—the modifier is –15.

Shooter Damaged

If the firing unit was Damaged during a previous turn or previous action during the current turn—the modifier is –10.

Shooter Hesitating (OR)

If the firing unit is Hesitating (see 7.1.5.1) due to a Morale Check during a previous turn or previous action during the current turn—the modifier is –10.

Shooter Suppressed

If the firing unit was Suppressed during a previous turn or previous action during the current turn—the modifier is –20.

Shooter Broken (OR)

If the firing unit is Broken (see 7.1.5.2) due to a Morale Check during a previous turn or previous action during the current turn—the modifier is –20.

On Fire

If the line-of-sight passes through a Fire hex—the modifier is –20. The modifier is applied for each unique occurrence of Fire the line-of-sight encounters; it is cumulative. It does not apply to Indirect Fire or Aircraft Combat.

On the rare occasions that a target unit or a firing unit is located within a Fire hex, the modifier is also applied for each of those situations.

Brew Up Smoke

If Brew-Up Smoke originates in the firing unit's hex, passes through, or enters the target's Brew-Up Smoke hex—the modifier is –10. It does not apply to Indirect Fire or Aircraft Combat.

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

Smoke – Open/Closed SHEAF

If Smoke originates in the firing unit's hex, passes through, or enters the target unit's Smoke hex—the modifier is either –10 or –20 depending whether the Smoke's Fire SHEAF Pattern is either Open or Closed. It does not apply to Indirect Fire or Aircraft Combat.

The modifier is applied for each unique occurrence of Smoke that the line-of-sight starts from or encounters; not per each hex in its Fire SHEAF. It is cumulative.

Barrage – Open/Closed SHEAF

If a Barrage originates in the firing unit's hex, passes through, or enters the target unit's Barrage hex—the modifier is either –5 or –10 depending whether the Barrage's Fire SHEAF is either Open or Closed. It does not apply to Indirect Fire or Aircraft Combat.

The modifier is applied for each unique occurrence of a Barrage that the line-of-sight starts from or encounters; not per each hex in its Fire SHEAF. It is cumulative.

IF Open SHEAF

If an off-map artillery battery is utilizing an Open SHEAF Pattern—the modifier is –20. This modifier is not applicable to on-map Indirect Fire units.

Overwatch

If the firing unit is executing Overwatch Fire at a target located within its Front Field-of-Fire—the modifier is –5. Keep in mind that the Vehicle Target Moving DF modifier is also applicable in addition to this modifier if triggered by movement.

Overwatch Adjust

If the firing vehicle is executing Overwatch Fire at a target located outside of the firing vehicle's Front (or Rear) Field-of-Fire—the modifier is –10.

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

Ammo Limit

If the firing unit has Ammo Limits in effect (see 5.16)—the modifier is –10.

Heat Haze

Heat Haze is a visual anomaly that occurs during hot conditions in the desert and also in arid environments. The shimmering effect caused by dynamic atmospheric turbulence from rising ground heat, and the distortion of light passing through it, is a hindrance to clearly engaging targets. Heat Haze is in effect as instructed by a Scenario's Setup or Special Conditions. It does not apply to Indirect Fire.

Heat Haze applies a –10 modifier. The spotting range at which the modifier is applicable depends on the size of the target.

The range is:

S-Sized Target: ≥ 3 hexes

L-Sized Target: ≥ 5 hexes

V-Sized Target: ≥ 8 hexes

Transported Fire

If a passenger leg unit is firing its GP weapon—the modifier is –10.

Overrun Attack

If a vehicle is executing an Overrun Attack against a leg or towed unit—the modifier is +20.

Dual Fire

If the Dual Fire weapon (see 5.14) is firing at the same target unit as the unit's primary weapon—the Dual Fire modifier is –5. However, if the Dual Fire weapon is firing at different target units—the modifier is –10.

Note that the Dual Fire modifier only applies to the Dual Fire weapon, the one displayed as a reverse image, on vehicle Data Cards or any attached leg weapon.

Pinning Fire (OR)

If a unit is executing Pinning Fire (see 7.18)—the modifier is +20. Pinning Fire is available only to Small Arms GP Direct Fire.

Hasty Entrenchment

If a target leg or towed unit is located in a Hasty Entrenchment—the modifier is –10.

CE Ammo (OR)

If the target of a CE type ammo (see 7.15)—the modifier is –10.

Coax MG (P-Range) vs. P or S

If a Coax MG equipped vehicle unit is firing at a P-Type or a S-Type vehicle or any leg or towed unit from Pointblank Range (P)—the modifier is +10.

Reference the Vehicle Data Card Key for the Coax MG indicator.

GP Unit Grade

The GP Direct Fire Unit Grade modifiers are referenced on the Unit Grade Modifiers Table on Game Card A. It is based on the firing unit's Unit Grade. The Force or Formation Grade of the firing unit or the target unit's grade has no impact.

The AP and GP Unit Grade modifiers share space on the table; the GP modifiers are those following the slash.

The GP Range Factor is used to determine the applicable modifier, if any. Note that Seasoned Grade is considered the baseline and, therefore, does not have any modifiers.

With Veteran Unit Grade and an GP Range Factor of L the GP Unit Grade Modifier is +5.

6.5.4.4 GP Fire Determination

For Direct and Indirect GP Fire reference the GP Combat Results Table on Game Card B. Cross-reference the GP Factor column (see 6.5.4.1) with the GP Defense Factor row (see 6.5.4.2). Two numbers are listed: one for the N-Effect and a second for the S-Effect.

If the GP Factor is 5 and the GP Defense Factor is 3, the N Effect is 43 and the S-Effect is 72.

Roll (100) and modify the result by the net GP modifier (see 6.5.4.3), if any. In this case, the modified result may be greater than 100 (with a red background at the lower left section of the table) or less than 0 (with a green background at the upper right of the table).

If the final modified dice roll is equal to or less than the N Effect number, the fire had No Effect.

If equal to or less than the S Effect number but greater than the N-Effect number, the target is Suppressed.

If the GP Factor is 7, the GP Defense Factor is 5, and the modified result is 60, the target is Suppressed.

If the GP Factor is 2, the GP Defense Factor is 9, and the modified result is 109, the target suffered an Effective result.

If the GP Factor is 15, the GP Defense Factor is 2, and the final modified result is -1, the fire had No Effect.

If a vehicle target is transporting leg and/or towed units, roll (100) individually for each GP Fire Determination. While the GP Factor remains the same, the GP Defense Factors and/or the net GP modifiers may be different.

If GP Fire is directed at a target that also affects terrain, roll (100) individually for each GP Fire determination. In the case where GP Fire affects both units and a terrain, determine the combat results against the unit before determining the results against the Terrain.

All GP Fire Effects are summarized in the Combat Effects Summary on Game Card D.

6.5.4.4.1 No Effect Result – All Units

The GP Fire caused no appreciable damage and is ignored.

6.5.4.4.2 Vehicle Suppression & Effective Results

When determining GP Fire effects against vehicle units, there are three elements that must be considered:

- If the GP Fire is from a S-Small Arms or non-S-Small Arms type weapons.

- If the vehicle Target Type is A, P or S.
- If the rule of 5s and 10s applies (see below).

Small Arms & Non-Small Arms

The Data Cards indicate if a particular weapon is Small Arms (see 5.7). If not, it is non-Small Arms.

Vehicle Target Type

The Data Cards indicate a vehicle's Target Type (see 6.5.2.3).

The Rule of 5s and 10s

A Track Hit or a Damaged result may apply whenever the final modified result ends in a 5, i.e., 75 or 95, or a 10, i.e., 40 or 60. These are the only cases when a vehicle may suffer a Track Hit or Damage result from GP Fire.

Suppressed Result, Non-Small Arms vs. A, P or S-Type

The vehicle is Suppressed. Place a SUPPRESSION/ON counter on or next to it.

Effective Result, Non-Small Arms vs. A or P-Type

Effective Result only if a shooter's maximum GP Effectiveness Factor is greater than or equal to the target vehicle's GP Defense Factor. Otherwise, the target vehicle is Suppressed by an Effective Result. GP Effectiveness Factors are listed on the Data Cards in the Offensive Information section.

An Optional Rule, Turrets (see 7.8), expands on the GP Effectiveness Factor.

Reference the Vehicle Data Card Key, the SU-76M M43's GP Effectiveness Factor is 1-3.

If an Effective Result and the final modified result ends in 5, the target vehicle is Damaged. Place a DMGD counter on or next to it. The vehicle's crew is subject to Bail Out.

If an Effective Result and the final modified result ends in 10, the target vehicle received a Track Hit. Place a TK counter on or next to it. The vehicle's crew is subject to Bail Out. If hit by GP Direct Fire and the vehicle is Hull Down or Partial Hull Down, a TK hit is treated as No Effect.

If an Effective Result and the final modified result did not end in a 5 or is not a 10, the vehicle unit is Knocked Out or Brewed Up. The shooter rolls (10). If the result is equal to or less than maximum GP Effectiveness Factor, the vehicle Brews Up (see 6.5.2.5), otherwise it is Knocked out (see 6.5.2.5). Passenger units must attempt to bail out (see 6.5.4.5).

When a vehicle suffers a brew up result, all *friendly* ground units in the same hex are immediately Suppressed. It does not apply to passengers Under Cover (see 6.5.4.2.3).

Effective Result, Non-Small Arms vs. S-Type

If an Effective Result and the final modified result ends in a 5 or 10; follow the previous steps. If the final modified result did not end in a 5 or is not a 10, the vehicle is Knocked Out or Brewed Up; follow the previous steps.

Suppressed Result, Small Arms vs. A-Type

If the GP Range Factor is Point Blank (P), the vehicle is Suppressed. Place a SUPPRESSION/ON counter on or next to it. If at any other range, the result is treated as a No Effect result.

Suppressed Result, Small Arms vs. P-Type

If the GP Range Factor is Point Blank (P) or Short (S), the vehicle is Suppressed. Place a SUPPRESSION/ON counter on or next to it. If at any other range, the result is treated as a No Effect result.

Suppressed Result, Small Arms vs. S-Type

The vehicle is Suppressed from any range. Place a SUPPRESSION/ON counter on or next to it.

Effective Result, Small Arms vs. A-Type

If the GP Range Factor is Point Blank (P) or Short (S), the vehicle is Suppressed instead. Place a SUPPRESSION/ON counter on or next to it. If at any other range, the result is treated as a No Effect result.

In this context, it is impossible for small arms to achieve an Effective Result against an A-Type vehicle unit. An Optional Rule, Turrets (see 7.8), expands on Small Arms effectiveness.

Effective Result, Small Arms vs. P-Type

If the GP Range Factor is Point Blank (P), the vehicle is Damaged. Place a DMGD counter on or next to it. The vehicle's crew is subject to Bail Out. If the GP Range Factor is Short (S), the vehicle is Suppressed instead. Place a SUPPRESSION/ON counter on or next to it. If at any other range, the result is treated as a No Effect result.

Effective Result, Small Arms vs. S-Type

If an Effective Result and the final modified result ends in a 5 or 10; follow the previous steps. If the final modified result did not end in a 5 or is not a 10, the vehicle is Knocked Out or Brewed Up. The attacker rolls (10), if the result is equal to or less than ½ of the firing unit's GP Factor (round down), the vehicle unit Brews Up, otherwise the vehicle unit is Knocked out. Passenger must attempt to bail out (see 6.5.4.5).

When a vehicle suffers a brew up result, all *friendly* ground units in the same hex are immediately Suppressed. It does not apply to passengers Under Cover (see 6.5.4.2.3).

6.5.4.4.3 Leg, Towed & Terrain Suppression & Effective Results**Suppressed Result, Non-Small Arms or Small Arms**

The unit is Suppressed. Place a SUPPRESSION/ON counter on or next to it. Passenger units may Bail Out (see 6.5.4.5).

Effective Result, Non-Small Arms or Small Arms

The target unit is either eliminated or reduced in size by the fire. If the target is anything other than a squad, it is eliminated and removed from play. If it is a squad, it is reduced to a half-squad and is Suppressed. Flip a squad counter to its half-squad side and place a SUPPRESSION/ON counter on or next to it. Any attached weapons are unaffected by this reduction. An Optional Rule, Attached Weapon Loss (see 7.17), expands on Attached Weapon loss.

Effective Result, Non-Small Arms vs. Terrain

Roll (100) a second time (except for mines). If a second Effective Result, the target Terrain Type is eliminated. All other results are ignored.

Two effective results? Terrain occupies the entirety of a 100 meter hex. It is not a just a single target. It takes much more to eliminate the terrain in an entire hex.

Building

It is Destroyed. Place a RUBBLE counter in its hex. May start On Fire (OR) (see 7.35). All units occupying an eliminated building hex are immediately eliminated. All units are removed from play; do not place wrecks.

Bridge

It is Destroyed. Place a RUBBLE counter in its hex. The hex is now prohibited terrain for all units. All units occupying an eliminated bridge are also immediately eliminated. All units are removed from play; do not place wrecks.

Improved Position

It is Destroyed and removed from the mapboard. Place a RUBBLE counter in its hex. Any unit occupying an eliminated Improved Position is immediately eliminated. All units are removed from play; do not place wrecks.

Blocks, Mines or Wire

They are Destroyed and removed from the mapboard. Any units occupying eliminated Blocks, Mines or Wire terrain are unaffected; they do not suffer any additional combat results.

6.5.4.5 Bail Out – GP Fire

A Bail Out may occur if Direct or Indirect GP Fire results in a Suppression, Track, Damage, Knock Out or Brew Up. The GP Bail Out process is exactly the same as the AP Bail Out process (see 6.5.2.6). Suppression applies only to passengers. Vehicle crews do not bail out when Suppressed. With multiple passengers, only the Suppressed units must check for Bail Out. The other passengers and the transporting vehicle are unaffected if a passenger Bails Out.

Passengers that receive subsequent Suppression results are not required to check for Bail Out if they are marked with a SUPPRESSION/ON counter. However, if a unit has a SUPPRESSION/OFF counter changed to SUPPRESSION/ON, it must check for Bail Out.

The Situation

A Soviet SU-76M M43 (Data Card S-3B), Regulars Unit Grade, located in a Clear hex and a German Rifle squad (Data Card G-8A), Veteran Unit Grade, located in a Scrub hex are engaging one another at an unblocked range of 3 hexes.

Both units are at the same Height and have FIRE commands. The German player is the First Player. As such, the Rifle squad resolves its fire first. Its FIRE command is revealed.



The SU-76M M43 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 type Cover.

At a range of 3 hexes for GP Direct Fire, the GP Range Factor is S – Short Range, and GP Factor is 7. The SU-76M M43's GP Defense Factor is 2P.

The GP Fire modifiers are now checked for any effect. The Net Modifier is –10 as a result of the following modifier:

- Target P-Type Vehicle –10

The 7 GP Factor column on the GP Combat Table is cross-referenced with the GP Defense Factor of 2. The two numbers found are 31 for the N-Effect and 62 for the S-Effect.

The German player rolls (100). The result is 81, so the net roll is 71 (81-10). Since 71 is greater than 62 the combat is an Effective Result. The Rifle squad is marked with a SPOT/FIRE counter, turned sideways indicating small arms fire, under the edge of its Command counter.

Since the GP Range Factor is S, and the SU-76M M43 is a P-Type vehicle, the actual result is a Suppression. The SU-76M M43 is marked with a SUPPRESSION/ON counter.

Now the SU-76M M43 resolves its fire. Its FIRE counter is revealed. It must apply the just incurred Shooter Suppressed modifier. The Rifle squad is within spotting range as the actual range of 3 hexes is less than 5 hexes, which is the maximum spotting range when attempting to spot a S-Sized Target in Light Cover.

At a range of 3 hexes for GP Direct Fire, the GP Range Factor is P – Point Blank, and GP Factor is 5. The Rifle squad's GP Defense Factor is 4S.

The GP Fire modifiers are now checked for any effect. The Net Modifier is –20 as a result of the following modifier:

- Shooter Suppressed –20

The 5 GP Factor column on the GP Combat Table is cross-referenced with the GP Defense Factor of 4. The two numbers found are 48 for the N-Effect and 77 for the S-Effect.

The Soviet player rolls (100). The result is 64, so the net roll is 44 (64-20). Since 44 is less than 48 the combat had No Effect. The SU-76M M43 is marked with a SPOT/FIRE counter under the edge of its Command counter.

6.6 Advanced Game Movement Phase

This adds the Close Assault and Hand-to-Hand Combat and Overrun Combat to the Movement Phase, in addition to a few special movement situations and movement for leg and towed units.

Close Assaults are a form of GP Fire simulating the actions of leg units attacking vehicles at extremely close range. This is the most effective means of attacking vehicles with leg units. It differs from GP Direct Fire in that they are resolved in the Hand-to-Hand/Close Assault Step of the Movement Phase rather than the Combat Phase.

Hand-to-Hand Combats are special attacks simulating the actions of leg units attacking other leg or towed units at extremely close range with individual soldiers from both sides typically coming to blows.

As part of normal movement, vehicles may engage leg or towed units by Overrunning their positions.

6.6.1 Close Assault/Hand-to-Hand Combat Step

Eligible leg units engage vehicles (Close Assault) or other leg or towed units (Hand-to-Hand Combat) by close combat.

Why its own step? This prevents Second Player units from moving away from First Player units before they attack.

6.6.1.1 Close Assault Combat

Only unsuppressed, unbroken (OR) (see 7.1.5.2) or non-hesitating (OR) (see 7.1.5.1) squads, half-squads and sections may initiate Close Assaults. They may attack in any direction. If a leg unit is Suppressed before it can initiate a Close Assault, it cannot then attack.

To Close Assault, dismounted leg units must have a MOVE command. In a special form of Close Assault, passenger units may also dismount into a Close Assault.

Close Assault is the only method where Engineer units may attack Terrain features (OR) (see 7.19).

Only spotted vehicles (and terrain by engineer units) are attacked by a Close Assault. The attacking units must be adjacent to a target to initiate the attack. Squads, half-squads and sections (w/o attached weapons) may expend 1 of their movement speed allowance to move adjacent to a target; this is called an Advancing Attack. The target must be spotted *before* the unit moves. Vehicles cannot be attacked if they are two or more Heights above or below the attacking unit.

Each leg unit may only attack a single vehicle. If there is more than one vehicle in a hex, the others are ignored. If more than one unit in the same hex is attacking the same vehicle, they must combine their attack. One of the units is identified as the primary attacker; there may be any number of additional attackers from the same hex. If units located in another hex are attacking the same vehicle, the attacks are resolved separately in any order desired.

All Close Assaults against the same vehicle must be announced before the first is resolved. If a common target is eliminated before all of the Close Assaults are resolved, the remaining units may then move normally, but they may not initiate a Close Assault or enter into Hand-to-Hand with an unannounced target. Although the attacking units are technically firing, they are marked with SPOT/MOVE counters.

While Close Assaults take place during the Movement Phase, they do not trigger Overwatch Fire unless the attacking unit is executing an Advancing Attack. In that case, the Overwatch Fire is resolved before the Close Assault.

Passenger leg units may dismount (see 6.6.7.1.1) and then immediately Close Assault an adjacent unit. This is called a Dismount Attack. They may not combine their attack with any other units in the hex. The target must be spotted before any movement takes place and the attacking unit(s) dismounts.

This special form of Close Assault actually takes place during the Movement Step of the Movement Phase along with normal movement, not during the Close Assault/Hand-to-Hand Combat Step. The movement of the transporting vehicle unit may trigger

Overwatch Fire, but once the leg unit dismounts, Overwatch Fire may not be taken.

6.6.1.1.1 Close Assault Combat Resolution

The First Player announces and resolves all Close Assault and Hand-to-Hand combats in any order followed by the Second Player. Close Assault is a form of GP Direct Fire, but utilizes its own unique set of modifiers.

All leg units use common GP Factors based on the size of the primary unit.

- Squad: 8
- Half-squad: 4
- Section: 2

Reference the GP Combat Results Table on Game Card B. These common GP Factors are highlighted on the table. Cross-reference the attacking unit's GP Factor with the target's GP Defense Factor. If the vehicle's GP Defense Factor is greater than 5, it is treated as 5.

Roll (100) and modify the result by the net Close Assault modifier (see 6.6.1.1.2), if any. In this case, the modified result may be greater than 100 or less than 0.

6.6.1.1.2 Close Assault Combat Modifiers

The Close Assault modifiers are used exclusively. All modifiers are cumulative. The terrain occupied by either side has no impact on Close Assault combat.

Advance Attack

If the attacking unit(s) expended movement to move adjacent to the target, the modifier is -10.

Uphill Attack

If the target is 1 Height above the attacking unit(s)—the modifier is -10.

Dismount Attack

If the attacking unit dismounted into the attack—the modifier is -10.

Vs. Moving Vehicle

If the target vehicle is moving—the modifier is -10.

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.

Vs. Suppressed Vehicle

If the defending vehicle is Suppressed—the modifier is +20.

Vs. Vehicle with C Modifier

If a target vehicle has a C Close Assault indicator on its Data Card—the modifier is +20.

Reference the Soviet SU-85 M43 (Data Card S-4A) for the C indicator. This modifier represents vehicles with very limited or no self-defense weapons; typically Coax MGs or MMGs in closed mounts.

Vehicle in Unsupported Hex

Attacks by leg units in close terrain can be overwhelming for vehicles. The Terrain Effects Table on Game Card A lists the terrain types subject to support, e.g., buildings and woods.

Only unbroken (OR) squads and half-squads may support vehicles. The leg unit must be in the same hex as the vehicle. A dismounted squad-size unit supports up to two vehicles, while a half-squad supports a single vehicle.

The leg units may be mounted. If mounted, support is on a one-for-one basis. A squad would support only its transporting vehicle.

If the vehicle is unsupported—the modifier is +30.

The most obvious example is vehicles unsupported in urban areas—never a good idea.

+ Attacker

Additional attackers use common modifiers based on the unit.

- Section—the modifier is +5 per additional unit
- Half-squad—the modifier is +10 per additional unit
- Squad—the modifier is +20 per additional unit

Vs. P-Type Vehicle

If a target vehicle is a P-Type—the modifier is +20.

Vs. S-Type Vehicle

If a target vehicle is a S-Type—the modifier is +30.

Vs. Open A-Type Vehicle (OR)

If the target vehicle is an open A-Type—the modifier is +10.

Attacker has a Flamethrower

If any of the attacking units has an attached flamethrower—the modifier is +20.

Vs. Hesitating (OR)

If the defending vehicle is hesitating—the modifier is +10.

Vs. Broken (OR)

If the defending vehicle is broken—the modifier is +20.

Attacker Unit Grade

The Unit Grade modifiers for Close Assault combat are found in the HTH CA column in the Unit Grade Modifiers Table on Game Card B. This modifier applies to only the primary attacker, and is based on that unit's Unit Grade. If there are additional attacking units, their Unit Grade is not applicable.

If the Unit Grade of the attacking unit is Regulars, the Close Assault Unit Grade Modifier is -10.

6.6.1.1.3 Close Assault Combat Results

If the vehicle has an unrevealed command, i.e., MOVE or OW, it may still execute it during the appropriate Step or Phase.

Suppressed Result

The vehicle is Suppressed. Place a SUPPRESSION/ON counter on or next to it. If the vehicle already has a SUPPRESSION/OFF counter, it is replaced by a SUPPRESSION/ON counter.

Effective Result

With Close Assault combats, Effective Results yield a Damaged, Track, Knock Out or Brew Up regardless of the target vehicle unit's Target Type. Follow the rule of 5s and 10s for vehicle GP Fire (see 6.5.4.4.2) to determine Damage or a Track Hits.

If the final modified result does not end in a 5 or a 10, the vehicle is Knocked Out or Brewed Up. If the Close Assault included a flamethrower, the vehicle automatically Brews Up. Otherwise, the attacker rolls (10), if the result is equal to or less than ½ of the primary unit's GP Factor (see 6.6.1.1.1), the vehicle unit Brews Up, otherwise the vehicle unit is Knocked out. Passenger units must attempt to Bail Out (see 6.5.4.5).

When a vehicle suffers a Brew Up result, all *friendly* ground units in the same hex are immediately Suppressed. It does not apply to passengers Under Cover (see 6.5.4.2.3).

If the target is eliminated, any or all of the attacking units may move into the hex previously occupied by the defending unit if no other opposing units are present in the hex or they may remain in their original hex. This move does not trigger Overwatch Fire.

The Situation

A Soviet SMG squad (Data Card S-8A), Regulars Unit Grade, located in Woods hex is Close Assaulting a Suppressed German StuG IIIG (Data Card G-4B) located in a Scrub hex at a range of 1 hex.

Both units are at the same height and have MOVE commands. The German player is the First Player.



Even though the Soviet player is the Second Player, Close Assault combat is resolved in the Close Assault/Hand-to-Hand Combat Step of the Movement Phase, which precedes the Movement Step. Since the German unit is already adjacent, Overwatch Fire is not triggered.

The SMG squad's GP Factor is 8; not 10 as listed on its Data Card. The StuG IIIG's GP Defense Factor is 3AC.

The Close Assault modifiers are now checked for any effect. The Net Modifier is +20 as a result of the following modifiers:

- Moving Vehicle -10
- Vehicle with C Modifier +20
- Vehicle Suppressed +20
- SMG Squad Regulars Unit Grade -10

The 8 GP Factor column on the GP Combat Table is cross-referenced with the GP Defense of 3. The two numbers found are 31 for the N-Effect and 63 for the S-Effect.

The Soviet player rolls (100). The result is 45, so the net roll is 65 (45+20). Since 65 is greater than 63 the combat is an Effective Result. The SMG squad is marked with a SPOT/MOVE counter.

The StuG IIIG is damaged. Place a Dmgd [small caps font] counter on or next to it.

6.6.1.2 Hand-to-Hand Combat

It is a fight 'til the bitter end that uses a die roll comparison between the opposing sides. This is the only case in the game where the defending side rolls off during combat.

Only unsuppressed, unbroken (OR) (see 7.1.5.2) or non-hesitating (OR) (see 7.1.5.1) squads, half-squads and sections may initiate Hand-to-Hand combat. They may attack in any direction. If a unit is Suppressed before it can initiate the combat, it may not then initiate the attack.

To engage in Hand-to-Hand combat, dismounted leg units must have a MOVE command. In a special form of Hand-to-Hand combat, passenger units may also dismount into a Hand-to-Hand combat.

Only spotted dismounted leg and towed units may be attacked by Hand-to-Hand combat. The attacking units must be adjacent to a target to initiate the attack. Squads, half-squads and sections (w/o attached weapons) may expend 1 of their movement speed allowance to move adjacent to a target; this is called an Advancing Attack. The target must be spotted *before* the unit moves. Units may not be attacked if they are two or more Heights above or below the attacking unit.

Each leg unit may only attack a single target. If there is more than one target in a hex, the others are ignored. If more than one unit in the same hex is attacking the same target, they must combine their attack. One of the units is identified as the primary attacker; there may be any number of additional attackers from the same hex. If units located in another hex are attacking the same target, the attacks are resolved separately in any order desired.

All Hand-to-Hand combats against the same target must be announced before the first is resolved. If a common target is eliminated before all of the attacks are resolved, the remaining units may then move normally, but they may not initiate a Close Assault or enter into a Hand-to-Hand Combat with an unannounced target. Although the attacking units are technically firing, they are marked with SPOT/MOVE counters.

While Hand-to-Hand combats take place during the Movement Phase, they do not trigger Overwatch Fire unless the attacking unit is executing an Advancing Attack. In that case, the Overwatch Fire is resolved before the Hand-to-Hand combat.

Passenger leg units may dismount and then immediately enter Hand-to-Hand combat with an adjacent unit. This is called a Dismount Attack. They may not combine their attack with any other units in their hex. The target must be spotted *before* any movement takes place and the attacking unit(s) dismounts.

This special form of Hand-to-Hand combat actually takes place during the Movement Step of the Movement Phase along with normal movement, not during the Close Assault/Hand-to-Hand Combat Step. The movement of the transporting vehicle unit

may trigger Overwatch Fire, but once the leg unit dismounts, Overwatch Fire may not be taken.

6.6.1.2.1 Hand-to-Hand Combat Resolution

The First Player announces and resolves all Hand-to-Hand and Close Assault combats in any order followed by the Second Player. Hand-to-Hand combat is resolved through a die roll comparison; high side wins; roll again for ties.

Both sides roll (100) and modify each of their results by the net Hand-to-Hand modifier (see 6.6.1.2.2), if any. In this case, the modified result may be greater than 100 or less than 0.

6.6.1.2.2 Hand-to-Hand Combat Modifiers

The Hand-to-Hand modifiers are used exclusively. All modifiers are cumulative and are applied to each side. The terrain occupied by either side has no impact on Hand-to-Hand Combat.

Squad

If the primary attacking unit and/or the defending unit is a squad—the modifier is 0.

Half-squad

If the primary attacking unit and/or the defending unit is a half-squad—the modifier is -25.

Section

If the primary attacking unit and/or the defending unit is a section—the modifier is -30.

Towed

If the defending unit is a towed unit—the modifier is -40.

Defender Suppressed

If the defending unit is Suppressed—the modifier is -20.

Advance Attack

If any attacking unit(s) expended movement to move adjacent to the target, the modifier is -10.

Uphill Attack

If the target is 1 Height above the attacking unit(s)—the modifier is -10.

Dismount Attack

If the attacking unit dismounted into the attack—the modifier is -10.

+ Attacker

Additional attackers use common modifiers based on the unit.

- Section—the modifier is +5 per additional unit
- Half-squad—the modifier is +10 per additional unit
- Squad—the modifier is +20 per additional unit

Has Flamethrower

If any of the attacking units and/or the defending unit has an attached flamethrower—the modifier is +20.

Cavalry Unit

If the primary attacking unit and/or the defending unit is a cavalry unit—the modifier is +20.

Defender Hesitating (OR)

If the defending unit is hesitating—the modifier is -10.

Defender Broken (OR)

If the defending unit is broken—the modifier is -20.

Unit Grade

The Unit Grade modifiers for Hand-to-Hand combat are found in the HTH CA column in the Unit Grade Modifiers Table on Game Card B. This modifier applies to both the primary attacker and the defender, and is based on each unit's *Unit Grade*. If there are additional attacking units, their Unit Grade is not applicable.

6.6.1.2.3 Hand-to-Hand Combat Results

Hand-to-Hand combat requires that both sides roll (100), comparing the net results with the higher side winning the engagement; re-roll all ties. Hand-to-Hand combat ultimately results in one side's elimination even if it takes multiple roll-offs. Only one side is left standing.

If the target has an unrevealed command, i.e., MOVE or OW, it may still execute it during the appropriate Step or Phase.

Attacker Higher Result

If the target is a squad, it is reduced to a half-squad (it is not Suppressed). Flip the squad counter to its half-squad side. Any attached weapons are unaffected by this reduction. An Optional Rule (see 7.17) expands on attached weapon loss.

The defending side must now recalculate its modifiers based on a half-squad-sized unit and another roll-off takes place.

If the target is anything other than a squad, it is eliminated and removed from play.

If the target is eliminated, any or all of the attacking units may move into the hex previously occupied by the defending unit if no other opposing units are present in the hex or they may remain in their original hex. This move does not trigger Overwatch Fire.

Defender Higher Result

If the primary attacker is a squad it is reduced to a half-squad (it is not Suppressed). Flip the squad counter to its half-squad side. Any attached weapons are unaffected by this reduction. An Optional Rule (see 7.17) expands on attached weapon loss.

The attacking side must now recalculate its modifiers based on a half-squad-sized unit. If there are other squad-sized units as part of the attack, the attacking player *may* designate one of those units as the primary unit and recalculate the modifiers. In either case, another roll-off takes place.

If the primary attacking unit is a half-squad or section-sized unit, it is eliminated and removed from play. If it was the only attacking unit, the defending side wins the engagement and the combat is complete. If there are additional attacking units, one of those units *must* be designated as the primary unit. Recalculate its modifiers based on the new unit and another roll-off takes place.

If the attacking side is eliminated, the defending unit remains in its original hex.

The Situation

A German Rifle squad and an Infantry half-squad, both Veteran Unit Grade, in a Woods hex are attacking a Soviet SMG squad, Regulars Unit Grade, in a Woods hex at a range of 1 hex.



Both sides are at the same height. Both German units have MOVE commands; the Soviet unit has an OW command. The German player is the First Player.

The German side resolves its attack first. The German player designates the Rifle squad as the primary attacker. Since the German units are at a range of 1 hex, Overwatch Fire is not triggered.

The German player determines that his Net Modifier is +20 as a result of the following modifiers:

- Additional half-squad sized attacker +10
- Veteran Unit Grade +10

The Soviet player determines that his Net Modifier is -10 as a result of the following modifier:

- Regulars Unit Grade -10

The German player rolls (100). The result is 13, so the net roll is 33 (13+20). The Soviet player rolls (100). The result is 65, so the net roll is 55 (65-10).

Since the Soviet player's 55 is greater than the German player's 33, the German Rifle squad is reduced to Rifle half-squad; the Hand-to-Hand combat continues.

The German player must recalculate the Net Modifier; it is now -5 as a result of the following modifiers:

- Half-squad (the primary attacking unit is now a half-squad) -25
- Additional half-squad sized attacker +10
- Veteran Unit Grade +10

The Soviet's side's Net Modifier is unchanged at -10.

The German player rolls (100). The result is 72, so the net roll is 67 (72-5). The Soviet player rolls (100). The result is 51, so the net roll is 41 (51-10).

Since the German player's 67 is greater than the Soviet player's 41, the Soviet SMG squad is reduced to a SMG half-squad; the Hand-to-Hand combat continues.

The German side's Net Modifier is unchanged at -5.

The Soviet player must recalculate the Net Modifier; it is now -35 as a result of the following modifiers:

- Half-squad (now SMG half-squad) -25
- Regulars Unit Grade -10

The German player rolls (100). The result is 48, so the net roll is 43 (48-5). The Soviet player rolls (100). The result is 62, so the net roll is 27 (62-35).

Since the German player's 43 is greater than the Soviet player's 27, the Soviet SMG half-squad is eliminated. The German player won the Hand-to-Hand combat.

The German player decides to occupy the Soviet hex with just the Rifle half-squad.

Both the German Rifle half-squad and Infantry half-squad are marked with SPOT/MOVE counters.

6.6.2 Suppression Effects – Movement

Suppressed units move at only ½ of their normal movement speed allowance (round down) whether moving cross-country or on paths or roads. Suppressed units with SHORT HALT commands move at only ¼ (½ of ½) of their normal movement speed allowance (round down). Suppressed and Damaged units with SHORT HALT commands move at only ⅛ (½ of ½ of ½) or their normal movement speed allowance (round down). A movement speed allowance is never less than 1.

Suppressed vehicles may initiate Overrun combat as long as all of the Overrun requirements are still met.

Suppressed leg units may not initiate Close Assault or Hand-to-Hand combat. They may, however, be the targets of Hand-to-Hand combat.

6.6.3 Vehicle Building Movement

At the point a tracked vehicle attempts to enter or exit a building in its current hex (if entering from an adjacent hex, it pays movement cost for just for the Building not the Alley), it must first check for damage before actually entering or exiting. Open-topped or vehicles transporting any unit may not enter buildings. Vehicles may not reverse into buildings.

Reference the VEHICLE INTO section of the Building Effects Table on Game Card B. Determining if there is Damage or a Track hit is a two step process.

Determine the type of Building hex: Wood, Brick or Stone. Then determine the vehicle's GP Defense Factor. Roll (100) and add 5 times the GP Defense Factor to the result.

If a Soviet SU-85 M43 (Data Card S-4A) attempts to enter or exit a building, it applies +20 (4AC x5) to the result.

If the net result falls within the range listed in the HIT# column, the vehicle suffers Damage or a Track Hit. If the net result does not fall within the range, the vehicle enters or exits the building normally paying the listed terrain cost.

If the net result falls within the range, roll (100) again and reference the result based on the listed ranges in the TK and DMGD columns.

The SU-85 M43 attempts to enter a Brick Building, the Soviet player rolls (100). The result is 22; the net result is a 42 (22+20). Since 42 falls within the 01-65 range for a Brick Building, the SU-85 M43 did sustain Damage or a Track Hit.

The Soviet player rolls (100) again. The result is 77. It falls within 66-00. The SU-85 M43 is damaged. The tank is marked with a DMGD counter.

If a vehicle suffers a Track Hit when attempting to enter a building, it stops movement before entering the building; it remains in the alley. If it suffers a Track Hit while attempting to exit a building, it stops movement before exiting the building; it remains inside the building.

If a vehicle is damaged when attempting to enter a building, it still enters the building if it has sufficient movement speed allowance remaining; otherwise, it remains in the alley. If it is damaged while attempting to exit a building, it still exits the building if it has sufficient movement speed allowance remaining; otherwise, it remains inside the building. A vehicle may always move one hex if it does not expend any movement turning.

6.6.4 Leg Movement

For movement, leg-type units are squads, half-squads, sections and towed units.

6.6.4.1 Leg Movement Factors

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

Reference the Leg Data Card Key for a Squad or Half-squad. Its Movement Factor is 2L 3.

For leg-type units, the Movement Factor is made up of three distinct elements. The first two are listed in combination and determine the Cross-Country movement speed allowance and the Mode of Traction. L=Leg.

The third element is the Quickmarch movement speed allowance. Leg units do not have Path or Road information.

Dismounted towed units and cavalry, bicycle and motorcycle leg units located in a Path or Road hex do not prevent movement but do stop a vehicle from using its Path or Road movement factor. Squads, half-squads and sections on foot (not cavalry, bicycle or motorcycle units) located in a Path or Road hex do not stop a vehicle from using its Path or Road movement factor.

Leg units move in a similar manner as that described for vehicles in the Basic Game. They expend a portion of their movement speed allowance based on the Terrain type. They do not have a turn cost; they may move freely in any direction. They may enter prohibited terrain if transported by a vehicle. As they are utilizing the vehicle's movement abilities.

Like vehicles, they may always move one hex, as long as it is a legal move. Otherwise, they may not exceed the available movement speed allowance.

Leg units move up or down in buildings by expending 1 Movement Factor.

Squads, and half-squads and sections (w/o attached weapons) may not change elevation by more than 2 Heights in a single 1 hex move. Note: Motorcycle and bicycle leg units (see 6.6.4.4) are wheeled vehicles for movement.

Squads, half-squads and sections (w/o attached weapons) with SHORT HALT commands may expend up to ½ of the available movement speed allowance (round down). Sections (with attached weapons) may not be given SHORT HALT commands.

Suppressed units with SHORT HALT commands may expend ¼ of the available movement speed allowance (½ times ½).

6.6.4.2 Quickmarch

Unsuppressed, unbroken (OR) (see 7.1.5.2) or non-hesitating (OR) (see 7.1.5.1) dismounted squads, half-squads and sections (w/o attached weapons), including all cavalry units, have the ability to move double-quick or quickmarch, enabling the unit to move faster than normal. On the other hand, Quickmarch does have a downside; the unit may be Suppressed as a result of the move.

Due to their equipment loads, sections with attached weapons may not quickmarch. Squads and half-squads may quickmarch even if they have attached weapons.

The unit may start its move in any terrain hex, but the entire move must traverse and end in Clear, Path or Road hexes. It may change a single Height.

A unit may not quickmarch into Close Assault or Hand-to-Hand combats.

The unit must have a MOVE command to quickmarch. It then moves normally, using its quickmarch movement speed allowance. At the end of the move, determine if it is Suppressed.

Quickmarch Suppression is based on Unit Grade. Reference the Quickmarch column in the Unit Grade Modifiers Table on Game Card B.

The moving player rolls (100). If the result falls within the listed range, the unit is Suppressed and is marked with a SUPPRESSION/ON counter.

After a Veteran unit completes a quickmarch, it has a Suppression range of 01-40.

6.6.4.3 Crawling

Unsuppressed squads, half-squads and sections (w/o attached weapons) in Full Cover (see 6.1.4.2) may move 1 hex while maintaining their Full Cover status.

Crawling units cannot:

- Have SHORT HALT commands
- Change elevation
- Move adjacent to an opposing unit spotted by any friendly unit
- Move up or down in a building

Crawling is not considered moving for combat or spotting purposes. Units are not marked with a SPOT/MOVE counter. However, all GP Direct and Indirect Fires apply a +10 modifier.

6.6.4.4 Motorcycles & Bicycles

Squads, half-squads and sections can be designated as Motorcycle (M/C) or Bicycle (B/C) units. In those cases, the leg units use the listed W=Wheeled Movement Factors found on their Data Cards instead of the normal Leg Movement Factors. They execute movement as if they were Wheeled vehicles. They still spot and are spotted as normal leg units.

In game terms, they never separate from their motorcycles or bicycles. Their transport is always kept in close proximity, but is not represented by a separate counter.

Neither type may traverse Hedgerow hexsides. Motorcycle units may not traverse Wall hexsides. They never conduct Overrun combats.

They conduct Close Assault and Hand-to-Hand combats in the normal manner as described in those sections of the rules; however, in this case, Advancing Attacks are at ½ of their motorcycle or bicycle movement speed allowances.

6.6.4.5 Cavalry

Both German and Soviet forces fielded horse-borne infantry forces as did the forces of other nations.

Squads, half-squads, and sections are designated as Cavalry units. In those cases, the leg units actually use the listed Cavalry Movement Factors found on their Data Cards instead of the normal Leg Movement Factors. They still execute movement as leg units. They still spot as normal leg units, but are spotted as L Sized targets.

In game terms, these units never separate from their horses. They are always kept in close proximity, but are not represented by a separate counter.

Cavalry units (with or w/o attached weapons) may not change elevation by more than 2 Heights in a single 1 hex move.

They may not traverse Hedgerow hexsides. They never conduct Overrun combats.

They conduct Close Assault and Hand-to-Hand combats in the normal manner as described in those sections of the rules; however, in this case, Advancing Attacks are at ½ of their cavalry movement speed allowance.

Cavalry units quickmarch normally, but apply +20 modifier to the Suppression determination.

6.6.5 Towed Movement – Manhandling

Towed units are anti-tank guns, infantry guns and anti-aircraft guns. They all have a L=Leg listed on the Movement Row of their Data Cards. While their most efficient method of movement is transport by an appropriate vehicle or limber, all but the very large guns do possess an inherent, but limited movement capability. Moving a towed unit without the assistance of transport is called manhandling.

Like leg units, the Towed Movement Factor is composed of three elements or allowances. The first two are listed in combination and determine the Cross-Country movement

The third element, which is always 0, is the Quickmarch movement factor. Towed units do not have Path and Road information.

Towed units may move only 1 hex per turn. They do not have a turn cost; they may move freely in any direction. They may

change only a single Height. They may not traverse Hedgerow or Wall hexsides. They may not have SHORT HALT commands. They may enter prohibited terrain only if transported by vehicle.

Like vehicles, they may always move one hex, as long as it is a legal move. Otherwise, they may not exceed the available movement speed allowance.

6.6.6 Barrage Movement

Since Indirect Fire actually takes place throughout a turn, units that move to a new position that falls within the area described by an Indirect Fire SHEAF Pattern are immediately attacked by those Indirect Fire units represented by the SHEAF Pattern.

The moving unit is attacked just once for any movement within a SHEAF Pattern by each Indirect Fire unit no matter how many hexes of that pattern they enter. If SHEAF Patterns overlap, that could result in multiple attacks.

Since units with MOVE or SHORT HALT commands are not required to enter a new hex, units that start the Movement Phase under a Barrage are not required to actually move to a new position, thereby avoiding additional attacks.

Vehicles that move within a Barrage do not apply the -20 Target Vehicle Moving modifier.

Units may pivot without incurring additional attacks.

6.6.7 Transporting

Leg and towed units can be transported (carried or towed) by vehicle and limbers (both referred to as vehicles). Units being transported are classified as passengers mounted on vehicles while non-transported units are classified as dismounted. Passengers are not marked with a separate command.

Place the vehicle counter under the units it is transporting or utilize the Summary Card.

6.6.7.1 Transport & Passenger Capacity

All vehicles have a Transport Capacity Factor on the Movement Row of their Data Cards; it is listed as TR: #-#. The first value is the vehicle's Towed Capacity, the second value is its Leg Capacity. Some vehicles provide *Under Cover* protection for passenger leg or towed units.

Vehicles that have both a Towed and Leg Capacity may transport either type. Vehicles that have a Leg Capacity but 0 for their Towed Capacity may only transport leg units. Vehicles that have 0 for both may not transport either type.

Reference the German Prime Movers (Data Card G-5B1). The SdKfz 10's Transport Capacity is 1-2. Its Towed Capacity is 1 while its Leg Capacity is 2.

Leg and towed units have a Passenger Capacity. The data is presented as a reverse image indicating that they are passenger units. Their capacity indicates how much space they, their equipment and ammunition requires while being transported.

Reference the Leg Data Card Key. A German section has a Passenger Capacity of 0-1 (reverse indicates that it is a passenger unit). Its Towed Passenger Capacity is 0 while its Leg Passenger Capacity is 1.

The Passenger Capacity for Towed units has both a leg and towed component. This represents not only the capacity required

for the weapon itself but also the capacity required for its crew, equipment and ammunition. When transporting a towed unit, the transporting vehicle may not move in reverse.

Reference the Towed Data Card Key. The 8.8cm FlaK 36 has a Passenger Capacity of 3-3 (reverse indicates that it is a passenger unit). Both its Towed and Leg Capacities are 3 each.

To transport a leg or towed unit, the vehicle's Transport Capacity must be equal to or greater than the passenger unit's Passenger Capacity. A vehicle may transport as many individual leg units as its Transport Capacity can accommodate; it may tow only a single unit regardless of its Transport Capacity.

6.6.7.1.1 Mounting & Dismounting

For passengers, mounting is movement; they must have Move commands. On the other hand, vehicles may mount or dismount passengers when moving or stationary. Hesitating (OR) or Broken (OR) status does not impact the transport process other than the movement effects for those units.

Passengers Mounting

Unsuppressed squads, half-squads, and sections (w/o attached weapons) must have a MOVE command and be adjacent to or in the same hex with the transporting vehicle. Suppressed squads and half-squads and all sections (with attached weapons) and towed units must have a MOVE command and be in the same hex with the transporting vehicle.

All passenger units expend their entire movement speed allowance mounting.

Passengers Dismounting

Unsuppressed squads, half-squads and sections (w/o attached weapons) are placed adjacent to or in the same hex with the transporting vehicle. They may not dismount off map. Suppressed squads and half-squads and sections (with attached weapons) and towed units must be placed in the same hex with the transporting vehicle.

All passenger units expend their entire movement speed allowance dismounting; they are marked with a SPOT/MOVE counter. They may face in any direction.

Vehicle Mounting & Dismounting

All Suppressed or unsuppressed vehicles may mount and/or dismount passengers. They may have any Command marked.

If marked with a MOVE or SHORT HALT command, vehicles expend ½ of their available movement speed allowance (round down) mounting or dismounting any number of passengers. They may mount or dismount any number of passengers in a single hex or perform both actions at the same time in a single hex.

The process of mounting or dismounting passengers may take place anytime during a vehicle's move as long as it has the requisite movement speed allowance. A vehicle may mount/dismount units and then move; it may move and then mount/dismount units; or it may move, mount/dismount units and then continue moving.

6.6.7.1.2 Emergency Bail Out

All unsuppressed passengers may Bail Out during a player's portion of the Movement Phase (First or Second Player) at no cost to a transporting vehicle with a MOVE or SHORT HALT command at any point during its move.

Any passenger utilizing an emergency Bail Out must be placed in the same hex as the transporting vehicle at the point they bail out and are marked with a SUPPRESSION/ON counter. They may face in any direction.

Passengers may never use an emergency Bail Out to avoid announced OW Fire. They may use emergency Bail Out after resolving an announced OW Fire.

Hesitating (OR) or Broken (OR) status does not impact emergency bail out.

6.6.7.2 Transported Fire

Squads, half-squads and sections may utilize Direct GP Fire while transported. Any attached anti-tank rifles may also fire.

The passenger may fire, or observe for indirect fire, if their transporting vehicle has any command except MOVE.

A passenger makes its own spotting attempt. It may fire at the same target if the vehicle is also firing, or at any other spotted target. Dual Fire modifiers are applied only based on the passenger's fire. The passenger must apply the appropriate Transported Combat AP (-2) or GP (-10) modifier to all fire. It does not apply the SHORT HALT modifier.

Since passenger units are not spotted separately from their transporting vehicle, the transporting vehicle is marked with the appropriate SPOT/FIRE counter depending on the nature of the Transported Combat, i.e., small arms or not. If the transporting vehicle unit already has a SPOT/FIRE counter other than for small arms, it is retained.

6.6.8 Hasty Entrenchments

Unsuppressed, dismounted leg units, including motorcycle, bicycle, and cavalry units, and unsuppressed, dismounted towed units are able to *dig in* by constructing shallow cover—a Hasty Entrenchment. To construct a Hasty Entrenchment, a unit must be in Full Cover and have a N/C command. Once emplaced they are not removed.

It takes 4 turns to construct a Hasty Entrenchment; the turns need not be consecutive. The Hasty Entrenchment counter has four sides, three numbered 1 through 3 and one labeled Hasty. Place the counter with the 1 side facing forward after the first turn of construction. As each turn of construction is completed rotate the counter to the next side. The construction status is updated during the Adjust Full Cover Step.

One unit may start construction, only to have it completed by another unit. If abandoned before construction is complete, use the Directional hex as a point of reference.

The required number of turns is the same regardless of the type or size of unit constructing a Hasty Entrenchment, except engineers.

Due to their construction training and on-hand equipment, engineers require only 2 turns to construct a Hasty Entrenchment. After the first turn of construction place the counter with the 2 side facing forward. The second turn completes the construction. Engineers require 1 turn to complete an abandoned Hasty Entrenchment numbered 1 through 3.

6.6.9 Searching for Hull Down

Many Terrain types contain irregularities that could provide vehicles with a Hull Down or Partial Hull Down position. Reference the Hull Dn column in the Terrain Effects Table on Game Card

A. Only those Terrain types with a listed numerical range may provide a position unless otherwise instructed by the Set Up or Special Conditions in a scenario.

Any vehicle may attempt to find a position. It must have a MOVE command and expends all of its movement speed allowance searching in its current hex.

The moving player rolls (100), if the result falls within the listed range, the vehicle found a position and is marked with the appropriate LOCATION/HD counter.

A vehicle may search for a Hull Down or Partial Hull Down position. Announce the type before rolling. When searching for a Partial Hull Down position, apply a -20 modifier.

It makes sense that smaller vehicles should have more luck finding a position than larger vehicles. Apply the following modifiers, based on the vehicle's size:

- Size +2 – the modifier is +10
- Size +1 – the modifier is +5
- Size 0 – no modifier
- Size -1 – the modifier is -5
- Size -2 – the modifier is -10

It also makes sense that Unit Grade should have an impact. Apply the following modifiers, based on the vehicle's Unit Grade:

- Elite – the modifier is -10
- Veteran – the modifier is -5
- Seasoned – no modifier
- Regulars – the modifier is +5
- Green – the modifier is +10

The vehicle may turn in the hex to face any hexside. The position is found moving either forward or in reverse.

Vehicles in these positions are Hull Down from all angles except the Rear/Side and Rear (or Front/Side and Front if it reversed into the position).

If a vehicle marks a MOVE or SHORT HALT command, it abandons the position even if it remains in its current hex. Remove its LOCATION/HD counter. To reassume the position, it must search again. Once a vehicle abandons a position, no other vehicle may occupy it without first searching.

Since vehicles expend all of their movement speed allowance searching, passengers may not mount or dismount, except for Emergency Bail Out.

If the potential for Boggling Down (OR) (see 7.29) also exists, the player must first determine if a vehicle bogs down. If it bogs down, it may not search.

6.6.10 Overrun Combat

Overrun combat is a shock form of GP Fire where vehicles literally drive into the positions occupied by leg and towed units potentially crushing units in their path. It is different from normal GP Fire since it is resolved during the Movement Step of the Movement Phase rather than the Combat Phase.

Only non-hesitating (OR) or unbroken (OR) vehicle combat units may Overrun. Suppressed and/or Damaged vehicles may Overrun. However, they must apply those GP Fire modifiers and movement limitations.

To Overrun, vehicles must have a MOVE command; vehicles with SHORT HALT commands may not Overrun. They may Overrun only a single dismounted leg or towed unit; the target must have been dismounted at the start of the turn. If more than one vehicle is attacking the same target, they resolve their attacks separately. The target must be spotted before the vehicle starts its move.

All Overruns of a common target must be announced before the first combat is resolved. If a common target is eliminated before all of the Overruns are resolved, the remaining vehicles may move normally, but may not Overrun another target.

The Overrunning vehicle unit must have a sufficient movement speed allowance available to enter the target's hex. The terrain occupied by the target must be legal for vehicle movement, i.e., a vehicle cannot Overrun a target in a Heavy Woods hex.

If the vehicle unit is Overrunning a target located inside a building, it must attempt to enter the building before initiating the Overrun. If the vehicle suffers a TK Hit, it must stop outside of the building before initiating the attack. If it is Damaged, it must then immediately halve its remaining movement speed allowance and apply that GP Fire modifier.

Although Overrunning units are technically firing, they are marked with SPOT/MOVE counters.

Since Overruns take place during the Movement Phase, it may trigger Overwatch Fire. It is triggered before the vehicle moves into the target's hex or after it exits, but not while conducting the Overrun.

6.6.10.1 Overrun Combat Resolution

The GP Factors at a range of 1 hex for all of the Overrunning vehicle's weapons, excluding AA Factors, (subject to minimum range and ammo limits) plus the GP Factor of any passenger squads, half-squads and sections are added together. Attached weapons are not part of the Overrun. If the total GP Factor is greater than 15, use the 15 column.

The terrain occupied by the target determines its GP Defense Factor.

Roll (100) and apply all appropriate GP Direct Fire modifiers. Since Overruns are not executed with a SHORT HALT commands, that modifier is not applicable.

If the target is eliminated and there are no other opposing units in the hex, the vehicle may remain in the hex. If the vehicle is able to continue moving it may do so. If it does not have any movement speed allowance remaining and the target or any other opposing units are still in the hex, the vehicle is placed back in the hex from which it entered the Overrun.

6.6.10.2 Overrun Combat Results

If the target has a SUPPRESSION/OFF counter, it is replaced by a SUPPRESSION/ON counter regardless of the outcome of the Overrun. If it has an unrevealed command, i.e., MOVE or OW, it may still execute that command during the appropriate Step or Phase.

Suppressed Result

The target is Suppressed. Place a SUPPRESSION/ON counter on or next to it. Ignored if already Suppressed.

Effective Result

If the target is a squad, it is reduced to a half-squad and Suppressed. Flip the squad counter to its half-squad side and mark it with a SUPPRESSION/ON counter on or next to it. Any attached weapons are unaffected by this reduction. An Optional Rule (see 7.17) expands on attached weapon loss.

If the target is anything other than a squad, it is eliminated and removed from play.

The Situation

A Soviet IS-2m M44 (Data Card S-3A), Veteran Unit Grade, located in a Clear hex is Overrunning a spotted German Rifle half-squad (Data Card G-8A) located in a Scrub hex at a range of 2 hexes. Both units are at the same height.

The IS-2m M44 has a MOVE command. The Rifle half-squad has an OW Command. The German player is the First Player.



In the Movement Step, the Second Player moves first. The Soviet tank expends 3 of its movement speed allowance entering the Rifle half-squad's hex (1 for a Clear hex and 2 for a Scrub hex). It has 1 of its movement speed allowance remaining to exit the German's hex, if desired.

Since the Soviet unit is 2 hexes from its intended target, Overwatch Fire could be triggered. The German half-squad takes Overwatch Fire as the Soviet tank enters the adjacent hex.

At a range of 1 hex, the half-squad's GP Defense Factor is 6; the GP Range Factor is P-Point Blank. The tank's GP Defense is 8A.

The GP Fire modifiers are now checked for any effect. The Net Modifier is -35 as a result of the following modifiers:

- Target Vehicle Moving DF -10
- Target A-Type Vehicle -20
- Overwatch -5

The GP Factor 6 column on the GP Combat Table is cross-referenced with the GP Defense Factor of 8. The two numbers found are 62 for the N-Effect and 92 for the S-Effect.

The German player rolls (100). The result is 83, so the net roll is 48 (83-35). Since 48 is less than 62 it had No Effect.

At first glance, this seems like a wasted shot. It is not. Had the tank been Suppressed, It would not have adequate movement speed allowance remaining to enter the half-squad's hex ($4 - 1 = 3$. $\frac{1}{2}$ of 3 = 1 (rounded down)). The tank continues moving and enters the German occupied hex.

At a range of 1 hex, the tank's GP Factor is 8; the GP Range Factor is P-Point Blank. The Soviet player checks the tank's Ammo Limit and passes. Its HMG is not included since it is an AA weapon. The Rifle half-squad's GP Defense Factor is 4S.

The GP Fire modifiers are now checked for any effect. The Net Modifier is +30 as a result of the following modifiers:

- Coax MG +10
- Overrun Combat +20

The GP Factor 8 column on the GP Combat Table is cross-referenced with the GP Defense Factor of 4. The two numbers found are 36 for the N-Effect and 68 for the S-Effect.

The Soviet player rolls (100). The result is 42, so the net roll is 72 (42+30). Since 72 is greater than 68 it is an Effective Result. The German half-squad is eliminated and removed from the mapboard.

Since the German unit was eliminated, the IS-2m M44 could remain in the hex, however, it decides to exit the hex. It is marked with a SPOT/MOVE counter.

6.6.11 Command Control with Close Assault, Hand-to-Hand and Overrun

When executing movement based combats, if units are sharing a MOVE command, they may only attack the same target unit. It is possible for units to share a MOVE command that are unable to execute a combat, e.g., a squad sharing a MOVE command with a vehicle where the squad is executing a Close Assault or three squads sharing a MOVE command where a Hand-to-Hand combat is to take place and only two of the squads may take part in the combat.

In any case, the remaining units must still meet Command Range requirement at the completion of the Movement Phase even if they do not take part in a combat.

6.7 Advanced Game 2nd Air Phase

“Victory, speedy and complete, awaits the side that employs air power as it should be employed.” ~ Marshal of the Royal Air Force Sir Arthur Harris

All aircraft in *Panzer* are dedicated ground attack types or variants of other types employed in a ground attack role. Air-to-Air combat does not take place and is not modeled.

Aircraft fly only in the daytime and only during clear weather conditions. Keep this in mind when designing scenarios. Therefore, only one side should have aircraft available in any given scenario. It is assumed that that side has achieved local air superiority for the time covered by the scenario.

That being said, the two Air Phases are not divided into First and Second Player Steps; just the side with local air superiority can fly and attack during the two Air Phases.

Why have two Air Phases? It enables aircraft to either fly in anticipation of opposition combat and movement or in response to it.

Where there are aircraft there is anti-aircraft fire. While aircraft units are flying across the mapboard, AA capable ground units may fire at them with their anti-aircraft weapons.

Ground-based anti-aircraft fire was notoriously a hit-and-miss proposition as on average thousands upon thousands of rounds were expended to shoot down just a single aircraft. In reality, fighter aircraft destroyed the vast majority of ground attack aircraft. While just about any vehicle or leg unit carried weapons with a limited AA capability, the chance of those units actually hitting or impacting the action of a ground attack aircraft was so small that there is no point in cluttering up the game with all those extremely low probability shots. Therefore, only dedicated AA units and some vehicle mounted weapons have AA capability.

6.7.1 Aircraft Weapon Loads

Aircraft are capable of delivering a heavy load of ordnance from strafing to bombs and rockets. The Aircraft Data Cards list the available weapon loads. All aircraft carry Strafing weapons.

In the case where an Aircraft Data Card lists both Rockets and Bombs, the controlling player must select either one of those two options before the scenario begins and note that information for reference.

It is highly recommend that the Aircraft Limited Ammo rule is employed (see 5.16.2.6). Otherwise, aircraft would have an unlimited number of attacks available, greatly distorting their actual capabilities.

6.7.2 Aircraft Movement – Flying

Aircraft never remain on the mapboard during the course of a scenario. They appear individually, enter the mapboard along one edge, move across the mapboard, attack and are attacked, themselves, and then, if they survive, exit the mapboard along another edge.

6.7.2.1 Aircraft Appearance & Loitering

Unless instructed otherwise by a Scenario's Setup or Special Conditions, aircraft may initially appear on any turn of a scenario and in either the 1st or 2nd Air Phase.

However, once an aircraft unit initially appears, it may loiter (is available for use) for only a total of five consecutive turns, including the turn in which it makes its first appearance.

After making its initial appearance an aircraft may reappear, i.e., fly, each turn, in either the 1st or 2nd Air Phase, not both. Whether or not it appears during a turn, the five-turn limit is still in effect.

On its initial appearance, it may appear on any edge of the mapboard. Subsequent appearances must be on the edge from which it exited the mapboard during the previous turn. However, if it skips one or more turns before reappearing, it may then reappear on any mapboard edge. These skipped turns do, however, count towards the five turn loiter limit.

6.7.2.2 Aircraft Speed & Altitude

Aircraft fly at one of two speeds: Slow or Fast, and at one of three altitudes: Low, Medium or High. The aircraft's Speed and Altitude are announced when the aircraft is placed on the mapboard's edge.

An aircraft's Speed and Altitude affect its ability to maneuver and to make certain attacks and impacts its vulnerability to anti-aircraft fire.

An aircraft's Speed and Altitude remain in effect for its current turn, unless conducting a Dive Bombing Attack (see 6.7.2.3.2) or is damaged, but may change in subsequent turns.

6.7.2.3 Aircraft Movement Procedure

An aircraft moves in the direction its front is facing (no reverse moves here!). It does not possess a movement speed allowance nor does it pay for movement; it is considered to be flying above all mapboard terrain.

6.7.2.3.1 Turning Aircraft

An aircraft's ability to turn while moving is based on its Speed. Altitude does not impact turning.

Aircraft at Slow Speed may make a single hexside right-hand or left-hand turn anytime during its move across the mapboard. After turning, it must fly in a straight line until it exits the mapboard. The turn is optional.

An aircraft at High Speed may not turn; it flies straight across the mapboard until it exits.

6.7.2.3.2 Dive Bomber Movement

Aircraft making Dive Bombing Attacks (the Notes Section of the Aircraft Data Cards indicates this capability) use a special combination movement.

It enters the mapboard at High Altitude (all Dive Bombers fly at Slow Speed). Once it completes its attack, it exits the mapboard at Low Altitude.

6.7.3 Aircraft Combat

Aircraft may attack ground units by strafing and with rockets or bombs. Aircraft units differ from ground units in that they may make as many attacks as desired, one per acquired target, or as many as are possible during the course of one move across the mapboard. They may make these attacks from any legal point during their move.

6.7.3.1 Aircraft Spotting

Due to their high speed relative to ground units, aircraft are limited in their ability to spot targets. As with all combat, aircraft must have a spotted target to make any type of attack.

Aircraft may only spot those units, with an unblocked line-of-sight, that fall within their Front 60° Field-of-Fire.

6.7.3.1.1 Aircraft Acquiring Targets

Aircraft require a certain amount of movement to acquire (spot) targets. The aircraft must have an unblocked line-of-sight to the target and maintain it within its Front Field-of-Fire for the entire movement requirement.

The aircraft may turn and still acquire a target as long as the target remains in its Front Field-of-Fire.

Acquisition Ranges are based on the aircraft's Speed and Altitude and are found on the AA/Aircraft Spotting Table on Game Card C in the Acquire column.

The aircraft is flying Fast at Low Altitude. To acquire a target, it must move 10 hexes with an unblocked line-of-sight to the target.

If Suppressed, double the range requirement for any new acquisitions. If Suppressed before it acquires a target, it must still

meet the doubled requirement but subtracts the number of hexes already expended acquiring the target.

Unblocked ground units that are closer to a mapboard edge than the minimum required Acquisition Range may still be acquired. The aircraft is considered to have expended any required hexes of movement off the mapboard as it was flying up to the edge of the mapboard. Once it is on the mapboard, it must acquire any subsequent targets by meeting the movement requirement.

After completing an attack, an aircraft may start acquiring its next target from that point or exit the mapboard. An aircraft never has more than one acquired target at a time.

Once a dive bomber completes its attack, it may acquire its new target using the Low Altitude information.

Aircraft cannot acquire targets located *inside* any Building hexes or Improved Positions, or located in Light Woods, Woods, or Heavy Woods hexes without the assistance of an FO unit.

6.7.3.1.2 Observers Spotting for Aircraft

Ground units located *inside* Buildings or Improved Positions, or located in Light Woods, Woods, or Heavy Woods hexes may not be acquired by aircraft unless a friendly FO unit can spot the target for the aircraft.

No other observers may spot for aircraft. If an FO unit is unavailable, the aircraft cannot acquire targets located in those terrain types.

The FO unit must have a clear line-of-sight to the target unit, and it must be within spotting range of the FO unit. The FO unit may simultaneously spot a single target for multiple aircraft.

The FO must have an OW command to spot for aircraft and it may not perform any other Overwatch related actions or observe for Indirect Fire.

Even with an FO Unit spotting a target, the aircraft unit must still acquire the target (see 6.7.3.1.1).

6.7.3.1.3 Blocking Terrain For Aircraft

In addition to Acquisition Range, an aircraft unit must have an unblocked line-of-sight to the target during its entire Acquisition Range movement.

Determining the line-of-sight from an aircraft to a target is a simpler process due to its higher altitude. The line-of-sight from an aircraft to a target is potentially blocked if the target is within a specific number of hexes of a specific height obstacle based on the Altitude of the aircraft. The aircraft's speed has no impact.

Potential blocking terrain heights are based on the highest point of the terrain, i.e., the tops of woods or buildings. Based on the aircraft Altitude, the line-of-sight is blocked if the ground unit is adjacent to an obstacle or 1 additional hex from the obstacle for each Height over the listed base. The blocking ranges are found on the Aircraft Line-of-Sight Table on Game Card C.

An aircraft is at Low Altitude. The line-of-sight is blocked if the target is within 1 or 2 hexes of a Woods hex. The line-of-sight is blocked if the target is within 3 hexes or less of a Heavy Woods hex.

The aircraft is a Medium Altitude, the line-of-sight is blocked if the target is adjacent to a Heavy Woods hex.

6.7.3.2 Strafing

All aircraft are armed with a certain number of internal machineguns and/or cannons. These are GP weapons that utilize a Strafe Pattern based on the Speed of the aircraft. Strafing attacks must be conducted from Low Altitude. All small arms strafing is considered Point Blank Range.

If the aircraft unit is strafing at Slow Speed, it hits the target unit's hex immediately in front of the aircraft and the next hex. If the aircraft is strafing at Fast Speed, it hits the target unit's hex immediately in front of the aircraft and the next two hexes.

Strafing patterns:



Each ground unit (friendly or enemy) or Terrain Type (see 6.5.4.4.3) that falls within the Strafe Pattern is attacked individually. Each strafing attack is considered a single attack for aircraft Ammo Limits (see 5.16.2.6) purposes no matter the number of individual ground or Terrain Types that are actually attacked.

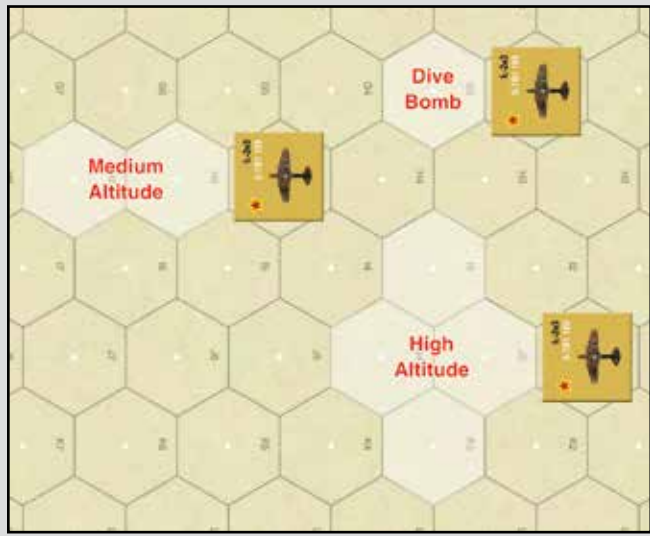
Strafing attacks use the GP Fire procedure (see 6.5.4). The Aircraft Combat modifiers are also checked to determine their effect, if any (see 6.7.3.5). These modifiers are found on the AA/Aircraft Modifiers Table found on Game Card C.

6.7.3.3 Bombs

Bombs are *dropped* from Low, Medium or High Altitude and hit the target unit's hex immediately in front of the aircraft. Dive bomb attacks are dropped from Low Altitude. Non-dive bomb attacks are dropped from Medium or High Altitude. An Optional Rule (see 7.26) adds the chance of Bomb Scatter.

Bombs are GP weapons that have a Blast Pattern based on the Altitude of the aircraft. Dive bomb attacks affect just the target unit's hex. Bombs dropped from Medium Altitude affect the target unit's hex and the next hex. Bombs dropped from High Altitude affect the target unit's hex, the next hex, and the two adjacent hexes.

Bomb patterns:



Each ground unit (friendly or enemy) or Terrain Type (see 6.5.4.4.3) that falls within the Bombing Pattern is attacked individually. Each bombing attack is considered a single attack for aircraft Ammo Limits (see 5.16.2.6) purposes no matter the number of individual ground or Terrain Types that are actually attacked.

Bombing attacks use the GP Fire procedure (see 6.5.4). The Aircraft Combat modifiers are also checked to determine their effect, if any (see 6.7.3.5). These modifiers are found on the AA/Aircraft Modifiers Table found on Game Card C.

6.7.3.4 Rockets

Rockets represent a salvo of multiple projectiles that are fired at an acquired target directly to the front of the aircraft. They affect just the target unit's hex.

Rockets must be launched from Low Altitude. Like ground-based GP weapons, Rockets have a GP Range Factor and a GP Factor. They have a range of 2-10 hexes.

Each ground unit or Terrain Type (see 6.5.4.4.3) in the target's hex is attacked individually. Each rocket attack is considered a single attack for aircraft Ammo Limits (see 5.16.2.6) purposes no matter the number of individual ground or Terrain Type that are actually attacked.

Rocket attacks use the GP Fire procedure (see 6.5.4). The Aircraft Combat modifiers are also checked to determine their effect, if any (see 6.7.3.5). These modifiers are found on the AA/Aircraft Modifiers Table found on Game Card C.

6.7.3.5 Aircraft Combat Modifiers

All Aircraft Combat Modifiers are cumulative with any other GP modifiers applicable to the aircraft (Damaged or Suppressed) or the target, and together is called the Net Modifier.

Unit Grade modifiers apply only to strafing and rocket Attacks. Use Extreme Range when determining Strafing Attack Unit Grade modifiers.

Attack at Low Altitude

If the aircraft is attacking from Low Altitude (strafing, dive bombing and rockets)—the modifier is +20.

Attack at Medium Altitude

If the aircraft is attacking from Medium Altitude (bombing)—the modifier is +10.

Attack at Fast Speed

If the aircraft is attacking at Fast Speed (any)—the modifier is -20.

6.7.4 Anti-Aircraft Combat

Not all ground units have the ability to use anti-aircraft fire. Only those units with an AA row in the Gunnery section of their Data Cards may use anti-aircraft fire. If there is no AA row, the unit may not employ anti-aircraft fire. AA units must have an OW command to execute AA fire.

6.7.4.1 Anti-Aircraft Spotting

Due to their relative high speed, aircraft must be tracked (spotted) before AA units are able to fire at them.

AA units have a 360° Line-of-Sight when tracking aircraft. They may only track those aircraft, with an unblocked line-of-sight.

6.7.4.1.1 Anti-Aircraft Tracking Targets

AA units require a certain number of hexes of aircraft movement to track a target. The AA unit must have an unblocked line-of-sight to the aircraft for the entire movement requirement. Aircraft turns do not impact the acquisition requirement.

Tracking Ranges are based on the aircraft's Speed and Altitude and are found on the AA/Aircraft Spotting Table on Game Card C in the Track column.

The aircraft is flying Fast at Medium Altitude. To track it, an AA must have an unblocked line-of-sight to the aircraft for 6 hexes of the aircraft's movement.

If Suppressed, double the range requirement for any new track. If Suppressed before it tracks a target, it must still meet the doubled requirement but subtracts the number of hexes already accumulated tracking the target.

Rocket hexes in range:



Unblocked aircraft that appear on the mapboard edge are automatically acquired. The AA unit is considered to have acquired the target as it was flying up to the edge of the mapboard.

In addition to the Tracking Range, AA units must have an unblocked line-of-sight to the target aircraft during its entire Tracking Range movement. The method and determination is the same process as for determining blocking terrain for aircraft acquisition, just in reverse. If the aircraft can see the AA unit, the AA unit can see the aircraft (see 6.7.3.1.3).

All AA weapons are GP weapons. Each AA unit may take one Overwatch AA shot per turn no matter how many different aircraft they may track. AA fire must be announced. If announced after an aircraft announces its combat, the AA fire is resolved after the aircraft resolves its combat.

AA units *inside* Buildings or Improved Positions may not track or fire at aircraft.

6.7.4.1.2 AA Fields-of-Fire

AA units have a 360° Line-of-Sight when tracking aircraft. To fire at a tracked aircraft, it must fall within the AA unit's Field-of-Fire.

Turreted & Turretless 360° Vehicles & Vehicle Mounted AA (HMG) & AA (MMG)

These vehicles and weapons have all-round Fields-of-Fire for AA Fire. Some vehicles must have an Open Turret (OR) for AA Fire.

Towed Units

Towed units have a Front Field-of-Fire. Platform Gun Mounts (OR) (see 7.16) expands on this limitation.

High Altitude Restriction

Some AA units may not fire at aircraft at High Altitude. They have N/A vs. High Altitude listed.

6.7.4.2 AA Procedure

AA fire uses the GP Fire procedure (see 6.5.4) with the exception that Overwatch GP Fire modifiers are not applicable.

All AA Combat modifiers are cumulative with any other GP fire modifiers applicable to the AA unit and together are called the Net Modifier. These modifiers are found on the AA/Aircraft Modifiers Table found on Game Card C.

Reference the German PzKpfw IIIM (Data Card G-1A), it has a -20 modifier for its MMG.

AA vs. Fast Speed or High Altitude

If the aircraft is flying at Fast Speed or at High Altitude—the modifier is -10 for each.

AA vs. Low Altitude

If the aircraft is flying at Low Altitude—the modifier is +10.

6.7.4.2.1 AA Fire Results

Aircraft are either eliminated (Effective Result), damaged (Effective Result), Suppressed, or missed (no Effect Result) as a result of AA fire.

No Effect Result

The shot missed the aircraft or did no appreciable damage; it continues its flight unabated.

Suppressed Result

The aircraft is Suppressed. Place a SUPPRESSION/ON counter next to it. Suppressed aircraft are limited in both combat (see 6.5.4.3) and the ability to acquire new targets (see 6.7.3.1.1).

Effective Result – Damaged

If the final modified dice roll ends in a 5 or 10, the target aircraft is Damaged. Place a DMGD counter next to it. Damaged aircraft are limited in combat (see 6.5.4.3). If damaged a second time, it is eliminated.

In addition, the aircraft must now fly at Slow Speed for the remainder of the current turn and future turns. If it is currently at Fast Speed it is immediately reduced to Slow Speed.

Effective Result – Eliminated

If the final modified dice roll does not end in a 5 or 10, the target aircraft is shot down and crashes. Roll (10). The result is the number of hexes the aircraft moves forward from its front facing before it crashes into the ground. Divide the result by 2 (round down) if the aircraft unit was at Low Altitude.

Each ground unit and Terrain Type occupying the crash hex is attacked individually with a GP Factor of 15. It is considered a non-small arms attack against all vehicles regardless of their GP Defense Factor. May start Fires (OR) (see 7.35).

Aircraft may never intentionally crash.

6.8 Advanced Game Adjustment Phase

Advanced Game Adjustment adds the Pivot, Full Cover, and Adjust/Remove Suppression Steps. The Adjust/Remove Counters step is expanded. Players simultaneously execute the Adjustment Steps in the order listed.

6.8.1 Pivot Step

Regardless of their commands, all dismounted leg and towed units, in any order, may change their facing to any hexside—pivot in place. Pivot does not expend movement; it is not marked with a SPOT/MOVE counter.

6.8.2 Adjust Full Cover Step

In any order, dismounted leg units (including motorcycle, bicycle and cavalry units) and dismounted towed units freely move into or out of Full Cover, regardless of their commands.

Adjust HASTY ENTRENCHMENT counters as necessary.

6.8.3 Adjust/Remove Suppressions Step

In any order, the players first attempt to remove all SUPPRESSION/OFF counters from their units. The ability to recover from a Suppression is based on a unit's Unit Grade, whether it was attacked and its Command during the current turn.

Reference the Unit Grade modifiers and the Suppression Recovery Tables, both found on Game Card B.

The base recovery range is found in the SUP'D RECVY column of the Unit Grade Modifiers Table. The terrain occupied by unit has no impact on its recovery. Roll (100) and apply any applicable Suppression modifiers found in the Suppression Recovery Table.

6.8.3.1 Adjust/Remove Suppression Modifiers

These are used exclusively and are cumulative. These modifiers do not apply to aircraft; they always use their base recovery range.

6.8.3.1.1 Command other than N/C

Units have a much greater chance of recovering from a Suppression if they attempt no actions during the turn. If the Suppressed unit has a command other than N/C marked for the current turn, the modifier is +20.

6.8.3.1.2 Under Direct or Indirect Fire



If the Suppressed unit was attacked by AP or GP Direct Fire or GP Indirect Fire during the current turn; the modifier is +10. If there is any difficulty recalling which Suppressed units were attacked, mark them with UNDER FIRE counters.

The effectiveness of the fire is not a factor, just that it occurred. It does not matter how many times a unit is attacked, just if any of these fire types occurred. It is not cumulative.

6.8.3.2 Adjust/Remove Suppression Results

If the net result falls within the listed range, the SUPPRESSION/OFF counter is removed. If the result does not fall within the listed range, the SUPPRESSION/OFF counter is retained; it is not replaced by a SUPPRESSION/ON counter.

The Situation

A Soviet Rifle squad, Regulars Unit Grade, marked with a SUPPRESSION/OFF counter is attempting to recover. It has a FIRE command for the current turn and was subject to Direct GP Fire.

The SUP'D RECVY range for Regulars Unit Grade is 01-50. The net modifier is +30:

- Command other than N/C +20
- Under any Fire +10

The Soviet player rolls (100). The result is 29, so the net result is 59 (29+30). Since 59 does not fall within the indicated range, the Rifle squad retains its SUPPRESSION/OFF counter.

6.8.4 Adjust/Remove Counters Step

Remove all UNDER FIRE and SMOKE/OFF counters and any SMOKE/DS (OR) counter that is under its vehicle. Replace all SMOKE/ON, SUPPRESSION/ON, HESITATION/ON (OR), and BREAK/ON (OR) counters with their corresponding Off counters and place any SMOKE/DS counter (OR) under the vehicle that fired it.

Credits

Design and Development: James M. Day

Art Director, Cover Art & Package Design:
Rodger B. MacGowan

Maps: Charles Kibler

Counters: James M. Day, Pascal Da Silva and Mark Simonitch

Rulebooks: Charles Kibler

Scenario Book: Mark Simonitch

Playtesters: Jay Wissmann, Michael Craighead, Rob Doane, Craig Taylor, Jeff Billings, and many others

Proofreaders: Hans Korting, Jay Wissmann, Bob Schindler, and Robert Delwood

Production Coordination: Tony Curtis

Producers: Tony Curtis, Rodger MacGowan, Andy Lewis, Gene Billingsley, and Mark Simonitch



Glossary

(-): Under-Strength Formation	Coy: Company
(+): Over-Strength Formation	CP: Cohesion Point
(r): Russische – Russian	Danger Close: Indirect fire affecting friendly units
(t): Tschechlowakisch – Czechoslovakian	DCR: Division Cuirassée de Réserve
A/ATG: Anti-Aircraft/Anti-Tank Gun	DF: Direct Fire
A: Ammo limits	DI: Division d’Infanterie
AAA: Anti-Aircraft Artillery	DIM: Division d’Infanterie Motorisée
AAG: Anti-Aircraft Gun	Div: Division
AAMG: Anti-Aircraft Machinegun	DLC: Division Légère de Cavalerie
Abteilung: Detachment	DLM: Division Légère Mécanique
Active Unit: Combat units still in action counted for Command Control.	DMGD: Damage Hit
AG: Advanced Game component or rule	E: Extreme range
AMC: Automitrailleuse de Combat – Arm Car	Elements: Only a portion of a unit is present
AMD: Automitrailleuse de Découverte – Arm Car	Engineer: Special unit classification
AP: Armor Piercing	F: GP Factor
APC: Armored Personnel Carrier	F: Fast rate-of-fire
APC: Armored Piercing Capped	FlaK: Fliegerabwehrkanone – anti-aircraft gun
APCR: Armor Piercing Composite Rigid	Flakpanzer: Armored anti-aircraft vehicle
APDS: Armor Piercing Discarding Sabot	FO: Forward Observer, special unit classification
Arm Car: Armored Car	Full Cover: Increased defense for Leg and Towed units
ATG: Anti-Tank Gun	Fusilier: Infantry or reconnaissance
ATR: Anti-Tank Rifle. Hand-held anti-tank weapon.	Gepanzert: Armored
A-Type: Armored Type Vehicle	GMC: Gun Motor Carriage
Aufklärung: Reconnaissance Forces	GP Defense: Alphanumeric defensive classification
B/C: Bicycle	GP Factor: Numerical weight of GP Firepower
BA: Broneavtomobil – Armored Car	GP: General Purpose
Bat: Battalion	GPD: General Purpose Defense
Battle Group: A combined arms force	Grenadier: Infantry
Bgd: Brigade	GrW: Granatenwerfer – mortar
BHQ: Battalion headquarters	Gun Tube: Individual artillery unit
Bis: Second version	H: Half-tracked mode of traction
Block: Prevent line-of-sight	Half-Track: Partially-tracked combat vehicle
BM: Batalyonny Minomyot – battalion mortar	HD: Hull-Down
Broken: A Morale categorization for units	HE: High Explosive
BT: Bystrochodny Tankovy – Fast Tank	HEAT: High Explosive Anti-Tank
Bty: Battery	Heer: German Army
BU: Subject to brew-up modifier	Hesitation: A Morale categorization for units
BU: Brew-up Hit	Hinder: Modifies combat effects
CC: Combat Command – CCA, CCB, CCR	HMC: Howitzer Motor Carriage
CE: Chemical energy ammo type or defense	HMG: Heavy Machinegun
CGMC: Combination Gun Motor Carriage	HOW: Howitzer
Char: Char d’Assaut – “Chariot” ~ tank	HQ: Headquarters
CHQ: Company headquarters	HT: Half-Track
cm: Centimeter	HVAP: Hyper-Velocity Armor Piercing
Coax MG: Coaxial machinegun.	HVSS: Horizontal-Volute Spring Suspension
Combat Unit: Any armed unit. Unarmed units are not combat units.	IF: Indirect Fire
Command: Special unit classification	IG: Infantry Gun
Cover: Terrain benefit	IL: Illumination
	IMP POS: Improved Position
	Jagdpanzer: Tank Destroyer

Jäger: Hunter – Light Infantry	R: Rapid rate-of-fire
Kampfgruppe: Battle Group	Range Factor: For AP or GP fire. P, S, M, L, or E
KE: Kinetic energy ammo type or defense	RCT: Regimental Combat Team – Task Force
KG: Kampfgruppe – Battle Group	Recce: Reconnaissance
KO: Knock Out Hit	Recon: Reconnaissance, special unit classification
KV: Kliment Voroshilov – a series of tanks named after a Soviet politician	Reg: Regiment
KwK: Kampfwagenkanone – tank gun	RHQ: Regiment or brigade headquarters
L: Leg mode of traction	RM: Rotny Minomyot – company mortar
L: Long range	ROF: Rate-of-fire
le: Leichte – light	Roll (10): Rolling a single 10-sided die
Leg: Collective term for units on foot	Roll (100): Rolling two 10-sided dice
M/C: Motorcycle	RPzB 43/54: Panzershreck – Armored Terror. Hand-held anti-tank weapon.
M: Movement Factor	RPzB: Rakete Panzerbüchse – Anti-Tank Rocket
M: Medium range	s: Schwere – heavy
Mechanized: Collective term for transported forces	S: Short range
Mecz: Mechanized	Sapper: Combat Engineer
MGMC: Multiple Gun Motor Carriage	SB: Stabilization rating
mm: Millimeter	Schwere: Heavy
MMC: Mortar Motor Carriage	SdKfz: Sonderkraftfahrzeug – special purpose
MMG: Medium Machinegun	Sec: Section
Mot: Motorized	SHEAF: Indirect fire pattern
Motorized: Transported by wheeled units	SMG: Submachinegun
N: Normal rate-of-fire	Smk: Smoke
O: Optical sight	SP: Self-propelled
OB: Order of Battle	SPW: Schützenpanzerwagen – APC
Observer: A unit able to call indirect fire	sPzB: Heavy anti-tank rifle
OML: Ordnance Muzzle-Loading	Sqd: Squad
OQF: Ordnance Quick-Firing	Sqn: Squadron
OR: Optional component or rule	ST: Sight type
P: Point Blank range	StuG: Sturmgeschütz – assault gun
P: Penetration Factor	StuH: Sturmhaubitze – assault howitzer
PaK: Panzerabwehrkanone – anti-tank gun	S-Type: Soft Type Vehicle
Panzer: Armor	SU: Samokhodnaya Ustanovka – Assault Gun
Panzerfaust: Armored Fist. Hand-held anti-tank weapon.	T: Tracked mode of traction
Panzerjäger: Tank Hunter	Task Force: Battle Group
PIAT: Projector Infantry Anti-Tank. Hand-held anti-tank weapon.	TF: Task Force
Pionier: Combat Engineer	TK: Track Hit
Pt: Platoon	TO&E: Table of Organization and Equipment
PSW: Panzerspähwagen – armored car	TR: Transport
PTRD: ProtivoTankovoye Ruzhyo Degtyaryova – anti-tank rifle. Hand-held anti-tank weapon.	Trp: Troop
PTS: Points	Tt: Turret Turn rating
P-Type: Protected Type Vehicle	Under Cover: Increased defense for transported units
PzB: Panzerbüchse – anti-tank rifle. Hand-held anti-tank weapon.	UNL: Unlimited
PzKpfw: Panzerkampfwagen – tank	Vierling: Four-barreled
Q: Quick rate-of-fire	VP: Victory Point
R: w/o a radio	W: Wheeled mode of traction
R: Range	WT: Weight in metric tons
	Zgkw: Zugkraftwagen – prime mover

Index

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.

A

Adjusting Indirect Fire: see Indirect Fire, Adjusting
 Adjustment, End Turn Phase: **4.6**; 6.1.4.2; **6.8**; 7.1.6; 7.8.1; 7.8.3; 7.35.1
 Aircraft, Altitude: **6.7.2.2**; 6.7.2.3.2; 6.7.3.1.1; 6.7.3.1.3; 6.7.3.2; 6.7.3.3; 6.7.3.4; 6.7.3.5; 6.7.4.1.1; 6.7.4.1.2; 6.7.4.2; 6.7.4.2.1 (Effective Result Eliminated); 7.26
 Aircraft, Bombs: **6.7.3.3**; 6.7.3.5; 7.26; 7.31.3; 7.35
 Aircraft, Facing: 5.5
 Aircraft, GP Defense Factor: 6.5.4.2.4
 Aircraft, Movement: 6.7.2
 Aircraft, Observers: 6.7.3.1.2
 Aircraft, Rockets: **6.7.3.4**; 6.7.3.5; 7.31.3; 7.35
 Aircraft, Size: 6.1.3
 Aircraft, Speed: **6.7.2.2**; 6.7.2.3.1; 6.7.2.3.2; 6.7.3.1.1; 6.7.3.1.3; 6.7.3.2; 6.7.3.5; 6.7.4.1.1; 6.7.4.2; 6.7.4.2.1
 Aircraft, Spotting: 6.7.3.1
 Aircraft, Strafing: **6.7.3.2**; 6.7.3.5
 Aircraft, Suppressed: 6.5.4.3 (Shooter Suppressed); 6.7.3.1.1; 6.7.3.5; 6.7.4.2.1; 6.8.3; 7.26
 Aircraft, Turning: 6.7.2.3.1
 Aircraft, Weapon Loads: 6.7.1
 Aircraft Units: **5.4**; 5.5; 5.13; 6.1.4.2; 6.5.4.2.4; 6.7
 Alley: see Terrain, Alley
 Ammo Limits: 5.14; **5.16**; 6.5.1.11.4; 6.5.2.4 (Ammo Limit); 6.5.4.3 (Ammo Limit); 6.6.10.1; 6.7.3.2; 6.7.3.3; 6.7.3.4; 7.22.2
 Amphibious Movement: 7.34
 Anti-Aircraft, Fire: 6.7.4.2
 Anti-Aircraft Fire, Results: 6.7.4.2.1
 Anti-Aircraft, Spotting: 6.7.4.1
 Anti-Aircraft, Suppressed: 6.7.4.1.1
 Anti-Tank Rifles: **5.1.3.3**; 6.6.7.2
 AP Damage & Effects (Advanced Game): 6.5.2.5
 AP Damage & Effects (Basic Game): **4.4.3.2.6**
 AP Hit Angle: **4.4.3.2.4**; **6.5.2.2**; 6.5.2.5; 7.8.2
 AP Hit Modifiers: **4.4.3.2.2**; **6.5.2.4**
 AP Hit Number: **4.4.3.2.3**; 6.5.2.1
 AP Fire: **4.4.3**; 5.15; 5.16.2.1; **6.5.2**
 AP Fire, No Effect: 4.4.3.2.5; 6.5.4.2.5
 AP Number of Hits: 6.5.2.1
 AP Range Factor: **4.4.3.2.1**; 4.4.3.2.3; 6.5.2.1; 6.5.2.4 (AP Unit Grade)
 AP Rate of Fire: 5.16.2.1; **6.5.2.1**
 Armor Penetration: **4.4.3.2.5**; 7.12
 Armor Penetration, Variable: **7.12**
 Artillery Reconnaissance by Fire: see Indirect Fire, Reconnaissance by Fire
 Artillery Units: **5.3**; 5.8.3; 6.5.1.2
 Attachment Level: **6.5.1.3**; 6.5.1.7; 6.5.1.12

Attached Indirect Fire Unit: 6.5.1.1.2; **6.5.1.3.1**; 6.5.1.3.3; 7.28
 Attached Weapon Loss: 7.17

B

Bail Out: **5.15**; 6.5.2.5; 6.5.2.6; 6.5.4.2.3; 6.5.4.4.2; 6.5.4.4.3; 6.5.4.5; 6.6.1.1.3; 6.6.9; 7.23.4; 7.31.2; 7.34
 Bail Out, Emergency: 6.6.7.1.2
 Barrages: 5.11; **6.1.4.3.10**; 6.5.1.12.1 (Observer Hindered); 6.5.2.4 (Barrage – Open/Closed SHEAF); 6.5.4.3 (Target Vehicle Moving DF/IF); 6.5.4.3 (Barrage – Open/Closed SHEAF)
 Barrages, Movement: 6.6.6
 Bicycles: 6.6.4.4
 Block: See Terrain, Block
 Bocage Country: 7.45
 Bogging Down: 6.6.9; **7.29**; 7.36.3
 Break Point: **7.1**; 7.1.4; 7.6
 Brew Up: see Vehicle, Brew Up
 Brew Up +2 Modifier: 7.11
 Bridges: see Terrain, Bridges
 Buildings: See Terrain, Buildings

C

Called Indirect Fire: see Indirect Fire, Called
 Camouflage: 7.24
 Card, Data: 1.6
 Card, Data Keys: 1.5
 Card, Game: 1.4
 Card, Turn Track, Summary & Hidden Unit: 1.8; 7.2
 Cavalry: 6.6.4.5
 CE (Chemical Energy) Shells: 5.1.3.4; **6.5.2.3.4**; 6.5.4.3 (CE Ammo); 7.10; 7.12; 7.15
 Checking Indirect Fire: see Indirect Fire, Checking
 Close Assault Combat: 5.1.3.5; **6.6.1.1**; 6.6.2; 6.6.4.2; 6.6.4.4; 6.6.4.5; 6.6.11; 7.1.2; 7.1.3; 7.1.5.1; 7.1.5.2; 7.6; 7.19; 7.35
 Close Assault Combat, Modifiers: 6.6.1.1.2
 Coexistence: 4.5.1.1.10
 Cohesion Point: **7.1.1**; 7.1.2
 Command Control: 5.8.2; 5.14; **6.2.1**; 6.6.11; 7.3
 Command Range: 6.2.1.1; **6.2.1.1.2**; 6.2.1.1.3; 6.2.1.1.4; 6.5.1.1.4; 6.5.2.1; 6.5.2.2.1; 6.6.11; 7.1.2; 7.1.3; 7.1.4 (Unbroken Command Unit in Cmd Rng); 7.1.4 (Broken Unit from Formation in Cmd Rng); 7.2.2.1; 7.3; 7.4.2
 Command Span: 7.52
 Command Units: **5.9.1**; 6.2.1.1.2; 6.5.1; 6.5.1.1.2; 6.5.1.12.1 (Command Recon Observer); 7.1.2; 7.1.3; 7.1.4 (Unbroken Command Unit in Cmd Rng); 7.3; 7.4.4
 Commands, Sharing: 5.14; **6.2.1.1.3**; 6.5.2.2.1; 6.6.11
 Continuous Indirect Fire: see Indirect Fire, Continuous
 Counter Battery Fire: see Indirect Fire, Counter Battery
 Counters, Command: **1.7.2**; 4.2.1; 4.4.1; 4.4.3.2; 4.5.1
 Counters, Information: 1.7.3
 Counters, Terrain: **1.7.4**; 4.1.4.1; 6.1.4.3
 Counters, Units: 1.7.1
 Crawling: 6.6.4.3
 Crests: see Terrain, Slopes & Crests
 Crew-Served Weapons: 5.1.1; 5.1.2; **5.1.3**; 5.14; 5.16.2.4; 6.1.4.2

D

Damaged: see Aircraft, Results or Vehicle Damaged

Danger Close: see Indirect Fire, Danger Close

Defensive Fire: 7.50

Delayed Reaction: 7.48

Dice, Percentile: **1.10**; 3.2

Direct Fire: **4.4.1**; 4.4.2; 6.1.4.1; 6.1.4.3.2; 6.1.4.3.10; **6.5.2**; **6.5.4**; 7.1.2; 7.1.3; 7.8; 7.13; 7.15; 7.22.1; 7.23.1; 7.25

Direct Fire Smoke: see Smoke, Direct Fire

Ditch: see Terrain, Ditch

Dual Driving Controls: 7.33

Dual Fire: **5.14**; 6.5.2.4 (Dual Fire); 6.5.4.3 (Dual Fire); 6.6.7.2

E

Engineer Units: **5.9.3**; 6.6.1.1; 7.19; 7.31.3.3

Engineer, Terrain Combat: 7.19; 7.31.3.3

F

Flamethrowers: **5.1.3.5**; 6.6.1.1.2 (Attacker has a Flamethrower); 6.6.1.1.3 (Effective Result); 6.6.1.2.2 (Has a Flamethrower); 7.35.1

Formation Summary: 1.9

Fields-of-Fire: **4.4.3.1**; 5.1; 6.7.4.1.2; 7.16

Fire: see Terrain, On Fire

Fire Priority: 7.14

Fires: 6.5.2.4 (On Fire); 6.5.4.3 (On Fire); **7.35**

FO Units: 5.1.2; **5.9.4**; 6.2.1.1; 6.5.1; 6.5.1.1.1; 6.5.1.1.2; 6.5.1.1.3; 6.7.3.1.1; 6.7.3.1.2; 7.37, 7.47

Ford: see Terrain, Gully, Ford & Stream

Forward Observer: see FO Units

Full Cover: 5.1.3.1; 6.1.3.2; **6.1.4.2**; 6.5.4.2.2; 6.6.4.3; 6.6.8; 6.8.2; 7.2.2.2

G

GP Fire/Factor: 5.1.3.1; 5.1.3.2; 5.1.3.3; 5.1.3.4; 5.1.3.5; 5.2; 5.15; 5.16.2.1; **6.5.1**; 6.5.3; **6.5.4**; 6.6.1.1.1; 6.6.1.1.3; 6.6.7.2; 6.6.10; 6.7.3.2; 6.7.3.3; 6.7.3.4; 6.7.4.2; 6.8.3.1.2; 7.8.3; 7.15; 7.17; 7.18; 7.23.1; 7.25; 7.28.2; 7.35; 7.37

GP Fire, Effective: 6.5.4.4.2; 6.5.4.4.3

GP Fire, No Effect: 6.5.4.4; **6.5.4.4.1**

GP Fire, Suppressed: 6.5.4.4.2; 6.5.4.4.3

GP Hit Modifiers: 6.5.4.3

Grade, Force: **5.8.1**; 6.3

Grade, Formation: **5.8.2**; 6.2.1.1; 6.2.1.1.2; 7.1.1.1; 7.4.2

Grade, Unit: **5.8.3**; 6.5.1.7 (Called Indirect Fire Response); 6.5.1.12 (Observer Grade); 6.5.2.1 (Q, R and F Rates-of-Fire); 6.5.2.4 (AP Unit Grade); 6.5.2.6.1; 6.5.2.6.2; 6.5.4.3 (GP Unit Grade); 6.6.1.1.2 (Attacker Unit Grade); 6.6.1.2.2 (Unit Grade); 6.6.4.2; 6.7.3.5; 6.8.3; 7.1.4; 7.1.6.2; 7.6; 7.7.1; 7.7.2; 7.22; 7.26

Gully: see Terrain, Gully, Ford & Stream

H

Hand-Held Anti-Tank Weapons: **5.1.3.4**; 7.10; 7.15; 7.35.3

Hand-to-Hand Combat: 5.1.3.5; 6.1.4.2; **6.6.1.2**; 6.6.4.2; 6.6.4.4; 6.6.4.5; 6.6.11; 7.1.2; 7.1.3; 7.1.5.1; 7.1.5.2; 7.17; 7.35.1

Hand-to-Hand Combat, Modifiers: 6.6.1.2.2

Hasty Entrenchment: see Terrain, Hasty Entrenchment

Heat Haze: 6.5.1.12.1 (Observer Heat Haze); 6.5.2.4 (Heat Haze); 6.5.4.3 (Heat Haze)

Hedgerow: see Terrain, Hedgerow

Hidden Units: 1.8; **7.2**; 7.37

Hills: see Terrain, Hills

Hit Angle, Advanced Game: **6.5.2.2**; 6.5.2.5; 7.8.2

Hit Angle, Basic Game: **4.4.3.2.4**

HMGs: 5.1.3.2

Hull Down: **6.1.4.1**; 6.1.4.3.1; 6.1.4.3.2; 6.1.4.3.7; 6.5.2.2.3; 6.5.4.4.2; 6.6.9; 7.13.2; 7.29

Hull Down, Partial: **6.1.4.1.2**; 6.5.2.2.3; 6.5.4.4.2; **6.6.9**; 7.13.2

I

Illumination: 5.16; 6.5.1.6.2; 6.5.1.8.1; 6.5.1.11.1; 6.5.1.11.4; 6.5.1.13; **7.27**; 7.31.3.1

Improved Position: see Terrain, Improved Position

Indirect Fire: 4.4.2; 5.1.3.1; 5.2; 5.3; 5.16.2.3; 6.1.4.3.10; **6.5.1**; 6.5.2.2.1; 6.5.4.2.5; 6.5.4.3 (Target Vehicle Moving DF/IF); 6.5.4.3 (Target Vehicle in Medium or Heavy Cover); 6.6.6; 6.8.3.1.2; 7.1.2; 7.1.5.1; 7.1.5.2; 7.2.2.3; 7.4.3; 7.5; 7.26; 7.27; 7.28; 7.31.3; 7.37

Indirect Fire, Adjusting: **6.5.1.8.2**; 6.5.1.10; 6.5.1.11.3; 6.5.1.12; 6.5.1.12.1 (Adjusted Fire); 7.26; 7.37

Indirect Fire, Air Bursts: 7.46

Indirect Fire, Called: 6.5.1.1; 6.5.1.1.1; 6.5.1.1.2; 6.5.1.1.3; 6.5.1.4; **6.5.1.7**; 6.5.1.8.1; 6.5.1.8.2; 6.5.1.9; 6.5.1.10; 6.5.1.12; 6.5.1.13; 7.1.5.1; 7.1.5.2; 7.26; 7.28.1

Indirect Fire, Checking: 6.5.1.9

Indirect Fire, Continuous: **6.5.1.8.1**; 6.5.1.10; 7.1.5.1; 7.1.5.2

Indirect Fire, Counter Battery: 7.28

Indirect Fire, Danger Close: **6.5.1.10**; 6.5.1.11.3; 6.5.1.12; 6.5.1.12.1

Indirect Fire, Illumination: 7.27

Indirect Fire, Observer: 6.5.1

Indirect Fire, Planned: 6.5.1.1; 6.5.1.9; **6.5.1.11**; 6.5.1.12; 6.5.1.12.1 (Adjusted Fire); 6.5.1.13; 6.5.4.3 (Target Vehicle Moving DF/IF); 7.5; 7.28.1

Indirect Fire, Reconnaissance by Fire: 7.37

Indirect Fire, Response: 5.8.3; 6.5.1.1; 6.5.1.3; 6.5.1.4; 6.5.1.7; 6.5.1.8.1; 6.5.1.8.2; 6.5.1.11; **6.5.1.12**; 7.1.5.1; 7.1.5.2; 7.26; 7.28.2; 7.37

Indirect Fire, Scatter: 7.26

Initiative: **4.3**; 4.4; 4.5; 5.8.1; **6.3**

Initiative, Staggered: 7.42

K

KE (Kinetic Energy) Shells: **6.5.2.3.4**; 7.12

Knocked Out, see Vehicle Knocked Out

L

Leaders: 7.55

Leg, Facing: 5.5

Leg, GP Defense Factor: **6.5.4.2.2**; 6.5.4.2.3

Leg, GP Effective Result: 6.5.4.4.3; 6.6.10.2; 7.18; 7.31.2.2

Leg, Movement: 6.1.4.3.1; **6.6.4**

Leg, Size: **6.1.3**; 6.5.1.12.1 (Observer Heat Haze); 6.5.2.4 (Heat Haze); 6.5.4.3 (Heat Haze)

Leg, Suppressed: 5.1.1; 5.14; 6.1.3.1; 6.5.2.4 (Shooter Suppressed); 6.5.4.3 (Shooter Suppressed); 6.5.4.4.3; 6.6.1.1; 6.6.1.1.2 (Vs. Suppressed Vehicle); 6.6.1.2; 6.6.1.2.2 (Defender Suppressed); 6.6.1.2.3; 6.6.2; 6.6.4.1; 6.6.4.2; 6.6.7.1.1; 6.8.3; 7.1.4; 7.18; 7.31.2.2

Leg Units: see Squads & Half-Squads and Sections

Limited Spotting: 7.7

Line-of-Sight: 1.2; **4.1.4**; 4.4.3.2.2 (Brew-Up Smoke); 4.4.3.2.4; **6.1.4**; 6.5.1.9; 6.5.1.12.1 (Observer Hindered); 6.5.2.2; 6.5.4.2 (Smoke, Barrage, On Fire); 6.5.4.3 (On Fire, Brew Up Smoke, Smoke, Barrage); 6.7.3.1; 6.7.4.1; 7.8.3; 7.37

Long Guns: 7.20

Lower Hull Hits: 7.13

M

Manhandling: see Towed, Movement
 Mapboard: **1.2**; 4.1.4.1
 Mapboard, Geomorphic: **1.3**; 4.1.4.1
 Mines & Minefields: see Terrain, Mines
 Modifiers & Adjustments: **3.7**; **5.12**
 Morale: 5.8.2; 5.8.3; 6.2.1.1.3 (N/C Commands); 6.5.2.4 (Shooter Hesitating and Shooter Broken); 6.5.4.3 (Shooter Hesitating and Shooter Broken); 7.1; 7.4.4; 7.6
 Morale, Broken: 6.2.1.1; 6.5.1.12.1 (Observer Broken); 6.5.2.4 (Shooter Broken); 6.5.4.3 (Shooter Broken); 6.6.1.1; 6.6.1.1.2 (Vs. Broken); 6.6.1.2.2 (Defender Broken); 6.6.4.2; 6.6.7.1.1; 6.6.7.1.2; 6.6.10; **7.1**; 7.22
 Morale, Check, Normal: **7.1.2**; 7.1.5
 Morale, Check, Forced: **7.1.3**; 7.1.5
 Morale, Hesitating: 6.2.1.1; 6.5.1.12.1 (Observer Hesitating); 6.5.2.4 (Shooter Hesitating); 6.5.4.3 (Shooter Hesitating); 6.6.1.1; 6.6.1.1.2 (Vs. Hesitating); 6.6.1.2; 6.6.1.2.2 (Defender Hesitating); 6.6.4.2; 6.6.7.1.1; 6.6.7.1.2; 6.6.10; **7.1**; 7.22
 Morale, Recovery: 7.1.6
 Morale, Vehicle Bailout: 7.39
 Mortars: **5.1.3.1**; 6.5.1.2; 6.5.4
 Motorcycles: 6.6.4.4
 Movement Costs: 4.5.1.1.2
 Movement Costs, Exceeding: 4.5.1.1.3
 Movement Factor: 1.7.1; **4.5.1.1.1**; 6.6.2; **6.6.4.1**; **6.6.5**; 7.2.2.2
 Movement, No Move Moves: 4.5.1.1.8
 Movement, Off Mapboard: 4.5.1.1.9
 Movement, Path & Road: 4.5.1.1.1; 4.5.1.1.2; **4.5.1.1.5**; 6.2.1.1.3; 7.20; 7.30; 7.36.2
 Movement, Road & Path [expanded]: 7.40
 Movement, Turning: see Vehicle, Turning

N

Narrow Roads & Paths: 7.30

O

Objectives, Controlling: 3.6
 Observer, Spotting for Aircraft: 6.7.3.1.2
 Observer, Indirect Fire: **6.5.1**; 7.5; 7.4.3; 7.26; 7.37
 Observer, Suppressed: 6.5.1.12.1 (Observer Suppressed)
 Off Mapboard Moves: 4.5.1.1.9
 Organic Indirect Fire Unit: 6.5.1.1.2; **6.5.1.3.2**; 6.5.1.3.3; 7.28
 Overrun Combat: 5.14; 6.5.4.3 (Overrun Attack); 6.6.2; 6.6.4.4; 6.6.4.5; **6.6.10**; 6.6.11; 7.1.2; 7.1.3; 7.1.5.1; 7.1.5.2; 7.23.1; 7.30
 Overwatch Fire: **4.4.2**; 4.4.3.2.2 (Overwatch and Overwatch Adjust); 4.5; 6.2.1.1.4; 6.5.1; 6.5.3; 6.5.4.3 (Overwatch and Overwatch Adjust); 6.6.1.1; 6.6.1.2; 6.6.10; 6.7.4.1.1; 6.7.4.2; 7.6; 7.8.4; 7.16

P

Paths: see Movement, Path & Road
 Phasing Player, Definition: 3.1
 Platoon & Section Command Control: 7.3
 Pinning Fire: 7.18
 Pivot: 6.1.4.3.1; 6.6.6; **6.8.1**; 7.16
 Pre-Registered Points: **6.5.1.4**; 6.5.1.12.1 (Preregistered Point)

Q

Quickdraw: 7.54
 Quickmarch: 6.6.4.2

R

Range in Hexes: 3.5.1
 Range, Maximum: 3.5.2
 Range, Minimum: 5.1.3.1; **5.6**; 6.5.1.13; 6.6.10.1
 Rate of Fire, See AP Rate of Fire
 Recon Units: **5.9.2**; 6.2.1.1; 6.2.1.1.3 (Commanding Recon Units); 6.5.1; 6.5.1.1.2; 6.5.1.1.3, 7.43
 Removing Spot Counters: 7.41
 Roads: See Movement, Path & Road
 Rubble: see Terrain, Rubble
 Rule of 5s and 10s: **6.5.4.4.2**; 6.6.1.1.3

S

Sections (Leg Units): 1.7.1; 5.1; **5.1.2**; 5.14; 6.1.4.2; 6.1.4.3.1; 6.1.4.3.3; 6.1.4.3.4; 6.1.4.3.5; 6.1.4.3.6; 6.1.4.3.7; 6.1.3.4.9; 6.1.4.3.11; 6.5.2.6; 6.5.4.2.2; 6.5.4.2.3; 6.5.4.3 (Target Leg/Towed over Wall Hexside and Hasty Entrenchment); 6.5.4.4; 6.6.1.1; 6.6.1.2; 6.6.4.1; 6.6.4.2; 6.6.4.3; 6.6.4.4; 6.6.4.5; 6.6.7.1.1; 6.6.7.2; 6.6.8; 6.6.10; 7.14; 7.15; 7.18; 7.19
 SHEAF: 6.1.4.3.10; **6.5.1.5**; 6.5.1.6.1; 6.5.1.6.2; 6.5.1.7; 6.5.1.8.1; 6.5.1.8.2; 6.5.1.11.1; 6.5.1.12; 6.5.1.12.1 (Observer Hindered); 6.5.1.13; 6.5.2.4 (Smoke – Open/Closed SHEAF); 6.5.2.4 (Barrage – Open/Closed SHEAF); 6.5.4; 6.5.4.3 (Smoke – Open/Closed SHEAF); 6.5.4.3 (Barrage – Open/Closed SHEAF); 6.5.4.3 (IF Open SHEAF); 6.6.6; 7.9; 7.22.1; 7.27; 7.31.3.1; 7.35; 7.37
 Slopes: see Terrain, Slopes & Crests
 Small Arms: 5.1.3.1; 5.1.3.2; 5.1.3.3; 5.1.3.4; **5.7**; 6.1.3; 6.5.4.3 (Pinning Fire); 6.5.4.4.2; 6.5.4.4.3; 6.6.7.2; 6.7.3.2; 7.8.3; 7.18; 7.21; 7.22.1; 7.35.1
 Smoke: 5.11; 5.16.2; 6.1.4.3.10; 6.5.1.12 (Observer Hindered); 6.5.2.4 (Smoke – Open/Closed SHEAF); 6.5.4.3 (Smoke – Open/Closed SHEAF); 6.8.4
 Smoke, Brew-up: 4.1.4.1.8; **4.1.4.1.9**; 4.4.3.2.2 (Brew-Up Smoke); 4.4.3.2.6; 4.5.1.1.2; 6.5.1.12.1 (Observer Hindered); 6.5.4.3 (Brew-Up Smoke)
 Smoke, Direct Fire: 5.16.2; **6.1.4.3.10**; 6.5.1.5; 6.5.2.4 (Smoke – Open/Closed SHEAF); 6.5.4.3 (Smoke – Open/Closed SHEAF); 6.8.4
 Smoke, Dischargers: 6.5.2.4 (Smoke – Open/Closed SHEAF); 6.5.4.3 (Smoke – Open/Closed SHEAF); 6.8.4; **7.9**
 Smoke, Indirect Fire: **6.1.4.3.10**; 6.5.1.6.1; 6.5.1.8.1; 6.5.1.11.1; 6.5.1.11.4; 6.5.1.12.1 (Observer Hindered); 6.5.1.13; 6.5.2.4 (Smoke – Open/Closed SHEAF); 6.5.4.3 (Smoke – Open/Closed SHEAF); 6.8.4; 7.31.3.1
 Smoke, Infantry: 6.8.4; **7.22**
 Spotting: 3.8; **4.1**; 4.2 (Overwatch); 4.4.1; 4.4.2; 5.1.3.1; 5.1.3.2; 5.1.3.3; 5.1.3.4; **6.1**; 6.5.1; 6.5.4.2.2; 6.6.4.3; 6.6.7.2; 6.7.3.1; 6.7.4.1; 7.1.5.2; 7.2.2.1; 7.2.2.2; 7.4.1; 7.7; 7.8.3; 7.24; 7.27; 7.36.1
 Squads & Half-Squads (Leg Units): 1.7.1; 5.1; **5.1.1**; 5.14; 6.1.4.3.1; 6.1.4.3.3; 6.1.4.3.4; 6.1.4.3.5; 6.1.4.3.6; 6.1.4.3.7; 6.1.3.4.9; 6.1.4.3.11; 6.5.2.6; 6.5.4.2.2; 6.5.4.2.3; 6.5.4.3 (Target Leg/Towed over Wall Hexside and Hasty Entrenchment); 6.6.1.1; 6.6.1.1.2 (Vehicle in Unsupported Hex); 6.6.1.2; 6.6.4.1; 6.6.4.2; 6.6.4.3; 6.6.4.4; 6.6.4.5; 6.6.7.1.1; 6.6.7.2; 6.6.8; 6.6.10; 7.14; 7.15; 7.18; 7.19; 7.22; 7.31.2.2; 7.36.2
 Soviet Early War Communications: 7.5
 Special Units: 7.38
 Stacking: **3.8**; 4.1.3.2; 4.5.1.1.10; **5.13**; 6.2.1.1.3 (Commanding Vehicles on Roads and Paths); 7.30
 Stream: see Terrain, Gully, Ford & Stream

Suppression: **5.10**; 5.15; 6.2.1.1; 6.5.4.4; 6.5.4.5; 6.8.3; also see, Aircraft, Leg, Towed, and Vehicle Suppressed

T

Tank Fright: 7.6
 Terrain, Alley: **4.1.4.1.3**; 6.1.4.3.1; 6.6.3; 7.20; 7.31.1
 Terrain, Bridges: 3.6; 4.1.4.1.6; 4.5.1.1.6; 6.1.4.2; 6.1.4.3.9; 6.5.4.2.5; 6.5.4.4.3 (Bridge); 7.30; 7.31.1; 7.32
 Terrain, Block: **6.1.4.3.3**; 6.5.4.2.5; 6.5.4.4.3 (Blocks, Mines or Wire)
 Terrain, Non-Blocking: **4.1.4.1.1**; 4.1.4.1.6; 4.1.4.1.9; 6.1.4.3.5; 6.1.4.3.10
 Terrain, Blocking: **4.1.4.1.2**; 4.1.4.1.3; 4.1.4.3.4; 4.1.4.1.5; 4.1.4.1.7; 4.1.4.2.5; 4.1.4.2.6; 6.7.3.1.3
 Terrain, Buildings: 3.6; **4.1.4.1.3**; 6.1.4.1.2; 6.1.4.3.1; 6.1.4.3.5; 6.1.4.3.9; 6.5.4.3 (Target Vehicle in Medium or Heavy Cover); 6.5.4.2.5; 6.5.4.4.3 (Building); 6.6.3; 6.6.4.3; 6.6.10; 6.7.3.1.1; 6.7.3.1.2; 7.1.3; 7.19; 7.29; 7.30; 7.31.1; 7.35
 Terrain, Ditch: **6.1.4.3.4**; 7.31.1
 Terrain, GP Defense Factor: 6.5.4.2.5
 Terrain, GP Effective Result: 6.5.4.4.3; 7.19
 Terrain, Gully, Ford & Stream: 3.6; 4.1.4.1.1; **4.1.4.1.6**; 6.1.4.2; 6.1.4.3; 7.13.1; 7.31.1; 7.32; 7.34
 Terrain, Hasty Entrenchment: **6.1.4.3.6**; 6.5.4.3 (Hasty Entrenchment); **6.6.8**; 6.8.2
 Terrain, Hedgerow: 4.5.1.1.2 (Wall and Hedgerow Hexsides); 6.6.4.4; 6.6.4.5
 Terrain, Hills: **4.1.4.1.4**; 4.1.4.1.5
 Terrain, Improved Position: 6.1.4.1.2; **6.1.4.3.7**; 6.5.4.3 (Target Vehicle in Medium or Heavy Cover); 6.5.4.4.3 (Improved Position); 7.1.3; 7.31.1
 Terrain, Mines: **6.1.4.3.8**; 6.5.4.2.5; 6.5.4.4.3 (Blocks, Mines or Wire); **7.31**
 Terrain, On Fire: 3.6; 5.11; **6.1.4.3.5**; 6.5.2.4 (On Fire); 6.5.4.3 (On Fire); 6.5.4.4.3 (Building); **7.35**
 Terrain, Rubble: 6.1.4.3.5; **6.1.4.3.9**; 6.5.4.4.3 (Building, Bridge and Improved Position); 7.31.1; 7.35
 Terrain, Slope & Crests: **4.1.4.1.5**; 4.5.1.1.2
 Terrain, Time of Day & Weather Conditions: **7.36**
 Terrain, Walls: 4.5.1.1.2 (Wall and Hedgerow Hexsides); **6.1.4.3.2**; 6.5.4.3 (Target Leg/Towed DF over Wall Hexside); 6.6.4.4; 7.13.1
 Terrain, Wire: **6.1.4.3.11**; 6.5.4.2.5; 6.5.4.4.3 (Blocks, Mines or Wire)
 Terrain, Woods: **4.1.4.1.7**; 4.1.4.2.5; 6.7.3.1.1; 6.7.3.1.2; 6.7.3.1.3; 7.20; 7.30; 7.35.4
 Towed Units: **5.2**; 5.5; 5.13; 5.15; 5.16.2.4; 6.1.3; 6.1.3.2; 6.1.4.2; 6.1.4.3.1; 6.1.4.3.3; 6.1.4.3.4; 6.1.4.3.5; 6.1.4.3.6; 6.1.4.3.7; 6.1.3.4.9; 6.1.4.3.11; 6.5.2.6; 6.5.4.2.2; 6.5.4.2.3; 6.5.4.3 (Target Leg/Towed over Wall Hexside and Hasty Entrenchment); 6.5.4.4; 6.6.1.2; 6.6.4.1; 6.6.5; 6.6.7.1; 6.6.7.1.1; 6.6.8; 6.6.10; 6.7.4.1.2; 6.8.1; 7.14; 7.15; 7.18; 7.22; 7.30; 7.31.2.2; 7.34
 Towed, Facing: 5.5
 Towed, GP Defense Factor: **6.5.4.2.2**; 6.5.4.2.3
 Towed, GP Effective Result: **6.5.4.4.3**; **6.6.10.2**; 7.18; 7.31.2.2; 7.31.3
 Towed, Movement (Manhandling): 6.1.4.3.1; **6.6.5**
 Towed, Size: 6.1.3
 Towed, Suppressed: 6.1.3.1; 6.5.2.4 (Shooter Suppressed); 6.5.4.3 (Shooter Suppressed); 6.5.4.4.3; 6.6.1.2.3; 6.6.2; 6.6.7.1.1; 7.18; 7.31.2.2
 Track Hit: see Vehicle, Track Hit
 Transported Fire: 6.5.2.4 (Transported Fire); 6.5.4.3 (Transported Fire); **6.6.7.2**

Transporting: 1.8; 5.1.3.1; 5.1.3.2; 5.1.3.3; 5.1.3.4; 5.1.3.5; 5.15; 5.16.2.4; 6.1.3; 6.2.1.1; 6.5.2.4 (Transported Fire); 6.5.2.6.1; 6.5.2.6.2; 6.5.4.2.3; 6.5.4.3 (Transported Fire); 6.5.4.4; 6.5.4.5; 6.6.1.1.2 (Vehicle in Unsupported Hex); 6.6.4.1; 6.6.3; **6.6.7**; 7.9; 7.31.2.1; 7.36.3

Turrets: 7.8

U

Unattached Indirect Fire Unit: 6.5.1.1.2; 6.5.1.3.1; **6.5.1.3.3**; 7.28

V

Variable Track Damage: 7.21
 Vehicle, Armor: **4.4.3.2.5**; **6.5.2.3**
 Vehicle, Assault Cover: 7.49
 Vehicle, Brewed-Up: 4.1.4.1.8; 4.1.4.1.9; 4.2.1; 4.4.3.2.2 (Brew-Up Smoke); **4.4.3.2.6**; 4.5.1.1.2 (Brew-Up Smoke); 5.15; 5.16.2.4; 6.2.1.1; **6.5.2.5**; 6.5.2.6; 6.5.4.3 (Brew-Up Smoke); 6.5.4.4.2; 6.5.4.5; 6.6.1.1.3; 7.1.1.2; 7.1.2; 7.11; 7.34
 Vehicle, Collateral Damage: 7.23
 Vehicle, Damaged: 3.7; 7.56 (Hull & Turret Damage); 4.4.3.2.2 (Shooter Damaged); **4.4.3.2.6**; 4.5.1.1.1; 6.2.1.1; 6.5.1.12.1 (Observer Damaged); **6.5.2.5**; 6.5.2.6; 6.5.4.3 (Shooter Damaged); 6.5.4.4.2; 6.6.1.1.3; 6.6.2; 6.6.3; 6.6.10; 7.1.1.2; 7.1.4 (Suppressed or Damaged); 7.34
 Vehicle, Deck Hit: 6.5.2.2.2
 Vehicle, GP Defense Factor: 6.5.4.2.1
 Vehicle, GP Effective Result: 6.5.4.4.2; 6.6.1.1.3; 7.8.3; also see, Vehicle, Knocked Out and Vehicle, Brewed Up
 Vehicle, Facing: **3.3**; 4.5.1.1; 4.5.1.1.5
 Vehicle, Knocked-Out: 4.1.4.1.8; 4.2.1; **4.4.3.2.6**; 5.15; 5.16.2.4; 6.2.1.1; **6.5.2.5**; 6.5.2.6.2; 6.5.4.4.2; 6.5.4.5; 6.6.1.1.3; 7.1.1.2; 7.11; 7.34
 Vehicle, Movement Buildings: **6.6.3**; 6.6.10
 Vehicle, Movement: 1.7.1; **4.5.1**; 6.1.4.3.1; 6.1.4.3.3; 6.1.4.3.4; 6.1.4.3.5; 6.1.4.3.8; 6.1.4.3.11; 6.2.1.1.4; 6.5.2.2.1; 6.6.2; 6.6.3; 6.6.9; 6.6.10; 7.1.5.2; 7.2.2.2; 7.20; 7.23.4; 7.29; 7.30; 7.33; 7.34; 7.36
 Vehicle, No Damage: **4.4.3.2.5**; 5.15; **6.5.2.5**; 6.5.2.6.1; 6.5.2.6.2; 7.23
 Vehicle, Suppressed: 5.14; 6.1.3.1; 6.5.2.4 (Shooter Suppressed); 6.5.2.5 (BU – Brew Up); 6.5.4.3 (Shooter Suppressed); 6.5.4.4.2; 6.6.1.1.2 (Vs. Suppressed Vehicle); 6.6.1.1.3; 6.6.2; 6.6.7.1.1; 6.6.10; 6.6.10.2; 7.1.4 (Suppressed or Damaged)
 Vehicle, Reverse Moves: **4.5.1.1.7**; 7.33
 Vehicle, Searching for Hull Down: **6.6.9**; 7.29
 Vehicle, Size: 4.1.3.1; 4.4.3.2.2 (Target Size); 6.5.1.12.1 (Observer Heat Haze); 6.5.2.4 (Heat Haze); 6.5.4.3 (Heat Haze); 6.6.9
 Vehicle, Track Hit: 5.15; 6.1.4.3.1; **6.5.2.2.1**; 6.5.2.6; 6.5.4.4.2; 6.6.3; 7.21; 7.34
 Vehicle, Turning: 4.5.1.1.3; **4.5.1.1.4**

W

Wall: see Terrain, Walls

Weapon Malfunction: 7.25

Weight Limitations: 7.32

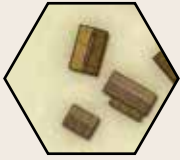
Wire: see Terrain, Wire

Without Radio Sets: **7.4**; 7.23.2

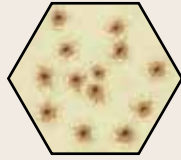
Woods: see Terrain, Woods

Wrecks: **4.1.4.1.8**; 4.4.3.2.6; 4.5.1.1.5; 6.5.2.5; 7.30; 7.35.2

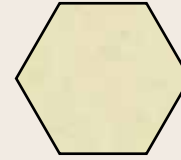
Terrain Key



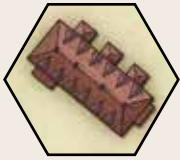
Wooden buildings



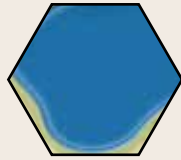
Shellholes



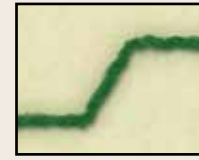
Clear



Brick building



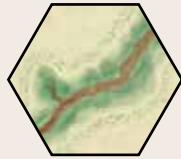
Water



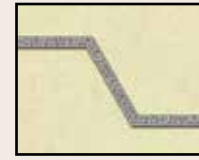
Hedgerow



Stone building



Gully



Wall



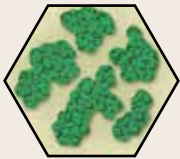
Heavy Woods



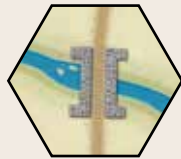
Stream



Crest



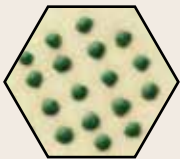
Woods



Bridge



Slopes



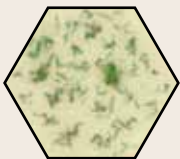
Light Woods



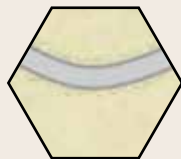
Ford



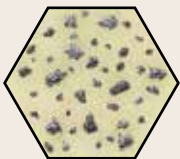
Hill



Scrub



Road



Rough



Path



GMT Games, LLC

P.O. Box 1308, Hanford, CA 93232-1308

www.GMTGames.com