



AIR & ARMOR WÜRZBURG

Tactical Armored Warfare in Europe



RULE BOOK



Compass Games
New Directions in Gaming

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[1.0] INTRODUCTION

Design Note: This “Living Rules” document updates the Air & Armor: Würzburg Rules Booklet to the same standard as the subsequent games in the series. A player who plays this game using the original rules will be playing the game correctly with only the following material exceptions:

- WP Lead Unit Markers are not placed on the map during the WP Planning Phase, but rather during the Commitment Segment of the Activation Cycle for each individual WP division (see 12.3.2).*
- Leg and motorized infantry units cannot participate in Hasty Attack operations (see 13.3.1).*
- HQ and artillery units, **only**, that are currently on the map can enter or re-enter an Offmap Display from any friendly map edge (see 46.3.1) by expending a number of MPs equal to the Movement Cost of the map-edge hex they occupy (see 40.4).*
- Close Attacks are now a variant of an Assault operation, not a Hasty Attack operation (see 44.0). Defending armor units are always halved and defending artillery units always quartered when executing any fire during an enemy Close Attack.*
- The DRMs for making a Reconnaissance Attempt against a hex containing an obstacle or minefield do not apply if the only enemy unit in the hex is the engineer unit that created that obstacle or minefield.*
- A special -2 DRM applies on the Reconnaissance Table when the WP player is attempting to acquire a hex occupied solely by cavalry units (M1 or M3) from the 2/11ACR.*
- A DRM of -1 applies when rolling on the Revelation Table for a Shattered unit.*

The remainder of the changes in this document either improve the clarity of an existing rule or indicate what happens in certain edge cases that were not covered in the original rules. All material changes have been indicated in red to make it easy for you to pick out what has changed. To shorten the document, no Examples of Play are included (they have not changed from the printed Rule Book).

Welcome to the Designer’s Signature Edition of Bruce Maxwell’s **Air & Armor**, originally published in 1986 when the Cold War still threatened to turn hot at any moment. It was a dark era, with each Alliance expecting the worst from the other and paranoia running high. The world saw the most extended arms race since the Romans decided to challenge the Carthaginians for control of the Mediterranean. The quantity of war materiel each side amassed was truly staggering. In the end, the effort bankrupted the Soviet Union and led to its collapse. Thankfully, it ended with a whimper, not a bang. This game examines what might have happened had it ended with a bang.

[1.1] GAME SETTING

The **Air & Armor** series presents a grand tactical simulation of the opening days of a surprise attack on Western Europe by the forces of the Warsaw Pact (abbreviated as WP in the rest of these rules), set in the 1986-1989 time frame. Each game in the series covers part or all of the sector defended by a NATO Corps. This game, **Air & Armor: Würzburg**, covers a slice of the US VII Corp sector around the West German cities of Schweinfurt and Würzburg, where the US 3rd Infantry Division was stationed close to the border with East Germany. Although less famous than the Fulda Gap, the area around Würzburg provides a straight run of relatively open terrain all the way to Stuttgart. A thrust along this axis would have severed Bavaria from the rest of West Germany and trapped NATO's VII and II Corps against the oncoming juggernaut of the Czech Front. Such a thrust would have been a smart move for the Soviets, who were expected further north at Fulda where the terrain is much rougher.

[1.2] GAME ARCHITECTURE

Air & Armor is an asymmetrical game. The two sides command and maneuver their forces in fundamentally different ways, reflecting their differences in doctrine and command structure. The WP player controls tremendous firepower but must wield this firepower within a rigid command system based on preplanned operations. The NATO player is outnumbered but possesses the flexibility to be at the right place, at the right time, if he can figure out where that is. A player wins by playing to his unique advantages and minimizing his disadvantages. Twelve separate scenarios are included. Each scenario depicts a unique battle. The game can be played by just one player (it features strong solitaire rules) or by as many as seven players in the ultimate scenario.

[1.3] LEARNING THIS GAME

Great care has been put into making sure that these rules guide you every step of the way. Similar to our Charles S. Roberts award-winning design, *NATO: The Cold War Goes Hot*, these rules are intended to cover not just the primary rules of the game, but also how each rule interacts with the other rules, so you are never in doubt as to what should happen. **The key to absorbing this breadth of rules is not to try to remember them all, but rather to rely on the Sequence of Play and the Charts and Tables to provide you with a clear path for exercising all game functions in a logical order.** Indeed, most of the complexity in this game has been embedded in the charts and tables, not in the rules. The rules are here only to provide you with an overall framework and then, when you drill down, with a detailed reference manual to answer any questions you might have about a specific game function. **To break up the effort of learning the rules and to start playing as quickly as possible, we encourage the following approach. Skim the rules up to Case 23.0 and then stop.** Skip to Case 31, Shatter, then skip to Case 46.0, Scenario Play (or to Case 45.0, Hidden Mode Play, if you want to play solitaire), after which set up and play the introductory scenario, Thermopylae, Case 47.1. Replay this scenario until you feel that you have mastered the basic mechanics of the game. Then read the remaining rules starting with Case 24.0 and play Thermopylae again with the full rule set. Once you are comfortable with this scenario, you will be ready to tackle the other 11 scenarios provided for your gaming pleasure. Also, because a picture is worth a thousand words, please take advantage of the video tutorials for this game by scanning the QR code below or visiting the link.

[2.0] GAME COMPONENTS

[2.1] GAME INVENTORY

Your copy of **Air & Armor: Würzburg** includes:

- One Rule Book
- One Play Book
- Two 22" x 34" Maps that fit together with a small overlap (use paper clips to connect them securely during play)
- Six Counter Sheets, each containing 228 counters
- Two identical Charts & Tables Booklets
- Two identical sets of Sequences Cards (**Cards 1 and 2**)
- Two 8.5" x 11" WP TO&E Cards (one is printed front and back)
- One 8.5" x 11" NATO TO&E Card (US/Canadian printed on one side and West German printed on the other)
- One 8.5" x 11" WP Tracks Card
- One 8.5" x 11" NATO Tracks Card
- One 8.5" x 11" WP Planning Card
- One 8.5" x 11" WP Pool Card
- One 8.5" x 11" NATO Pool Card

- Two 10-Sided Dice (one red and one blue)

If any parts are damaged or missing, please contact:

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You can also use the URL or QR code to reach Compass Games online: <https://linktr.ee/compassgames>

[2.2] GAME MAP

The game map consists of two separate map sheets (Map A and Map B). Some scenarios are played using just a single map sheet, and some require both map sheets. When a scenario requires both map sheets, they should be overlaid to display an unbroken sequence of numbered hex rows and then paper clipped together. The area depicted on these map sheets represents the terrain in West Germany from the East German (DDR) Border to the environs of Würzburg. WP units that exit off the southern map edge are 60 miles deep into West Germany and just 60 miles from the Rhine.

[2.2.1] Hex Terrain. The map is divided into hexagons (hexes) that regulate unit location and movement across the game map. Each hex contains symbols for the type of terrain in that area. Terrain types falls into three general classes: 1) the primary terrain inside the hex, 2) terrain running along a hexside, and 3) roads. Each type of terrain has a unique graphic symbol used on the map. Refer to the Terrain Key printed on the map for the association between the symbol and the terrain type. Each type of terrain has different effects on movement and combat. These effects are summarized on the Terrain Effects Chart and the Fire Effects Chart found in the Charts & Tables Booklets. Generally, a hex has only one type of primary terrain inside of it. Where a hex shows the symbols for both Light Woods and Heavy Woods, the primary terrain is always Heavy Woods.

[2.2.2] Offmap Display. Also printed on each side of each map section is an Offmap Display containing two Heavy Woods hex rows, one labelled “FIVE hexes offmap” and one labelled “TEN hexes offmap.” These boxes are used for offmap participation (see 40.1).

[2.2.3] Compass Roses. There are three compass roses printed on the map. One is the logo for Compass Games (under the **Air & Armor** title on Map B). The other two (one on the corner of each map sheet) are the compass roses for the game map. These two compass roses indicate which map edges are north, south, east, and west. The scenario instructions for entering reinforcements and for earning Victory Points will reference these specific map edges.

[2.3] BOOKLETS

[2.3.1] Rule Book. The Rule Book you are reading contains the rules by which this game is played. Game rules are numbered and presented in major sections, termed “Cases,” each covering a specific topic. Each section is further divided into subordinate Cases and Sub-Cases using a decimal numbering system. The rules cross-reference other rules using this decimal system. For example, you will see a rule that states, “*A force executing a Reserve operation cannot enter or traverse a hex adjacent to an enemy unit unless the hex is protected (see 16.3).*” This indicates that Case 16.3 provides more information about how a hex is protected. The rules for this game have been arranged both for ease of comprehension on first reading and for ease of reference later, which means that some rules are repeated in multiple places where you might logically look for them.

[2.3.2] Play Book. The Play Book contains the setup and play instructions for the 12 scenarios that come with this game. It contains Play Notes providing tips for effective play and Designer and Developer Notes providing context for the architecture of the game system. It also contains TO&E Notes detailing the major weapons systems found in each unit in the game. Finally, it contains a complete index for rapidly finding a rule.

[2.3.3] Charts & Tables Booklets. Most functions in the game are regulated by the various charts and tables printed in the two identical Charts & Tables Booklets that come with this game. A chart summarizes effects, relationships, or rules. A table determines the outcome of a player action based on a die roll. The use of each chart or table is explained in the chart or table itself and also in the section of the rules referenced in the title of that chart or table.

[2.4] CARDS

Each player has a set of 8.5” x 11” cards containing critical game information.

[2.4.1] Sequences Cards. Most game play is organized into sequences and cycles that describe how play proceeds within the overall Sequence of Play. All sequences and cycles are printed on the two Sequences Cards. Each player has an identical set of these Sequences Cards.

[2.4.2] TO&E Cards. The WP player has two 8.5" x 11" TO&E (Tables of Organization & Equipment) Cards, and the NATO player has one 8.5" x 11" TO&E Card. Each card is printed front and back except for one WP card. The TO&E Cards show the Unit Counters and steps associated with each formation. This information is used to assemble units for play (see 11.0).

[2.4.3] Tracks Cards. Each player has an 8.5" x 11" Tracks Card containing tracks for the game resources he controls.

[2.4.4] Pool Cards. Each player has an 8.5" x 11" Pool Card used to track his step pools for Hidden Mode play (see 45.0).

[2.4.5] WP Planning Card. The WP player has an 8.5" x 11" Warsaw Pact Planning Card that he uses to plan the operations for each of the regiments he has in play.

[2.5] COUNTERS

The playing pieces for this game, called "counters", can be found in the six pre-cut Counter Sheets included with the game. These counters should be separated from their Counter Sheets. There are three general categories of counters:

8. Unit Counters (see 4.0)
9. Step Markers (see 5.0)
10. Game Markers (see 6.0)

Unit Counters represent the combat arms for each formation. Step Markers indicate the number of companies under a Unit Counter (a company is roughly 150 soldiers and 15-20 vehicles). Game Markers are used to track the status of units on the map, events on the map, and to keep track of player resources on the various tracks provided for this game.

[2.5.1] Counter Storage. To speed game setup, it is recommended that WP Unit Counters be organized and stored by division, with a separate pool for all 8th Guards Army units (red color stripe). It is recommended that NATO Unit Counters be organized and stored by brigade, with separate pools for each NATO division base and the US VII corps base. Game Markers should be stored separately by type, except that all markers of the same national color should be stored together.

[2.6] DICE

The game comes with two ten-sided dice. For all game purposes, a "0" result is treated as a "10" result.

[2.7] GAME SCALE

Each hex on the map is one mile across. The map depicts an area 34 miles wide and 60 miles long. Each Day Game Turn represents two hours of combat. Each Night Game Turn represents six hours of combat. Each step in a ground unit represents a reinforced company. Each step in an air or helicopter unit represents a single flight (typically four machines).

[3.0] GLOSSARY

Design Note: Even veteran gamers should read this section.

The terms listed below are the building blocks used to assemble the game system for **Air & Armor**. There is no need to memorize this list, but when you hit a term that you want to understand better, please return to this section for a definition. This glossary saves a lot of repetition in each rules section.

4 CMBG: 4 Canadian Mechanized Brigade Group

ACR: Armored Cavalry Regiment (see 41.1)

Activation Cycle: The sub-turn in which one WP division or NATO brigade conducts its movement and fire (see 10.0)

Active: A unit is active when it participates in an Activation Cycle (see 10.0)

AD: Armored Division

ADM: Air or Artillery Delivered Mine (see 23.5)

AH: Attack Helicopter (see 25.0)

Air Call: The expenditure of Air Points to call an air unit to execute a strike (see 24.2)

Airborne Unit: A unit eligible to paradrop (see 29.1)

Airmobile Unit: A unit eligible to use helicopter transport (see 29.1)

Amphibious Crossing: A special type of movement across an unbridged Major River hexside that only WP motor rifle regiments can use (see 17.5)

APC: Armored Personnel Carrier

Army: A WP parent formation consisting of four tank divisions (a tank army) or four motor rifle divisions and one tank division (a combined arms army). The 8th Guards Army (a combined arms army) is the only army depicted in this game.

Army Base: A primary formation consisting of all HQ, artillery, and engineer units attached directly to the same WP army (see 7.1). The 8th Guards Army Base comprises all units that bear a crimson color stripe with a Unit Designation ending in “/8GA” **except** the 119th Independent Tank Regiment and the 900th Air Assault Battalion, which are independent formations (see 12.5.3).

Artillery Pool: The set of artillery units that could respond to a Fire Call (see 21.2) from an HQ to fire on a target using Indirect Fire (see 22.3). Generally, this set includes all artillery units in the calling HQ’s own formation and any other formations in its chain of command (see 7.0).

Base Formation: A primary formation consisting of all HQ, artillery, and engineer units belonging to the same parent formation (a division, corps, army, or front). A specific base formation comprises all units that bear the same Unit Counter color, color stripe, and parent formation designation (the part of their Unit Designation after the slash, see 4.1.1.1).

Base Unit: Any unit belonging to a base formation

Brigade: A primary formation. For NATO, a brigade comprises all units that bear the same Unit Counter color, Brigade Color Stripe, and Brigade Designation (the number before the slash in their Unit Designation, see 4.1.1.1). NATO activates by brigade. The WP player has one brigade, the 35th Guards Air Assault Brigade, which is treated in all ways as a WP division (see 29.2.1).

Bundeswehr: The West German army

Cavalry Unit: Any maneuver unit belonging to a US armored cavalry squadron (see 41.1)

Chain of Command: A hierarchy defining the formations to which a given formation is superior or subordinate (see 7.0)

Civil Bridge: Any river hexside on the map crossed by a road (see 17.3)

Close Terrain: Any hex bearing a graphic symbol for Heavy Woods, Town, or City (see the Terrain Key on the map)

Contamination: A state that occurs when a unit in a Gas Zone fails a Contamination Check (see 44.4)

CONUS: Continental United States

Corps: A NATO parent formation consisting of two to five divisions. The US VII Corps is the only corps in this game.

Corps Base: A primary formation consisting of all HQ, artillery, and engineer units attached directly to the same NATO corps (see 7.2.3). The VII Corps Base comprises the units of the 72nd Field Artillery Brigade and the 9th Combat Engineer Battalion (see 12.8.2).

Counter-Battery Fire Strike: A specialized Fire Strike by a friendly artillery unit used to counterattack an enemy artillery unit during a Counter-Battery Fire Cycle (see 23.4)

CRT: Combat Results Table. The CRT is used to determine the outcome of a fire combat (see 18.0) or Fire Strike (see 23.1).

CSP: Combat Support Points. CSPs are player resources including Air, Mine, ADM, Bridging, Persistent Gas and Non-Persistent Gas Points. CSP balances are tracked on each player’s Combat Support Points Track printed on his Tracks Card (see 46.4).

DAG: Divisional Artillery Group. The DAG is the single tube artillery unit in each WP division (see 4.1.2.4). A DAG is the only WP artillery unit that can provide fire support during the Defensive Fire Step of an enemy operation (see 22.4.1).

DDR: Deutsche Demokratische Republik. The DDR was the communist name for East Germany.

Defensive Fire: A form of fire combat executed against enemy units that are adjacent to friendly units during an enemy operation (see 18.7)

Direct Fire: Fire by an artillery unit on an adjacent hex (see 22.1)

Disruption: A state of suppression or disorganization inflicted on a unit by an enemy Fire Strike (see 23.3)

Division: A parent formation. For the WP, a division comprises four regiments and a division base. For NATO, a division comprises three or four brigades and a division base. All units in a division share a common color for their Unit Counter (but **not** the same color stripe) and bear the same Division Designation (the number after the slash in their Unit Designation, see 4.1.1.1).

Division Base: A primary formation consisting of all HQ, artillery, and engineer units sharing the same color stripe, the same color for their Unit Counter, and the same Division Designation (the number after the slash in their Unit Designations, see 4.1.1.1)

DRM: Die Roll Modifier. A DRM is a number that is added to the original die result to reflect special factors.

DTB: Divisional Tank Battalion. The DTB is the final reserve of a Soviet motor rifle division comprising a tank battalion of three to five steps (see 4.1.1.8). The DTB is treated like a regiment for all purposes. **Exceptions:** see 14.3.1, #1 and 19.2.

Dummy Unit: A unit bearing a Dummy Step Marker (see 11.3). Dummy units are immediately removed from the map when they are revealed to the opposing player.

Echelon: A unique command level in a chain of command (see 7.0)

EG: East German

Engineering Action: The construction or removal of an engineering feature by an unused engineer unit during the Engineering Phase (see 33.0)

EW: Electronic Warfare. EW comprises the detection of enemy assets by signals intelligence and radio direction finding and the neutralization of those assets by frequency jamming (see 39.0)

EZOC: Enemy Zone of Control (see 15.0)

FA: Field Artillery

FEC: Fire Effects Chart. The FEC is found in the Charts & Tables Booklets and details how the Fire Strengths of units interact with terrain and other conditions.

Ferry Crossing: A special type of movement in which an engineer unit ferries up to three friendly steps across a Major River hexside (see 17.4)

Fire Call: A call made by an HQ unit to friendly fire support assets to participate in a fire combat or strike (see 21.2)

Fire Combat: An attack on a target hex conducted **during an operation** (see 18.0)

Fire Strike: An attack on a target hex conducted **during the Strike Segment** of an Activation Cycle solely by friendly air, helicopter, or artillery units using their Attack Strengths for effect, as opposed to a special munition (see 23.1)

Fire Support Asset: Any artillery, attack helicopter, or air unit (see 21.1)

Flak Fire: A form of anti-aircraft fire used against enemy air and helicopter units operating at low altitude (see 27.2)

Force: All units participating in the current operation (which can be an enemy operation if the force is retreating or reacting) that 1) start together in a hex and then move together or 2) have converged or split in the same hex and are now moving together

Formation: A set of units belonging to the same command structure (see 7.0). A formation can be a **primary** formation (a regiment, brigade, or base) or a **parent** formation (a division, corps, army or front) comprising multiple primary formations.

Friendly Map Edge: The northern map edge is friendly to the WP player and the southern map edge is friendly to the NATO player. Any other map-edge hexes that a friendly reinforcement unit is allowed to enter on are also considered friendly. Note that in a one map scenario, the northern or southern map edge will be different from a two-map scenario.

Front: A WP parent formation consisting of two combined arms armies and one tank army. No front appears in this game.

Front Base: A primary formation comprising various artillery and engineer units attached directly to a front.

Gas Zone: The hex targeted by a Gas Strike and the six adjacent hexes (see 44.3). A Gas Zone is always marked with a Gas Zone Marker.

GT: Game Turn

Hidden Mode: A mode of play in which the step strengths of all maneuver units are unknown to **both** players until contact is made with the enemy (see 45.0). This mode supports solitaire play and also works well for two opponents who want to experience the full “fog of war.”

HQ: Headquarters unit (see 4.1.4 and 30.0)

ID: Infantry Division

IFV: Infantry Fighting Vehicle

Independent Regiments: Regiments and airmobile battalions that are attached directly to a WP army or front. These regiments are **not** considered to be part of the army or front base, but rather must be attached to a division once they appear (see 12.5.3).

Indirect Fire: A form of fire only an artillery unit can execute that allows it to participate in a fire combat or strike against a target hex that is **not** adjacent to the firing artillery unit (see 22.2)

Infiltration Fire: A form of fire combat triggered when an enemy unit attempts to bypass a friendly unit by moving directly from one ZOC hex (see 15.0) to another, or by moving both into and out of the same ZOC hex in a single move (see 18.6)

Inner German Border: The border separating East Germany from West Germany (see the Terrain Key on Map Sheet C)

Interrupt Action: An action or procedure that temporarily interrupts the normal sequence of play (see 13.8)

Jamming Attempt: an attempt to degrade a target’s access to fire support and reaction by jamming its radio links (see 39.2)

LOC: Line of Communication. A continuous path of hexes connecting a hex to a friendly map edge (see 46.7.6).

Maneuver Unit: Any tank, armored cavalry, anti-armor, or mechanized, motorized, or leg infantry unit (see 4.1.1)

Military Bridge: A bridge built across a river hexside during play by an engineer unit using a Bridging Point (see 34.0)

Motor Rifle: A Russian term referring to motorized or mechanized infantry

MRD: Motor Rifle Division

MRR: Motor Rifle Regiment

Nationality: Formations have nationality as indicated on the TO&E Cards. Units belonging to different NATO nationalities cannot share certain resources. However, all WP nationalities have equal access to all WP resources.

NATO: North Atlantic Treaty Organization

Objective Hex: The designated target hex for a Hasty Attack or Assault operation (see 13.5)

Observer: A unit adjacent to a target hex that is within Command Range and in the chain of command of the HQ making a Fire Call against that hex (see 21.3)

Offensive Fire: A form of fire combat used to attack the Objective hex of an operation (see 18.8)

Offensive Operation: A Hasty Attack or Assault operation (the only operations that allow Offensive Fire, see 13.3 and 13.4)

Open Mode: A mode of play in which the step strengths of all maneuver units are known to the owning player (see 8.5)

Operation: The movement and fire of one or more WP regiments or NATO task forces (see 13.0)

PBEM: Play By E-Mail (see 46.9)

Reaction: The movement of a force into an Objective hex to reinforce it during an enemy operation (see 19.0)

Real Unit: A unit containing at least one step

Reconnaissance Attempt: The expenditure of a Reconnaissance Point from an HQ to attempt to discover what enemy units occupy a specific hex (see 20.0)

Regiment: A primary WP formation generally consisting of three units sharing the same Regimental Color Stripe and nine steps (see 11.1.3)

Retreat Fire: A form of fire combat used to attack enemy units that have retreated into the ZOC of a friendly unit (see 18.9)

SAM Fire: A form of anti-aircraft fire used against air units operating at high altitude (see 27.1)

Spotter: A maneuver unit used to establish the range to a hex for a Reconnaissance Attempt (see 20.2) or Counter-Battery Acquisition Attempt (see 23.4)

Squadron: A heavy battalion in a US armored cavalry regiment that is treated in all ways as a NATO brigade in this game

Stack: The set of all units located in the same hex

Step: The basic increment used to regulate the size of a unit, generally equal to a reinforced company (see 5.0)

Strike: An attack on a target hex conducted solely by friendly air, helicopter, or artillery units **during the Strike Segment** of an Activation Cycle (see 23.0). Types of strikes include Fire (see 23.1), ADM (see 23.5), and Gas (see 44.2). A fourth type of strike, called a Counter-Battery Fire Strike (see 23.4), can occur any time an enemy artillery unit fires.

Task Force: The primary maneuver element of a NATO brigade, consisting of any set of maneuver units totaling four steps or less, plus any eligible engineer units, all within three hexes of the lead unit for that task force (see 12.6)

TD: Tank Division

TEC: Terrain Effects Chart. The TEC is found in the Charts & Tables Booklets and details how the movement and Defense Strength of units interact with the terrain in each hex.

TO&E: Table of Organization & Equipment

TR: Tank Regiment

Unit: A playing piece in this game consisting of a Unit Counter and a Step Marker (see 11.0)

Unused: A unit that has not yet performed an operation in the current turn. Units always start each turn on their unused sides (the side showing **black** Attack and Defense Strengths on their Unit Counters).

US: United States

Used: A unit that has already performed an operation in the current turn. Used units are flipped to their back side (the side showing **white** Attack and Defense Strengths).

Vassal: A free software program that allows **Air & Armor** to be played online (see 46.9)

VP: Victory Point. A point earned for a game achievement that contributes towards winning the game (see 46.7).

WG: West German

WP: Warsaw Pact

ZOC: The six hexes surrounding a unit, **except** hexes that contain Close Terrain (see 15.0)

[4.0] UNIT COUNTERS

A “unit” is the basic playing piece in the game. A unit generally consists of two counters: 1) a Unit Counter showing the unit values for that unit type and 2) a Step Marker placed underneath the Unit Counter to indicate the size of the unit. There are three general categories of units in this game:

1. **Ground Units:** Units composed of soldiers and vehicles that must use ground movement to maneuver through the terrain on the map to reach their objectives
2. **Helicopter Units:** Units composed of attack or utility helicopters that enter from the Ready Box on the offmap Helicopter Track, fly over the terrain on the map, perform their mission, and then fly back offmap to the Helicopter Track to rearm and refuel before they return for another mission
3. **Air Units:** Units composed of aircraft that enter from offmap, perform their mission, and then fly offmap, never to be seen again

[4.1] GROUND UNITS

There are four general categories of ground units depicted in this game:

1. Maneuver units (tank, armored cavalry, anti-armor, and various types of infantry)
2. Artillery units (self-propelled, towed, and rocket)
3. Engineer units
4. HQ units (brigade and division)

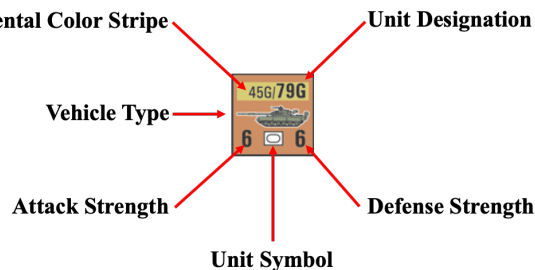
The following rules describe how to identify these units and how to read the unit values printed on their Unit Counters.

[4.1.1] Maneuver Units. Maneuver units are the primary workhorses of the game. Their fundamental properties are that they move using ground movement (see 16.0) and they can attack enemy units in adjacent hexes (see 18.0). **Maneuver units can participate in any type of operation (see 13.0).** There are two basic types of maneuver units, each of which interact with terrain quite differently (see the TEC and FEC found in the Charts & Tables Booklets):

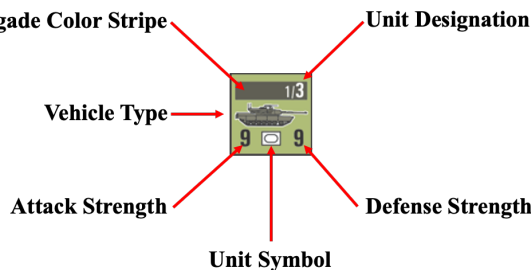
1. Armored units (tank, armored cavalry, and anti-armor)
2. Infantry units (mechanized infantry, motorized infantry, and leg infantry)

As a special case, certain maneuver units are classified as “airmobile” or “airborne,” allowing them to employ air movement (see 29.0). The following diagrams show the types of information printed on the Unit Counters for maneuver units:

Typical WP Maneuver Unit Counter:



Typical NATO Maneuver Unit Counter:



[4.1.1.1] Unit Designation. A Unit Designation usually comes in two parts. The first part, in smaller font and before the slash, is the Formation Designation, which indicates the regiment or brigade to which the unit belongs. The second part, in larger font and after the slash, is the Division Designation, which indicates the division to which the unit belongs. NATO’s 4 Canadian Mechanized Brigade Group, 54th HSB, and 26th Luftlande brigades have no parent division in the game and thus their units lack a Division

Designation. For base units belonging to the WP 8th Guards Army or NATO VII Corps, the number before the slash is the unit number and the number after the slash will be “8GA”, “VII”, or “72” (the 72nd FA Brigade is an entire artillery formation belonging to VII Corps).













[4.1.1.2] Color Stripe. For WP units, any color stripe that is not white is always associated with a unique regiment **within** a division (meaning that the same color stripe can also be used to indicate a unique regiment within other divisions as well). **Exception:** If the color stripe is crimson, the WP unit belongs to the 8th Guards Army Base or to an independent regiment (see 12.5.3). The three Unit Counters that belong to each regiment all bear the same color stripe, making them easy to pick out and maneuver when the regiment executes an operation. If the color stripe is white, the WP unit belongs to a division base. For NATO units, any color stripe that is not white is always associated with a unique brigade. All units that belong to a brigade will bear the same color stripe. If the color stripe is white, then the unit belongs to a NATO division base or corps base.

[4.1.1.3] Vehicle Type. This is a picture of the main type of vehicle in the unit. For instance, if a unit is primarily equipped with T-80 tanks, the Vehicle Type will show a picture of a T-80. Leg infantry units (units that can move only one hex a turn, see 29.3.1) and HQ units have no Vehicle Type. See 51.0 for a more detailed description of each ground unit including its main Vehicle Type.

[4.1.1.4] Attack Strength. A unit’s Attack Strength quantifies its basic power to destroy enemy units. A unit’s Attack Strength is multiplied by the number of steps it contains to arrive at its Basic Fire Strength (see Fire Combat, 18.0).

[4.1.1.5] Defense Strength. A unit’s Defense Strength quantifies its basic ability to withstand enemy fire. A unit absorbs Hits from enemy fire in increments equal to its Defense Strength, adjusted for any terrain effects. For each increment it absorbs, a unit loses one step.

[4.1.1.6] Unit Symbol. This is the NATO Symbol (a system of symbols used by the NATO alliance) for the type of unit represented by each Unit Counter. Unit Symbols include:

-  Airborne Infantry (Leg Infantry, see 29.3.1)
-  Anti-Armor
-  Armor
-  Armored Cavalry
-  Armored Anti-Armor
-  Engineer
-  HQ
-  Motorized Infantry
-  Mechanized Infantry
-  Rocket Artillery (not shown on the Unit Counter, but used on the Terrain Effects Chart) *
-  Self-Propelled Artillery (not shown on the Unit Counter, but used on the Terrain Effects Chart) *
-  Towed Artillery (not shown on the Unit Counter, but used on the Terrain Effects Chart) *

* Artillery units do not bear a Unit Symbol because this space is needed for their Range (see 4.1.2). However, artillery Unit Symbols are used on the Fire Effects and Terrain Effects Charts to identify the columns that apply to these types of units. Note that the TO&E Charts show each individual artillery unit and indicate its type through the color used for the number of steps it contains (green for rocket artillery, black for self-propelled artillery, and red for towed artillery).

The Unit Symbol is used to determine how a unit’s Attack and Defense Strengths are modified by terrain and other effects. The Terrain Effects Chart (TEC) and the Fire Effects Chart (FEC) have different columns for each Unit Symbol. Airborne infantry and HQ units, which have no Vehicle Type, show their Unit Symbol where their Vehicle Type would normally be located.

[4.1.1.7] The DTB. Each Soviet motor rifle division (see 7.1.2) has a Divisional Tank Battalion (DTB) as depicted below:

27G



39G



57G



This formation is treated exactly like a regiment for all purposes **except** that it can stack (see 14.0) with any other units of its own division and can react (see 19.0) into a hex containing any other units of its own division. Note that the East German 4th Motor Rifle Division does **not** have a DTB (see 4.5).

[4.1.2] Artillery Units. Like maneuver units, artillery units can attack enemy units in adjacent hexes but just defensively because **Artillery units can only participate in March Operations** (see 13.3). **Exception:** Rocket artillery units cannot attack adjacent hexes (see 22.7). However, unlike maneuver units, artillery units can also attack enemy units that are located any number of hexes distant up to the limit of their Range and this ranged fire, termed “Indirect Fire,” can be conducted offensively. Artillery units fall into two broad categories: tube and rocket. Tube artillery units include two sub-types: 1) self-propelled artillery and 2) towed artillery. An artillery unit’s type impacts its susceptibility to Counter Battery Fire (see 23.4). The following pictures show examples of each type of artillery unit:

Self-Propelled Artillery

Towed Artillery

Rocket Artillery



Range



Range



Range

Other than Range, all unit values on an artillery unit function identically to the same unit values on a maneuver unit.

[4.1.2.1] Self-Propelled Artillery. Self-propelled artillery units can displace quickly from their firing sites and thus are less likely to be hit by enemy Counter-Battery Fire (see 23.4). All self-propelled units show a picture of their Vehicle Type. The following pictures show all self-propelled artillery units found in this game:

US M110



US M109



WG M110



WG M109



Canadian M109



Soviet 2S3



Soviet 2S7



[4.1.2.2] Towed Artillery. Towed artillery units show a picture of their primary artillery piece instead of a Vehicle Type. Towed artillery units cannot fire and then quickly displace, which leaves them more likely to be hit by enemy Counter-Battery Fire (see 23.4). The following pictures show all towed artillery units found in this game:

EG D-30/D-20



Msta-B



D-20



FH70



M101A1



120mm Mortar



[4.1.2.3] Rocket Artillery Units. Like tube artillery units, rocket artillery units can attack target hexes any number of hexes distant up to the limit of their Range. Unlike tube artillery units, rocket artillery units **cannot** fire at targets in adjacent hexes (the arming distance is too short), which means that they have no ZOC (see 15.0) and the only form of combat they can participate in is a strike (see 23.0). However, rocket artillery units can truly “shoot and scoot,” making them difficult to hit with Counter-Battery Fire. The following pictures show all types of rocket artillery units found in this game:

Rocket Artillery Units:

WP BM-27



WP BM-21



WP BM-21V



US MLRS



WG LARS



All unit values on rocket artillery units are identical to the same values on tube artillery units. The term “artillery unit” in the following rules generally encompasses both artillery and rocket artillery units. Where this is not the case, specific mention will be made. See Case 22.7 for the special characteristics of rocket artillery units.

[4.1.2.4] The DAG. Each WP division has one self-propelled howitzer regiment looking like the first unit below. **Exception:** The East German 4th Motor Rifle Division has a towed howitzer unit, specifically the second unit shown below. This divisional howitzer regiment is called the “DAG” (Divisional Artillery Group) and plays a special role as the **only** type of WP artillery unit that can participate in Defensive Fire during the Defensive Fire Step of a NATO operation (see 22.4.1). Note that the DAG for the 79th Guards Tank Division has only **two steps**, rather than the **three steps** found in the DAGs of all motor rifle divisions. This difference was standard for Soviet tank divisions.

Self-Propelled
DAG



Towed
DAG



[4.1.3] Engineer Units. Like maneuver units, engineer units can attack enemy units in adjacent hexes. In addition, engineer units build and blow bridges, build and clear defensive works, protect other friendly units from Mine Attacks, and ferry units across rivers. **Engineer units can participate in any type of operation (but cannot move next to enemy units on their own, see 12.9.3).** Players will find that engineer units are among their most valuable units.

Typical Engineer Units:

WP



US



WG



Canadian



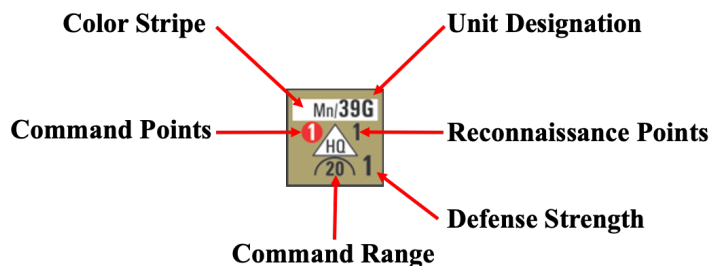
All unit values on an engineer unit are identical to the same values on a maneuver unit.

[4.1.4] HQ Units. HQ units are the nerve centers of each formation. **HQs can only participate in March operations.** HQ units provide the following major functions:

1. **Command:** HQs provide Command Points to organize operations (see Command & Control, 12.0)
2. **Reconnaissance:** HQs provide Reconnaissance Points to acquire enemy units (see Reconnaissance, 20.0)
3. **Fire Support:** HQs make Fire Calls to friendly artillery, attack helicopter, and air units (see 21.2)
4. **Electronic Warfare:** Certain HQs have EW assets that can jam enemy units (see 39.0)

Uniquely, HQ units have no Attack Strength and never fire at enemy units (**except** to conduct Flak Fire, see 27.2).

Typical HQ Unit:



[4.1.4.1] Command Points. Command Points are a quantification of an HQ’s ability to plan operations. For the WP, each Command Point enables an HQ to plan an operation for one of its subordinate regiments. For NATO, each Command Point enables an HQ to assign a task force to an operation. See Command & Control (12.0) and Operations (13.0).

[4.1.4.2] Reconnaissance Points. Reconnaissance Points are a quantification of an HQ’s ability to gather and collate intelligence from its reconnaissance assets. Each Reconnaissance Point enables an HQ to make one Reconnaissance Attempt on the Reconnaissance Table (see Reconnaissance, 20.0). A successful Reconnaissance Attempt acquires the target hex and allows the active player to both examine the enemy units in that hex and to strike them with air, helicopter, and artillery units.

[4.1.4.3] Command Range. Generally, an HQ’s Command Range is a measure of the frontage its formation is expected to hold. An HQ’s Command Range is the maximum number of hexes that it can trace to a unit and still provide its HQ functions to or through that unit. To determine if a unit is within the Command Range of an HQ, count the least number of hexes that separate them (include the hex occupied by the unit, but not the hex occupied by the HQ). If this number of hexes is less than or equal to the Command Range of the HQ unit, then the unit is in Command Range. **A HQ’s Command Range is never blocked by terrain, enemy units, or their ZOCs.**

[4.1.4.4] WP HQ Types. Each WP division contains two HQ units, a Forward (For) HQ and a Main (Mn) HQ. Both types are Division HQs, meaning that they can apply their command functions to all units in the same division and to any base units in their chain of command (see 7.1) but **not** to the units of any other WP divisions. There is no functional difference between a Forward and a Main HQ save the different values printed on the units. The 35th Guards Air Assault Brigade has only one HQ unit, which is treated in all ways as a WP Division HQ (**except** that it has no EW Asset, see 39.0).

Typical WP HQ Units:

Forward HQ



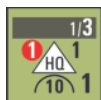
Main HQ



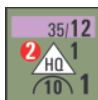
[4.1.4.5] NATO HQ Types. NATO has two echelons of HQ units: Brigade HQs and Division HQs. Brigade HQs all display the color stripe for the brigade to which they belong. The HQ for the US 2/11 Armored Cavalry Squadron is treated exactly like a Brigade HQ of the 3rd ID for all purposes.

Typical NATO Brigade HQ Units:

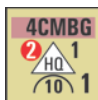
US



WG



Canadian



Brigade HQs can apply their command functions to any unit of their own brigade and to any base units in their chain of command (see 7.2) but **not** to the units of any other brigade. **Exception:** Non-US Brigade HQs cannot apply any of their command functions to any

US units in the VII Corps Base save that they **can** include units of the 72nd Field Artillery Brigade in their Artillery Pools under certain circumstances (see 22.3.1).

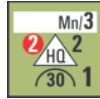
Division HQs all bear a white color stripe. In this game, the NATO player controls only three Division HQ units, a Main HQ for the 12th Panzer Division and a Forward and Main HQ for the US 3rd Infantry Division, all depicted below.

NATO Division HQ Units:

US Forward HQ



US Main HQ



WG Main HQ



All NATO Division HQs function similarly. Each can apply its command functions to any units in its own division and to any base units in its chain of command (see 7.2). **Exception:** The 12th Panzer HQ **cannot** apply its command functions to any units in the US VII Corps Base save to include units of the 72nd Field Artillery Brigade in its Artillery Pool when eligible (see 22.3.1). The US Forward HQ has no Reconnaissance Points because most intelligence collation was done at the Main HQ. There is no Division HQ unit for the Canadians (they only deployed a single brigade to Europe at this time).

[4.1.5] EW Assets. EW Assets are a special type of unit attached to Division HQs. EW Assets are used to make Jamming Attempts (see 39.0). Each WP Division HQ and each NATO Division **Main HQ, only**, scheduled to appear in a scenario should be deployed with an EW Asset underneath it unless the scenario instructions specifically say otherwise.

[4.1.6] Used and Unused Counter Sides. For all ground units, the front and back sides of each Unit Counter are printed with identical information, **except** that the Attack and Defense Strengths are printed in black on the front side and in white on the back side. The front side of the counter (black) represents its unused side, and the back side (white) represents its used side. On EW Assets, the front side of the counter displays an EW symbol, while the back side is blank.

**Ground Unit
Unused Side**



**Ground Unit
Used Side**



**EW Asset
Unused Side**



**EW Asset
Used Side**



A ground unit is flipped to its used side after it completes an operation and after various other events (see 11.4). An EW Asset is flipped to its used side only when it is used to make a Jamming Attempt (see 39.0). A unit is flipped back to its unused side during the Unit Readiness Step of the Reorganization Phase at the end of each turn. This protocol enables a player to keep track of which ground units can still move during a turn and which EW Assets can still Jam.

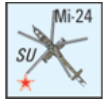
[4.2] HELICOPTER UNITS

There are two types of helicopter units in this game: 1) attack helicopter units (see 25.0) and 2) utility helicopter units (see 26.0). Attack helicopter units can attack enemy units. Utility helicopter units cannot attack enemy units but can transport airmobile units as passengers (see 26.3). Like ground units, helicopter units consist of a Unit Counter and a Step Marker. Helicopter units are kept in the Ready Box on a player's Helicopter Track printed on his Tracks Card. When a helicopter unit is needed, it flies onto the playing area, executes its mission, and then returns to the Recovery Box on the Helicopter Track. Helicopters can fly anywhere on the map. The check on this mobility is that they are subject to enemy Flak Fire each time they enter a hex within two hexes of an enemy unit (see 27.2).

[4.2.1] Attack Helicopter Units. Attack helicopter units can add their fire to some types of fire combats (see 18.0) and can execute Fire Strikes (see 23.1). The front of each attack helicopter Unit Counter shows the type of helicopter it represents. The back side displays the unit's two attack profiles, Gunnery or Stand-off, and shows the Attack Strength, Range, and Defense Strength that it employs when using each specific attack profile (see 25.3).

Attack Helicopter Unit Counters (Front Side - Helicopter Type):

WP Mi-24



US AH-64



US AH-1



WG PAH-1



Attack Helicopter Unit Counters (Back Side - Attack Profiles):

WP Mi-24



US AH-64



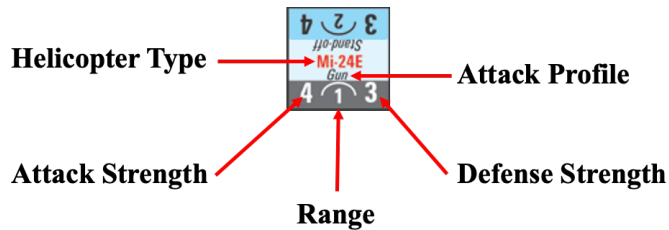
US AH-1



WG PAH-1



The attack profile for an attack helicopter unit (and an air unit as well) is read as follows:



The Unit Counter is rotated to display the attack profile a player wishes to use when it attacks. See Case 25.0 for more details on how attack helicopter units operate.

[4.2.2] Utility Helicopter Units. Utility helicopter units fly onto the map, pick up and deliver passenger units, and then return offmap. Only the WP and the Bundeswehr (West German Army) deploy utility helicopters in this game. See Case 26.0 for more details on how utility helicopter units operate.

Utility Helicopter Units:

WP Mi-6



Defense Strength

WG CH-53G



Defense Strength

[4.3] AIR UNITS

Air units fly onto the map, strike a target, and then fly offmap again (see Air Units, 24.0). Unlike any other type of unit, air units have no permanent existence. They are assembled for a specific mission and then disassembled as soon as their mission has been completed. Each air unit consists of three counters:

1. A Unit Counter for the aircraft type
2. An Attack Profile Marker displaying the four possible attack profiles that an air unit can employ (High-Altitude attack profiles appear on the front side and Low-Altitude attack profiles on the back side).
3. A Step Marker indicating the number of flights (a flight is four aircraft) in the unit

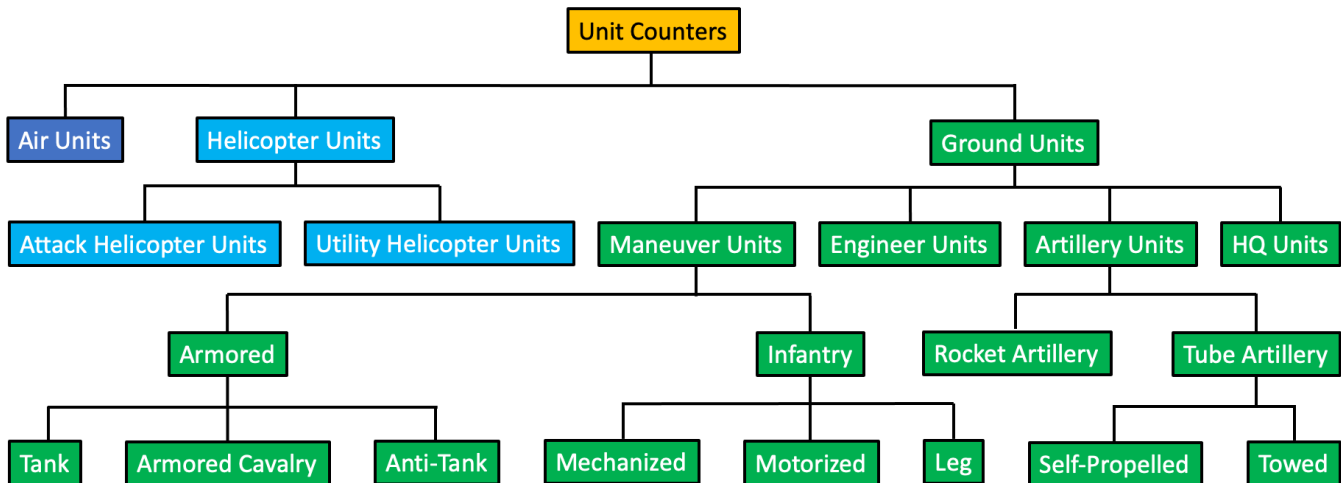
Typical Air Units:



The Attack Profile Marker for an air unit is read the same way as the attack profile found on the back of an attack helicopter unit (see 4.2.1). When assembling an air unit, the Attack Profile Marker is flipped to the side bearing the altitude desired (High or Low) and rotated for the attack mode desired (Bomb or Stand-off) so that the Attack Strength, Range and Defense Strength for that specific attack profile are displayed upright at the bottom of the marker.

[4.4] UNIT TYPES

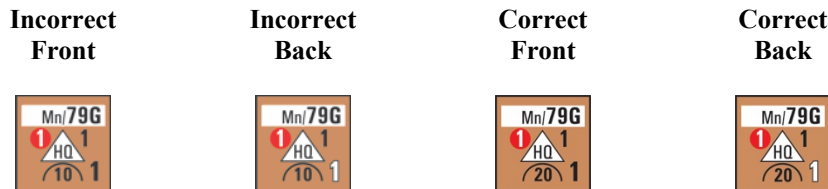
The hierarchy of unit types described in the Cases above is summarized in the diagram below:



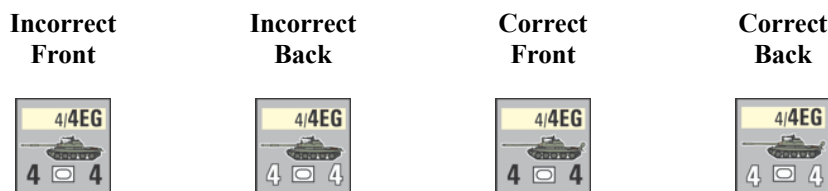
[4.5] UNIT ERRATA

Design Note: Advance printing of the first five Counter Sheets led to more unit errata than any publisher would want. Accordingly, the game includes a sixth Counter Sheet to fix all but the most cosmetic problems.

The Unit Counter for the Division Main HQ of the 79th Guards Tank Division was initially printed bearing a Command Range of 10 instead of 20. The corrected Unit Counter is found on Counter Sheet 6. Discard the incorrect unit found on Counter Sheet 3.



The three Unit Counters for the 4th Tank Regiment of the East German 4th Motor Rifle Division were incorrectly printed with a picture of a T-62 instead of a T-55. The corrected Unit Counters are found on Counter Sheet 6. Discard the incorrect units found on Counter Sheet 3.



Counter Sheet 3 was printed with two Unit Counters for an East German DTB that did not exist. Please **discard** both Unit Counters.

Front



Back



The 2-41/3 M109 artillery unit for the US 3rd Infantry Division was initially printed with a black Attack Strength of “4” on its back side, when it should be white. The corrected Unit Counter is found on Counter Sheet 6. Discard the incorrect unit found on Counter Sheet 1.

Incorrect Front



Incorrect Back



Correct Front



Correct Back



The 120mm mortar Unit Counter for the 26th Luftlande Brigade was initially printed with incorrect unit values. The corrected Unit Counter is found on Counter Sheet 6. Discard the incorrect unit found on Counter Sheet 1.

Incorrect Front



Incorrect Back



Correct Front



Correct Back



There are three Jaguar Unit Counters printed on Counter Sheet 1, one for each brigade of the 12th Panzer Division. These Unit Counters bear an upside down Unit Symbol. There are also three Jaguar Unit Counters printed on Counter Sheet 6, identical to the first three except that they bear corrected Unit Symbols (right side up). These second three Unit Counters do **not** replace the first three. They are provided as additional Unit Counters to give the NATO player the ability to place a dummy unit on the map for each real step. Accordingly, keep all six Unit Counters in play.

Incorrect



Incorrect



Incorrect



Correct



Correct



Correct



The anti-armor units in the 26th Luftlande Brigade are depicted with their anti-armor Unit Symbol shown upside down. There was no room on Counter Sheet 6 to correct this cosmetic error. We humbly apologize for this oversight.

Incorrect



Countersheet 6 includes units for the 2/11ACR in the new configuration used in **Air & Armor: V Corps** the next game in this series, instead of the condensed configuration used in the original **Air & Armor**. Discard the eight 2/11/VII units found on Counter Sheet 1.

Incorrect



Incorrect



Correct



Correct



Correct



Correct



[5.0] STEP MARKERS

Step Markers are used to show how many “steps” a unit contains. Steps are an increment of unit size. Each ground unit step represents a reinforced company or a battery (6-8 guns), except for WP artillery steps, which represent an entire battalion (18 guns). Each air and attack helicopter unit step represents four aircraft, except for the West German PAH-1 unit, whose steps represent five aircraft. Utility helicopter steps represent a much wider range of machines, depending upon the mission and the passenger unit. Step Markers are always placed **underneath** a Unit Counter to hide their value from the enemy player. **Exception:** The Step Marker beneath an air or helicopter unit is public knowledge. When placing a Step Marker, rotate it so that the desired number shows at the **top** of the marker.

Step Marker
1-4



Step Marker
5-8



Step Marker
9



Step Marker
Dummy



Most Step Markers in the counter mix show “1-4” on one side and “5-8” on the other. Half of these markers have the “1-4” printed on their front and half have it printed on their back. This means that the slight curvature that informs which sides are front and back does not give the enemy any useful information about the number of steps the marker might indicate.

[6.0] GAME MARKERS

Game Markers are used to track the status of various unit states, map states, and player resources. The following rules describe the purpose and use of each marker. See the Marker Effects Chart found in the Charts & Tables Booklets for a summary.

[6.1] UNIT MARKERS

Unit markers indicate different states a unit can acquire.

[6.1.1] Disrupted Markers. A Disrupted Marker is placed on a unit when an enemy Fire Strike (see 23.1) inflicts a Hit Total equal to or greater than the Adjusted Defense Strength (see 18.3.1) of that unit. Disrupted units suffer several negative effects (see 23.3). Disrupted Markers are removed during the Marker Removal Step of the Reorganization Phase. **Exception:** Disrupted Markers on WP HQs are removed at the end of the WP Planning Phase. **Disrupted Markers are printed on the opposite side of Fired Markers.**



[6.1.2] Fired Markers. A Fired Marker is placed on an artillery unit whenever it executes **any** type of fire. Artillery units under a Fired Marker can no longer conduct Indirect Fire (see 22.2) against distant hexes. They can still execute Defensive, Retreat and Infiltration Fire against enemy units in adjacent hexes (see 18.0). Fired Markers are always removed during the Marker Removal Step of the Reorganization Phase. **Fired Markers are printed on the opposite side of Disrupted Markers.**

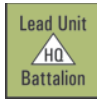


[6.1.3] Lead Unit Markers. A WP Lead Unit Marker is placed on the lead unit of each regiment in a WP division **during the Activation Segment of its Activation Cycle (see 12.3.2)**. Every unit of that regiment and any eligible engineer units within three hexes of the marker can participate normally in the operation planned for that regiment (see 12.3). A NATO Lead Unit Marker is placed on a maneuver unit at the start of a NATO operation to designate the core unit of a task force and to enable other maneuver units and any eligible engineer units within three hexes of the marker to join the task force (see 12.6.1). Unlike all other unit markers, a Lead Unit Marker does **not** move with the unit but remains in the hex where it was originally placed and is removed as soon as the operation has been completed.

WP Lead Unit



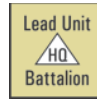
US Lead Unit



WG Lead Unit



Canadian Lead Unit



[6.1.4] Contaminated Markers. A Contaminated Marker is placed on a unit whenever it occupies the target hex of an enemy Gas Strike or fails a Contamination Check (see 44.0). Units under a Contaminated Marker have their Fire Strengths and Flak Strengths halved and move at two thirds of their normal Movement Allowance. Contaminated Markers can only be removed during the Decontamination Step of the Reorganization Phase by the decontamination process (see 44.6).



[6.1.5] Masked Markers. A Masked Marker is placed on units whenever a force ends its movement in a hex in violation of stacking restrictions (see 14.4). The marker indicates that the units below it cannot fire at adjacent enemy units nor observe for a Fire Call. No unit in a hex containing a Masked Marker can advance or retreat, even if located above the marker.

Soviet Masked Marker



EG Masked Marker



US Masked Marker



WG Masked Marker



Canadian Masked Marker



[6.1.6] Deliberate Defense Markers. When a player is playing a side in Hidden Mode, he uses a Deliberate Defense Marker to mark a unit that occupies a key position. The marker increases the unit's chance of receiving steps when its strength is revealed (see 45.3). A unit that bears a Deliberate Defense Marker receive a +2 DRM when a player rolls on the Revelation Table to determine the number of steps it contains. Deliberate Defense Markers are placed during the Deliberate Defense Segment and removed during the Redeployment Segment of any Activation Cycle for the units they mark.

Soviet Deliberate Defense



EG Deliberate Defense



NATO Deliberate Defense



[6.2] ENGINEERING MARKERS

Engineering markers are a category of markers used to indicate changes made to the terrain in a hex or hexside when an engineer unit undertakes an Engineering Action (see 33.0).

[6.2.1] Bridge Markers. Bridge Markers have two sides. On their front side, they represent either a Military Bridge (see 34.0) or a Civil Bridge that can no longer be blown by Set Charges (see 38.1). On their back side, they indicate a Civil Bridge that has been destroyed (see 38.0). A Bridge Marker is placed whenever an engineer unit undertakes an Engineering Action during the Engineering Phase and expends a Bridging Point (see 34.0) to create a Military Bridge in an adjacent river hexside. Place the Bridge Marker with an arrow on the marker pointing towards the hexside that is bridged. The Engineer that built the bridge may then need to be placed under the marker to maintain the bridge (see 34.3). A Bridge Marker for a Military Bridge can be voluntarily removed (see 34.5 and 38.3) and involuntarily removed if the enemy attacks it (see 38.3 and 38.4). Because a bridge hexside always has two adjacent hexes (see 17.3), the marker itself can be placed in either of the two hexes that share that hexside (and moved between them to get it out of the way during play).

Front - Bridge



Back - Blown Bridge



[6.2.2] Improved Position Marker. An Improved Position Marker is placed whenever an engineer unit undertakes an Engineering Action during the Engineering Phase to create an improved position in the hex it occupies (see 35.0). Improved positions represent foxholes, trenches, bunkers, tank berms, and camouflage nets. Improved positions provide a +2 Defense Modifier to the Defense Strength of any friendly units occupying the hex (see 18.3.1). The +2 Defense Modifier for an improved position is **cumulative** with any other Defense Modifier for the terrain in the hex itself. Improved positions only benefit the side that created them. An Improved Position Marker is removed whenever the last friendly unit occupying its hex is eliminated by enemy fire or when an enemy unit enters the hex, but otherwise remains in the hex indefinitely, **whether it is occupied by a friendly unit or not**. During the Engineering Phase, a player can voluntarily remove any Improved Position Marker **he placed** to reuse it elsewhere. To indicate which Improved Position Markers belong to him, a player should point the leading foxhole on his markers towards the enemy player.



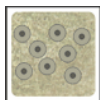
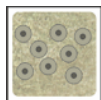
[6.2.3] Obstacle Marker. An Obstacle Marker is placed whenever an engineer unit undertakes an Engineering Action during the Engineering Phase to create an obstacle in the hex it occupies (see 36.0). An Obstacle Marker prevents any road movement **into** the hex it occupies, but not out of it, and requires a unit to pay one extra Movement Point to enter the hex. An obstacle affects both players equally, regardless of which player built it. An Obstacle Marker is removed only when an unused engineer unit in the same hex undertakes an Engineering Action to clear the obstacle during the Engineering Phase.



[6.2.4] Minefield Markers. There are two types of Minefield Markers: 1) Real and 2) Dummy. A Real Minefield Marker is placed whenever an engineer unit undertakes an Engineering Action during the Engineering Phase and expends a Mine Point to create a minefield in the hex it occupies (see 37.0). It can also be created by an ADM Strike (see 23.5). Dummy Minefield Markers are only placed during scenario setup as specified in the scenario instructions. These instructions may instruct a player to place a certain number of Real and Dummy Minefield Markers on the map at the start of the game. A Dummy Minefield Marker is removed as soon as any unit containing at least one step enters the hex (dummy units cannot enter minefield hexes). A Real Minefield Marker is removed only when an unused engineer unit in the same hex undertakes an Engineering Action to clear the minefield during the Engineering Phase.

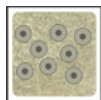
Real Minefield Marker:

Front - Minefield Back - Minefield



Dummy Minefield Marker:

Front - Minefield Back - Dummy



[6.3] MAP MARKERS

Map markers are used to indicate certain events on the map.

[6.3.1] Target Markers. There are two types of Target Markers: 1) Objective Hex Markers and Strike Target Markers. An Objective Hex Marker is placed during the Commitment Step of an offensive operation to designate the Objective hex for that operation (see 13.5). A Strike Target Marker is used to mark the intended target of a strike (see 23.0). The front side of each Target Marker is an Objective Hex Marker, and the back side is a Strike Target Marker. A Strike Target Marker is removed as soon as the target hex has been fired upon, while the Objective Marker is removed during the Completion Step of an operation.

Target Markers (Front):

WP Objective
Hex



NATO Objective
Hex



Target Markers (Back):

WP Strike
Target



NATO Strike
Target



[6.3.2] Acquired Marker. An Acquired Marker is placed in a hex after it has been successfully acquired by a friendly Reconnaissance Attempt (see 20.0). The active player can examine all enemy units in the hex but **cannot** examine any Minefield Marker present to determine if it is real or not. All Acquired Markers on the map are removed during the Intelligence Fade Segment at the end of each Activation Cycle.



[6.3.3] Smoke Markers. Certain scenarios allow a player to place a limited number of Smoke Markers on his engineer units during play. All ground units are **halved** when firing into and/or out of a smoke hex, **except**: 1) any unit with thermal sights (see 32.2.2) and 2) artillery units using Indirect Fire (see 22.2) to fire **out** of a smoke hex. Fire out of a smoke hex and into an adjacent smoke hex is only halved once. Air and attack helicopter units are halved for firing **into** a smoke hex, but not for firing **out** of one. **Exception:** US AH-64 units have thermal sights and so are not halved when firing into a smoke hex. The Flak Strength (see 27.2) of units in a smoke hex is always 1/3 per step even at a one-hex range (see 27.2.1.2). It costs a unit one additional Movement Point to enter a smoke hex. **Reconnaissance Attempts (see 20.0) into a smoke hex suffer a -2 DRM.** All Smoke Markers on the map are removed when the engineer units under them are destroyed, exit the hex, or during the Marker Removal Step of the Reorganization Phase.



[6.3.4] City Control Markers. Control Markers are used to indicate which side controls a City hex. At the start of the game, all City hexes on the map are presumed to be NATO-controlled **unless** they are located inside a WP setup area. **Any City hex bearing no Control Marker is always considered to be controlled by the side that controlled it at the start of the game.** When a **real** unit enters an enemy-controlled City hex, place a friendly Control Marker in that hex to indicate that it is now friendly-controlled. Dummy units can never enter an enemy-controlled City hex. City control earns VPs in certain scenarios. NATO-controlled City hexes also resist WP airmobile units (see 29.6.5).

WP Control
Front



NATO Control
Back



[6.3.5] Gas Zone Markers. A Gas Zone Marker is placed in a hex when a Gas Strike is made on that hex (see 44.0). A Gas Zone Marker creates a Gas Zone in the same hex and in all six adjacent hexes. When a Gas Strike is made, any units in the **target hex, only**, automatically become contaminated and any units in adjacent hexes are subject to a Contamination Check. Any units that enter the Gas Zone thereafter are subject to a Contamination check in each hex they enter or remain in. There are two types of Gas Zone Markers: Persistent and Non-Persistent. A Persistent Marker is placed when a Persistent Gas Point is expended to make a Gas Strike. Persistent Gas Zone Markers are never removed from the map. A Non-Persistent Gas Zone Marker is placed when a Non-Persistent

Gas Point is expended to make a Gas Strike. All Non-Persistent Gas Zone Markers are removed from the map during the Marker Removal Step of the Reorganization Phase.

**Non-Persistent
Gas Zone (Front)**



**Persistent
Gas Zone (Back)**



[6.4] HQ MARKERS

HQ Markers are used to keep track of a player's Command and Reconnaissance Points.

[6.4.1] NATO Command Points Markers. A NATO Command Points Marker is placed on the HQ Track provided for each NATO HQ to keep track of the Command Points (see 12.2) it has available to spend. When a NATO brigade Shatters (see 31.0), the Command Points Marker on its HQ Track is flipped over to its Shattered side to indicate that units in the brigade can no longer perform any operation **except** March. **Note that there are no equivalent WP Command Points Markers for WP Division HQs because they expend their CPs all at once during the WP Planning Phase, unlike NATO HQs which can expend their Command Points across the entire turn.**

NATO Command Points Markers (Front):

US



WG



Canadian



NATO Command Points Markers (Back):

US



WG



Canadian



[6.4.2] Offmap Command Points Markers. Each player receives Offmap Command Points per the scenario instructions. Each player has an Offmap Command Points Marker to record these points on his Offmap Command Points Track (found on each player's Tracks Card).

Offmap Command Points Markers:

WP



NATO



[6.4.3] Reconnaissance Points Markers. Reconnaissance Points Markers are used to keep track of the Reconnaissance Points (see 20.1) available to each HQ. WP Reconnaissance Points Markers are placed on the Reconnaissance Points Track for each WP HQ found on the WP Planning Cards. NATO Reconnaissance Points Markers are placed on the HQ Track for each NATO HQ found on the NATO HQ Tracks Card. See 20.1.

Reconnaissance Points Markers:

WP



US



WG

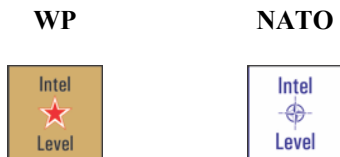


Canadian



[6.4.4] Offmap Reconnaissance Points Markers. Offmap Reconnaissance Points Markers are used to keep track of the number of Offmap Reconnaissance Points (see 20.1.1) a player can expend each turn. During the Reconnaissance Point Step of the Reorganization Phase at the end of each turn, each player moves his Offmap Reconnaissance Points Marker to the box on the Offmap Reconnaissance Points Track (found on his Tracks Card) corresponding to the number of Offmap Reconnaissance Points he receives each turn per the scenario instructions. These points are expended by moving the marker down the track until none remain.

Offmap Reconnaissance Points Markers:



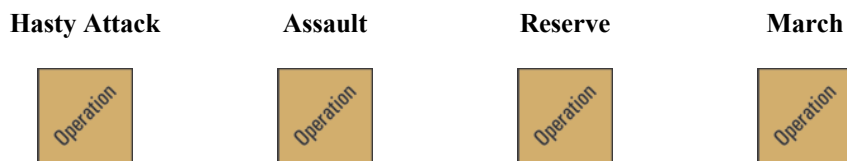
[6.5] WP OPERATIONS MARKERS

[6.5.1] Each time a WP HQ expends a Command Point to plan an operation for a subordinate regiment, the WP player places an Operation Marker for the chosen operation in the Operation Box for that regiment (see 12.3) found in the section of his Planning Card for the regiment's parent division. An Operation Marker is always placed face down so that the NATO player cannot see the type of operation planned. This marker is revealed only during the Commitment Step of the operation itself.

Operation Markers (Front):



Operation Markers (Back):



[6.5.2] WP Main Effort Chits. Unless otherwise specified by the scenario instructions, the WP player receives one Main Effort Chit for each division he has in play. During the WP Planning Phase, he can expend **one** Offmap Command Point to place **one** Main Effort Chit upside down in the box on the Game Turn Track for the **next** turn. On that next turn, he can assign every regiment in the division named on that chit a non-March operation at no cost in Command Points (see 12.4).

Main Effort Chits (Front):



Main Effort Chits (Back):



[6.5.3] WP Shattered Markers. When a WP regiment Shatters (see 31.0), a Shattered Marker is placed in its Operation Box to indicate that it can no longer perform any operation **except** March for the remainder of the game. When a NATO brigade Shatters, flip the Command Points Marker for its Brigade HQ over to its Shattered side on its HQ Track (see 6.4.1).



[6.6] COMBAT SUPPORT POINTS MARKERS

Combat Support Points Markers are a category of markers used to record a player's Combat Support Points (see 46.4.1) on the Combat Support Points Track printed on each player's Tracks Card. A player's starting allocation of Combat Support Points, plus any reinforcement points, are specified in the instructions for each scenario. NATO Combat Support Points are provided by nationality, and thus each NATO nationality has its own set of markers. WP Combat Support Points can be used by units of any WP nationality and thus only one set of WP markers is provided.

[6.6.1] Air Points Markers. A player receives Air Points (see 24.1) per the scenario instructions and uses his Air Points Markers to record them on his Combat Support Points Track. Each time he expends an Air Point to make an Air Call, he moves the marker corresponding to the nationality of the calling HQ down one box on the track until none remain.

**WP
Air Points**



**US
Air Points**



**WG
Air Points**



**Canadian
Air Points**



[6.6.2] Mine Points Markers. A player receives Mine Points per the scenario instructions and uses his Mine Points Markers to record them on his Combat Support Points Track. A player expends a Mine Point to enable an engineer unit to lay a minefield (see 37.0). Each time an engineer unit lays a minefield, the owning player moves the Mine Points Marker for the same nationality down one box on his Combat Support Points Track until none remain.

**WP
Mine Points**



**US
Mine Points**



**WG
Mine Points**



**Canadian
Mine Points**



[6.6.3] Artillery Delivered Mine Points Markers. A player receives Artillery Delivered Mine (ADM) Points per the scenario instructions and uses his ADM Points Markers to record them on his Combat Support Points Track. A player expends an ADM Point to enable an artillery or air unit to lay a minefield (see 23.5). Both the US and the West Germans receive ADM Points, but the Canadians do not, so there is no Canadian ADM Points Marker. Each time a player expends an ADM Point, he moves the ADM Points Marker for that nationality down one box on his Combat Support Points Track until none remain.

**WP
ADM Points**



**US
ADM Points**



**WG
ADM Points**



[6.6.4] Gas Points Markers. A player receives Gas Points (see 44.1) per the scenario instructions and uses his Gas Points Markers to record them on his Combat Support Points Track. There are two types of Gas Points: 1) Persistent and 2) Non-Persistent. A player expends Gas Points to enable air and artillery units to make Gas Strikes (see 44.2). Only the WP and the US receive Gas Points, so there are no West German or Canadian Gas Points Markers. When a player expends a Gas Point, he moves the corresponding marker one box down on his Combat Support Points Track until none remain.

**WP Persistent
Gas Points**



**WP Non-Persistent
Gas Points**



**US Persistent
Gas Points**



**US Non-Persistent
Gas Points**



[6.6.5] Bridging Points Markers. A player receives Bridging Points (see 34.1) per the scenario instructions and uses his Bridging Points Markers to record them on his Combat Support Points Track. A player borrows (but does not expend) an available Bridging Point to enable an engineer unit to ferry friendly units across Main River hexsides (see 17.4). A player expends a Bridging Point to enable an engineer unit to build a Military Bridge (see 34.0). Each time a player expends a Bridging Point, he moves the Bridging Points Marker for that nationality down one box on his Combat Support Points Track until none remain. Bridging Points can be recovered by dismantling a Military Bridge (see 34.5).

WP Bridging Points



US Bridging Points



WG Bridging Points



Canadian Bridging Points



[6.7] TRACK MARKERS

[6.7.1] Game Turn Marker. The Game Turn Marker is placed on the Game Turn Track printed on the WP player's Tracks Card and used to keep track of the current Game Turn.



[6.7.2] Fog Turn Marker. The Fog Turn Marker is placed on top of the Game Turn Marker on the Game Turn Track when the scenario indicates that the turn is a Fog Turn (see 46.5).



[6.7.3] SAM Strength Markers. The scenario instructions provide each player with a SAM Strength that is used to execute SAM Fire against enemy air units attacking from High Altitude (see 27.1). SAM Strength Markers are used to record each player's current SAM Strength on his SAM Strength Track found on his Tracks Card.

WP SAM Strength



NATO SAM Strength



[6.7.4] Victory Points Markers. VP Markers are placed on each player's VP Tracks found on his Tracks Card and used to record his current balance of VPs (see 46.7).

WP x 1



WP x 10



NATO x 1



NATO x 10



[6.7.5] Air Hits Markers. Each player has an Air Hits Marker to track Victory Points (see 46.7) earned for shooting down enemy air unit steps. A player uses this marker to record these VPs separately on his VP Tracks found on his Tracks Card.

WP Air Hits Marker



NATO Air Hits Marker



[6.7.6] HQ Hits Markers. Each player has an HQ Hits Marker to track Victory Points (see 46.7) earned for eliminating enemy HQ units. A player uses this marker to record these VPs separately on his VP Tracks found on his Tracks Card.

**WP HQ Hits
Marker**



**NATO HQ Hits
Marker**



[6.8] EXTRA MARKERS

Countersheet 6 contains duplicates of various markers and other special counters (such as EW Assets) to ensure that the loss of one of these pieces does not ruin the game.

[6.9] DEAD MARKERS

There are a few markers on the Counter Sheets that evolved out of use as this game was revised. Discard the following markers:

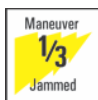
**WP
Helicopter Points**



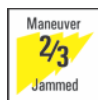
**NATO
Helicopter Points**



**1/3 Maneuver
Jammed**



**2/3 Maneuver
Jammed**



[7.0] FORMATIONS

The playing pieces in this game, termed “units,” are organized into “primary formations.” Primary formations are the basic building blocks of this game. Each primary formation is a unique set of units identified on the TO&E Cards for each player. Primary formations are grouped into a “parent formation,” which in turn can be grouped into a higher-level parent formation, and so on. This hierarchy of formations is termed a “chain of command” and the different levels in the chain are termed “echelons.” A unit is termed “superior” to all units in echelons in the same chain of command that are below it and “subordinate” to all units in echelons in the same chain of command that are above it. Each WP regiment and each NATO brigade has its own unique chain of command running upwards to the highest echelon depicted in the game. A formation’s place in the chain of command determines how its component units move, what resources they can access and how they interact with HQs and the functions that HQs provide. Because the concept of formation is critical to virtually every aspect of this game, we begin with this concept.

[7.1] WP FORMATIONS

[7.1.1] WP Primary Formations. The WP player controls two types of primary formations: 1) regiments and 2) bases. A regiment is a set of maneuver units that will fight on the front line. A base is a set of HQ, engineer and artillery units that support regiments when they fight. The WP can deploy three tiers of base formations: 1) division bases, 2) army bases, and front bases (there are no front bases in this particular game). Consult the WP TO&E Cards to see the precise composition of each regiment and base. **When the WP player conducts an operation (see 13.0), he will conduct it with an entire regiment or division base.**

[7.1.2] WP Divisions. A WP division is a parent formation composed of four regiments and one division base. There are two types of WP divisions, tank divisions and motor rifle divisions. Tank divisions contain three tank regiments and one motor rifle regiment. Motor rifle divisions contain three motor rifle regiments and one tank regiment plus a Divisional Tank Battalion (DTB), which is treated as a fifth regiment. All units in a WP division will bear the same color on their counters (but not the same color stripe) and the same Division Designation (see 4.1.1.1). Consult the WP TO&E Cards to see the precise composition of each division. The assets in a division base can support any of that division’s component regiments. **When the WP player has the initiative, he will conduct an Activation Cycle (see 10.0) with a whole division.**

[7.1.3] WP Armies. A WP army is a parent formation composed of four to five divisions and one army base. The assets in an army base can support any of its component divisions and regiments.

[7.1.4] WP Fronts. A WP front is a parent formation composed of two to three armies and one front base. The assets in a front base can support any of its component armies, divisions, and regiments. There are no front formations in this game, though there may be in future games in the **Air & Armor** series. However, certain units from the Soviet 34th Artillery Division allocated to the South East German Front have been attached to the 8th Guards Army Base.

[7.1.5] WP Force Structure. The WP player controls one army, the 8th Guards Army, comprised of the following forces:

1. The Soviet 27th Guards Motor Rifle Division
2. The Soviet 39th Guards Motor Rifle Division
3. The Soviet 57th Guards Motor Rifle Division
4. The East German 4th Motor Rifle Division
5. The Soviet 79th Guards Tank Division
6. The Soviet 35th Guards Air Assault Brigade (treated in all ways as a division for game purposes, see 7.1.6)
7. The 8th Guards Army Base, consisting of various engineer and artillery formations (see 12.5.2)
8. Two independent formations attached to the 8th Guards Army echelon, the 119th Independent Tank Regiment and the 900th Air Assault Battalion (see 12.5.3)

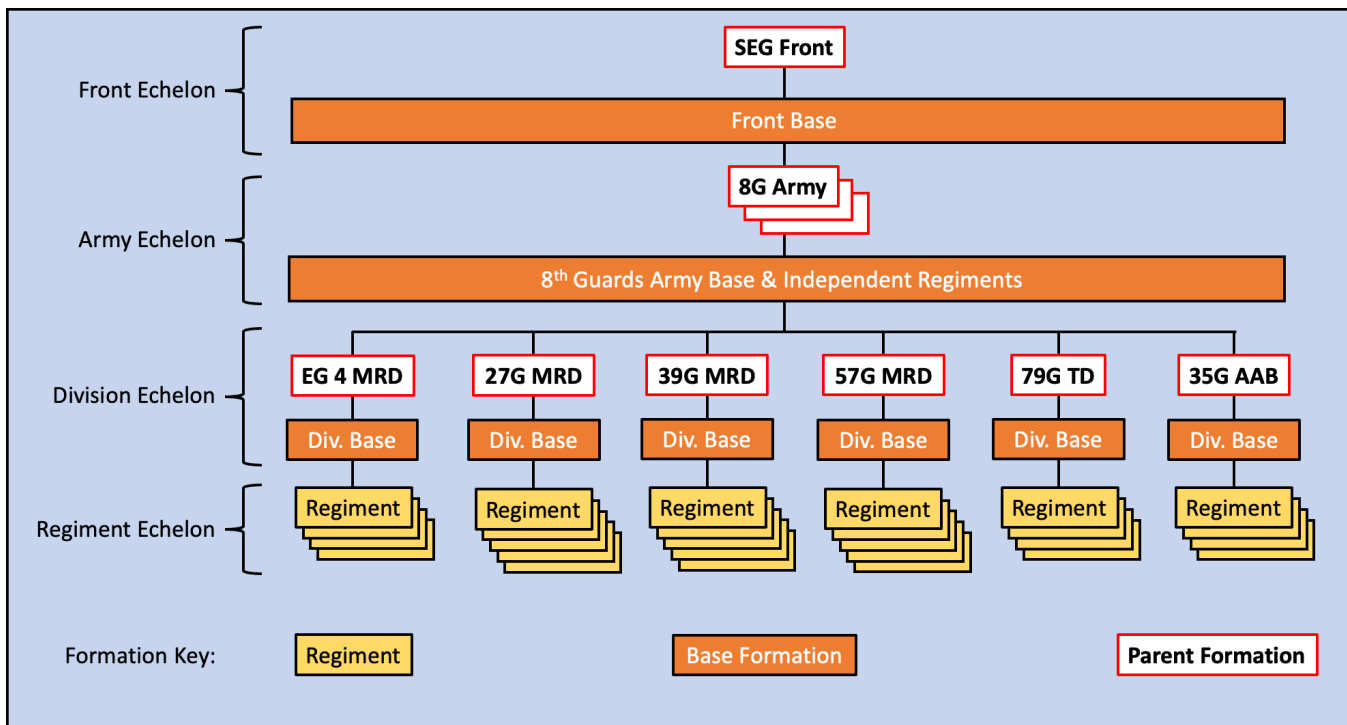
All WP ground forces in this game belong to the 8th Guards Army. Consult the WP TO&E Cards to see the precise composition of each formation.

[7.1.6] 35th Guards Air Assault Brigade. The WP 35th Guards Air Assault Brigade is treated in all ways like a Soviet division (**except** that it never receives a Main Effort Chit, see 12.4, nor an EW Asset, see 39.0). It contains four Battalions, each of which is treated in all ways like a regiment for command and operations purposes. It also contains a brigade base, which is treated in all ways like a division base.

Design Note: The 35th Guards Air Assault Brigade was a front-level asset belonging to the Southeast German Front. For the purposes of this game, it has been attached to the 8th Guards Army. Because this brigade was an elite unit, it is accorded the command flexibility of a division.

[7.1.7] WP Nationalities. Minor ally formations, including East German, Czech and Polish formations are treated exactly like Soviet formations for all purposes. All WP Combat Support Points can be consumed by any WP units. **WP national unit colors are provided solely for informational purposes.**

[7.1.8] WP Echelons and the Chain of Command. Each WP Formation occupies an echelon, which is a level in a chain of command. The chain of command is a hierarchy of superior and subordinate formations that define many of the activities in this game. These echelons and the formations that occupy them can be represented graphically as follows:



The chain of command is depicted by the vertical black lines in the diagram above. Each regiment is “subordinate” to its parent division base formation. Each division base is subordinate to its parent army base formation. Each army base is subordinate to its parent front base formation. Conversely, a front base is “superior” to all subordinate army bases in the same front, an army base is superior to all subordinate division bases in the same army, and a division base is superior to all subordinate regiments in the same division. **The units in any formation are in the same chain of command as the units of any superior or subordinate formations.** This chain of command defines how a formation activates and which other formations it can support. It also defines which friendly units an HQ commands. The chain of command only runs vertically, not horizontally. This means that units in a formation are never in the chain of command of any other formation in the **same** echelon, nor to any of their subordinate units. Thus, a unit in the 8th Guards Army Base is superior to a regiment in the EG 4th Motor Rifle Division, but a unit in the division base of the 27th Guards Motor Rifle Division is not superior to a regiment in the EG 4th Motor Rifle Division because it is not in the same chain of command (they are not connected along the same vertical black line and the two division bases are in the same echelon). For the avoidance of doubt, a formation is subordinate to a higher echelon formation no matter how many echelons separate them if they are in the same chain of command. Thus, a regiment in the 79th Guards is technically subordinate to the SEG Front (the Southeast German Front) though this front does not actually appear in this game.

[7.2] NATO FORMATIONS

[7.2.1] NATO Primary Formations. The NATO player controls two types of primary formations: 1) brigades and 2) bases. A brigade is a set of maneuver units that will fight on the front line. A base is a set of HQ, engineer and artillery units that support brigades when they fight. NATO can deploy two tiers of base formations: 1) division bases and 2) corps bases. Note that many NATO brigades also include their own organic HQ, engineer, and artillery units. Consult the NATO TO&E Cards to see the precise composition of each brigade and base. **When the NATO player has the initiative, he will conduct an Activation Cycle (see 10.0) with a whole brigade.**

[7.2.2] NATO Divisions. A NATO division is a parent formation composed of three or four brigades and one division base. All units in a NATO division bear the same unit color (not color stripe) and the same Division Designation (see 4.1.1.1). Consult the NATO TO&E Card to see the precise composition of each division. The assets in a division base can support any of that division’s component brigades. Some NATO brigades are independent and do not have a parent division.

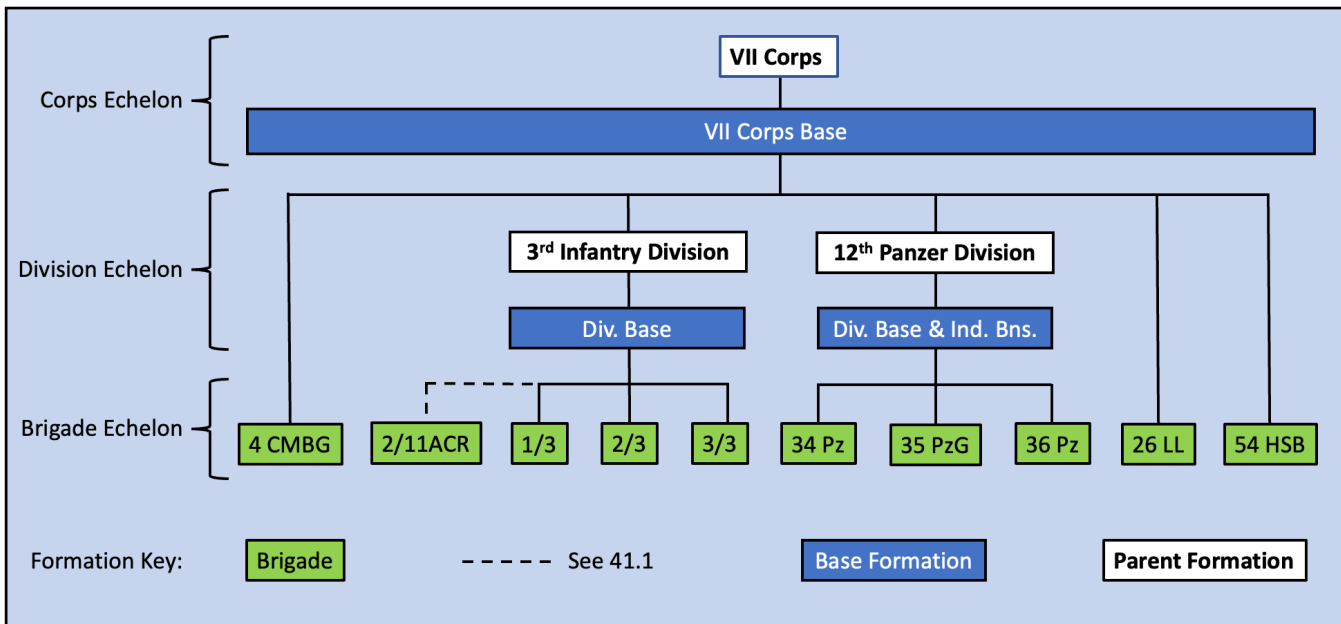
[7.2.3] NATO Corps. A NATO corps is a parent formation composed of two to five divisions and one corps base. The assets in a corps base can support any of its component divisions and brigades. A corps may also have several independent brigades.

[7.2.4] NATO Force Structure. The NATO player controls elements of the VII Corps including the following forces:

1. The 1st Brigade of the US 3rd Infantry Division
2. The 2nd Brigade of the US 3rd Infantry Division
3. The 3rd Brigade of the US 3rd Infantry Division
4. The 3rd Infantry Division Base
5. The 2nd Squadron of the US 11th Armored Cavalry Regiment (ACR)
6. The 34th Panzer Brigade of the West German 12th Panzer Division
7. The 35th Panzergrenadier Brigade of the West German 12th Panzer Division
8. The 36th Panzer Brigade of the West German 12th Panzer Division
9. The 12 Panzer Division Base
10. The West German 54th Heimatschutz Brigade (HSB)
11. The West German 26th Luftlande (Airmobile) Brigade
12. The 4 Canadian Mechanized Brigade Group (CMBG)
13. The VII Corps Base (partial), consisting of the 72nd Field Artillery Brigade and the 9th Combat Engineer Battalion

All NATO ground forces in the game belong to VII Corps. Consult the NATO TO&E Card to see the precise composition of each formation.

[7.2.5] NATO Echelons and the Chain of Command. Each NATO Formation occupies an echelon, which is a level in a chain of command. These echelons and the formations that occupy them can be represented graphically as follows:



These echelons define the chain of command as depicted by the vertical black lines in the diagram above. For the avoidance of doubt, this means that units in a formation are never in the chain of command of any other formation in the **same** echelon, nor to any of their subordinate units. Each brigade is “subordinate” to its parent division base. Each division base is subordinate to its parent corps base. Conversely, a corps base is “superior” to all subordinate division bases in the same corps, and each division base is superior to all subordinate brigades in the same division. **The units in any formation are in the same chain of command as the units of any superior or subordinate formation.** VII Corps also fields three independent brigades, the 4 Canadian Mechanized Brigade Group, the 26th Luftlande (airmobile) Brigade, and the 54th Heimatschutzbrigade (Territorial Army Home Defense Brigade), each of which are directly subordinate to the VII Corps Base. The 2/11ACR Armored Cavalry Squadron is treated in all ways as the fourth brigade of the U.S. 3rd Infantry Division (see 41.1). Thus, a unit in the 3rd Infantry Division Base is superior to a unit in the 1st Brigade but it is not superior to a unit in the 4 CMBG, because it is not in the same chain of command (they are not connected along the same vertical black line). A unit in the VII Corps Base will be superior to units in all brigades.

[7.2.6] Task Forces. A NATO “task force” is a sub-formation of a brigade, approximately corresponding to a cross-attached battalion (meaning a battalion consisting of a mix of tank and mechanized infantry companies). Where the WP player conducts operations by regiment, the NATO player will conduct operations by task force (see Case 12.6 for more details).

[7.3] EFFECTS OF CHAIN OF COMMAND

Design Note: *The following summary will not make sense until further concepts are introduced and explained. It is provided for general reference. Come back to this Case for a summary after you have read the entire rules.*

The chain of command is one of the most important concepts in this game. It defines how a formation activates and which other formations it can support. It also defines which friendly units an HQ can interact with. A unit’s place in the chain of command has the following effects:

1. A WP unit in a primary formation (a regiment or base) at any given echelon can activate with any **division** if its formation is superior to that division or a part of that division.
2. A NATO unit at any given echelon can activate with any **brigade** if its formation is superior to that brigade or it belongs to that brigade. **Exception:** Units in the VII Corps Base cannot activate with a non-US brigade (see 12.8.2).
3. An HQ can provide a Command Point to assign an operation to any regiment (WP) or task force (NATO) in its own formation or a subordinate formation (see 12.0).
4. An HQ can make a Jamming Attempt (see 39.2) for any offensive operation in which a maneuver unit in its own formation or a subordinate formation is participating.
5. An HQ can include in its Artillery Pool (see 22.3) any artillery unit in its chain of command. **Exception:** See 22.3.1.
6. A Division Main HQ can decontaminate units in its chain of command (see 44.6).
7. A maneuver unit can act as a spotter for a Reconnaissance Attempt (see 20.0) or Counter-Battery Acquisition Attempt (see 23.4) made by any HQ in its chain of command.

8. A unit can observe for any HQ in its chain of command. **Exception:** Units in the VII Corps Base cannot observe for non-US HQs (see 12.8.2).

[7.4] FORMATION INTERACTION CHART

Because the echelon a formation occupies in the chain of command interacts with so many different game functions, these interactions are interspersed throughout the rules. Please refer to the Formation Interaction Chart in the Charts & Tables Booklets for a single centralized summary of all interactions.

[7.5] ATTACHMENT

A scenario special rule may “attach” a formation to another formation not normally in the attached formation’s chain of command. When a formation is attached, it is considered to be **subordinate** to the receiving formation and within its chain of command.

[8.0] GAME OVERVIEW

Design Note: Air & Armor is played using a set of three nested action cycles. The structure of each cycle is designed to allow players to address the complexities of every major game function at one specific time, leaving players free to disregard that complexity at all other times.

[8.1] ACTION CYCLES

Air & Armor is played in three action cycles layered one atop the next:

1. **Game Turn Cycle.** The top cycle is the Game Turn Cycle, also known as the “Sequence of Play,” consisting of a series of “Phases” that provide a specific time to execute a specific set of related actions. Each Phase occurs once each turn and is repeated every turn. Case 9.0 describes the specific Phases in the Sequence of Play, and a shorthand version is included on Sequences Card 1.
11. **Activation Cycle.** The middle cycle is the Activation Cycle, consisting of a series of “Segments” for the actions taken by a single WP division or NATO brigade. Each WP division and NATO brigade in play will conduct one Activation Cycle each turn. Thus, if the WP player has three divisions in play, he will repeat the Activation Cycle three times during a turn. If the NATO player has four brigades in play, he will repeat the Activation Cycle four times during a turn. Case 10.0 describes the Segments in the Activation Cycle, and a shorthand version is included on Sequences Card 1.
12. **Operation Cycle.** The bottom cycle is the Operation Cycle, consisting of a series of “Steps” for the actions taken by a single WP regiment or NATO task force. During a WP Activation Cycle, the Operation Cycle will be repeated once for each WP regiment and division base in the active division. Thus, during the Activation Cycle of a WP motor rifle division, the WP player will conduct six Operation Cycles, one for each of the four regiments in that division, one for the DTB, and one for the division base. During a NATO Activation Cycle, the Operation Cycle will be repeated once for each task force formed in the active brigade. The NATO player can also conduct any number of March operations, only, with individual units (see 12.7.3). These Operations Cycles are conducted sequentially, one after the other and in any order the active player desires, until he runs out of operations to conduct in the current Activation Cycle. Case 13.0 describes the Steps in each type of Operation Cycle, and shorthand versions are included in the Sequences Cards.

[8.1.1] **Cycle Hierarchy.** Graphically, these action cycles are layered as follows:

Sequence of Play

Reinforcement Phase

Planning Phase

Maneuver Phase

└── Activation Cycles

└── Operation Cycles

Reserve Phase

Engineering Phase

Reorganization Phase

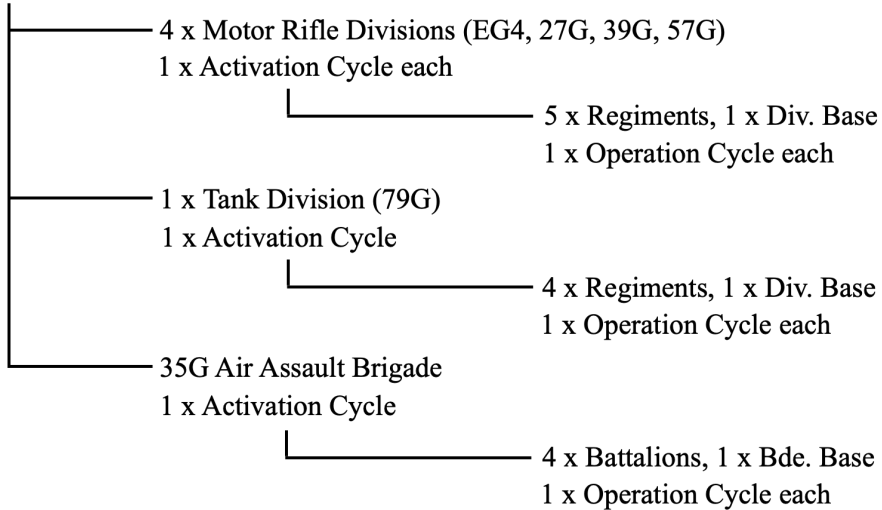
[8.1.2] **Initiative.** At the start of the Maneuver Phase, the WP player will roll a die to determine who has the initiative. An odd die result gives the initiative to the WP player. An even die result (including a 0) gives the initiative to the NATO player. The player who wins the initiative can either activate one formation (a WP division or NATO brigade) or pass. After the Activation Cycle for that

formation has been completed, the initiative passes to the opponent, who can either activate one formation or pass. The initiative alternates back and forth between the players until 1) every formation in play has conducted one Activation Cycle or 2) both players pass back-to-back, at which point the Maneuver Phase ends.

[8.1.3] Action Cycles & Force Structure. The interaction of the action cycles and the force structure looks like this:

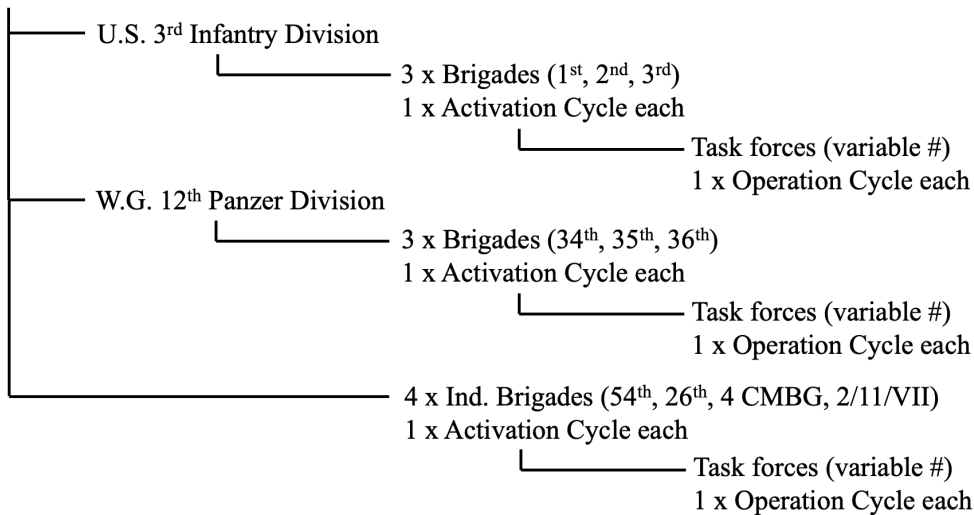
WP Player

8th Guards Army



NATO Player

VII Corps



[8.2] OPERATIONS

When a WP regiment or NATO task force executes its Operation Cycle, it can conduct any one of four different types of operations:

1. Hasty Attack (a long movement in combat formation followed by an ad hoc attack)
2. Assault (a short movement in combat formation followed by a prepared attack)
3. March (a long movement in column formation that allows the use of the road network for long distance travel)
4. Reserve (a short movement in column formation that allows the use of the road network to respond to enemy operations)

Hasty Attack, Assault, and March operations are conducted during the Maneuver Phase. Reserve operations are conducted during the Reserve Phase.

[8.3] PLAYING PIECES

The playing pieces in this game are termed “units.” Each unit is composed of two counters. The first is a Unit Counter that depicts the type of unit (tank, infantry, etc.) and bears the unit values. The second is a Step Marker showing the number of steps the unit contains. Generally, each step represents a reinforced company (a military formation containing roughly 150 men and 15-20 vehicles). Step Markers remain hidden from the opposing player so he cannot tell where your forces are.

[8.4] COMMAND

One of the scarce resources for each player in this game is Command Points. Each Headquarters unit in play generates a limited number of Command Points each turn. Command Points are used to assign regiments and task forces to Hasty Attack, Assault, and Reserve operations. March operations are free. A player may not have enough Command Points for all the operations he would like to assign. At the start of each turn, the WP player must preplan the operation assigned to each of his regiments. These preplanned operations will then be executed gradually over the course of the turn as the WP player plays out the Activation Cycle for each of his divisions. The NATO player does not have to preplan his operations. Rather, during an Activation Cycle, he can form a task force at will, assign it to an operation, and then immediately execute that operation.

[8.5] PLAY MODES

Air & Armor can be played in two modes: Open Mode and Hidden Mode. The primary rules for the game describe play in Open Mode. Case 45.0 describes how to play the game in Hidden Mode. Both modes work well for face-to-face play. Hidden Mode is best for Solitaire play.

*Design Note: Most wargames give each player a God-like ability to see every unit on the map, friendly and enemy, and to exercise total control over friendly units. Ask any officer who has ever served what he thinks of this as an accurate simulation of command, and he will chuckle. If you want a realistic simulation of the chaos of wartime command, play **Air & Armor** in Hidden Mode. You won't even be sure where your own units are.*

[8.6] SCENARIOS

There are 12 different scenarios provided in this game, each depicting a different battle situation. When players sit down to play the game, they must choose a specific scenario to play (or invent their own). The scenario instructions will specify the forces each player controls, his objectives, and the time allowed to achieve those objectives.

[8.7] WINNING THE GAME

A player wins the game by meeting the Victory Conditions for the scenario being played (see 46.7). These Victory Conditions generally consist of some combination of destroying enemy units, getting units to certain locations on the map, and exiting units from a map edge area.

[9.0] SEQUENCE OF PLAY

Each Game Turn is organized into Phases, which are played in sequence as follows. All Charts and Tables mentioned below are in the Charts & Tables Booklets. All tracks mentioned below are printed on a player's Tracks Card except where noted.

Reinforcement Phase

All non-airmobile HQ and artillery units due to arrive as reinforcements in the current turn are placed in a hex on the friendly Offmap Display (see 40.0). All other non-airmobile ground units due to arrive this turn are assembled in stacks and queued up in a column adjacent to the map-edge hex(es) they will enter from (see 46.6.3). Airmobile units are kept offmap until they fly onto the map (see 46.6.9). All helicopter steps due to arrive are assembled into units and placed in the Ready Box on the friendly Helicopter Track. Any Combat Support Points arriving are added to the current balances recorded on the Combat Support Points Track.

WP Planning Phase

The WP player first declares if any independent regiment is being attached to a division or changing its attachment (see 12.5.3). The WP player next plans a new operation for each of his regiments by expending a Command Point (see 12.2), if required, and then placing a matching Operation Marker upside down in the regiment's Operation Box found on his Planning Cards (see 12.3). He can also expend Army Offmap CPs to place Main Effort Chits (see 12.4) on the Game Turn Track. Note that disrupted (see 23.3) HQs cannot expend any Command Points. At the end of the Planning Phase, he removes any Disrupted Markers from his HQs (see 23.3.2). Lead Unit Markers are **not** placed in this Phase as indicated in the printed Rules Book.

Maneuver Phase

The WP player rolls the die. On an odd result, he wins the initiative. On an even result, the NATO player wins the initiative (0 is treated as 10). The player with the initiative conducts one Activation Cycle or passes. The initiative then passes to his opponent, who conducts one Activation Cycle or passes. Play continues in this fashion until each player has activated every formation he can, or both players have passed back-to-back, at which point the Maneuver Phase ends.

Reserve Phase

The WP player again rolls for the initiative. The player who wins the initiative can execute as many Reserve operations in a row as he is eligible to conduct across all his formations. Then the second player does the same. See 13.7 for more details.

Engineering Phase

Both players conduct Engineering Actions simultaneously with any unused engineer units (see 33.0). However, the NATO player can require the WP player to go first if he feels it matters.

Reorganization Phase

Except on the last turn of a scenario, when this Phase is ignored, the following Steps are taken by each player simultaneously in the order presented below:

1. **Marker Removal Step.** Remove all Disrupted, Fired, Smoke, and Non-Persistent Gas Markers from the map. **Exception:** Do **not** remove Disrupted Markers from WP HQ units.
2. **Unit Readiness Step.** Flip all ground units and EW Assets to their unused side. Advance all helicopter units one box up on the friendly Helicopter Track (see 25.5).
3. **Decontamination Step.** Each undisrupted Main HQ unit (see 4.1.4.4 and 4.1.4.5) can decontaminate (see 44.6) **up to four steps (NATO) or nine steps (WP)** in eligible units in its chain of command occupying **a single hex** within its Command Range **that is not within six hexes of an enemy unit and not in a Gas Zone (see 44.3)**. Flip decontaminated units to their used sides.
4. **Return to Pool Step.** For Hidden Mode play, only, remove all Step Markers from units that are not adjacent to an enemy unit, in a minefield, surrounded, or in the middle of crossing the Main River and return these steps to the appropriate step pool on each player's Pool Card (see Hidden Mode play, 45.5).
5. **Shatter Step.** Each player consults the Shatter Table to determine if any of his regiments (WP) or brigades (NATO) become Shattered (see 31.0). The WP player places a Shattered Marker in the Operation Box on his Planning Card for each newly Shattered WP regiment. The NATO player flips the Command Points Marker over to its Shattered side on the HQ Track on his Tracks Card for the HQ of each newly Shattered NATO brigade.
6. **HQ Reconstitution Step.** Reconstituted HQ units are placed on the map (see 30.4).
7. **Reconnaissance Points Step.** The WP player adjusts the Reconnaissance Points Marker on the Recce Track for each WP HQ back to its full allowance and the NATO player does the same on the HQ Track for each NATO HQ (see 20.1). Each player adjusts his Offmap RP (Intel Level) Marker on his Offmap RPs Track to the number specified in the scenario instructions.
8. **Command Points Step.** The NATO player returns the Command Points Marker on the HQ Track for each NATO HQ to the highest box on the track (see 12.2.4). Each player adjusts his Offmap CPs Marker on his Offmap CPs Track to the number specified in the scenario instructions.
9. **Game Turn Step.** Move the Game Turn Marker up one box on the Game Turn Track (found on the WP Tracks Card).

The Game Turn ends. Move the Game Turn Marker up one box on the Game Turn Track (found on the WP Tracks Card) and proceed to the Reinforcement Phase of the next Game Turn.

[10.0] ACTIVATION CYCLE

When a player receives the initiative during the Maneuver Phase, he is termed the active player and must either conduct one Activation Cycle or pass. **A player can always pass and then continue to activate formations when he regains the initiative, provided that his opponent does not also pass directly after he does (which ends the Maneuver Phase).** No formation is ever required to activate. An Activation Cycle consists of the following Segments:

Activation Segment

The active player declares which division (WP) or brigade (NATO) he will activate. The formation can be on the map or available to enter play as a reinforcement this turn. He also declares if any independent battalion (see 12.8.3) or regiment (see 12.5.3) entering play this turn will be attached to the activating formation. **Finally, the WP player, only, places a Lead Unit Marker on the lead unit for each maneuver regiment activating in the current cycle (see 12.3.2).**

Redeployment Segment (Hidden Mode, only)

The active player can deploy onto the map any Unit Counters belonging to the active formation that are not currently on the map (see 45.6). Remove all Deliberate Defense Markers from units in the active formation.

Reconnaissance Segment

The active player uses the Reconnaissance Points available to all HQs in the active formation, plus any Reconnaissance Points available to any Division HQs superior to the active brigade (NATO, only), plus any Offmap Reconnaissance Points, to make Reconnaissance Attempts (see 20.0) on hexes using the Reconnaissance Table. Only one Reconnaissance Attempt can be made per hex.

Strike Segment

The active player can make a Fire Call (see 21.0) for a strike on a target hex using any HQ in the active formation (or a superior NATO Division HQ). He then executes that strike (see 23.0) using the fire support assets called. He repeats this process once for each hex he wishes to strike. Each target hex could be hit by a Fire Strike (23.1), an ADM Strike (23.5), or a Gas Strike (44.2) but no hex can ever be hit by more than one strike in the same Strike Segment.

Operations Segment

The active player executes Operation Cycles (see 13.0) one after the other within the active formation until he has exhausted his ability or desire to execute more.

Bridge Demolition Segment (NATO, only)

The NATO player can attempt to blow Civil Bridges (see 17.3) by Set Charges (see 38.1) using the Demolition Charges Table.

Contamination Segment

If players are using the optional rules for Poison Gas (see 44.0), the active player makes a Contamination Check (see 44.4) on the Chemical Warfare Table for each uncontaminated active unit or stack located in a Gas Zone.

Intelligence Fade Segment

The active player removes all Acquired Markers from the map.

Deliberate Defense Segment (Hidden Mode, only)

The active player can place Deliberate Defense Markers on specific units (one per WP regiment, two per NATO brigade, see 45.8).

[10.1] ACTIVATION

When a formation activates, its units can participate in operations, allowing them to move and fight.

[10.1.1] WP Activation. The WP player activates by division. Each WP division executes its own Activation Cycle during the Maneuver Phase. WP regiments and division bases always activate with their parent division. Each regiment or division base executes a single operation during that Activation Cycle. A regiment can conduct a Hasty Attack, Assault, or March operation (Reserve operations are conducted during the Reserve Phase). A division base can conduct only a March operation (see 12.5.1). WP army and front bases do not conduct their own Activation Cycles. Instead, the units in these formations activate individually during the Activation Cycle of any subordinate division (see 12.5.2). Individual WP army and front base units can activate with different subordinate divisions, and this division can change each turn, but no unit can ever activate more than once per turn. **When a unit from an army or front base activates with a subordinate division, it participates in the March operation of the division base.** **Exception:** Engineer units can choose to participate in a subordinate regiment's operation (see 12.9.1). A WP independent regiment (see 12.5.3) must activate with the specific division to which it is attached, and, like any other regiment, it will perform its own operation.

[10.1.2] NATO Activation. The NATO player activates by brigade. Each NATO brigade executes its own Activation Cycle during the Maneuver Phase. Units in NATO division and corps bases can activate individually during the Activation Cycle of any subordinate brigade, and this brigade can change each turn. **Exception: No NATO unit can ever activate during the Activation Cycle of a brigade of a different nationality.** The units of a NATO independent battalion must always activate together in the Activation Cycle of the brigade to which they are attached (see 12.8.3). Each NATO unit that activates can then participate in one operation in the current cycle.

[10.1.3] A base unit commits to activating during the Activation Cycle of a subordinate formation by either 1) observing for a strike (see 21.3.1) or 2) participating in an operation. **If a base formation finds itself with no subordinate formations of the same nationality in play, because every unit in them has been eliminated or removed from play (see 30.4.4), a player can still declare one Activation Cycle for that nationality in order to move the units in that base formation.**

[10.1.4] No unit can ever participate in more than one friendly Activation Cycle per turn. **Exception:** Artillery units can always move during one Activation Cycle and execute Indirect Fire during another (see 22.6).

[11.0] UNITS

Design Note: Generally, each unit in the game consists of two pieces: 1) a Unit Counter to indicate its type and 2) a Step Marker to indicate its size. Each step in a ground unit represents a reinforced company or a battery (4-8 guns) except for WP artillery steps, which represent whole battalions (generally 18 guns). Each step in an air or helicopter unit represents four aircraft. There are two basic principles that govern how units work in this game system. The first principal is that each formation has a set number of steps and a set number of unit counters. However, the owning player can allocate the available steps to the available unit counters in any way he pleases, with a few restrictions related to stacking. **The second principal is that the steps are the real units.** The Unit Counters are merely where those steps start and where they end up. In this game system, as long as a step makes a move that would be legal for the unit it starts in, it can end up in any identical unit from the same formation at the end of its move. Steps move by 1) being carried by a Unit Counter, or 2) being transferred from one Unit Counter to another. The following rules all stem from these two basic principles, which make **Air & Armor** the “Three-Card Monte” of wargaming.

In **Air & Armor**, a “unit” is composed of two game pieces:

1. A Unit Counter that shows the Unit Type, Unit Designation, and functional values for that unit
2. A Step Marker placed underneath the Unit Counter that indicates the number of steps the unit contains

To indicate the number of steps in a unit, a Step Marker is placed underneath the Unit Counter with the correct number face up and oriented to the top edge of the Unit Counter, as displayed in the graphic below for this two-step unit:



[11.1] UNIT ASSEMBLY.

Each player has a set of TO&E Cards that show the specific Unit Counters that comprise each primary and parent formation. These cards also show the number of steps associated with each type of Unit Counter in that formation. When setting up a formation on the map before play begins, or when entering a new formation onto the map as a reinforcement, the owning player assembles the units for that formation by pairing Unit Counters and Step Markers in any way he chooses, as long as 1) the total number of steps allocated matches the number available for that specific type of Unit Counter and 2) no unit is ever assembled with more steps than can stack in a single hex (nine-steps of maneuver units for the WP and four steps of maneuver units for NATO, see Stacking Limits, 14.2). There is no requirement that a player use all the Unit Counters available, but he must use all the steps available. **Any counters that are not used initially can be kept offmap for future use to create dummy units (see 11.3) or to split (see 11.5) some of his units.** Note that the instructions for a scenario may specify that certain formations have taken losses and therefore deploy with fewer steps than indicated on the TO&E Card.

Example of Unit Assembly: The US TO&E Card shows that the 3rd Brigade of the US 3rd Infantry Division comprises three M1 Abrams Unit Counters with four steps and five M2 Bradley Unit Counters with eight steps. The NATO player might initially assemble the 3rd Brigade as shown below. This organization keeps the brigade within the total number of steps and Unit Counters allowed for each type and keeps each unit within the stacking limit.



Alternatively, he might assemble the brigade as shown below. This organization also keeps the brigade within the total number of steps and Unit Counters allowed for each type and keeps each unit within the stacking limit.



Any available counters can be used to create dummy units (see 11.3).



[11.1.1] NATO Battalions. The NATO player cannot allocate more than four steps to a single **maneuver unit** (this represents a full battalion).

[11.1.2] WP Airmobile Battalions. The WP player can control up to five airmobile battalions (the 900th Air Assault Battalion plus four more battalions in the 35th Guards Air Assault Brigade). Each battalion has three steps and three Unit Counters. The WP player can allocate his available steps to available Unit Counters in any way he sees fit. **Exception:** When playing in Hidden Mode (see 45.0), airmobile units always contain just one step and therefore deploy with no Step Markers.

[11.1.3] WP Regiments. The four regiments that make up each WP division all have the same standard structure comprising three identical Unit Counters and nine steps. The WP player need not use all three Unit Counters at any one time and can allocate his nine steps among his three counters in any way he desires. Note that Soviet motor rifle divisions all have a fifth formation, the Divisional Tank Battalion (DTB), which is generally treated like a regiment but has only two Unit Counters and three to five steps, depending on which division it belongs to (see the WP TO&E Cards for details).

[11.1.4] Artillery Units. Most artillery units have only one Unit Counter, meaning that all steps **must** be placed beneath that one counter. If an artillery unit has only one Unit Counter and one step, it deploys without a Step Marker. The following formations have multiple identical counters:

1. The US 4-24/72 (3 x MLRS counters)
2. The Soviet 288th Heavy Howitzer Brigade (2 x 2A65 counters)
3. The Soviet 307th MRL Regiment (3 x BM-27 counters)
4. The Soviet 390th Guards Artillery (4 x D-20 counters)

For these formations, a player can allocate his available steps to his available artillery Unit Counters however he chooses.

[11.1.5] Headquarters Units. All HQ units contain one step and therefore never deploy with a Step Marker.

[11.1.6] Engineer Units. All engineer units contain one step and therefore never deploy with a Step Marker.

[11.1.7] Air Units. Air units are formed when a player expends Air Points to make an Air Call (see 24.2). The type of air unit that appears is determined by a die roll on the Air Call Table. A Unit Counter for that type is then mated with **two** markers: 1) an Attack Profile Marker (see 24.3) and 2) a Step Marker equal to the number of Air Points expended to make the Air Call.

[11.1.8] Attack Helicopter Units. The scenario instructions will indicate the number of steps for each type of helicopter that appears in that scenario. Helicopter units are formed from this pool of steps by mating a Unit Counter for the appropriate type with a Step Marker. Helicopter units are kept offmap on the Helicopter Track until needed. The maximum number of steps that can be allocated to helicopter unit depends upon the **type** of helicopter (see 25.1 and 26.2).

[11.2] HIDDEN INTELLIGENCE

Generally, the Step Marker placed beneath each Unit Counter on the map should remain hidden from the opposing player. In this state, a unit is termed “undetected.” **A player can never examine an undetected enemy unit.** A player can always ask for a truthful answer regarding which formations and unit types are present in an enemy occupied hex, but he cannot ask how many steps any units contain. His opponent need only answer by unit type (T-80, M1, Marder, etc.) and formation (the 172 Motor Rifle Regiment, the US 1/3 Brigade, etc.). However, a player **can** examine all enemy Unit Counters and Markers in a hex at either of the following times:

1. The hex is adjacent to a friendly ground unit.
2. The hex bears an Acquisition Marker as a result of a successful Reconnaissance Attempt (see 20.0).

Exception: A player can never examine an enemy Minefield Marker (see 6.2.4) until a real friendly unit has **entered** the hex. For as long as an enemy ground unit is adjacent to a friendly ground unit, or under an Acquisition Marker, it is termed “detected” and can be examined. **The instant that an enemy unit ceases to be adjacent to a friendly unit or under an Acquisition Marker, it becomes undetected again and can no longer be examined.**

Play Note: To avoid disarranging an opponent's units, it is best if a player asks him to reveal the exact contents of a hex rather than physically examining it, but a player always has the right to confirm this information by physical examination.

[11.2.1] Contact. Whenever a ground unit moves adjacent to an enemy ground unit, the moving player must temporarily halt the unit so the two players can examine each other's adjacent units or simply inform each other regarding their true contents (see the Contact Procedure, 16.8.1).

[11.2.2] Artillery Units. When an artillery unit fires, the opposing player is allowed to ask where it is located, what type it is, and how many steps it contains (see 22.5). This information does not make the artillery unit acquired, but it does enable the opposing player to consider whether he wishes to make a Counter-Battery Fire Attempt (see 23.4).

[11.2.3] Air and Helicopter Units. Air and helicopter units are a special case. The Step Marker beneath any of these types of units is **not** confidential and a player can ask for the correct count of steps in such a unit at any time (there was no shortage of radar sets on the battlefield at this time). Moreover, the movement of an air or helicopter unit adjacent to an enemy unit does **not** entitle the moving player to examine any of the units in the enemy occupied hex, nor any Minefield Marker present.

Design Note: There are three good reasons for barring air and helicopter units from scouting enemy units: 1) the units appearing in this game are on a specific fire or transport mission, not a recon mission, 2) they are flying too fast to see much, and 3) they are specifically trying not to be seen, which works in both directions. The air and helicopter units that **do** have a recon mission are already embodied in the Reconnaissance Points a player receives. Finally, if air units were allowed to scout enemy units, then, with their unlimited movement, they could scout every unit on the map in a single move, which would rather defeat the premise of this game.

[11.2.4] General Information Requests. At any time, player can request the following information from his opponent, which must be answered truthfully:

1. The type of units in a hex and the formations to which they belong
2. The location, type, and number of steps for any artillery unit that fired in the current Operation or Strike
3. The total number of steps remaining in a primary formation (see 7.1.1 and 7.2.2), by type
4. Whether a regiment or brigade is Shattered (see 31.0)

Design Note: A player is allowed to make these information requests because, if he watched his opponent like a hawk and recorded everything, he would be able to track most of this information. The ability to simply ask allows both players to play the game in a more relaxed manner without losing this information advantage.

[11.3] DUMMY UNITS

Design Note: Dummy units are used to mislead your opponent regarding where your forces are actually located. From a simulation perspective, dummy units represent the "fog of war": bad intelligence, stale reports, hasty deductions, and the general confusion that attends men who are panicked, exhausted, or beyond caring. In this game, you play the role of a commander sitting in an HQ many miles behind the front, trying to sort out the reports that keep pouring in, some sketchy, some contradictory, some self-serving, and some missing. It is your job to piece together the enemy's dispositions and intentions despite his best efforts to deceive you.

Any unused Unit Counter for a **ground** unit can be used to deploy a dummy unit by placing a Dummy Marker underneath it.

Exception: See 11.3.3. Dummy Markers are printed on the back of the Step Markers used to indicate nine steps. Air and helicopter units are never formed as dummy units (they would serve no purpose because they don't stay on the map). Dummy units can be deployed on the map during the scenario setup and can be entered as reinforcements whenever a new formation enters the map. They also can be created at any point during play using the rules for unit splitting (see 11.5). Generally, a dummy unit is treated like a real unit until the moment it is detected. It projects a Flak Strength of zero, which is enough to execute Flak Fire against enemy air and helicopter units (see 27.2.2). It can serve as a spotter for a Reconnaissance Attempt (see 20.0) or Counter-Battery Acquisition Attempt (see 23.4). It can serve as the lead unit of a regiment (see 12.3.2) or task force (see 12.6.1). However, a dummy unit **cannot**:

1. move adjacent to an enemy unit for any reason.
2. execute any kind of fire other than Flak Fire (see 27.0).
3. enter a hex containing an enemy Improved Position Marker (see 6.2.2).
4. enter a hex containing a Minefield Marker (see 6.2.4).
5. enter an enemy-controlled City hex (see 6.3.4).

6. destroy a Military Bridge (see 38.3).
7. use any form of air movement (helicopter transport or paradrop, see 29.0).
8. block a Line of Communication (see 46.7.6).
9. change which player controls a hex for Victory purposes.
10. count for achieving any other kind of Victory Condition (see 46.7).

In addition, a WP dummy unit cannot cross a Civil Bridge hexside (see 17.3) unless a real WP unit has already crossed it, or the bridge is inside a WP setup area at the start of the game.

Design Note: Civil Bridges in West Germany near the Iron Curtain were guarded by small detachments tasked to blow them if needed (see Set Charges, Case 38.1). Until a real WP unit has eliminated this detachment, no dummy unit can get by.

[11.3.1] Dummy Unit Removal. A dummy unit is removed from the map the instant an enemy **ground** unit moves adjacent to it (which a dummy unit cannot do, so the enemy unit will be real). The player owning the dummy unit **cannot** look at the step strength of the enemy ground unit before his dummy is removed. A dummy is also removed from the map the instant the hex it occupies is acquired (see Reconnaissance, 20.0). A dummy is **not** detected when an enemy air or helicopter unit moves adjacent to it or enters the same hex. A dummy is **not** removed just because the opposing player knows where all the real steps are. A player can always voluntarily remove a dummy unit from the map **at any time** and, if he wishes to, immediately reuse either the Unit Counter, the Dummy Marker, or both to split a unit elsewhere (see 11.5).

Design Note: Dummies are not removed when all steps have been located because in the real world a commander would not necessarily know the opposing unit designations and formation boundaries.

[11.3.2] Eliminated Units. When a unit loses its last step to enemy fire, it is immediately removed from the map (see 11.9). It does not become a dummy. Dummies must be created deliberately.

[11.3.3] Dummy Unit Limits. Within a WP regiment or NATO brigade, a player can never have more dummy units deployed on the map than he has real **steps** currently in play, meaning that he is limited to at most a 1:1 ratio of dummy units to real steps. For the NATO player, whose brigades have multiple unit types, this 1:1 ratio applies for each unit type. For example, at full strength, the US 2/3 brigade deploys with eight “9-9” M1 steps and four “4-3” M2 steps and with five M1 Unit Counters and three M2 Unit Counters. To deploy the maximum number of dummies, the brigade could be organized into two four-step M1 units and one four-step M2 unit (because four is the maximum number of steps that can be placed in a NATO unit), allowing three dummy M1 units to be formed and two dummy M2 units. In this configuration, the ratio of dummies to real steps is far less than 1:1. If, later in the game, the brigade was down to just two steps of M1s and one step of M2s, then he could deploy at most two dummy M1 units and one dummy M2 unit. If the brigade was further reduced to just one M1 step, then it could deploy at most one dummy M1 unit. When step losses cause a player to have more dummy units on the map than he is allowed, he must remove the excess dummy unit(s) immediately. This does mean that when all steps of a specific type within a specific formation have been eliminated, no more dummies of that type can be created for that formation. This Case also applies to any artillery formation that has multiple identical Unit Counters.

[11.3.4] Dummy Marker Allocation. There are 50 Dummy Markers in the counter mix, each with a 9-Step Marker on the back. The WP player has first call on a number of these markers equal to the number of regiments he fields in the scenario being played so he can use them as 9-Step Markers for those regiments. In addition, each player can maintain a pool of 15 Dummy Markers kept under his units or reserved for his sole use. If additional unused Dummy Markers become available, either player can use them on a first come, first served basis.

[11.3.5] Hidden Mode Dummies. When a side is played in Hidden Mode (see 45.0), no dummy units can be deployed or created. All units are treated as real until the moment that they are determined to be dummies by the revelation process, whereupon they are immediately removed from the map.

[11.4] USED AND UNUSED SIDES

Each ground Unit Counter has two sides. The front is the “unused” side and has unit values printed in black. The back is the “used” side and has unit values printed in white. During the Reorganization Phase, all counters on the map are flipped to their unused side (be careful not to reveal the Step Marker beneath). The Unit Counter atop a unit must be flipped over to its used side whenever a unit:

1. completes an operation. **Exception: A WP unit that does not move during its division base March operation is never flipped to its used side (see 12.5.1).**
2. becomes disrupted (see 23.3).

3. retreats from enemy Offensive Fire into a hex adjacent to an enemy unit (see 18.4, #5) or retreats from enemy Offensive Fire and then becomes engaged by an advancing enemy unit (see 18.5.3).
4. reacts, or its hex is reinforced by a reacting unit (see 19.0).
5. is Overrun (see 42.0) or Close Attacked (see 43.0).
6. receives steps transferred from another unit (see 11.7).

For the avoidance of doubt, an **inactive** unit is never considered to participate in an enemy operation, even if it moves or fires during that operation, meaning that it is never flipped to its used side at the end of an enemy operation unless it meets the requirements of bullet points 3, 4, or 5 above.

[11.4.1] Effects of Being Used. A unit on its used side:

1. cannot participate in an operation (see 13.0), even one planned for it, meaning it cannot move nor conduct Offensive Fire.
2. cannot react (see 19.0).
3. cannot conduct an Engineering Action if it is an engineer unit (see 33.0).
4. can still participate in Infiltration Fire (18.6), Defensive Fire (18.7), and Retreat Fire (18.9).
5. can still provide fire support using Indirect Fire (see 22.2) if it is an artillery unit.
6. can still expend CPs (see 12.2) and RPs (see 20.1) if it is an HQ unit.
7. can still screen if it is a cavalry unit (see 41.2).
8. can still observe for a friendly Fire Call (see 21.3).
9. can still act as a spotter (see 20.2)

For the avoidance of doubt, a unit on its used side that has not yet participated in a friendly Activation Cycle in the current turn remains eligible to activate. When it activates, it will not be able to participate in an operation, but it can observe for a friendly strike against an adjacent hex (see 21.3.1).

[11.5] UNIT SPLITTING

At any point during play when a player is eligible to move, fire, or undertake some other action, he can split a unit by moving some of its steps, or a Dummy Marker, underneath an extra Unit Counter (if one is available) and then placing the new unit in the same hex. A unit can be split into as many new units as there are Unit Counters available if all the following conditions apply:

1. All new units belong to the exact same regiment, brigade, or base formation as the original unit (meaning that they all bear an identical Unit Designation).
2. All new units are the exact same type as the original unit (T-80, Chieftain, airborne infantry, etc.).
3. The total number of steps in the new units equals the number of steps in the original unit.

A unit can be split before it starts to move or during its movement. An artillery unit can be split during a Fire Call in order to fire only some of its steps. A unit can be split when a player wishes to advance only some of its steps into the Objective hex (see 13.5) after Offensive Fire (see 18.5.1). A unit can be split when a player wishes to retreat (see 18.4) some of its steps into one hex and some into another. For the avoidance of doubt, units **can** split when adjacent to enemy units and when used. **However, disrupted units (see 23.3) can never be split.** In all cases, a unit cannot be split unless there is an identical Unit Counter available to create the additional unit.

[11.5.1] A player who splits a unit during the course of its movement has two choices:

1. He can drop one of the units off in the hex where the split occurred and then continue to move with the remaining unit; or
2. He can move each successor unit independently to a separate destination hex.

Any unit that exits the hex where a split occurs can continue to move but only with the number of Movement Points (see 16.1) that remained to the original unit after it entered that hex. Thus, if a unit with three Movement Points remaining splits in a hex, each successor unit that exits that hex can continue to move with three Movement Points. It is possible for a unit to be split multiple times during the course of its movement if the Unit Counters are available.

[11.5.2] If the Unit Counter atop the original unit was on its used side, then all additional Unit Counters used to form successor units from that original unit must also be placed on their used sides.

[11.5.3] When a unit splits, all successor units must continue to bear all markers on the original unit.

[11.6] UNIT COMBINATION

At any point during play, a player can combine any number of units stacked in the same hex into a single unit by consolidating all their steps beneath one Unit Counter and removing the extra counter(s) if all the following conditions apply:

1. All Unit Counters belong to the same regiment, brigade, or base formation (meaning that they all bear an identical Unit Designation).
2. All counters have the exact same Vehicle Type (T-80, Marder, etc.).
3. The total number of steps remains the same.

A unit can combine with another unit before it starts to move or during its movement. For the avoidance of doubt, units **can** combine when adjacent to an enemy unit and when used. If **any** of the units that combine are on their used side, then the combined unit must also be on its used side and all movement must immediately cease in that hex.

[11.6.1] If units are combined after any of them has started to move, then the combined unit exits the hex where the combination occurred with a number of Movement Points equal to the **lowest** number that remained to **any** of the individual units in that hex before they were combined.

[11.6.2] When units combine, the combined unit must bear all markers borne by any of its predecessor units.

[11.6.3] A disrupted unit (see 23.3) cannot combine with any other unit.

[11.6.4] A Unit Counter freed up by unit combination can be reused immediately for unit splitting somewhere else.

[11.6.5] A NATO unit cannot combine with another NATO unit during a NATO Hasty Attack, Assault, or Reserve operation unless both units have joined the same task force (see 12.6). A NATO unit conducting a March operation can always combine with any other eligible unit.

[11.6.6] For the avoidance of doubt, it is possible for a unit to both split and combine multiple times in the same movement.

[11.7] STEP TRANSFERS

[11.7.1] **Same Hex Transfers.** A moving unit can transfer steps to or from any other identical units (same Vehicle Type, same Unit Designation) if they occupy the same hex, and this transfer can occur at the start of movement, during movement (meaning as the moving unit is passing through the hex), or at the end of movement. Any steps picked up by the moving unit must come from an unused unit and can combine with the moving unit and continue to move with its remaining Movement Allowance. Any steps transferred from the moving unit remain behind with the receiving unit, **which must be flipped immediately to its used side.** Steps cannot be transferred to or from a disrupted unit (see 23.3).

[11.7.2] **Distance Transfers.** At any point during a March operation, **only**, an unused unit participating in that operation can transfer steps to any other identical units (same Vehicle Type, same Unit Designation) participating in that operation, if the sending unit could have moved into the receiving unit's hex during that March operation. The receiving unit can be used (because it moved earlier in the same operation) or unused but, if unused, **always flips to its used side immediately upon receiving the transferred steps.** The sending unit remains unused. A unit can receive steps from multiple other units or transfer steps to multiple other units, but no unit can both receive and transfer steps in the same turn. **No steps can ever be distance transferred to a unit that is adjacent to an enemy unit, but they can be transferred from such a unit. No steps can ever be distance transferred to or from a disrupted unit (see 23.3).** A player cannot transfer steps between units that are not identical, meaning that a player **cannot** transfer steps out of the regiment, brigade, or base formation that they start in to reinforce any other regiment, brigade, or base formation. If a player transfers out all steps from a unit, he can remove that Unit Counter from the map or replace its Step Marker with a Dummy Marker.

[11.7.3] A unit can also transfer steps during the Advance Step of a friendly offensive operation (see 18.5.1).

Design Note: The purpose of this rule is to enable a player to shuffle steps between units in the same regiment, brigade, or base formation in a way that does not violate time/space constraints but is not obvious to his opponent.

[11.8] UNIT TRANSFERS

No **Unit Counter** belonging to a regiment, brigade, or base formation can ever be used to create a unit using steps from any other regiment, brigade, or base formation.

[11.9] UNIT ELIMINATION

When a unit is eliminated, both its Unit Counter and its Step Marker are immediately removed from the map. However, the Unit Counter may be returned to play as follows:

1. HQ units are immediately placed on the Game Turn track to be reconstituted (see 30.4.1).
2. Any non-HQ Unit Counters that are permitted to have only one step, and therefore deploy with no Step Marker, meaning engineer units, certain rocket artillery units, and airmobile units when playing in Hidden mode (see 45.2.3), are permanently removed from play.
3. Any artillery unit that has a single Unit Counter, meaning it does not belong to one of the formations identified in Case 11.1.4, is also permanently removed from play.
4. All other Unit Counters become immediately available for unit splitting within the same formation, including the creation of dummy units, unless the restrictions of Case 11.3.3 apply (a formation cannot have more dummy units than it has steps remaining for a specific unit type).

[12.0] COMMAND & CONTROL

***Design Note:** The Command & Control rules in **Air & Armor** model the fundamental constraint that a commander cannot throw all of his units into battle simultaneously. He has neither the staff to manage this feat nor the logistics to support it. With limited resources, he must choose which formations will hold in place, which will move, and which will fight. The constraints imposed by logistics and staff resources are reflected in **Air & Armor** by the Command Points that each HQ unit generates. Most operations require a Command Point and there are never enough of them. These rules also model a fundamental asymmetry, which is that NATO almost certainly enjoyed a faster Intelligence, Decision, Action (IDA) Cycle than the Pact. The IDA Cycle begins with a certain period spent gathering intelligence about the enemy. Then a commander must spend time to digest this intelligence and base a set of decisions upon it. Finally, more time is spent to translate these decisions into actions via a set of orders sent out to subordinate units. Every army's objective is to achieve an IDA Cycle that is appreciably shorter than the enemy's. Success means that friendly actions at each point in the cycle are more responsive to the actual situation than enemy actions. As time wears on, this faster cycle means that the enemy's actions become more and more out of touch with reality until his decision-making process is completely disconnected from the actual situation on the ground.*

*NATO likely enjoyed a faster IDA Cycle because it had better trained troops, considerably larger headquarters at lower echelons, and many more communication links. NATO armies generally encouraged local initiative and allowed formations a degree of autonomy. These advantages meant that NATO decision making occurred at lower levels closer to the field and was based on more immediate intelligence. In contrast, the WP, with a scarcity of reliable officers and a cultural bias toward centralization, relied far more on detailed operational planning by higher headquarters. Subordinate formations were permitted very little autonomy. Accordingly, intelligence had to pass upwards through many levels to reach a decision maker and orders had to pass downwards through many levels to reach the executor. The upshot is that NATO's decision making was highly likely to out-clock the Pact's in any fast-moving situation. This advantage is reflected by the requirement that the WP player preplan his operations, while the NATO player can assign them on the fly and execute them immediately. This difference is the NATO player's greatest counter to his opponent's numerical superiority. A few troops at the right place and the right time can completely defeat a much larger force caught wrong-footed. **Air & Armor** places the advantage of a shorter IDA Cycle squarely in the NATO player's hands. If he doesn't use it well, he will lose the game every time.*

[12.1] HQ UNITS AND THE CHAIN OF COMMAND

An HQ unit is superior to all other units in its own formation and to all units in subordinate formations, including other HQs in those subordinate formations. In base formations containing two HQs (a Forward and a Main), both HQs are equally superior to all other units in their own formation and to all units in subordinate formations. An HQ is subordinate to any units in a higher echelon. Superior and subordinate units define an HQ's chain of command. The general rule is that an HQ can provide its HQ functions (Command Points, Reconnaissance Points, Fire Calls, and Jamming) to any actions only if that action involves a unit in its chain of command and usually only to a unit subordinate to that HQ. **As a general rule, no division is ever in the chain of command of another division and no brigade is ever in the chain of command of another brigade. Exception:** Certain scenarios may specify that an independent airmobile battalion has been detached from its parent brigade and subordinated (attached) to another formation (see 29.2.4).

[12.2] COMMAND POINTS

Each HQ generates a limited number of Command Points (CPs) each turn. CPs are expended to pay for operations. However, the two players expend their CPs quite differently. The WP player expends his CPs to plan operations for his regiments during the WP Planning Phase. These operations will be executed later in the turn when the division that owns those regiments conducts its Activation Cycle. The NATO player experiences no such time delay. During the Operations Segment of any friendly Activation Cycle, the NATO player can declare an operation, form a task force, expend a CP to assign the task force to that operation, and then conduct that operation immediately. Regiments and task forces are assigned to operations, not the other way around, because it is possible for multiple regiments or task forces to be assigned to the same operation (see Assaults, 13.4).

[12.2.1] Operation Costs. Each player must expend the following CPs to assign a regiment or task force to an operation:

1. March: 0
2. Hasty Attack: 1
3. Assault: 1
4. Reserve: 1

Assignment to an operation lasts for one turn, only. To assign a regiment or task force to an operation in the following turn, another CP will be required unless the operation is March.

[12.2.2] HQ Command Points. The number of Command Points that an HQ generates each turn is indicated in a red circle in the upper left corner of its Unit Counter. An HQ's CPs can be expended to assign operations only to units that are subordinate to that specific HQ. **An HQ's CPs renew each turn, but unexpended points cannot be carried over to the next turn.** An HQ that enters play as a reinforcement cannot expend CPs before the turn it is scheduled to arrive but can expend CPs from that turn forward, whether it is onmap or offmap (see Offmap Participation, 40.0). An HQ can expend its CPs regardless of whether it is on its used or unused side and does not become used when it has expended all its CPs. **However, an HQ can neither expend nor channel (see 12.7.4) CPs while it is disrupted (see 23.3).**

Design Note: It may seem strange that a WP Division HQ generates only a single CP each turn while the HQ for the 35th Guards Air Assault Brigade generates two CPs. However, each CP belonging to a Division HQ is planning the operation for a regiment consisting of four to five battalions while each CP for the Brigade is planning the operation of a single battalion.

[12.2.3] Offmap Command Points. The scenario instructions may provide each player with a certain number of Offmap Command Points that renew each turn but must be expended or lost. **Offmap CPs are always assumed to be within Command Range of all friendly units on or off the map.** WP Offmap CPs are associated with a particular army or front and can be expended to plan an operation for any regiment subordinate to that army or front. In this game, all WP Offmap CPs belong to the 8th Guards Army, which is superior to all regiments in play. NATO Offmap CPs are associated with a particular corps and can be expended to assign an operation to any task force in a brigade subordinate to that corps **without regard to the nationality of that brigade.** In this game, all NATO Offmap CPs belong to VII Corps, which is superior to all brigades in play.

[12.2.4] NATO HQ Tracks. Each NATO HQ has an HQ Track printed on the NATO Tracks Card. During the Reorganization Phase, the NATO player places a Command Points Marker in the top box on the HQ Track for each HQ unit he has in play. This box will correspond to the total number of CPs the HQ generates each turn. Each time a NATO HQ expends a CP, move the Command Points Marker down one box on its HQ Track until there are none left to expend.

Design Note: The WP player does not need HQ Tracks because he expends his CPs all at one time, whereas the NATO player will expend them gradually across the entire Game Turn.

[12.2.5] Offmap Command Points Tracks. The WP player has an Offmap CPs Track for each army and front that he controls printed on his Tracks Card. The NATO player has an Offmap CPs Track for each corps that he controls printed on his Tracks Card. A player places his Offmap Command Points Markers on his Offmap CPs Track to record how many Offmap CPs he receives each turn per the scenario instructions and to track their expenditure.

[12.3] WARSAW PACT PLANNING AND OPERATIONS

During the WP Planning Phase, the WP player must plan an operation for each **regiment** already on the map or entering as a reinforcement in the current turn. If a regiment's operation requires the expenditure of a CP, this point must come from a superior Division HQ or from a superior Army Offmap CP. Regiments that the WP player expects will participate in the same Assault Operation each require the expenditure of a separate CP. The WP player plans operations on the WP Planning Card. This card contains a section for each division that the WP player controls. In each section, there is a colored Operation Box matching the color stripe for each regiment in the division and bearing that regiment's Unit Designation. The WP player plans an operation for a

regiment simply by placing an Operation Marker of the appropriate type **upside down** in the Operation Box for that regiment (the marker is placed upside down so that the NATO player cannot see the type of operation planned). Alternatively, some players may find it easier to plan by simply placing the Operation Marker upside down on a unit of each regiment and dispensing with the Operation Boxes entirely. The WP player never plans an operation for his division bases because they always execute March operations. A disrupted WP HQ cannot expend CPs (see 23.3.1). At the end of the Planning Phase, **after all planning has been completed**, remove any Disrupted Markers from WP HQs.

***Play Note:** Because WP HQ units do not undisrupt until the **end** of the Planning Phase, the Sequence of Play ensures that disrupted WP HQs will never be able to expend a CP on the turn **following** their disruption.*

[12.3.1] Command Range. When the WP player expends a CP to plan an operation for a regiment, at least one unit of that regiment **must** be within the Command Range of the expending Division HQ. **Enemy units and their ZOCs do not block Command Range.** If no unit in the regiment is within range of a superior Division HQ, then the WP player must either 1) expend an Offmap CP from the superior army or front or 2) plan a March Operation, which is the only operation that does not require the expenditure of a CP.

[12.3.2] WP Lead Unit Markers. A WP Lead Unit Marker represents the location of a notional regimental HQ. When the WP activates a division, his first action is to place a Lead Unit Marker on one unit of each regiment in that division. This includes regiments attached to that division (see 12.5.3) and regiments planned for a Reserve operation (which is not executed during the Activation Cycle). To be eligible to receive a Lead Unit Marker, a unit **must** be within the Command Range of a superior Divisional HQ. **Exceptions:** If 1) an Offmap CP was expended to give the regiment its operation, or 2) the regiment is executing a March operation, then any unit in the regiment can receive the Lead Unit Marker without regard to range. If no unit in a regiment is eligible to receive a Lead Unit Marker, then none is placed. A Lead Unit Marker can be placed on a dummy unit, a used unit, and a disrupted unit. If a regiment is not currently on the map but will enter as a reinforcement, see 12.3.2.3.

[12.3.2.1] WP Lead Unit Marker Effects. No unit participating in a regiment's operation can enter any hex adjacent to an enemy unit (or adjacent to an empty City hex it is attacking, see 29.6.5) **unless** it starts the operation within three hexes of the Lead Unit Marker for that regiment. This restriction applies even if the hex adjacent to an enemy unit is protected (see 16.3). **Exception:** A unit belonging to a WP regiment planned for a Reserve operation **can** react (see 19.0) into the Objective hex of an enemy operation with no requirement to be within three hexes of the lead unit for its regiment. When determining this three-hex range, count the hex occupied by the unit but not the hex occupied by the Lead Unit Marker. A unit that is already next to an enemy unit can remain in place even if it is not within three hexes of the Lead Unit Marker. For the avoidance of doubt, units that do not start within three hexes of the lead unit are still bound by the movement restrictions for the operation they have been assigned. The units of a regiment are never required to **end** their movement within three hexes of the lead unit or the Lead Unit Marker.

***Design Note:** The rules above strongly encourage the WP player to keep the two wing units of a regiment within three hexes of the central unit to match the maximum frontage that Soviet doctrine assigned to a regiment. Although Lead Unit Markers have little impact on regiments planned for March or Reserve operations, the requirement to place a marker on all regiments is intended to avoid signaling which regiments have offensive operations planned and which do not.*

***Play Note:** As a practical matter, as long as the WP player keeps the two wing units of a regiment within three hexes of the central unit, he can dispense with placing Lead Unit Markers and use them only when they are needed for exceptions. Also, if a player is placing his Operation Markers on his regiments rather than in their Operation Boxes, then his Operation Markers can do double duty as his Lead Unit Markers and no Lead Unit Markers need be placed.*

[12.3.2.2] Once placed, a Lead Unit Marker does **not** move with the lead unit. The marker remains in the hex where it was originally placed and is removed from the map only during the Completion Step at the end of the regiment's operation.

[12.3.2.3] Reinforcement Regiments. When a non-airmobile regiment planned for any operation **except March** enters play as a reinforcement, its Lead Unit Marker is placed in any map-edge hex along its entry sector (see 46.8.2), **not** on an **offmap** unit of the regiment itself. All units of that regiment must enter the map within three hexes of that marker. Reinforcement regiments planned for a **March operation** require no Lead Unit Marker and can enter anywhere along their entry sector without being within three hexes of each other. **Airmobile units (see 29.1) do not require a Lead Unit Marker on the turn they enter and can enter anywhere along their entry sector without being within three hexes of each other.**

***Play Note:** This rule allows the WP player to enter regiments planned for March operations as real units and dummy units spaced far apart along the map edge to confuse the NATO player as to which counter(s) represent the real regiment.*

[12.3.2.4] No Lead Unit Markers are ever placed for WP division base formations, which are always limited to conducting March operations, only. Units activating during the March operation of a WP division base **can** move adjacent to enemy units, but **only** if the hex they enter is protected (see 16.3).

[12.4] WP MAIN EFFORT

Unless otherwise indicated by the scenario instructions, every WP division in play receives one Main Effort Chit at the start of the game. **Exception:** The 35th Guards Air Assault Brigade never receives a Main Effort Chit (it typically operates far beyond friendly logistics nets). A Main Effort Chit is always specific to a particular WP division, and there is only one chit per division. During any WP Planning Phase, the WP player can expend an Offmap CP from a superior army, **only**, to place a Main Effort Chit for a subordinate division **face down** on the Game Turn Track in the box for the **next** Game Turn. During the WP Planning Phase of the next Game Turn, the WP player can exercise one of four options:

1. He can expend one Offmap Command Point and move the Main Effort Chit one box further up the Game Turn Track to the next Game Turn.
2. He can remove the Main Effort Chit from the Game Turn Track and reserve it for future use (this costs nothing).
3. He can remove the Main Effort Chit from the Game Turn Track, reserving it for future use, and then expend one Offmap Command Point to place a Main Effort Chit for a **different** division in the box for the following Game Turn.
4. He can do nothing, in which case the Main Effort Chit remains in the box for the current Game Turn.

If a Main Effort Chit is left in the box for the current Game Turn, then, when the division named on that chit activates, the WP player **must** flip the chit face up and declare a Main Effort by that division. Once a Main Effort Chit has been flipped face up, it is left on the Game Turn Track as a record of its use. **It can never be reused.**

[12.4.1] **Main Effort Effects.** When the WP player declares a Main Effort, the following effects apply:

1. During the WP Planning Phase, if the WP player has left a Main Effort Chit on the Game Turn Track for exercise in the current Game Turn, he can plan any operation he wishes for **every** regiment in the division named on that chit, including any DTB, provided that each regiment has a unit in Command Range of a Division HQ. **Exception:** Shattered regiments (see 31.0) can never be given any operation other than March. No CPs are expended. The CPs normally generated by the Division HQs are ignored for this turn. Regiments that are **not** in range of a Division HQ will still require a superior Army Offmap Command Point to plan an operation other than March. Independent regiments that have been attached to the division (see 12.5.3) will also require a superior Army Offmap Command Point to plan an operation other than March.
2. During the Reconnaissance Segment of the division's Activation Cycle, it receives a special one-time allocation of two Offmap Reconnaissance Points (see 20.1.1). These two special Offmap RPs are added to the Main Effort Offmap RPs Track found on the WP Tracks Card. They are treated exactly like Offmap RPs from the Army superior to that division **except** that they **must** be expended during the Activation Cycle for the Main Effort division, and they never renew.
3. At the end of the Strike Segment of the division's Activation Cycle, remove all Fired Markers from any artillery units **that fired during that Strike Segment**, including any units from army or front base formations. This means that these artillery units remain free to use Indirect Fire **a second time in the same turn**, either during the Operations Segment of the same Activation Cycle or at any other point later in the turn, after which any Fired Markers placed on them will remain on the units as normal.

These effects are summarized on the Main Effort Effects Chart found in the Charts & Table Booklet.

Design Note: A Main Effort Chit represents the concentration of a WP army's logistical resources to support the division making the main effort. Assigning every regiment an offensive operation reflects both substantial planning and the provision of extra fuel and ammunition. The additional Offmap RPs represent the allocation of extra photo-reconnaissance flights. The ability of artillery units supporting the division to fire twice in one turn represents the provision of extra ammunition.

[12.4.2] **Main Effort Restrictions.** The following restrictions apply to employing a Main Effort Chit:

1. If any HQ in a WP division is disrupted or being reconstituted on the Game Turn Track (see 30.4.1) at the start of the WP Planning Phase, then the WP player cannot place a Main Effort Chit for that division on the GT Track and he must remove any Main Effort Chit for that division already placed on the GT Track. For the avoidance of doubt, if an HQ is disrupted or destroyed **after** the WP Planning Phase, any Main Effort Chit for that division located in the **current** Game Turn Box remains in place, and the division can still execute its Main Effort, whereas any Main Effort Chit for that division located in the **next** Game Turn Box will have to be removed when the next WP Planning Phase rolls around.
2. The WP player cannot have more than one Main Effort Chit **face down** on the Game Turn Track at any one time, meaning that he can place a Main Effort Chit upside down only every other Game Turn, at most. There is no limit to the number of face-up (used) chits that can remain on the Game Turn Track.

[12.5] WP BASE & INDEPENDENT FORMATIONS

[12.5.1] WP Division Base Formations. The only operation a WP division base can perform is a March operation and that operation must be executed during the Activation Cycle for its parent division. **Exception:** Eligible engineer units (which are always part of a WP base formation) can participate in any regiment's operation (meaning possibly in an offensive or Reserve operation) if they are within three hexes of the lead unit (see 12.9.1). The WP player does not plan the March operations for his division bases. Instead, at any point during the Activation Cycle for a division, the WP player can simply declare that he is executing the March operation for that division base. No lead unit is required and **all** unused units that belong to that division base can participate in the March operation regardless of where they are located on or off the map. Unlike WP regiments, where every unit in the regiment is flipped to its used side once the operation is completed, whether the units moved or not, WP division base units are flipped to their used side **only if they actually move** during their division base March operation. **Each WP division base can execute only one March operation per turn.**

[12.5.2] WP Army and Front Base Formations. Army and front base formations do not conduct their own March operations. Instead, the engineer and artillery units in these formations can participate in the March operation of any subordinate division base. Each unit in these higher echelon formations can activate individually with a different subordinate division each turn but each unit is permitted to move only during the division base March operation for the specific division with which it activates. The WP player can declare that a unit in an army or front base is activating with a subordinate division at any point during that division's Activation Cycle. This Activation Cycle then becomes that base unit's one chance to move this turn and its one chance to act as an observer for a friendly strike (because only **active** units can observe for a strike, see 21.3.1).

[12.5.3] WP Independent Regiments. WP independent regiments are regiments that belong directly to an army or front. The 8th Guards Army includes two independent regiments, the 119th Independent Tank Regiment and the 900th Air Assault Battalion (all WP airmobile battalions are treated as regiments for command-and-control purposes, see 29.2.1). While independent regiments belong to the same echelon as the army or front base, they are **not** considered part of the base formation. Instead, an independent regiment must be "attached" to a specific WP division. At the start of the WP Planning Phase, on the turn when an independent regiment first enters play (noting that its entry turn can always be delayed, see 46.6.5), the WP player must declare that he is attaching it to one division that is on the map or about to enter play. Once attached, an independent regiment behaves exactly like a regiment organic to that division, meaning that it activates with that division and can treat that division's HQs as superior for all purposes. **Exception:** An independent regiment does **not** get a free non-March operation when the division it is attached to executes a Main Effort (the WP player must expend an Army Offmap CP to plan a non-March operation for it, see 12.4.1, #1). Each independent regiment has its own Operation Box on the WP Planning Card. An independent regiment's attachment can be changed to a different division **just once per game** during any WP Planning Phase.

***Design Note:** The 119th Independent Tank Regiment was garrisoned right on the West German border, as were another four independent tank regiments attached to the Group of Soviet Forces Germany. Some Western defense analysts considered these regiments to be the final reserve formation for each of the five peacetime Armies in the Group. However, no commander stations his reserves right up on the front line. The best thinking on these five independent tank regiments is that their actual mission was to blitz over the border during the opening hours of a surprise invasion and penetrate as deeply as possible into the West German road network to sow panic and confusion and thereby prevent NATO units from getting up to their assigned border defense positions before the Soviets overran them. The half-life of these regiments would have been extremely short, but they might well have had a devastating effect on NATO's ability to man the forward positions its units were trained to defend.*

[12.6] NATO TASK FORCES

***Design Note:** The task force is NATO's primary operational formation in this game, roughly corresponding to a cross-attached battalion but, in the chaos of battle, often smaller. The NATO player's ability to form tailored combined arms task forces and assign them to an operation on the fly is his most significant asymmetrical advantage.*

A "task force" is a set of units grouped together to execute a Hasty Attack, Assault or Reserve operation. **Task forces are never formed for March operations, which are conducted by individual units or forces.** Only the NATO player forms task forces. He forms a task force during the Commitment Step of an operation by placing a Lead Unit Marker (see 12.6.1) on an unused maneuver unit subordinate to the **active** Brigade HQ and then declaring which other eligible units within three hexes of the lead unit will join that task force. All units that join a task force **must** be unused. A task force can be formed from the following units:

1. Any set of **maneuver units** from the **active** brigade (or, during the Reserve Phase, the **same** brigade) comprising up to **four steps; or**
2. Any set of **maneuver units** from an independent battalion attached to the **active** brigade (or, during the Reserve Phase, **any** brigade) comprising up to **four steps; and**
3. Any engineer units organic to the active brigade or belonging to a superior base formation of the same nationality

Once a task force has been formed during the Commitment Step of an operation, its component units cannot be changed later save to 1) split or 2) combine with other units **in the same task force**. **Exception:** In Hidden Mode, units can drop out of a task force due to excessive step appearance, see 45.3.4.

[12.6.1] Lead Unit Marker. When a task force is formed, a Lead Unit Marker is placed to indicate the location of a notional task force HQ. A Lead Unit Marker must be placed on an unused maneuver unit subordinate to the **active** Brigade HQ and within its Command Range. That unit is automatically included in the task force (though it **can** be a dummy unit). Any other units located within three hexes of that Lead Unit Marker can join the task force, but no other units are required to join that task force. Once placed, a Lead Unit Marker does **not** move with the lead unit. The marker remains in the hex where it was placed and is removed from the map only during the Completion Step at the end of the operation. The units of a task force are never required to **end** their movement within three hexes of the lead unit or the Lead Unit Marker. A Lead Unit Marker is never placed when a NATO unit conducts a March operation because task forces are not formed for March operations (see 13.2).

***Play Note:** The only purpose of a NATO Lead Unit Marker is to enforce the principle that all units assigned to a task force must start within three hexes of a central unit. As a practical matter, experienced players can dispense with placing a Lead Unit Marker as long as they observe this principal.*

[12.6.2] Task Force Size Limit. The maneuver units included in a task force cannot exceed four steps in total (**exception:** see 41.1.1). If the inclusion of a unit would break this limit, it cannot be included **unless** there is an available Unit Counter to split it in two and form a smaller unit that would fit under the limit. There is no limit to the number of engineer units that can be included.

[12.6.3] Reserve Phase Task Forces. During the Reserve Phase, there is no active brigade. NATO Reserve operations can be conducted in any order across all brigades. A task force for a Reserve operation can be formed from 1) any unused maneuver units belonging to the **same** brigade, or 2) from the units of an independent battalion (see 12.8.3), plus 3) any unused engineer units organic to that same brigade (or the brigade the independent battalion is currently attached to) or belonging to a superior base formation of the same nationality.

[12.6.4] Reinforcement Task Forces. The NATO player can form a task force offmap using units due to arrive as reinforcements in the current turn. He places a Lead Unit Marker in any map-edge hex along their entry sector (see 46.6.2). All units assigned to the task force must enter the map within three hexes of this Marker. Reinforcements committed to a March operation ignore this requirement.

[12.6.5] Task Force Duration. A NATO task force exists for a single operation, only. Once the operation has ended, the task force ceases to exist for any game purpose. During the next Activation Cycle for that brigade, a whole new set of task forces can be formed from a different combination of units.

[12.7] EXPENDING NATO COMMAND POINTS

Where the WP player expends a CP to **plan** an operation for a regiment, the NATO player expends a CP to **assign** a task force to an operation. **Exception:** March operations do not require a CP and can be assigned to NATO units and forces individually without requiring them to join a task force (see 13.2). The NATO player can expend his CPs at two points during the turn:

1. During the Commitment Step of any Hasty Attack, Assault or Reserve operation
2. During the Reaction Step of any enemy offensive operation to react a force (**not** a task force) into the Objective hex

[12.7.1] Commitment Step. During the Commitment Step of any NATO Hasty Attack, Assault or Reserve operation, after a task force has been formed, a NATO Brigade HQ must expend a CP to assign that task force to the operation. The Brigade HQ must be: 1) superior to all maneuver units in that task force (it can be subordinate to any engineer units) and 2) within Command Range of the Lead Unit Marker. Alternatively, a NATO Division HQ can expend the required CP if it can “channel” that CP through the Brigade HQ (see 12.7.4). A player can also expend an Offmap CP for this purpose without channeling it through the Brigade HQ (see 12.7.6). The NATO player can only assign a single task force to a Hasty Attack or Reserve operation. He can assign any number of task forces from the active brigade to an Assault operation, but each task force will require the expenditure of a separate CP. These CPs **can** come from any combination of superior HQs and Offmap CPs.

[12.7.2] Reaction. During the Reaction Step of any enemy offensive operation, the NATO player can expend one CP to react a **force** (not a task force) into the enemy’s Objective hex (see 19.0). The CP must come from, or be channeled through, a Brigade HQ that is 1) superior to all units in the reacting force and 2) within Command Range of that force. **Offmap CPs (see 12.7.6) cannot be spent on reaction.**

[12.7.3] NATO March Operations. Each NATO unit or force can conduct its own March operation (see 13.2). No task force is formed, and no CP is expended to assign it to a March operation. Units conducting a March operation need not be within Command Range of the active Brigade HQ but must be eligible to activate in the current Activation Cycle.

[12.7.4] NATO Division HQs. A NATO Division HQ can never expend a CP directly. Instead, it must “channel” its CPs **through** subordinate Brigade HQs. A NATO Division HQ can expend its CPs **during the Activation Cycles of any of its subordinate brigades** to channel additional CPs through the active Brigade HQ. It can also channel a CP through a subordinate Brigade HQ to enable a force to react during an enemy operation or to assign a task force to a Reserve operation during the Reserve Phase. For a Division HQ to channel a CP through a Brigade HQ, the Brigade HQ must be within the Command Range of the Division HQ, the lead unit or reacting force must be within the Command Range of the Brigade HQ, and all maneuver units in the task force or reacting force must be subordinate to that Brigade HQ. Neither HQ can be disrupted or reconstituting. This means that if a particular NATO Brigade HQ is disrupted or reconstituting, no superior Division HQ can expend a CP to assign a task force from that brigade to an operation nor can it provide a CP to enable a force from that brigade to react. There is no limit to the number of Division HQ CPs that can be channeled through a single Brigade HQ save for the number of CPs available and a Division HQ can channel its CPs through multiple Brigade HQs.

[12.7.5] Disrupted NATO HQs. When a NATO HQ is disrupted by an enemy Fire Strike (see 23.3), it immediately loses any unexpended CPs recorded on its HQ Track (move its CPs Marker to the Zero Box). Disrupted NATO Brigade HQs can no longer channel CPs.

[12.7.6] NATO Offmap Command Points. NATO Offmap CPs are provided by an offmap Corps HQ and are superior to all NATO units in that Corps **regardless of nationality** and are automatically within Command Range of all NATO units in that Corps **on or off the map**. Unlike CPs from a Division HQ, Offmap CPs **can** be spent to assign any task force to an operation, **without being channeled through an intervening Brigade HQ and without regard to range**. This capability makes them the only CPs that can commit a task force to an operation if its Brigade HQ has been disrupted or destroyed or if the lead unit is beyond the Command Range of its Brigade HQ. Offmap CPs **cannot** be expended to react a force (see 19.0) into the Objective hex of an enemy operation (they come from too far up the Chain of Command to react that quickly).

[12.8] NATO BASE & INDEPENDENT FORMATIONS

[12.8.1] NATO Division Base Formations. Units in a NATO division base can activate with any subordinate brigades. Each unit can activate individually with a different brigade each turn. The NATO player can declare that a division base unit is activating with a subordinate brigade at any point during that brigade’s Activation Cycle. This Activation Cycle then become that unit’s one chance to move this turn and its one chance to act as an observer for a friendly strike (see 21.3.1).

[12.8.2] NATO Corps Base Formation. Units in a NATO corps base can activate with any subordinate brigades using the exact same rules that apply to a NATO division base, **except that they can never activate with a brigade of a different nationality**, which also means that they cannot observe for HQs of a different nationality (see 21.3). Artillery units in a corps base **can** be included in the Artillery Pool (see 22.3) of any subordinate HQ unless it belongs to a different nationality, in which case corps artillery units can be included **only during a friendly Assault operation or Strike Segment** (but not for a Counter-Battery Fire Strike, see 22.3.1).

[12.8.3] NATO Independent Battalions. The 12th Panzer Division includes two “independent battalions,” the 126th and 127th Jäger Battalions. These are reserve battalions that are not organic to any brigade of the 12th Panzer and appear only when specified by the scenario instructions. Each Jäger battalion must be “attached” to a brigade of the 12th Panzer (they can be attached to different brigades) on the first turn it enters play. An independent battalion is attached simply by activating it with a brigade. Certain scenarios may also specify that a battalion drawn from one brigade has been attached to another brigade. Such a battalion is also considered to be an independent battalion. Once attached to a brigade, an independent battalion behaves exactly like a battalion organic to that brigade and can treat that brigade’s HQs as superior for all purposes. Its attachment can be changed to a different brigade of the 12th Panzer **just once per game** simply by activating it with that other brigade. **Units from a NATO independent battalion can never form a task force with units from outside the battalion.** However, a task force from the battalion can be assigned to an Assault operation with other task forces from the brigade it is attached to.

[12.8.4] NATO Independent Brigades. The WG 54th HSB, the WG 26th Luftlande, and the Canadian 4 CMBG are all independent brigades attached to VII Corps. Independent brigades have no parent division, meaning that these brigades are not in the chain of command of any NATO Division HQs and thus cannot access any of their resources (CPs, RPS, Fire Calls, and EW Assets). Because none of these brigades are US, no units of the VII Corps Base can activate with them, and they can draw only limited fire support from corps artillery units (see 22.3.1). However, independent brigades can always utilize 1) any Offmap Command Points and Offmap Reconnaissance Points belonging to VII Corps and 2) any Combat Support Points of their **own** nationality (see 46.4.1).

[12.9] OPERATIONS AND ENGINEER UNITS

[12.9.1] WP Engineers. WP engineer units in this game all belong to a specific base formation, and thus normally move during the March operation of a WP division base. However, any engineer units belonging to the active division or a superior base formation can

participate in a regiment's operation if they start the operation unused and within three hexes of the Lead Unit Marker for that regiment. **A WP engineer unit that does not move during its division base March operation is never flipped to its used side, meaning that it remains available to conduct an Engineering Action (see 33.0) during the ensuing Engineering Phase.**

[12.9.2] NATO Engineers. A NATO task force can include any engineer units belonging to the active brigade, or to a superior base formation of the same nationality, if they are unused and located within three hexes of the Lead Unit Marker. However, no task force can include only engineer units. At least one maneuver unit must serve as the lead unit in order for an engineer unit to be included. **Engineer units never count against the task force limit of four maneuver steps because they are not maneuver units.**

[12.9.3] Engineers and Enemy Units. In addition to any other rule that might prevent a unit from moving adjacent to an enemy unit, an engineer unit cannot enter a hex adjacent to an enemy unit unless 1) it is moving as part of a force that includes a maneuver unit or 2) the hex it is entering already contains a friendly maneuver unit. Engineers **cannot** participate in an Overrun operation (see 42.0) but **can** participate in any other operation, including Close Attacks (see 43.0).

[12.9.4] Engineer units due as reinforcements in the current turn can enter the map during the operation of any WP regiment or NATO task force that is also entering the map as a reinforcement (see 46.6) if they are all in the same chain of command and, for NATO, of the same nationality.

***Play Note:** There are good reasons to include an engineer unit in an operation. A player must include an engineer unit to conduct a Ferry Crossing (see 17.4) or Amphibious Crossing (see 17.5). He might include an engineer unit if he intends to enter a minefield because the presence of an engineer materially reduces the risk of step loss (see 37.5). And he might also include an engineer unit to protect a stack against a future enemy ADM Strike (see 23.5) or to enable the engineer unit to enter a hex adjacent to an enemy unit.*

[13.0] OPERATIONS

Generally, an "operation" for the WP player comprises the movement, and possibly fire, of one regiment or one division base. Generally, an operation for the NATO player comprises the movement, and possibly fire, of one task force (see 12.6). No unit can participate in more than one operation per turn, **(except** artillery units, which always move in one operation and fire during another, see 22.6). No unit is ever required to conduct an operation, but this is the only way a unit can voluntarily move. A unit must be unused to participate in an operation, and it always becomes used at the end of that operation. There are four types of operations that a regiment or task force can conduct: March, Hasty Attack, Assault, and Reserve. For brevity, Hasty Attack and Assault operations are collectively termed "offensive" operations because they are the only operations that allow Offensive Fire against enemy units, and they share many characteristics. **HQ and Artillery units can only participate in March operations. All other unit types can participate in any type of operation.** March and offensive operations are conducted during the Operations Segment of friendly Activation Cycles. Reserve operations are conducted during the Reserve Phase.

[13.1] OPERATION CYCLES

Each type of operation is executed using a unique Operation Cycle. An Operation Cycle is a sequence of "Steps" that structures the movement and combat activities for that specific type of operation. When a player declares an operation, he always follows the sequence of Steps in the Operation Cycle for that type of operation. ~~Hasty Attack operations are a special case.~~ The sequence of Steps for each standard Operation Cycle is provided below and summarized on the Sequences Cards provided for each player. The optional rules also contain two additional Operation Cycles (see Overrun, 42.0, and Close Attack, 43.0).

[13.2] THE MARCH OPERATION CYCLE

***Design Note:** A March operation represents an order to move as rapidly as possible to an assigned position. It assumes that no significant contact with the enemy is likely. Therefore, the assigned units can move in column and follow the road net as much as possible but cannot engage enemy units.*

March operations are the only operations that do not cost a Command Point and the only operations that HQ and artillery units can conduct. The WP player conducts his March operations with a single regiment or division base. For NATO, no task force is formed. Rather, a NATO March operation is always conducted by a single unit or a single force (any or all units that start together in a hex and move together, see 14.1). A March Operation Cycle consists of the following sequence of Steps:

1. **Commitment Step:** If the active player is the WP, he declares which regiment or division base is executing the operation. If he is committing a regiment, he reveals the Operation Marker for that regiment. If the active player is NATO, he selects the unit or force executing the operation.
2. **Movement Step:** The committed units execute ground movement (see 16.0) with a Movement Allowance of **six** Movement Points. **Road movement is allowed (see 16.4).** Airmobile units (see 29.0) can move in two pulses, one for air movement (helicopter transport, only) and one for ground movement (see 29.3). No airmobile unit can use air movement to move

within Flak Range (two hexes) of an enemy unit (see 29.4.2). **No unit can use ground movement to enter a hex adjacent to an enemy unit unless that hex is protected (see 16.3).**

- 3. Completion Step:** Flip the Unit Counters for all participating units over to their used sides whether they moved or not and remove any WP Lead Unit Marker. **Exception: WP division base units are never flipped to their used sides if they do not move during their division base March operation (see 12.5.1).**

***Play Note:** Because the WP player is limited to just one March operation for his entire division base, he will have to be careful about the timing of that operation relative to the operations of the division's regiments. Should he move the division base forward early in the Activation Cycle to support this turn's operations? Or should he move it at the end to get as close as possible to the new front lines for the next turn? Because the NATO player can execute any number of small March operations between the operations of his task forces, he has far more flexibility in positioning his HQs, engineers, and artillery to be in the right place at the right time.*

[13.2.1] WP Higher Echelon Base Units. Any unused HQ, engineer, or artillery unit in any WP base formation **superior** to the currently active division can elect to participate when the division base for the active division performs its one March operation for the turn.

[13.2.2] NATO Higher Echelon Base Units. Any HQ, engineer, or artillery unit in any NATO base formation **superior** to the currently active brigade can conduct a March operation at any point during that brigade's Activation Cycle.

[13.2.3] While a unit executing a March operation cannot enter a hex adjacent to an enemy unit unless it is protected (see 16.3), it is allowed to **exit** a hex adjacent to an enemy unit regardless of whether it is protected or not.

[13.3] THE HASTY ATTACK OPERATION CYCLE

***Design Note:** A Hasty Attack operation represents an order to attack an enemy position with a maximum of speed and a minimum of preparation. Hasty Attacks are characterized by high mobility but limited fire support. A Hasty Attack operation is good for attacking a distant enemy unit or for charging past enemy positions and into the enemy rear.*

The WP player executes a Hasty Attack operation with all units of a **single regiment**. The NATO player executes a Hasty Attack operation with all units of a **single task force**. Both players can include any eligible engineer units within three hexes of the lead unit. A Hasty Attack Operation Cycle consists of the following sequence of Steps:

- 1. Commitment Step:** If the active player is the WP, he declares which regiment is executing its planned Hasty Attack operation and the Objective hex (see 13.5), if any. If the active player is NATO, he declares a Hasty Attack operation, forms a single task force by placing a Lead Unit Marker on the lead unit and declaring which other active units within three hexes of the lead unit will join that task force, expends one Command Point to assign the task force to the operation, and then declares the Objective hex, if any. If the active brigade is WG, the NATO player can declare a *Gegenangriff* (see 41.4). If playing with the optional rules for *Overrun* (see 42.0), the active player can convert the Hasty Attack operation to an *Overrun* operation, in which case he uses the alternate Operation Cycle for an *Overrun*.
- 2. Movement Step:** All units in the regiment or task force committed to the operation move with a Movement Allowance of **six** Movement Points. Road movement is **not** allowed, **except** that WP regiments, only, can use road movement when expending the **first half** of their available Movement Points (see Attack from March, 16.5). Airmobile units (see 29.0) can move in two pulses, one for air movement (helicopter transport, only) and one for ground movement (see 29.3). Units can enter and transit hexes adjacent to enemy units. The **inactive** player executes any Flak (27.2) or Infiltration Fire (18.6) triggered by active units moving in this Step.
- 3. Jamming Step:** The active player can attempt to jam the Objective hex (see 39.0).
- 4. WG Gegenangriff Step:** If the NATO player declared a *Gegenangriff*, he rolls on the *Gegenangriff* Table. If the *Gegenangriff* succeeds, he follows the alternate sequence of steps described in Case 41.4.
- 5. Reaction Step:** The **inactive** player can react (see 19.0) one force into the Objective hex.
- 6. Defensive Fire Call Step:** One **inactive** HQ unit eligible to make a Fire Call (see 21.3.3) can do so. A WP HQ can make a Fire Call to the DAG for its division, **only** (see 4.1.2.4). A NATO HQ can make a Fire Call to **one** non-rocket artillery unit in its Artillery Pool (see 22.3).
- 7. Defensive Fire Step:** The **inactive** player executes Defensive Fire (see 18.7) with all inactive units that are adjacent to an active enemy unit participating in the current operation (**exception:** see 18.7.5) and with any artillery unit called in the previous Step. Hits inflicted are absorbed by step loss (see 18.3).
- 8. Offensive Fire Call Step:** One friendly HQ in the active formation (or, for NATO, a Division HQ superior to the active brigade) can make a Fire Call (see 21.2) to any **one** non-rocket artillery unit in its Artillery Pool.

9. **Offensive Fire Step:** The active player executes Offensive Fire against the Objective hex, if any, with all adjacent units participating in the operation and with any artillery unit called in the previous Step. Hits inflicted are absorbed by electing to retreat and/or step loss (see 18.3).
10. **Retreat Step:** If the inactive player elected to retreat (see 18.3.2), any surviving defending units must retreat out of the Objective hex and into an adjacent hex (see 18.4). Any units that retreat into a hex adjacent to an enemy unit are flipped over to their used sides. If units retreat into a hex in an EZOC (see 15.0), they are immediately subject to Retreat Fire (see 18.9) from all enemy units that exert that ZOC.
11. **Advance Step:** If the Objective hex is cleared of defending units, then the active player can advance (see 18.5) any adjacent units participating in the operation into the Objective hex. Any advance engages all inactive units that retreated from the Objective hex, requiring them to flip to their used sides (see 18.5.3).
12. **Completion Step:** The active player flips the Unit Counters for all his participating ground units over to their used sides whether they moved or not. Remove the Lead Unit Marker and any Objective Hex Marker from the map.

[13.3.1] Leg and Motorized Infantry. Leg infantry units (see 29.3.1) and motorized infantry units (infantry units displaying a truck for their Vehicle Symbol) are prohibited from participating in Hasty Attack operations.

Design Note: Due to the vulnerability of their transport, truck-borne infantry must dismount much further from their objective than mechanized infantry. There is no "hasty" possible when a long approach must be made on foot. This is even more true for units with no motorized transport.

[13.4] THE ASSAULT OPERATION CYCLE

Design Note: An Assault operation represents an order to conduct a thoroughly planned attack against an enemy position. It sacrifices speed and often surprise but allows the planning and coordination necessary to bring overwhelming firepower to bear on the objective. Assaults are especially useful when more than one regiment or task force must be brought to bear on a stubborn enemy position, or when extra fire support is needed.

The WP player can execute an Assault operation with any or all regiments in the active division that were planned for an Assault operation, plus any eligible engineer units that are within three hexes of the lead units of these regiments (see 12.9.1). Similarly, the NATO player can execute an Assault operation with any or all task forces he can form from the active brigade. **Exception: If a player wants to convert an Assault operation into a Close Attack operation (see 43.0), then only one regiment or task force can participate.** An Assault Operation Cycle consists of the following sequence of Steps:

1. **Commitment Step:** If the active player is the WP, he declares an Assault operation, declares which regiment(s) in the active division will participate, reveals their Assault Operation Markers, and then declares the Objective hex (see 13.5), if any. If the active player is NATO, he declares an Assault operation, declares how many task forces will participate, forms the task force(s) from the unused units in the active brigade, expends one Command Point for **each** task force to assign it to the operation, and then declares the Objective hex, if any. **If playing with the optional rules for Close Attack (see 43.0), the active player can convert the Assault operation to a Close Attack operation, in which case he uses the alternate Operation Cycle for a Close Attack.**
2. **Movement Step:** All units in the regiments or task forces committed to the operation move with a Movement Allowance of **three** Movement Points. All units of one regiment or task force must complete their movement before another regiment or task force can be moved. Road movement is **not** allowed. Units can enter and transit hexes adjacent to enemy units. Airmobile units (see 29.0) can move in two pulses, one for air movement and one for ground movement (see 29.3). The **inactive** player executes any Flak (27.2) or Infiltration Fire (18.6) that is triggered by active units moving in this Step.
3. **Jamming Step:** The active player can attempt to jam the Objective hex (see 39.0).
4. **Reaction Step:** The **inactive** player can react (see 19.0) one force into the Objective hex if not jammed.
5. **Defensive Fire Call Step:** One **inactive** HQ unit eligible to make a Fire Call (see 21.3.3) can do so. A WP HQ can make a Fire Call to the DAG for its division, **only** (see 4.1.2.4). A NATO HQ can make a Fire Call to up to **two** non-rocket artillery units in its Artillery Pool (see 22.3) and to **one** attack helicopter unit (see 25.0).
6. **NATO Defensive Helicopter Movement Step:** If the NATO player made a Fire Call for an attack helicopter unit, the unit is removed from the Ready Box on his Helicopter Track, enters from the friendly map edge, and moves to its firing position, possibly taking Flak Fire (see 27.2) in each hex it enters.
7. **Defensive Fire Step:** The **inactive** player executes Defensive Fire (see 18.7) with all inactive units that are adjacent to an active unit participating in the current operation (**exception:** see 18.7.5) and with any artillery and attack helicopter units called. Hits inflicted are absorbed by step loss (see 18.3).

8. **Offensive Fire Call Step:** One HQ in the active formation (or, for NATO, a Division HQ superior to the active brigade) can make a Fire Call (see 21.2) to up to **two** non-rocket artillery units in its Artillery Pool (see 22.3) and to **one** attack helicopter unit (see 25.0).
9. **Offensive Helicopter Movement Step:** If the active player made a Fire Call for an attack helicopter unit, that unit is removed from the Ready Box on his Helicopter Track, enters from the friendly map edge, and moves to its firing position, possibly taking Flak Fire (see 27.2) in each hex it enters.
10. **Offensive Fire Step:** The active player executes Offensive Fire against the Objective hex, if any, with all adjacent units participating in the current operation and with any artillery and attack helicopter units called. Hits inflicted are absorbed by electing to retreat and/or step loss (see 18.3).
11. **Retreat Step:** If the inactive player elected to retreat (see 18.3.2), any surviving defending units must retreat out of the Objective hex and into an adjacent hex (see 18.4). Any units that retreat into a hex adjacent to an enemy unit are flipped over to their used sides. If units retreat into a hex in an EZOC (see 15.0), they are immediately subject to Retreat Fire (see 18.9) from all enemy units that exert that ZOC.
12. **Advance Step:** If the Objective hex is cleared of defending units, then the active player can advance (see 18.5) any adjacent units participating in the operation into the Objective hex. He must mask any units that violate stacking restrictions (see 14.4). Any advance engages all inactive units that retreated, requiring them to flip to their used sides (see 18.5.3).
13. **Completion Step:** The active player flips the Unit Counters for all his participating ground units over to their used sides whether they moved or not. Each player moves any attack helicopter unit he has called from its firing position back to the friendly map edge, possibly taking Flak Fire in each hex it enters, and returns it to the Recovery Box on his Helicopter Track (see 25.5). Remove the Lead Unit Marker(s) and any Objective Hex Marker from the map.

[13.4.1] WP Assault Operations. Normally, each regiment conducts its own operation separately from any other regiment. However, multiple regiments can participate in the same Assault operation, possibly including every regiment in the active division. When the WP player declares an Assault operation, he can reveal the Operation Markers of any or all regiments in the active division that were planned for an Assault and include them in the current operation. However, there is no requirement that all regiments planned for an Assault operation participate in the same Assault operation and a player is always free to conduct an Assault operation with just one regiment. If multiple regiments do participate in the same Assault operation, only one Objective hex can be declared. During the Movement Step, each participating regiment moves one at a time. The NATO player executes Defensive Fire against all participating units adjacent to NATO units as normal, after which all units from the participating regiment(s) can combine their fire on the Objective hex.

[13.4.2] NATO Assault Operations. The NATO player can conduct an Assault operation with any number of task forces provided that 1) each task force is formed from maneuver units in the active brigade or from maneuver units in an independent battalion attached to the active brigade, and 2) the NATO player expends one CP for each task force assigned to the operation. Only one Objective hex can be declared. During the Movement Step, each participating task force moves one at a time. The WP player executes Defensive Fire against all participating units adjacent to WP units as normal, after which all units from the participating task force(s) can combine their fire on the Objective hex.

[13.4.3] Non-US Assault Operations. Generally, a NATO HQ cannot include artillery units belonging to a different nationality in its Artillery Pool (see 22.3) even if they are in its chain of command. As an **exception**, any artillery unit belonging to VII Corps (meaning any unit in the 72nd FA Brigade) **can** be included in the Artillery Pool of a non-US HQ during the Offensive Fire Call step of an Assault operation (see 22.3.1) conducted by a West German or Canadian brigade.

[13.5] OBJECTIVE HEXES

During the Commitment Step of an offensive operation, the active player must declare whether the operation will have an Objective hex. If he declares an Objective hex, he places an Objective Hex Marker in that hex. **If an Objective hex is declared, this is the sole hex that participating units can fire at. If no Objective hex is declared, then no unit participating in the operation can execute Offensive Fire at all.** A hex cannot be declared as the Objective hex of an operation unless it contains an enemy unit (otherwise a player could advance into an empty Objective hex and get a free hex of movement). **Exception:** see Urban Resistance, 29.6.5. For the avoidance of doubt, a hex does **not** have to be acquired (see Reconnaissance, 20.0) to be declared the Objective hex of an offensive operation. **Exception:** see Airmobile Operations and Enemy Units, 29.3.4. If a player declares an Objective hex for an operation and no **maneuver unit** participating in the current operation ends the Movement Step adjacent to that hex, then the Objective Hex Marker is immediately removed, and no Offensive Fire can be made against that hex.

***Play Note:** There are many reasons why a player might not declare an Objective hex for an offensive operation. He might use the operation to enable participating units to reinforce a friendly position adjacent to an enemy unit or to bull past enemy units and push into the enemy rear. He might also use the operation to enable participating units to scout multiple enemy positions by moving adjacent to them and then moving away again (though this will trigger Infiltration Fire, see 18.6).*

[13.5.1] Regardless of whether the active player has declared an Objective hex, the inactive player will **always** get to execute Defensive Fire against **all** units participating in an offensive operation that end their movement in any hexes adjacent to his units. **Exception: A friendly unit can never execute Defensive Fire against an adjacent enemy unit participating in an offensive operation if that unit both 1) never moved and 2) is not adjacent to the Objective hex.**

[13.5.2] Because a player is never required to declare an Objective hex, a WP regiment is never obligated to attack an enemy position when it executes a planned offensive operation. However, a regiment will always be bound by the Movement Allowance and movement restrictions that apply to the type of operation planned for it.

[13.5.3] **Follow-On Objectives.** If a player conducting an offensive operation moves his first unit next to the Objective hex and discovers that only dummy units are present, he has two options:

1. He can complete the movement of all participating units, **none of which can enter the Objective hex**, suffer any Defensive Fire that the defending player is eligible to conduct (from units outside the Objective hex but still adjacent to the attacking units), and then advance into that empty Objective hex with any adjacent participating units, after which the operation ends, and all participating units flip to their used side; or
2. He can designate, at that instant, a new Objective hex before continuing with the remaining movement of that first unit and the movement of any other units participating in that operation, all of which can enter the prior Objective hex if they have the Movement Points to do so.

If the new Objective hex also contains only dummy units, the active player can again choose one of the two options presented above. This process can continue until the operation either 1) runs into a real enemy unit in its currently designated Objective hex or 2) the participating units run out of Movement Points. The WP player can also designate a new Objective hex if the first unit to move adjacent to the current Objective hex is successfully screened by a US armored cavalry unit (see 41.2.8).

***Design Note:** The logic for option 1 is that when a player attacks a dummy unit, he has earned the right to enter that hex, even if he lacks the Movement Points to do so, because he would have been eligible to advance into that hex had it contained a real enemy unit (see 18.5). The logic for option 2 is that when a punch swings through empty air, it will keep going until it connects with something.*

[13.5.4] If an Objective hex is declared for an offensive operation, then, during the Reaction Step of that operation, an enemy force can react into that Objective hex (see 19.0). If no Objective hex is declared, no reaction is possible.

[13.6] EXECUTING OPERATIONS

[13.6.1] **WP Operations.** During the Operations Segment of the Activation Cycle for a WP division, the WP player can execute the operation planned for each of its regiments and the March operation for its division base in any order he desires, **except** for Reserve operations, which are executed separately during the Reserve Phase. Since a WP division comprises at most five regiments and one division base, the WP player normally will have a maximum of six operations to conduct during the Operations Segment of any friendly Activation Cycle (though, if additional independent regiments have been attached to that division, there could be more). No regiment is ever required to conduct its planned operation, meaning that it can remain stationary throughout the entire Activation Cycle, but if it does conduct an operation, then it **must** conduct the type of operation that was planned for it. Each operation must be completed before another can be started. The WP player declares an operation by flipping over the Operation Marker in the regiment's Operation Box to reveal the operation planned for it to the NATO player. He then follows the Steps described in the Operation Cycle for that type of operation. The WP player has the option to flip over the Operation Markers for multiple regiments that have been planned for an Assault operation and combine them in the same operation. No unit belonging to a regiment can ever participate in its planned operation if it is already on its used side when that operation is executed (though other unused units in the regiment can). When a WP regiment conducts its planned operation, all unused units in that regiment **must** participate (though they need not move), meaning that they will all flip to their used sides at the end of that operation. When a WP division base conducts its March operation, all units in the division base can participate, **but, unlike regimental operations, no unit is required to participate.** Any division base unit that does not participate cannot move but remains unused (this is important for engineer units, which must be unused to perform an Engineering Action later in the turn, see 33.0).

[13.6.2] **NATO Operations.** During the Operations Segment of the Activation Cycle for a NATO brigade, the NATO player can declare any operation he would like to execute, **except** for a Reserve operation (which is declared during the Reserve Phase). He then immediately conducts an Operation Cycle for that operation. He can declare and then execute operations in any order he desires, and he does not need to declare any of his operations in advance. There is no limit to the number of March operations that he can declare save for the number of units eligible to activate in the current Activation Cycle. There is no limit to the number of offensive operations that he can declare save for the number of Command Points he has available to assign task forces to those operations. No NATO unit is ever required to participate in an operation.

[13.6.3] The Reserve Phase. Uniquely, Reserve operations are not executed during the Operations Segments of friendly Activation Cycles, but rather during the Reserve Phase. At the start of the Reserve Phase, the WP player rolls a die for the initiative. On an odd result, he wins the initiative. On an even result, the NATO player wins the initiative (0 is treated as 10). The player who wins the initiative executes **all** his Reserve operations, one after the other across all his formations, in any order he desires. Once he has finished, his opponent then executes **all** his Reserve operations, one after the other across all formations, in any order he desires. The WP player executes each Reserve operation he had planned for a regiment using all units in the regiment that remain unused, plus any eligible engineer units within three hexes of the lead unit (see 12.9.1). The NATO player can form task forces to execute Reserve operations from any NATO units that remain unused, provided that the maneuver units in any one task force are all drawn from the **same** brigade or from the **same** independent battalion (see 12.8.3).

[13.7] THE RESERVE OPERATION CYCLE

Design Note: *A Reserve operation represents an order to wait in position until higher command determines which threat or opportunity the formation should respond to.*

Reserve operations are executed only during the Reserve Phase. The WP player executes a Reserve operation with **a single regiment**. The NATO player executes a Reserve operation with **a single task force** (see 12.6.3). No Reserve operation can be declared an airmobile operation (see 29.3). A Reserve Operation Cycle consists of the following sequence of Steps:

1. **Commitment Step:** If the active player is the WP, he declares which regiment is executing its planned Reserve operation. If the active player is NATO, he declares that he is conducting a Reserve operation, forms a single task force from units belonging to the same brigade or independent battalion, and then expends one Command Point to assign that task force to the operation.
2. **Movement Step:** All units in the regiment or task force committed to the operation can use ground movement, only, with a Movement Allowance of **three** Movement Points. Road movement is allowed. **No unit can move adjacent to an enemy unit, unless it is entering a hex using protected movement (see 16.3).**
3. **Completion Step:** Flip the Unit Counters for all participating units over to their used sides whether they have moved or not. Remove the Lead Unit Marker.

[13.7.1] WP units belonging to a regiment with a planned Reserve operation are the only WP units allowed to **react** during a NATO offensive operation (see Reaction, 19.0).

[13.7.2] No unit can participate in a Reserve operation if it starts that operation adjacent to an enemy unit. WP units in a regiment planned for a Reserve operation that start that operation adjacent to an enemy unit are flipped to their used sides and do not move. This has no effect on the participation of other units in the regiment that do not start adjacent to an enemy unit.

[13.8] INTERRUPT ACTIONS

Certain events that occur during play can trigger an "Interrupt Action." When an Interrupt Action is triggered, normal play is halted to perform that action. When that action has been completed, normal play resumes. Interrupt Actions include:

1. The Contact Procedure (see 16.8.1)
2. Infiltration Fire (see 18.6)
3. Retreat Fire (see 18.9)
4. A Counter-Battery Fire Cycle (see 23.4)
5. Anti-Aircraft Fire (see 27.0)
6. A Mine Attack (see 37.5)
7. A Contamination Check (see 44.4)
8. A Screening Action by a US cavalry unit (see 41.2)

[14.0] STACKING RESTRICTIONS

Design Note: *The stacking limits in Air & Armor do not reflect the practical limits of unit density. Each hex in Air & Armor represents a square mile. It would be physically possible to park the vehicles of an entire division in a single hex. Instead, the stacking limits and restrictions in this section reflect command and control limitations and logistical constraints on force management.*

[14.1] STACKS AND FORCES

These rules refer to a “stack,” (a static concept) and a “force” (a dynamic concept). A stack is defined as the set of all units that are **stationary** together in the same hex. A force is defined as the set of all units that are **currently moving** in the same hex and that continue to move together from hex to hex. Forces can be combined (see 16.6.1 and 16.6.2) into a single force or split into multiple forces (see 16.6.3) during their movement. Units in a stack can be divided into multiple forces that move separately and multiple forces can end their movement in the same hex creating a single stack (see Force Movement, 16.6). Once a stack, part of a stack, or a single unit starts to move, it is always referred to as a force until its movement has ended.

[14.2] STACKING LIMITS

There is no limit to the number of forces that can move **through** a hex. There is a limit to the number of ground unit steps that can **end** their movement stacked in a hex. This limit is termed the “stacking limit” and applies to the total number of **maneuver-unit steps** (tank, armored cavalry, anti-armor, mechanized infantry, and infantry steps) that can occupy a single hex at the end of any operation.

[14.2.1] WP Stacking Limit. The WP player can stack any number of maneuver **units** in a hex provided that the total number of **steps** belonging to all maneuver units in the hex never exceeds **nine steps** (the maximum number of steps in a single WP regiment).

[14.2.2] NATO Stacking Limit. The NATO player can stack any number of maneuver **units** in a hex provided that the total number of **steps** belonging to all maneuver units in the hex never exceeds **four steps** (the maximum number of steps in a single NATO battalion).

[14.2.3] Other Unit Types. There is no limit to the number of **steps** of all **non-maneuver** unit types (HQ, artillery, engineer, helicopter, and air) that a player can stack in a single hex.

[14.2.4] The stacking limits applies only at the following points during play:

1. **At the end of the initial setup for a scenario (see 46.1).**
2. **At the end of the Reinforcement Phase for all units placed just offmap (see 46.6.3).**
3. At the end of the Movement Step of any operation. Maneuver units containing any number of steps can pass through a hex during a Movement Step, provided that the stacking limit is not violated at the **end** of the Step.
4. At the end of any force’s reaction movement (see 19.4).
5. At the end of any force’s retreat (see 18.4) or advance (see 18.5) during an offensive operation.

[14.2.5] All stacking limits and restrictions are summarized on the Stacking Restrictions Charts in the Charts & Tables Booklets.

[14.3] ALLIANCE STACKING RESTRICTIONS

In addition to the stacking limit, which applies to the number of units or steps in a hex, a player also faces certain restrictions on his ability to stack different formations in the same hex.

[14.3.1] WP Stacking Restrictions. The WP player is subject to the following stacking restrictions:

1. Units belonging to different regiments cannot stack together in the same hex. **Exception:** The Divisional Tank Battalion (DTB) in each Soviet motor rifle division, otherwise treated as a separate regiment for all purposes, **can** stack freely with any other units belonging to the **same division**, subject to the normal stacking limit of nine maneuver-unit steps.
2. Units belonging to different divisions cannot stack together in the same hex.
3. Units belonging to different armies cannot stack together in the same hex.
4. Units belonging to a base formation can always stack with any units in their chain of command.

[14.3.2] NATO Stacking Restrictions. The NATO player is subject to the following stacking restrictions:

1. Units belonging to different brigades cannot stack together in the same hex. **Exception:** Units belonging to an independent battalion (see 12.8.3) can stack with any other units of the brigade to which they are attached (though they cannot be assigned to the same Task Force).
2. Units belonging to different divisions cannot stack together in the same hex
3. Units belonging to different corps cannot stack together in the same hex (there is only one corps in this game)

4. Units belonging to a base formation can stack with any units in their chain of command.

As an overriding restriction, units belonging to **different** NATO nationalities cannot stack together in the same hex.

[14.3.3] Enemy Units. Generally, no ground unit can ever end its movement stacked in the same hex with an enemy unit.

Exception: A ground unit can temporarily stack with an enemy unit during an Overrun (see 42.0) or Close Attack (see 43.0) operation, but it cannot end the operation stacked with an enemy unit. Air units (24.0) and attack helicopter units (25.0) **can always** end their movement stacked with enemy units (since they occupy the hex at a different altitude).

[14.4] MASKING

The stacking limits and any other stacking restrictions are collectively termed “stacking restrictions.” **Generally, a player can voluntarily choose to violate any stacking restriction at any point in the game with the following exceptions:**

1. A player can **never** violate the restriction that a ground unit cannot stack with an enemy ground unit **unless** it is entering the Objective hex during an Overrun (see 42.0) or Close Attack (see 43.0).
2. A player can **never** violate stacking restrictions when he reacts a force into the Objective hex of an enemy offensive operation (see 19.0).
3. A player can never violate stacking restrictions during the initial setup for a scenario
4. A player can never violate stacking restrictions for any units deployed just offmap during the Reinforcement Phase.

The price for violating any stacking restriction is that the violating units will become “masked.” **The basic principle is this: the owning player can always choose one set of units that, if alone in the hex, would be legally stacked, and leave them unmasked even if they were the last units to enter the hex. All other units in the hex then become masked. However, used maneuver units that start an operation unmasked in a hex cannot be chosen to be masked (they are considered to “own” the hex from an operational boundary perspective). The owning player must place a Masked Marker in the hex on top of the masked units and below the unmasked units.** Masking applies to whole units, not steps. However, if the stacking limits have been violated, and a player has an available Unit Counter, he can split a unit and allocate its steps between one unit that will become masked and another that will not. Masking has the following effects:

1. Masked units cannot fire. **Exceptions:** Masked units can execute Flak Fire (see 27.2) and masked artillery units can execute Indirect Fire (see 22.2).
2. No unit can react into an Objective hex if it contains a masked unit (see 19.0).
3. A stack of units that contains a masked unit cannot retreat from enemy Offensive Fire (see 18.4.2, #4).
4. A stack of units that contains a masked unit cannot advance after combat (see 18.5).
5. Masked units cannot observe for a Fire Call (see 21.3).
6. **Masked units cannot be used as spotters for Reconnaissance Attempts (see 20.0) and Counter-Battery Acquisition Attempts (see 23.4).**
7. Masked units take losses from enemy Offensive Fire only after all unmasked units have been eliminated (see 18.3.5.5).
8. Masked engineer units cannot execute any Engineering Actions (see 33.0) during the Engineering Phase.

***Design Note:** The masking rules reflect the reality that when bodies of troops from different formations occupy the same area, confusion will reign, and they are going to start blocking each other. Likewise, when too many troops from the same formation occupy the same area, they are also going to start blocking each other.*

[14.4.1] Masked Markers. Units below a Masked Marker can never be moved above it (meaning they cannot switch places with the unmasked units in the hex), but they can exit the hex and unmask, whereupon the Masked Marker is removed. A Masked Marker is also removed from a hex the instant that sufficient units have exited the hex, or been eliminated by enemy fire, to permit all units that remain to comply with all stacking restrictions. However, if step losses from an enemy Offensive Fire Combat cause a stack to become unmasked, it still cannot absorb Hits by retreating in that same combat (because retreat is an option that must be elected **before** any step losses are inflicted, see 18.4).

[14.4.2] A unit becomes masked **only at the end of an operation**, therefore a unit that is moving or retreating can never be masked from enemy Infiltration (18.6), Defensive (18.7), or Retreat (18.9) Fire.

Design Note: Masking is a surprisingly important rule. The ability to violate stacking restrictions at the price of being masked has many subtle effects on play. For instance, a player can use the units of one formation to attack through another formation's positions, but only if they are not already engaged (i.e., already used). Losses from Fire Combats always come from the unmasked units first because these are the units holding the line, while the masked units are held back either because they cannot deploy (too many steps) or because this is not their operational area (they have violated stacking restrictions by stacking with another formation).

[15.0] ZONES OF CONTROL

Design Note: In many wargames, all effects of moving in proximity to an enemy unit are tied to the concept of a Zone of Control (ZOC), a zone that exists in the six hexes adjacent to any unit, as defined below. This is not the case in **Air & Armor**, where a ZOC represents a unit's field of fire and its sole purpose is to determine when an enemy unit moving into that field triggers a fire combat. A ZOC in this game does **not** extend into adjacent Heavy Woods, Town, or City hexes, collectively termed "Close Terrain" hexes, because in these types of terrain a unit's field of fire extends no further than the first row of trees or houses. Thus, a unit can attack into this type of terrain, but it cannot inhibit enemy passage through this terrain by virtue of its field of fire. The following rules reflect this reality.

All units exert a Zone of Control (ZOC) into the six hexes adjacent to the hex they occupy, with the following **exceptions**:

1. Air units do **not** exert ZOCs (they are moving too fast to have any impact on adjacent hexes).
2. Utility helicopter units, and HQ units do **not** exert ZOCs (they have no Attack Strength and thus no field of fire).
3. Rocket artillery units do **not** exert ZOCs (they are barred from firing into adjacent hexes, see 22.7).
4. No ground unit ever exerts a ZOC into an adjacent "Close Terrain" hex. Close Terrain is defined as any Heavy Woods, Town, or City hex. Refer to the Terrain Key printed on the map to identify these terrain types.
5. Attack helicopter units are unique because they exert a ZOC not only into the six adjacent hexes, but also into the hex they occupy. **Also, the ZOC exerted by an attack helicopter unit is never blocked by Close Terrain in its own hex or in any adjacent hex.**

For the avoidance of doubt, ZOCs **do** extend across river hexsides and across Impassable Slope hexsides. The presence of a friendly unit in a hex does **not** negate an enemy ZOC in that hex for any purpose. Finally, a ground unit that **occupies** a Close Terrain hex exerts a normal ZOC into adjacent hexes that are not Close Terrain. A ZOC exerted by an enemy unit is abbreviated as an "EZOC."

[15.1] ZONE OF CONTROL EFFECTS

Enemy Zones of Control have the following effects:

1. A unit moving through an EZOC is subject to Infiltration Fire (see 18.6).
2. A unit that retreats into an EZOC is subject to Retreat Fire (see 18.9).
3. An engineer unit cannot conduct an Engineering Action (see 33.0) in an EZOC.

There is no additional Movement Cost to enter or exit a hex in an EZOC. The various effects of an EZOC are summarized on the Proximity Effects Chart in the Charts & Tables Booklets.

[16.0] GROUND MOVEMENT

Generally, ground units move during the Movement Step of the one friendly operation they are allowed to participate in each turn. The WP player moves his units by regiment or division base. The NATO player moves his units by task force or unit. Ground movement is regulated by the hexagons (hexes) printed on the map. Each unit starts its operation with a number of "Movement Points" (MPs) that is determined by the type of operation it is conducting. This number is referred to as the unit's "Movement Allowance." During the Movement Step of its operation, a unit expends the Movement Points in its Movement Allowance to enter one adjacent hex after another until it lacks sufficient Movement Points to enter another hex, or the owning player chooses to halt it voluntarily. The number of MPs that a unit must expend to enter a hex is referred to as the "Movement Cost" for the hex. This number is determined by adding the Movement Cost for the primary terrain in the hex (see 2.2.1) to the Movement Cost for any special terrain in the hexside the unit must cross to enter that hex. These costs are all specified on the Terrain Effects Chart in the column labeled "Movement Point Costs." The normal Movement Cost to enter a hex can be substantially reduced if a unit is eligible for "road movement" and can enter the hex along a road. Ground units can be moved at two times during a turn:

1. When they are committed to a **friendly** operation, in which case they can be moved during the Movement Step of that operation

- When they react during an **enemy** operation (see Reaction, 19.0), in which case they can be moved during the Reaction Step of that enemy operation

The type of operation a unit participates in determines when it moves. Units participating in a friendly Hasty Attack, Assault or March operation will move during the Maneuver Phase when they execute that operation during the Activation Cycle for the WP division or NATO brigade with which they activate. Units that react will move during an enemy offensive operation. Units participating in a Reserve operation will move when they execute that operation during the Reserve Phase. Units can also move as a result of combat by retreating out of an Objective hex (see 18.4) or advancing into one (see 18.5), but this movement is **not** subject to the normal rules for ground movement covered in this Case.

[16.1] MOVEMENT

[16.1.1] Movement Costs. The Terrain Effects Chart shows the Movement Cost for each type of primary terrain and special hexside feature. The graphic symbols used for all hex and hexside features are shown on the Terrain Key found on each map sheet. Generally, the primary terrain in all hexes costs 1 MP to enter **except** for Heavy Woods hexes, which cost 3 MPs to enter. Crossing a hexside to enter a hex on the other side is normally free, but there is an additional cost when crossing three special hexside terrain features:

- An unbridged Fränkische Saale River hexside costs +2 MPs
- A bridge hexside costs +1 MP (unless a force is crossing a Civil Bridge using road movement, see 16.4)
- Moving **upslope, only**, across a Slope hexside costs +1 MP

Thus, for example, a unit seeking to enter a Heavy Woods hex by moving upslope across a Slope hexside would need to pay a Movement Cost of four MPs (3 MPs for Heavy Woods + 1 MP for moving upslope = 4 MPs). When an Obstacle Marker (see 36.0) or Smoke Marker (see 6.3.3) is placed in a hex it costs +1 to enter that hex for each such marker.

[16.1.2] Ground Movement Capabilities. The type of operation in which a ground unit is currently participating determines its movement capabilities, including:

- The Movement Allowance it receives
- Whether it can use road movement (see 16.4)
- Whether it can move adjacent to an enemy unit (see 16.8)

This means that a ground unit's movement capabilities can vary from turn to turn as it participates in different types of operations. The following chart shows the movement capabilities a ground unit receives for each type of operation:

Type of Operation	Movement Allowance	Road Movement Allowed	Move Adj. to Enemy Unit
March	6 Movement Points	Yes	Protected hex, only, see 16.3
Hasty Attack	6 Movement Points	No for NATO, for WP see 16.5	Yes, but not using road movement
Assault	3 Movement Points	No	Yes
Reserve	3 Movement Points	Yes	Protected hex, only, see 16.3
Reaction (see 19.0)	3 Movement Points	No, but see 19.4	Objective or Protected hex, only, see 16.3

The information in this chart is replicated in the Operations Summary Chart found in each player's Charts & Tables Booklet. As an **exception** to the chart above, Leg infantry units (certain airmobile units, see 29.3.1) can move **only one hex per turn**, subject to the rules for minimum movement (see 16.2), **unless they are eligible for road movement, in which case they can move two hexes down a road (see 16.4.6)**. The MPs a unit receives at the start of each operation do not all have to be spent, but no MPs can be saved for use after the operation has ended.

[16.1.3] Ground Movement Restrictions. Generally, one unit's movement must always be completed before another unit's movement is begun, unless 1) multiple units are moving together as part of a force (see 16.6) or 2) multiple units are performing a force aggregation movement (see 16.6.1), force convergence movement (see 16.6.2), or force splitting movement (see 16.6.3). Used units (which includes Disrupted units, see 23.3) cannot use ground movement because they are not allowed to participate in an operation after they become used. Ground movement cannot be used to:

- cross an Impassable Slope hexside **unless** the moving unit is Leg infantry (see 29.3.1).
- cross an **unbridged** Major River hexside **unless** using one of the special River Crossing procedures (see Ferry Crossing, 17.4, and Amphibious Crossing, 17.5).

3. move next to an enemy unit in any case where this is prohibited (see 16.8).

[16.1.4] Border Crossing. Unless the scenario instructions specify otherwise, there are no restrictions on crossing a Border hexside. Pact units may freely enter West Germany and NATO units may freely enter East Germany.

[16.1.5] When a unit retreats (see 18.4) or advances (see 18.5), it does **not** expend MPs.

[16.2] MINIMUM MOVEMENT

Generally, a ground unit can always move at least one hex during the Movement Step of its operation even if it lacks sufficient Movement Points to enter that hex. This one hex move is termed “minimum movement.” However, minimum movement cannot be used to violate any of the movement restrictions outlined in Case 16.1.3. **Exception:** Leg infantry units (see 29.3.1) **can** cross an Impassable Slope hexside.

[16.3] PROTECTED MOVEMENT

Design Note: Protection represents a unit holding the perimeter of a Close Terrain hex to enable other units to enter or pass through that cover without enemy interference. Protection is a major mechanic in this game, with a lot of subtle effects.

When a **maneuver unit** occupies a **Close Terrain hex** adjacent to an enemy unit, it is said to “protect” that hex for any **other** friendly unit or force that is currently moving. To protect a hex, a maneuver unit must meet one of the following conditions:

1. It is **not** participating in the current operation.
2. It is participating in the current operation **but has not yet moved.**

[16.3.1] Effects of Protection. When a hex adjacent to an enemy unit is protected by a friendly unit, the following effects apply to **other** friendly units that enter that hex:

1. Any friendly force executing **any** type of operation can enter and transit the hex. **Exception:** Dummy units can never move next to an enemy stack.
2. A moving force that transits the hex need not stop to reveal itself. If it voluntarily ends its movement in the hex, then it must reveal itself.
3. Any force eligible for road movement (see 16.4) can use it to enter and exit the hex.
4. A unit that is reacting (see 19.0) can enter the hex on its way to the Objective hex.
5. **When a moving force ends its movement in the hex, it must be revealed, but it is never subject to enemy Defensive Fire unless it is both participating in an offensive operation and adjacent to the Objective hex.**

Entering a protected hex is termed “protected movement.” Protected movement is the only way that a reacting unit can move adjacent to an enemy unit in a hex other than the Objective hex. Protected movement is the only way that a unit participating in a March or Reserve operation can move adjacent to an enemy unit at all. A protected hex provides no benefit to an airmobile unit moving by air movement (see 29.3.2) because a protected hex is always a Close Terrain hex, and no airmobile unit can ever be picked up or dropped off in a Close Terrain hex.

Play Note: Protected movement allows a player to reinforce or relieve a friendly position in a Close Terrain hex adjacent to an enemy unit using a March or Reserve operation without taking enemy Defensive Fire. To reinforce or relieve a friendly position adjacent to an enemy unit in any other type of terrain, a player would have to launch an offensive operation to move friendly units next to the enemy unit and those units would take Defensive Fire. Protected movement also allows a player to use a March or Reserve operation to traverse a hex adjacent to an enemy unit and even to use road movement while doing so.

Design Note: An astute player can argue that the protected movement rule violates time and space constraints because a unit cannot both move and remain static to cover for another unit’s movement at the same time. However, movement in this game is not an action that consumes an entire turn. Rather, movement is intended to represent short bounds between cover followed by long halts under cover because this is an essential survival tactic in a high threat environment. Accordingly, a unit can both protect another unit’s short bound and then make its own short bound in the time represented by a turn. This is also why Movement Allowances in this game are nowhere near their theoretical maximum.

[16.4] ROAD MOVEMENT

Design Note: There are two types of ground movement in this game, “tactical movement” and “road movement.” Tactical movement presumes that a unit is dispersed in a tactical formation off-road and is ready for contact with the enemy. Road movement presumes that a unit is lined up in a column along a road and is not ready for contact with the enemy at all.

“Tactical movement” applies when a unit pays the normal Movement Point Cost to enter a hex. Tactical movement generally applies whenever a unit is executing a Hasty Attack or Assault operation or is reacting into an Objective hex (see Reaction, 19.0). “Road movement” applies when 1) a unit is eligible to use road movement because it is executing a March or Reserve operation and 2) it enters a hex down a road that connects the hex it is exiting to the hex it is entering. Road movement allows a unit to enter a hex for just a fraction of a Movement Point. WP units executing an Attack from March (a special version of a Hasty Attack, see 16.5) can also use road movement for the first half of their Movement Allowance, which usually means their first three MPs unless they have been contaminated (see 44.4). To enter a hex using road movement, the hexside between the hex entered and the hex exited must be pierced by a road **that extends on both sides**. **Exception:** An eligible unit can always use road movement to **exit** a Town or City hex along a Minor Road even though Minor Roads do not extend into Town & City hexes (see 16.4.1). There are three types of roads:

1. Minor Roads, shown as gray lines
2. Bundesstraßen, shown as yellow lines
3. Autobahns, shown as orange lines.

Bundesstraßen (German for Federal Highways; the “ß” is pronounced “s”) are one lane highways. Autobahns are two lane highways. See the Terrain Key printed on the map for the precise symbols for each type of road. When a force uses road movement to enter an adjacent hex along a road, it ignores **both** the normal MP cost for any special terrain in the hexside crossed and the normal MP cost for the primary terrain in the hex entered, paying instead **only** the Movement Cost for that type of road. When a force enters a hex along a Minor Road or Bundesstraße (the singular form of the plural word Bundesstraßen), it expends only ½ of a Movement Point. When a force enters a hex along an Autobahn, it expends only ¼ of a Movement Point. Fractions are retained until a force has finished its movement. **A unit can never use road movement to enter or exit a hex adjacent to an enemy unit unless that hex is protected.** A force eligible to use road movement can alternate between road movement and tactical movement (non-road movement) any number of times over the course of its move. **Exception:** When a WP unit uses Attack from March (see 16.5), once it uses tactical movement **to move adjacent to an enemy unit**, it cannot use road movement for the remainder of that operation. A force that is **not** eligible to use road movement ignores roads for all purposes, with two **exceptions:**

1. A force using tactical movement can always use a road to cross a river hexside at a Civil Bridge (see 17.3) at the cost of one additional MP above the normal Movement Cost for the primary terrain in the hex it is entering.
2. A force that is reacting (see 19.0) can always enter a hex along any type of road for just one MP, regardless of the normal cost to enter that hex.

[16.4.1] Towns and Cities. Players will note that Minor Roads never trace through Town and City hexes. Accordingly, a unit eligible for road movement must always pay a full 1 MP to **enter** a Town or City hex from an adjacent Minor Road hex leading up to it. Units eligible for road movement can always **exit** a Town or City Hex along a road leading away from it by paying the Minor Road cost of ½ an MP. Minor Roads running up to and away from a Town or City hex **do** negate any extra Movement Cost for any special terrain in the hexside crossed to enter or exit that Town or City hex when a unit is eligible for road movement. Units eligible for road movement that enter or exit a Town or City hex across any type of Civil Bridge hexside pay no extra cost for the bridge hexside. Units using tactical movement will pay +1 for the Civil Bridge hexside. Units eligible for road movement can freely enter and exit Town and City hexes along a Bundesstraße or Autobahn using the appropriate road Movement Cost because these types of roads **do** trace through Town and City hexes.

***Design Note:** This rule reflects the reality that most German towns and cities were founded in the Middle Ages and feature a maze of streets, often remarkably narrow with sharp turns. US soldiers quickly learned to stay out of them when driving military vehicles unless they were on a Bundesstraße or Autobahn, which were built to bypass these choke points. This is why Minor Roads on the map do not pass through Town and City hexes, while Bundesstraßen and Autobahns do.*

[16.4.2] Military Bridges. No unit can use road movement to enter a hex across a Military Bridge hexside (see 34.0). **Instead, they must pay the full MP cost for the hex they are entering and +1 for the Military Bridge hexside.**

[16.4.3] Obstacles. Obstacle Markers negate any road in their hex. No unit can **enter** a hex using road movement if it contains an Obstacle Marker. A unit can **exit** an obstacle hex using road movement.

[16.4.4] Minefields. A unit can **enter** a hex containing a Minefield Marker (see 37.0) using road movement. However, if the minefield proves to be real, it must immediately end its movement and is subject to a Mine Attack (see 37.5). A unit that begins its movement in a minefield **cannot** enter an adjacent hex using road movement **except** for the engineer unit that created that minefield in the first place (see 37.3.1).

[16.4.5] **The A70.** The Bundesstraße that runs from hex 3201 to hex 3821 is labeled as Autobahn 70 but treated as a Bundesstraße (the Autobahn was under construction at this time and only one lane was open in each direction).

[16.4.6] **Leg Infantry.** Leg infantry units (see 29.3.1) executing a March operation can use road movement to move two hexes along a road but only if the unit is not contaminated (see 44.4).

[16.5] WP ATTACK FROM MARCH

Design Note: This game is built on asymmetry. This rule is one of those asymmetrical cases. The WP was quite good at what it trained to do, and it trained extensively in making a rapid attack from march.

The WP has a special ability called “Attack from March,” which has nothing to do with a March operation. **When a WP regiment is executing a Hasty Attack operation, its units can use road movement for the first half of their Movement Allowance.** This means that the first three MPs of a WP unit’s six MP Movement Allowance can be spent on any combination of road and tactical movement. The second three MPs can be spent only on tactical movement. Note that if a WP unit is contaminated (see 44.4), its Movement Allowance would be reduced to four MPs and therefore only the first two MPs could be spent on road movement and the second two on tactical movement. Like any other unit using road movement, a WP unit executing a Hasty Attack cannot use road movement to enter a hex adjacent to an enemy unit unless that hex is protected. **Once a WP unit conducting a Hasty Attack has moved adjacent to an enemy unit using tactical movement, even if that enemy unit proves to be a dummy, it must continue to use tactical movement for the remainder of its movement** (it remains in combat formation once it has hit the front line). **However, a unit that starts its movement adjacent to an enemy unit and exits that hex to enter hexes that are not adjacent to enemy units can use its second and third MP to move by road (its first MP likely cannot be used for road movement because a unit can never use road movement to enter or exit a hex adjacent to an enemy unit unless that hex is protected).**

[16.6] FORCE MOVEMENT

When the active player commits units that start in the same hex to the same operation, he can move each unit separately or combine some or all of them into a single group that moves as one. This group of units all moving together at the same time and in the same hex is referred to as a “force”. The principle embodied in the following rules is that a player can split and combine units and forces at any point during their movement, but no individual unit or step can ever move farther than it could have moved if it moved along its path alone. A player can add units to a force during its movement using both of the following two Cases.

[16.6.1] **Force Aggregation.** A moving unit or force can pick up other units in the hexes along its path of travel, if:

1. any unit picked up is committed to the same operation.
2. the number of maneuver steps in the combined force never exceeds the stacking limit (though the force can move through hexes containing other friendly units even if the total number of maneuver steps in the moving and static units exceeds the stacking limit).
3. any unit picked up moves no further than allowed by the MPs remaining to the original force at the point that it entered the unit’s hex.

[16.6.2] **Force Convergence.** Multiple forces can start in separate hexes, converge together to form a single force at a “meeting point” hex, and then proceed further as a single force if **all** the following requirements are met:

1. All forces combined are committed to the current operation.
2. The number of maneuver-unit steps in the combined force never exceeds the stacking limit (though it can move through hexes containing other friendly units even if the total number of maneuver steps in the moving and static units exceeds the stacking limit).
3. Any forces so combined move no further from the meeting point hex than the smallest number of MPs remaining to any of the units that met in that hex.

For an example of force convergence, see the *Examples of Unit Combination* at the end of Case 11.6.

[16.6.3] **Force Splitting.** A moving force can be split into multiple forces at any point during its movement, either by separating its component units or splitting individual units, provided that each force that exits the hex where the split occurs moves with no more MPs than the original force possessed after it entered that hex (see the *Example of Unit Splitting* at the end of Case 11.5).

[16.6.4] With the **exception** of any set of forces that are being converged or split during their movement, **a player must always start and end the movement of an individual force before he can begin the movement of another.**

Design Note: To wrap all the movement and step transfer rules together, consider the basic principle that **steps** are the real units in the game and that Unit Counters are merely **where** steps begin and end their movement. Any movement is allowed provided that no Unit Counter makes an illegal move, and no individual step makes an illegal move between the Unit Counter it starts in and the Unit Counter it ends in (meaning that it **could** have been carried from its starting hex to its ending hex by the unit it started in).

[16.7] MOVEMENT AND FRIENDLY UNITS

Friendly units can always move **through** hexes containing other friendly units, regardless of stacking restrictions. However, if they **end** their movement in a hex containing friendly units in violation of stacking restrictions, then some of the units in that hex will become masked (see 14.4).

[16.8] MOVEMENT AND ENEMY UNITS

There is no additional Movement Cost for a ground unit to enter or exit a hex adjacent to an enemy unit. However, a unit cannot enter a hex adjacent to an enemy unit unless at least **one** of the following conditions applies:

1. It is participating in an offensive operation.
2. The hex is protected (see 16.3), in which case a unit can be conducting any type of operation.
3. It is forced to retreat into that hex by its retreat priorities (see 18.4.1).

In addition, no WP unit participating in a regiment's operation can ever move adjacent to an enemy unit if it does not start the operation within three hexes of the Lead Unit Marker for that regiment (see 12.3.2.1). A unit can always **exit** a hex adjacent to an enemy unit unless the hex it is trying to enter is also adjacent to an enemy unit, in which case this movement is barred unless the unit meets one of the conditions above.

[16.8.1] Contact Procedure. The instant that a ground unit or force enters a hex adjacent to an undetected enemy ground unit (see 11.2), the active player must halt its movement temporarily and run an Interrupt Action called the "Contact Procedure". The Contact Procedure is run as follows:

1. The inactive player declares whether any of his units adjacent to the moving force are real.
2. If none are real, then all adjacent units belonging to the inactive player are removed from the map and the active player continues to move his force **without revealing it**.
3. If at least one inactive unit is real, then the active player must reveal the exact makeup of his moving force (unit types and steps).
4. All inactive units adjacent to the moving force are also revealed, and any dummy units are removed from the map.
5. Both players are free to examine opposing units to confirm their makeup, but the active player **cannot** examine any Minefield Markers in hexes adjacent to his moving force.
6. The active player then decides whether to end his force's movement in that hex or continue with any MPs remaining.

The Contact Procedure is executed each time a ground force moves adjacent to an enemy unit unless **both** players waive their right to run it because they already know the contents of the opposing force. It is also executed each time a force retreats (see 18.4) or advances (see 18.5) into a hex that is adjacent to an undetected enemy unit. The Contact Procedure is reproduced in the Open Mode Contact Procedure found in the Charts & Tables Booklets. **Note that this procedure is superseded by Case 45.3.1 when any side is being played in Hidden Mode.**

[16.8.1.1] Retreat Contact. When a unit retreats next to an enemy unit, the roles in the Contact Procedure are reversed: the inactive player is treated as the active player and the active player is treated as the inactive player (because in this case it is the inactive player who is moving his force).

[16.8.1.2] Contact Exceptions. The Contact Procedure is **not** run when:

1. a force enters a protected hex and continues to move.
2. an air or helicopter unit enters a hex adjacent to or containing an enemy ground unit.

[16.8.2] Enemy Units and Offensive Operations. A force executing an offensive operation is free to move adjacent to enemy units and free to move directly from one hex adjacent to an enemy unit to another, regardless of EZOCs. However, a moving force will trigger Infiltration Fire (see 18.6) when it attempts to 1) move directly from one EZOC hex to another (all enemy units that exert a

ZOC into **both** hexes can fire) or 2) enter **and** exit a hex in an EZOC in the **same** move (all enemy units that exert a ZOC into that hex can fire).

[16.8.3] Enemy Units and March Operations. A force executing a March operation can start in a hex adjacent to an enemy unit but cannot enter or traverse a hex adjacent to an enemy unit unless that hex is protected (see 16.3).

[16.8.4] Enemy Units and Reserve Operations. A WP unit assigned a Reserve operation cannot participate if it starts adjacent to an enemy unit (it simply flips to its used side). A NATO unit adjacent to an enemy unit cannot be committed to a Reserve operation. A force executing a Reserve operation cannot enter or traverse a hex adjacent to an enemy unit unless the hex is protected (see 16.3).

[16.8.5] Enemy Units and Reaction. No unit can execute reaction movement (see 19.0) if it starts adjacent to an enemy unit. A force executing reaction movement cannot enter or traverse a hex adjacent to an enemy unit unless 1) the hex is protected (see 16.3) or 2) the force is entering the Objective hex of the current enemy operation.

[16.8.6] Enemy Units and Road Movement. No unit can ever enter or exit a hex adjacent to an enemy unit using road movement **unless** the hex is protected. This means that the last maneuver unit exiting a Close Terrain hex **cannot** use road movement to exit the hex (it is the rearguard). Once a unit adjacent to an enemy unit has exited its starting hex, it **can** switch to road movement to enter subsequent hexes that are 1) not adjacent to an enemy unit or 2) are protected.

[16.8.7] Shattered Units. Units belonging to Shattered formations (see 31.0) **cannot** enter a hex adjacent to an enemy unit **except** when it retreats, and the retreat priorities leave it no better choice (see 18.4.1).

[16.8.8] No friendly force can ever enter a hex containing an enemy unit, unless:

1. that unit proves to be a dummy, in which case it is removed from the hex before the friendly unit enters it.
2. the force is executing an Overrun (see 42.0) or Close Attack (see 43.0).
3. the force is a helicopter unit (it may be transporting a passenger ground unit, see 26.0), in which case it can always move into and through enemy occupied hexes (but will be subject to enemy Flak Fire, see 27.2) provided it does not end its movement there.
4. the force is an air unit (see 24.0), in which case it can always be placed in a hex containing an enemy unit (but will be subject to either enemy SAM or Flak Fire, see 27.0).

[16.8.9] Proximity Effects Chart. The various effects of moving friendly units into and/or out of hexes adjacent to an enemy unit are summarized on the Proximity Effects Chart in the Charts & Tables Booklets.

[17.0] RIVERS

Design Note: *There are two rivers on the map, the Main and the Fränkische Saale. The Fränkische Saale is barely 25 meters across at its widest and is shallow enough for a tank or IFV to ford with little preparation. It is more of an obstacle for its banks than its water. The Main, on the other hand, is anywhere from 50 to 220 meters wide and can be as deep as four meters during spring floods. It has steep and sometimes walled banks and a fast current. Even an amphibious vehicle would find scaling the opposite bank to be challenging for long stretches of the river.*

There are two kinds of rivers, Major Rivers and Minor Rivers. All rivers on the map are depicted as hexside terrain. Rivers are obstacles to ground units, only. Air and helicopter units ignore river hexsides completely and can cross them without hindrance. The following rules describe how ground units can cross river hexsides. The term “bank” refers to a hex adjacent to a river hexside.

[17.1] CROSSING A MINOR RIVER

There is only one Minor River in this game, the Fränkische Saale. A ground unit can cross any hexside of the Fränkische Saale by paying two extra MPs in addition to the normal Movement Cost for the hex on the opposite bank.

[17.2] CROSSING A MAJOR RIVER

There is only one Major River in this game, the Main. Ground units cannot cross a Main River hexside except where a bridge exists. There are two **exceptions**:

1. Any unit can cross a Main River hexside by Ferry Crossing (see 17.4).
2. WP motor rifle regiments, only, can cross a Main River hexside by Amphibious Crossing (see 17.5).

[17.3] BRIDGES

A bridge hexside exists on the map wherever a road crosses a river. This type of bridge is termed a “Civil Bridge” to distinguish it from a “Military Bridge,” which is emplaced across a river hexside by an engineer unit during play (see 34.0). If a unit is eligible to use road movement to enter the hex on the opposite bank, a Civil Bridge negates the river hexside it spans, and the moving unit pays no extra MP cost for the hexside. If a unit is **not** eligible to use road movement, a Civil Bridge negates the river hexside it spans, but the unit spends +1 MP to cross it (the bridge is a choke point for any unit that is deployed in tactical formation). When a Civil Bridge is blown (see 38.0), the road that connects the two adjacent hexes is severed and no longer functions. The hexside immediately becomes an unbridged river hexside. If a Military Bridge replaces a Civil Bridge across that river hexside, a player **cannot** use road movement to cross that bridge hexside, **nor to enter the hex on the opposite bank. Military Bridges always cost +1 MP to cross.** A player can always use a Military Bridge built by his opponent unless an enemy engineer is maintaining it (see 34.3). For all rules purposes, a hex is “adjacent” to a bridge or river hexside only if it is one of the two hexes that share that bridge or river hexside.

[17.4] FERRY CROSSINGS

Design Note: *Bridging Points in Air & Armor represent a set of modular pontoon sections that can be bolted together to form a bridge or used individually as ferry platforms to ferry vehicles across a river. In a Ferry Crossing, one or more engineer units are manning motorboats and moving individual pontoon sections back and forth across the Main River to ferry vehicles to the other side. Once these pontoon sections have been bolted into a bridge, they are no longer available for use as ferries.*

A Ferry Crossing is a special form of movement in which an engineer unit facilitates other units to cross a Main River hexside. An engineer unit must be paired with an available Bridging Point (one of the Combat Support Points a player receives according to the instructions in the scenario being played, see 34.1) to perform a Ferry Crossing. Each engineer unit/Bridging Point pair can ferry **three steps across the Main.** Thus, two engineer units could be paired with two Bridging Points to Ferry six steps across a Main River hexside (2 x 3 = 6). A Ferry Crossing can be executed during the Movement Step of any friendly operation **except** a Reserve operation, but at no other time during play. To execute a Ferry Crossing the active player must meet **all** the following conditions:

1. At least one engineer unit and the unit(s) to be ferried must **start** the Movement Step of the operation in a hex adjacent to the Main River hexside(s) they will cross. This hex is termed the “ferry site.”
2. Both the engineer unit and the unit(s) it will ferry must be undisrupted, unused (meaning that all units must have moved there in a prior turn) **and committed to the current operation.**
3. The active player must have at least one Bridging Point available on his Combat Support Points Track (see 17.4.2).
4. The hex(es) on the opposite bank that friendly units will ferry into must be clear of enemy units (they can be adjacent to enemy units).

A Ferry Crossing constitutes a unit’s entire movement for the operation. The units being ferried simply move from the ferry site to any adjacent hex on the opposite bank of the Main, whereupon they must end their movement. Units committed to the same operation that are not being ferried can move normally, including conducting an Amphibious Crossing (see 17.5) from the same or another hex. There are no restrictions on Ferry Crossing for the type of terrain in either hex **except that a unit cannot ferry across an Impassable Slope hexside.** EZOCs do not prevent Ferry Crossings, but a unit that is ferried from one EZOC to another may be subject to the special “sitting duck” Infiltration Fire covered in Case 17.8.

[17.4.1] Ferried Units. The steps to be ferried can come from one unit or multiple units present at the ferry site. If a player cannot ferry all steps of a unit across, he must have an available Unit Counter to split that unit into the steps that cross and the steps that remain, or no steps can cross. An engineer unit can ferry itself across, but its own step then counts against the three steps it can ferry.

[17.4.2] Bridging Points. The scenario instructions may provide each player with a certain number of Bridging Points (see 34.1), which are recorded on a player’s Combat Support Points Track. Each Bridging Point used for a specific Ferry Crossing is borrowed from the Combat Support Points Track and cannot be used for any other Ferry Crossing that turn nor to build a Military Bridge (see 34.2). A NATO engineer unit can only borrow a Bridging Point of the same nationality. At the end of the turn, the point is returned to the CSP track. If a player has expended all his Bridging Points to construct Military Bridges, meaning that there are no points left to borrow from the track, his engineer units cannot conduct any further Ferry Crossings until a Bridging Point has been recovered (see 34.5).

[17.5] WP AMPHIBIOUS CROSSING ATTEMPTS

Design Note: *Soviet doctrine expected a division to make one major river crossing every 24 hours. Accordingly, the WP was quite proficient at this exercise. Moreover, the APCs in their motor rifle regiments were all capable amphibious vehicles. An Amphibious Crossing, as modeled in the following procedure, represents an attempt by a motor rifle regiment to find a section of the Main where its vehicles can swim the river and scale the opposite bank in sufficient numbers to get several companies across. NATO is not given*

this ability because 1) it seldom practiced the operation (it could lead to fatalities) and 2) most of its vehicles had no amphibious capability.

WP motor rifle regiments, **only**, (regiments with a mechanized infantry Unit Symbol) can make an Amphibious Crossing Attempt over an unbridged Main River hexside during the Movement Segment of an Assault operation. The process for making an Amphibious Crossing Attempt is as follows:

1. The regiment must be assigned an Assault operation. It can have an Objective hex for the operation, but this hex cannot be a hex that the WP player is attempting to enter by Amphibious Crossing.
2. The WP player must declare a “crossing site.” A crossing site is a single hex on the **near** bank adjacent to a Main River hexside and within two MPs of at least one of the regiment’s units. The crossing site cannot be a Town or City hex (the river embankments in towns and cities were generally walled).
3. Any units of the regiment, plus any participating engineer units, can either start in the crossing site or expend up to **two** of their three MPs to move into the crossing site hex provided they have enough MPs remaining to pay the normal Movement Cost for the hex on the opposite bank they are trying to enter (ignoring the river hexside). If a unit does not enter the crossing site with enough MPs to pay for a hex on the opposite bank, it cannot cross. However, units that **start** in the crossing site hex can use minimum movement (see 16.2) to cross even if they otherwise lack the MPs to enter a hex on the opposite bank.
4. The WP consults the Amphibious Crossing Table and rolls a die to determine how many steps of the regiment present in the crossing site and eligible to cross can move one additional hex across the Main River. If an engineer unit is participating in the Assault operation and can move to the crossing site with at least 1 MP remaining, the WP player can add +2 to his die roll. There is no benefit for additional engineer units. Only steps belonging to the motor rifle regiment can cross (the engineer unit is not itself amphibious).
5. Steps that successfully cross the river must be formed into a unit in a hex on the opposite bank, where they immediately end their movement. If all steps in a unit cross, then no extra Unit Counter is needed. However, if fewer steps cross than are in the unit making the attempt and there is no free Unit Counter available to split the unit, then the crossing attempt fails, and all steps remain in the crossing site.
6. If A) the result on the Amphibious Crossing Table permits at least one step to cross, B) the crossing site is adjacent to more than one hex on the far bank that units can enter, and C) the regiment has the available Unit Counters, then the WP player can form the steps that cross the Main into multiple units in multiple hexes on the far bank. Some or all units can be dummy units. The WP player is not actually required to move any steps across.

The hex(es) entered on the far bank must be clear of enemy units and cannot be Town or City hexes. There is no limit to the number of motor rifle regiments that can attempt an Amphibious Crossing each turn, except for the availability of CPs to assign Assault operations. However, each regiment can declare only one crossing site and make one die roll on the Amphibious Crossing Table in a single turn. No regiments can share the same crossing site.

***Design Note:** The Amphibious Crossing Table is designed to reflect the highly variable conditions of the river itself, the condition of its banks, and the difficulty of locating a crossing site that will support both river entry and river exit for amphibious vehicles. Entering a river was generally easy, but exiting was not. Impediments included steep or walled banks, muddy bottoms, and swift currents. Engineering studies by the US Army calculated that there was only a 15% probability that an amphibious vehicle could successfully exit the typical West German river.*

[17.6] RIVER CROSSINGS AND ENGINEERS

[17.6.1] An engineer unit that facilitates a Ferry or Amphibious Crossing must participate in the same operation with the units it is helping to cross, meaning that it will always flip to its used side at the end of the operation and thus it will not be eligible to perform an Engineering Action (see 33.0) during the Engineering Phase later in the turn.

[17.6.2] It is possible for the WP player to conduct both a Ferry Crossing and an Amphibious Crossing in the same operation if that operation is an Assault by a WP motor rifle regiment. The ferry site and the crossing site could be the same hex or different hexes. However, an engineer unit cannot support both types of crossings in the same operation. The WP player must pick which type of crossing each individual engineer unit is supporting though it is possible for multiple engineer units to participate in the same operation and for each to support a different type of crossing.

[17.7] RIVER COMBAT

Units are free to fire across river hexsides. The Fire Strength of a ground unit firing over a Main River hexside is generally halved (see the Fire Effects Chart). The Fire Strength of a ground unit firing over a Fränkische Saale River hexside is not affected. The Fire Strength of air and attack helicopter units and of artillery units using Indirect Fire (see 22.2) are never affected by firing over any type of river hexside. No unit can ever retreat (see 18.4) across any type of river hexside **unless it is crossed by a bridge**. A unit can

advance (see 18.5) over a Fränkische Saale River hexside whether it is bridged or not but can advance over a Main River hexside **only if it is bridged**.

[17.8] SITTING DUCK RULE

If an enemy force participating in an offensive operation triggers Infiltration Fire (see 18.6) **as it crosses a Main River hexside**, the Fire Strength of any friendly unit executing that Infiltration Fire is **doubled** if it exerts a ZOC into **both** the hex the enemy force is exiting and the hex it is entering on the opposite bank (in this case, its targets are literally sitting ducks). **Likewise, if an enemy force triggers Retreat Fire (see 18.9) while retreating across a bridged Main River hexside, the Fire Strength of any friendly unit executing that Retreat Fire is doubled if it exerts a ZOC into both the hex the enemy force is exiting and the one it is entering.** This doubling effect **supersedes** any halving that might normally apply for fire across a Main River hexside and applies regardless of whether the target force is crossing at a bridge or executing a river crossing (a Ferry Crossing or an Amphibious Crossing). Only steps actually crossing the river are subject to this fire.

[18.0] FIRE COMBAT

Design Note: Fire combat in this game is governed by three simple principles. The first principle is that any time an enemy ground force moves adjacent to a friendly unit, that friendly unit will get one chance to fire at it. Depending on the circumstances, that fire can be Defensive Fire, it can be Infiltration Fire, or it can be Retreat Fire, but a fire combat **will** occur. There are four exceptions to this principle. No adjacent friendly unit will get a chance to fire when an enemy unit:

1. enters a protected hex (see 16.3) and is **not** conducting an offensive operation against an adjacent Objective hex.
2. advances into an Objective hex it has just cleared by Offensive Fire (see Advance, 18.5).
3. retreats into a hex that is not in an EZOC.
4. enters or exits an Objective hex during an Overrun (see 42.0) or Close Attack (see 43.0).

The second principle is that an enemy unit can **remain** adjacent to a friendly unit indefinitely without triggering further fire (it has taken cover in its new position). For a player to fire at that enemy unit again, he will have to conduct either an offensive operation or a strike (see 23.0). The third principle is that an enemy unit can always **exit** a hex adjacent to a friendly unit without taking fire unless it is moving directly from one friendly ZOC to another.

Fire combat occurs when friendly ground units fire at adjacent enemy ground units during an operation. There are four types of fire combat:

1. Infiltration Fire (see 18.6), executed during an enemy offensive operation if an enemy force moves through a friendly ZOC
2. Defensive Fire (see 18.7), executed during an enemy offensive operation
3. Offensive Fire (see 18.8), executed during a friendly offensive operation
4. Retreat Fire (see 18.9), executed during a friendly offensive operation if an enemy unit retreats into a friendly ZOC

Additionally, there is a fifth type of fire, called a “strike”, which does **not** occur during an operation and can target units that are **not** adjacent to any friendly unit. Strikes occur during the Strike Segment at the start of each Activation Cycle. Strikes are not considered fire combats and are therefore covered under a different Case (see 23.0), but the rules for strikes employ most of the same mechanics as fire combats.

[18.1] FIRE COMBAT ELEMENTS

[18.1.1] Attack Strength. Every Unit Counter bears an “Attack Strength” printed on both its front and back side **except** the counters for HQ units, which have no Attack Strength, and the counters for air units, which use the Attack Strength printed on their Attack Profile Marker instead (see 24.3). The Attack Strengths of attack helicopter units are printed only on the back sides of their Unit Counters.

[18.1.2] Basic Fire Strength. A unit’s Attack Strength is always multiplied by the number of steps it contains to determine its “Basic Fire Strength.” Thus, for example, a unit with an Attack Strength of four containing three steps will have a Basic Fire Strength of 12 (4 x 3 steps = 12). A unit’s Basic Fire Strength can be further modified by other factors (see 18.2)

[18.1.3] Target Hexes. A fire combat is always executed against a single hex. This hex is referred to as the “target” hex. When multiple units are adjacent to a target hex and eligible to fire, they can all participate in fire against that hex, but they are not required to. **As a basic principle, no hex can be attacked more than once during the same operation or Strike Segment** (unless multiple enemy forces participating in the same operation move through the same hex and trigger Infiltration Fire each time). Therefore, when

multiple units do fire at the same target hex containing the same enemy units in the same operation, they **must** all combine their fire into a single fire combat. When Offensive Fire is executed, **all** enemy units in the target hex are subject to the results of that fire. When any other type of fire combat is executed (Defensive, Retreat or Infiltration Fire), it is possible that some enemy units in the target hex will be immune from that fire **because they are not involved in the current operation**. The Cases below covering each type of Fire will describe when this immunity occurs.

[18.1.4] Fire Combat Eligibility. The following units cannot participate in a fire combat:

1. Masked units (their fire is blocked by other friendly units, see 14.4)
2. HQ units (they have no Attack Strength to fire with, see 30.0)
3. Utility helicopter units (they have no Attack Strength to fire with, see 26.0)
4. Rocket artillery units (they cannot fire into adjacent hexes; they can only participate in strikes, see 22.7)
5. Air units (they can only participate in strikes, see 24.0)

Otherwise, any unit with an Attack Strength can always fire into an adjacent hex, even when separated by a hexside it cannot cross.

[18.1.5] Multiple Fire Combats. No friendly unit can ever execute Offensive Fire more than once in a single Game Turn.

However, a unit can execute any other form of fire combat (Defensive, Retreat, or Infiltration Fire) as often as the opportunity arises.

[18.1.6] Fire Support. Artillery (see 22.0) and attack helicopter units (see 25.0) may be eligible to add their fire to a fire combat even if they are not adjacent to the target, provided they are in range. This is termed “fire support.” See the rules for Fire Support (21.0) to learn how this works.

[18.2] FIRE COMBAT PROCEDURE

A fire combat is resolved as follows:

1. The firing player declares the target hex and which eligible units will be firing into it.
2. He multiplies the Attack Strength for each participating Unit Counter by the number of steps it contains to arrive at its **Basic Fire Strength** and then modifies that Fire Strength for Close Terrain (see 18.2.1) and any other effects that apply (see 18.2.2) to determine its **Modified Fire Strength**.
3. He adds together the Modified Fire Strength of each participating unit (including fractions) to arrive at the **Total Fire Strength** for the fire combat, whereupon any remaining fraction is rounded down.
4. He divides the Total Fire Strength by **two** and again rounds down any fraction. The result is the **Effective Fire Strength** for the fire combat. This division of the Total Fire Strength by two to determine the Effective Fire Strength is referred to in these rules as the “**standard division by two**” and applies to all forms of fire **except** Fire Strikes on a bridge (see 38.4), where a different divisor may apply.
5. He consults the Combat Results Table (CRT) in his Charts & Tables Booklet and rolls the die. He finds the row for his die result to determine the Hit Modifier that applies (a number between -3 and +3).
6. He adds the Hit Modifier to his Effective Fire Strength to determine the total number of “Hits” inflicted on the enemy units in the target hex. This number is referred to as the “Hit Total.”
7. These Hits must then be “absorbed” according to the procedure described in 18.3. If a player is eligible to retreat and elects to do so, this retreat is executed **after** any step losses are taken in the Objective hex.
8. If the defending player elected to retreat into a hex in an EZOC, the attacking player can initiate a Retreat Fire Combat (see 18.9). Return to Step #1 and repeat the procedure.

The fire combat procedure is summarized on the Combat Results Table found in the Charts & Tables Booklets.

[18.2.1] Close Terrain Effect on Attack Strength. Generally, when a unit is firing into and/or out of a Close Terrain hex (Heavy Woods, Town or City), its Basic Fire Strength is **halved**. For the avoidance of doubt, there is no additional effect if a unit is **both** firing into **and** out of a Close Terrain hex at the same time: its Fire Strength is halved just once. The following **exceptions** apply:

1. Infantry (all mechanized, motorized and leg infantry) and engineer units are **not** subject to this halving.
2. Artillery units are **not** subject to this halving when executing Indirect Fire (see 22.2).

3. Air and attack helicopter units are **not** subject to this halving when they fire **out** of a Close Terrain hex but remain subject to it when firing into a Close Terrain hex.
4. Attack helicopter units, only, are not subject to this halving when they occupy the same hex as their target (see Helicopter Hunting, 25.4.1).

***Design Note:** In most wargames, a unit's fire is only affected by the hex occupied by its target. In **Air & Armor**, it is also affected by the terrain in its own hex. Why? First, a unit's firepower derives not just from the weight of its shell, but also from its ability to maneuver to get the best shot. If a unit's ability to maneuver is hampered by surrounding trees or buildings, its fire will be less effective. Secondly, if each vehicle's field of fire is blocked for all but a few degrees by the trees or buildings immediately surrounding it, only a few of the vehicles in that unit will be able to fire on any given target. Artillery units executing Indirect Fire are not subject to this effect because their fire is executed at such a high trajectory that it is not blocked by intervening terrain.*

[18.2.2] Additional Fire Strength Modifiers. A unit's Basic Fire Strength can be further modified as follows:

1. **Disruption:** All ground units are **halved** when they are disrupted (see 23.3).
2. **Minefields:** All ground units are **halved** when they occupy a minefield (see 37.4).
3. **Smoke:** All ground unit are **halved** when firing into and/or out of a smoke hex (see 6.3.3), **except** for 1) any unit with thermal sights (US M1, M2, and M3 units and WG Leopard 2 units, see 32.2) and 2) artillery units using Indirect Fire (see 22.2) to fire **out** of a smoke hex. Fire out of a smoke hex and into an adjacent smoke hex is only halved once. Air and attack helicopter units are halved when firing **into** a smoke hex, but not when firing **out** of one. **Exception:** US AH-64 units have thermal sights and so are **not** halved when firing into a smoke hex.
4. **Slopes:** All ground units are **halved** when firing **up** a Slope hexside, but not when firing **down** one. **Exception:** Slope hexsides have no effect on Indirect Fire (see 22.2).
5. **Gas:** All ground units are **halved** when they **occupy** a hex in a Gas Zone (see 44.3).
6. **Contamination:** All ground units are **halved** when contaminated (see 44.4).
7. **Direct Fire:** Self-propelled and towed artillery units are **halved** when executing Direct Fire (see 22.1). This effect is cumulative with the effect for Close Terrain, meaning that artillery units executing Direct Fire into and/or out of a Close Terrain hex are **quartered**.
8. **Main River:** All ground units are **halved** when firing across a Main River hexside. **Exception:** Main River hexsides have no effect on Indirect Fire (see 22.2).
9. **River Crossings:** All units are **doubled** when executing Infiltration Fire against an enemy force crossing a Main River hexside (whether bridged or not, see 17.8) **or Retreat Fire against an enemy force retreating across a bridged Main River hexside** if they exert a ZOC into both the hex exited and the hex entered. In this case, ignore any halving for firing across a Main River hexside.
10. **Infiltration Fire:** All units are **doubled** when executing Infiltration Fire into Clear hexes (see 18.6).
11. **Retreat Fire:** All units are **doubled** when executing Retreat Fire into Clear hexes (see 18.9).
12. **Defensive Fire from Close Terrain:** When the Objective hex contains Close Terrain (Heavy Woods, Town or City), **all defending infantry (mechanized infantry, infantry, and airmobile infantry) and engineer units in the Objective hex, only, are doubled when executing Defensive Fire, only (see 18.7.4)**. This doubling never applies to A) any units that are executing Defensive Fire from **outside** the Objective hex, and B) to any other types of units **inside** the Objective hex.
13. **Point-Blank Fire:** **Some** ground units are doubled when executing Point-Blank Fire (fire combat against enemy units **in the same hex**, which is possible during an Overrun (see 42.0) or Close Attack (43.0)). **See the Fire Effects Chart.**
14. **Thermal Sights:** All US M1, M2, and M3 units and WG Leopard 2 units are **doubled** during Night Game Turns (see 32.2.1). AH-64 units, which also carry thermal sights, are **not** doubled at night.

A player applies all applicable Fire Strength Modifiers to a unit's Basic Fire Strength to arrive at its Modified Fire Strength. All Fire Strength Modifiers are cumulative **except** as follows:

1. A unit is never halved more than once for both occupying a Gas Zone and being contaminated.
2. A unit is never halved more than once if both the hex it is firing out of and the hex it is firing into suffer the **same** condition (e.g. both are smoke hexes or both are Close Terrain hexes) but can be halved any number of times for **different** conditions (e.g. a unit is firing out of a Gas Zone hex and up a slope hexside).

3. The normal halving when a ground unit fires across a Main River hexside is superseded if the doubling for Infiltration Fire during a river crossing applies (see 17.8).
4. A unit's final Modified Fire Strength (before it is added to the Total Fire Strength and subjected to the standard division by two) is capped at **twice** its Basic Fire Strength, no matter how many doubling effects apply.

All effects on Fire Strength are summarized in the Fire Effects Chart found in the Charts & Tables Booklets. Fire Strength Modifiers are applied to each unit individually **before** their Modified Fire Strengths are added together to determine the Total Fire Strength for the fire combat. Retain fractions when modifying an individual unit's Fire Strength so that any fraction for each participating unit is added to the Total Fire Strength, after which any final fraction remaining is rounded down.

[18.2.3] Effective Fire Strength. Once a player has determined the Total Fire Strength for a fire combat, this number is then **always subject to the standard division by two** to determine the Effective Fire Strength of the combat, with any final fraction again rounded down. Thus, if the Total Fire Strength for a fire combat is 33.75, the Total Fire Strength will be rounded down to 33 and then divided by two to produce an Effective Fire Strength of 16.5, which will be rounded down to 16. Thus, conceptually, when the rules say that a given effect halves the Fire Strength of a unit, that unit's Effective Fire Strength will ultimately be one quarter of its Basic Fire Strength, because the Total Fire Strength is **always divided by two** to reach the Effective Fire Strength ($\frac{1}{2}$ [the Fire Strength modification from the given effect] \times $\frac{1}{2}$ [the standard division by two] = $\frac{1}{4}$). However, it is important to note that the standard division by two applies **only** to the Total Fire Strength. It is never actually applied to each unit individually.

***Design Note:** Players may wonder why I didn't simply halve each unit's printed Attack Strength rather than make them divide the Total Fire Strength by two each time to reach the Effective Fire Strength. The reason is that this approach allowed me to make finer and more realistic gradations in the Attack Strength for each type of unit. Infantry units in this game have an Attack Strength between "1" and "5", meaning there are five gradations. Had I halved the Attack Strengths up front, I would have had at most three gradations between infantry units. Alternatively, I could have doubled **both** Attack and Defense Strengths to get more gradations, but then players would have been running lots of double-digit math in their heads, which would give anyone a headache. Dividing by two at the end was the best trade-off between realism and simplicity.*

[18.2.4] Zero Strength Attacks. If the Effective Fire Strength of a fire combat is a fraction that is less than one, then it is rounded down to zero. For instance, if a one-step unit with an Attack Strength of three has been disrupted and it is the only unit participating in the fire combat, then its Fire Strength of three ($3 \times 1 \text{ step} = 3$) would be halved to one and a half, which would then be rounded down to one. The standard division by two would reduce the Effective Fire Strength to $\frac{1}{2}$, which would then round down to zero. **A fire combat with an Effective Fire Strength of zero is still executed** since it is possible for that fire combat to receive a Hit Modifier as high as three Hits and therefore to inflict up to three Hits of damage.

[18.3] ABSORBING HITS

When a fire combat inflicts one or more Hits, those Hits must be absorbed by some combination of retreat or step loss but only if the number of Hits is equal to or greater than the Adjusted Defense Strength of the **strongest** unit in the target hex.

[18.3.1] Adjusted Defense Strength. Every ground Unit Counter bears a "Defense Strength" printed on both its front and back side. A ground unit absorbs Hits based upon its Adjusted Defense Strength. The Defense Strength printed on a unit's counter can be adjusted by the interaction of three factors: 1) its unit type, 2) the terrain in the hex it occupies and 3) the type of Fire it is receiving. To determine if a unit's printed Defense Strength needs to be adjusted, consult the Terrain Effects Chart found in the Charts & Tables Booklet, find the section of the chart for the type of fire being received ("Defense Modifier vs. Off. Fire/Strike" or "Defense Modifier vs. Other Fire"), find the column in that section containing the same Unit Symbol as the unit taking the fire, and then cross reference this column with the row for the terrain in the hex it occupies. At the intersection of the column and row, find the Defense Modifier, if any, that applies. All Defense Modifiers are plain integers (+1, +2, etc.), and that integer is simply added to the unit's printed Defense Strength to determine its Adjusted Defense Strength. There is only one type of primary terrain in each hex (see 2.2.1) and so only one possible Defense Modifier. **Exception:** The Defense Modifier for an improved position (+2, see 35.0) is always cumulative with the Defense Modifier for the primary terrain in the hex. For example, if a mechanized infantry unit with a printed Defense Strength of three occupies a Light Woods hex and is taking Offensive Fire, the owning player would refer to the section of the TEC for "Defense Modifier vs. Off. Fire/Strike", find the column containing a mechanized infantry Unit Symbol, and cross reference it with the row for Light Woods, finding at the intersection a value of +2. He would then add +2 to his printed Defense Strength of three for an Adjusted Defense Strength of five.

***Design Note:** The Defense Modifiers in the TEC afford large bonuses to infantry units in any kind of cover when receiving Offensive Fire or a Fire Strike, meaning when they are inactive and therefore defending. Defending infantry can dismount and take full advantage of any cover. All other types of units receive only a +1 Defense Modifier when inactive and defending because they consist primarily of vehicles that cannot hide well. Units taking any other form of fire (Infiltration Fire, Defensive Fire, or Retreat Fire) are, by definition, active or retreating units, meaning that they are mounted and moving and thus cannot hide well either. Accordingly, all units receive at most a +1 Defense Modifier when taking these other types of fire.*

Play Note: The complexity of Defense Modifiers on the TEC can be reduced to the following simple rules:

1. If the unit is in a Clear hex, there will be no Defense Modifier.
2. If the unit is any type of infantry receiving Offensive Fire or a Fire Strike, check the TEC for the Defense Modifier.
3. Otherwise, the Defense Modifier is always +1.
4. An Improved Position always adds an extra Defense Modifier of +2 cumulative with the modifier for the primary terrain in the hex, but only if the unit is receiving Offensive Fire or a Fire Strike.

[18.3.2] Hold or Retreat. If the fire just executed was Offensive Fire, then the receiving player may have the option to retreat (see 18.4). If he is eligible to retreat, he must declare that he is electing to retreat right after the Hit Total is determined. He can absorb some or all the Hits inflicted using the rules for retreat. Retreat is not an option when receiving any form of fire other than Offensive Fire.

[18.3.3] Absorbing Step Losses from Fire Combat. If the player receiving fire elects to retreat, then any Hits remaining after this election must be absorbed by step loss if possible. If the player receiving fire elects not to retreat, or is not eligible to retreat, then **all** Hits must be absorbed by step loss if possible. **Whenever Hits from a Fire Combat must be absorbed by step loss, they are always taken from the unit with the highest Adjusted Defense Strength.** **Exception:** See Fire Combats into a Masked Hex, 18.3.5.5. If there are two units in the target hex with an equal Adjusted Defense Strength, the **firing player** chooses which unit absorbs the step loss. **Exception:** If a player elects to retreat from Offensive Fire, all step losses **must come from the covering unit first** (see 18.4). Each time the strongest unit loses a step, it absorbs a number of Hits equal to its Adjusted Defense Strength. A player continues to absorb Hits by removing steps from the strongest unit until either 1) the number of Hits left unabsorbed drops below the Adjusted Defense Strength of that unit, at which point any remaining Hits are ignored, or 2) it has been eliminated (it has no steps remaining). Once the strongest unit has been eliminated, any remaining unabsorbed Hits are then applied to the unit with the next highest Adjusted Defense Strength. This process continues until 1) there are no Hits left to absorb, or 2) the remaining Hits left to absorb are less than the Adjusted Defense Strength of the strongest **surviving** unit in the hex. Unabsorbed Hits can never be taken from a weaker unit in the target hex if a stronger unit still survives. The owning player always adjusts the Step Markers on any units that absorb step losses. Note that the process for absorbing Hits described above applies only to Hits inflicted by a fire combat (Offensive Fire, Defensive Fire, Retreat Fire, and Infiltration Fire). When Hits are inflicted by a Fire Strike (see 23.0), **they are absorbed by the weakest unit in the hex first (see 23.2).**

Design Note: Even though there is not a single rule in this game for combined arms operations, the interaction of the Fire Strength Modifiers on the FEC and the Defense Modifiers on the TEC with the rules for how Hits are absorbed provides the basis for all combined arms tactics in this game. A player will rapidly discover that, for fire combat, his tanks cover his infantry in open terrain and his infantry cover his tanks in close terrain.

[18.3.4] Unit Elimination. If step losses strip all steps from a unit, it is immediately removed from the map (it does **not** become a Dummy). Any Unit Counters released in this manner are immediately available for unit splitting or the creation of a dummy unit elsewhere (unless the step loss triggers the restrictions of Case 11.2.3).

[18.3.5] Immunity. The following rules detail when a unit is immune to enemy fire.

[18.3.5.1] Offensive Fire Losses. When a player executes Offensive Fire (see 18.8), **all** units in the Objective hex are subject to that fire and can be eliminated if the Hit Total is sufficiently high.

[18.3.5.2] Infiltration Fire Losses. When a player executes Infiltration Fire (see 18.6) against an enemy force moving through a friendly unit's ZOC, only the enemy units in that moving force are subject to loss from that fire. Other enemy units present in the target hex but not currently moving, including units participating in the same operation, are immune to any Hits inflicted.

[18.3.5.3] Defensive Fire Losses. When a player executes Defensive Fire (see 18.7), only enemy units participating in the current enemy operation are subject to loss from that fire. Other enemy units present in a target hex, but not participating in the current enemy operation, are immune to any Hits inflicted.

[18.3.5.4] Retreat Fire Losses. When a player executes Retreat Fire (see 18.9), only the enemy units that just retreated from the Objective hex are subject to that fire. Other enemy units already present in the target hex are immune to any Hits inflicted.

[18.3.5.5] Fire Combats into a Masked Hex. If a hex containing masked units becomes the Objective hex of an enemy operation, then any Hits inflicted by enemy **Offensive Fire** must be applied to the **unmasked** units present in the hex **first** before any masked units can suffer losses (the unmasked units are the ones holding the front line). Hits are allocated to the strongest unmasked unit first

and proceed down the ladder until there are no unmasked units left. If additional Hits remain, they are taken from the strongest **masked** unit next, and so on down the ladder. Hits inflicted by **Infiltration Fire, Defensive Fire, or Retreat Fire** can be applied **only** to the active or retreating units in the target hex, which are never masked until the end of the current operation (see 14.4.2).

[18.4] RETREAT

***Design Note:** A force under attack can usually fall back to lessen casualties. However, this is a tricky operation, since a fast retreat can become a rout, and a slow retreat can become an overrun. Retreat under fire is generally conducted by leaving a delaying force to cover the main body as it falls back. Hence the retreat rules stress the value of retreat in terms of the strongest unit in the retreating force: this is the unit covering the retreat.*

When subject to enemy Offensive Fire, only, the defending player can elect to absorb Hits by retreating. If he elects to retreat, he uses the following procedure immediately after the Hit Total has been determined:

1. He declares to his opponent that he is electing to retreat.
2. He determines which unit in the Objective hex has the highest Adjusted Defense Strength. This unit is termed the “covering” unit. If two units have the same Adjusted Defense Strength, the **defending** player chooses which unit to designate as the covering unit.
3. He subtracts the Adjusted Defense Strength of the covering unit from the Hit Total just inflicted. This is his benefit for retreating.
4. If the number of Hits remaining is still greater than or equal to the Adjusted Defense Strength of the covering unit, then the defending player must absorb those Hits through step loss to the covering unit **first**, using the procedure outlined in Case 18.3.3. Even if he elected to retreat, it is possible that the remaining Hit Total is sufficiently large to eliminate all defending units and therefore none survive to retreat. He adjusts his Step Markers as necessary and removes any units reduced to zero steps.
5. In the ensuing Retreat Step, the defending player retreats any surviving units into an adjacent hex according to the retreat priorities (see 18.4.1). Any unit that retreats adjacent to an enemy unit is flipped to its used side.
6. The active player immediately executes any Retreat Fire this retreat triggers (see 18.9).
7. If the active player subsequently exercises his option to advance attacking units into the Objective hex, this advance “engages” all defending units that retreated (see 18.5.3). **They must flip to their used sides if not there already.**

A retreat is the movement of all units in the Objective hex into an adjacent hex. If a player elects to absorb Hits by retreating, then **all** surviving units must retreat out of the Objective hex. Retreat is a function of combat and is **not** considered movement. Accordingly, retreating units expend no MPs to retreat and are never subject to Infiltration Fire. However, retreating units are subject to Retreat Fire (see 18.9). Because retreat is not movement, a unit that retreats does not automatically become used. However, if it ends the enemy operation adjacent to an enemy unit, then it **does** become used.

[18.4.1] Retreat Priorities. When a player elects to retreat his units from the Objective hex, the choice of which hex he retreats into is governed by a strict set of retreat priorities. The player consults the Retreat Priorities Chart found in the Charts & Tables Booklets, and retreats into the hex that avoids as many of the priorities listed as possible, in the order listed. If there is no better choice, a unit can violate any of these retreat priorities, **except those labeled Prohibited**. If the only choices are prohibited, then the player cannot elect to retreat. If more than one hex will meet the same retreat priorities, a player can elect to divide his units in the Objective hex into multiple forces and retreat them into multiple adjacent hexes.

[18.4.2] Retreat Prohibitions. A unit cannot retreat:

1. if it is taking Defensive Fire, Retreat Fire, or Infiltration Fire, nor if it is the target of a strike.
2. if it is disrupted or stacked with another unit that is disrupted (see 23.3).
3. if the Objective hex was reinforced by a reacting force (see 19.0).
4. if the Objective hex contains any unit that is masked (see 14.4).
5. across an Impassable Slope hexside.
6. across any type of river hexside **unless it is bridged**.
7. into a hex containing an obstacle (it can retreat out of one, see 36.0).

8. into a hex containing an enemy ground unit (it can retreat into a hex containing an enemy attack helicopter unit but see 18.9.2).
9. if it is taking Offensive Fire during an Overrun (see 42.0) or Close Attack (see 43.0).

[18.4.3] Overstacking During a Retreat. If there is no better option, the inactive player can retreat the defending force into a hex in violation of the stacking limits and any other stacking restrictions (see 14.0). If this occurs, then some of the units will become masked (see 14.4).

[18.4.4] Retreat Fire. If a force retreats into a hex in an EZOC, then all enemy units that exert a ZOC into that hex can execute Retreat Fire against the retreating force (see 18.9).

[18.4.5] Minefields. If a force retreats into or out of a minefield hex (see 37.0), it is immediately subject to a Mine Attack (see 37.5).

[18.4.6] Gas Zones. If a force retreats into a Gas Zone (see 44.3), it is immediately subject to a Contamination Check (see 44.4).

[18.4.7] Retreat off the Map Edge. A player can retreat a force off the map from a map-edge Objective hex. These units do not count as destroyed for the purpose of Shattering their regiment or brigade (see 31.0), nor for the purpose of earning VPs for either player (see 46.7), but once exited off the map edge, they can never be returned to play.

[18.4.8] Multiple Retreats. There is no limit to the number of times a stack can retreat over the course of a turn. If taking Offensive Fire and otherwise eligible, a stack can retreat every time it is fired upon.

[18.4.9] It is entirely possible for a player to elect to retreat but discover that no retreat can be executed because the remaining Hits inflicted are sufficient to eliminate every step in the defending force.

[18.5] ADVANCE

During the Advance Step of any friendly offensive operation, any participating units adjacent to the Objective hex can move into that hex if 1) it has been cleared of enemy units by step loss or retreat, or 2) the defending enemy stack proved to be solely dummy units and the attacking player did not change the Objective hex. This action is termed an “advance.” Advance is a function of combat, not movement. Accordingly, it requires the expenditure of no MPs and is never subject to Infiltration Fire (see 18.6) or Defensive Fire (see 18.7). Units advance one at a time, meaning that a player can advance his first unit and run the Contact Procedure against any unrevealed enemy units the advancing unit encounters before deciding whether to advance any other units.

[18.5.1] Any unit can be split (see 11.5) during the Advance Step, so that some of its steps advance and some do not. A participating unit adjacent to the Objective hex that does not advance can distance transfer (see 11.7.2) some or all its steps into a unit that does advance (possibly becoming a dummy in the process). The stacking limit and all stacking restrictions apply to units that advance into the Objective hex (see 14.0). A player can always violate stacking restrictions, but in that case some of the advancing units will become masked (see 14.4).

[18.5.2] No unit can advance:

1. across an unbridged Main River hexside (it **can** advance across an unbridged Fränkische Saale River hexside).
2. across an Impassable Slope hexside (**except** a leg infantry unit, see 29.3.1).
3. **into** an obstacle hex (it can advance **out** of one, see 36.0).
4. if masked or stacked with a masked unit.

A unit **can** advance into or out of a minefield hex, but it is immediately subject to a Mine Attack (see 37.5), meaning that it would suffer two Mine Attacks if it advanced both out of and into a minefield hex. A unit can also advance into or out of a Gas Zone hex, but it is immediately subject to a Contamination Check (see 44.4.1) if it **enters** a Gas Zone hex. The restrictions in this Case are summarized in the Advance Prohibitions Chart found in the Charts & Tables Booklets.

[18.5.3] Engagement. When a participating unit advances into the Objective hex, it is considered to “engage” any defending units that just retreated. These defending units are immediately flipped to their used sides if they were not already. A retreating unit is also considered to be engaged, and therefore flipped to its used side, if it retreats next to an enemy unit.

[18.5.4] An advance by a participating unit never triggers any kind of fire from adjacent enemy units.

[18.6] INFILTRATION FIRE

Infiltration Fire is an Interrupt Action that occurs only when an enemy force participating in the current operation attempts to exit a friendly unit's ZOC during the Movement Step of that operation. Therefore, Infiltration Fire is always executed by the **inactive player**. Infiltration Fire is executed using the standard fire combat procedure found in Case 18.2. There are two cases where Infiltration Fire is triggered. In the first case, it is triggered when an enemy force attempts to move directly from one friendly ZOC hex to another and **both** hexes are adjacent to the **same friendly unit(s)**. It does not matter whether the enemy force started its movement in the first ZOC hex or entered it later in its movement. All friendly units that exert a ZOC into **both** hexes can immediately combine their fire to execute an Infiltration Fire Combat against the moving force **in the hex it is attempting to exit**. In the second case, Infiltration Fire is triggered when an enemy force enters a hex in a friendly ZOC and then immediately attempts to exit it in the same move. All friendly units that exert a ZOC into that hex can immediately combine their fire to execute an Infiltration Fire Combat. In all cases, Infiltration Fire is triggered in the ZOC hex that the moving enemy force is attempting to **exit**. If the moving force has at least one step remaining after the Infiltration Fire Combat, then it can complete its movement into the hex it was trying to enter and may continue to move thereafter. All Hits inflicted by Infiltration Fire must be absorbed by step loss, and these Hits must be absorbed immediately in the hex where the Infiltration Fire occurs. **Only the units in the moving force are subject to Hits inflicted by Infiltration Fire. All other enemy units already present in the target hex are immune to such fire. Units that start their move masked in a hex and trigger Infiltration Fire in that hex by attempting to move directly from one ZOC hex to another do absorb Hits from that fire, indeed, they are the only units subject to loss because non-moving units are never subject to loss from Infiltration Fire.** Units subject to Infiltration Fire receive terrain benefits according to the columns on the TEC for "Defense Modifier vs. Other Fire."

[18.6.1] For the avoidance of doubt, Infiltration Fire is **not** triggered when:

1. an enemy force starts its movement in the ZOC of a friendly unit and enters a hex that is not in the ZOC of that unit.
2. an enemy force moves from a ZOC hex exerted by one friendly unit directly into an ZOC hex exerted by a **different** friendly unit (the enemy force has not moved directly from one hex in a friendly unit's ZOC to another hex in the ZOC of the **same** friendly unit).
3. an enemy force exits a hex in a friendly unit's ZOC and moves into another hex adjacent to that same friendly unit but not in its ZOC because that second hex is a Close Terrain hex (the enemy force has not moved directly from one hex in a friendly unit's ZOC to another).
4. an enemy force exits a hex adjacent to a friendly unit but **not** in its ZOC because that hex is a Close Terrain hex and enters another hex adjacent to that same friendly unit that **is** in its ZOC (the enemy force has not moved directly from one hex in a friendly unit's ZOC to another).
5. an enemy force enters a Close Terrain hex adjacent to a friendly unit and then exits it in the same move (because the Close Terrain blocks the friendly unit's ZOC into that hex).
6. an enemy force advances or retreats into a hex in a friendly ZOC (because these actions do not occur during the Movement Step of an operation, which is the only time when Infiltration Fire is triggered). However, see Retreat Fire, 18.9.

[18.6.2] An enemy force can be attacked by Infiltration Fire once for **each hex** it attempts to exit where it triggers such fire. Friendly units can fire once for each separate hex where their fire is triggered, and it is possible for the same friendly units to execute Infiltration Fire multiple times against the same moving enemy force during the same enemy operation. It does not matter if the moving force triggers this fire in multiple ways: all friendly units whose fire is triggered combine their Fire Strengths to execute a single Infiltration Fire Combat into the hex the moving enemy force is attempting to exit. There is no limit to the number of Infiltration Fire Combats a friendly unit can participate in over the course of a turn.

[18.6.3] Fire support assets (see 21.1) cannot provide fire support for an Infiltration Fire Combat. However, artillery units can execute Infiltration Fire against **adjacent** enemy units that trigger Infiltration Fire in their ZOCs. **Exception:** Rocket artillery units (see 4.1.2.3) cannot execute Infiltration Fire because they can never fire into adjacent hexes (see 22.7).

[18.6.4] Whenever a unit executes Infiltration Fire into a Clear hex, its Fire Strength is **doubled**.

Design Note: Normally, when a unit takes fire in open terrain, it is facing the enemy and presenting its strongest armor. However, when it attempts to move through open terrain to bypass an enemy position, it is exposing its much weaker flank and rear armor, hence the doubling effect for enemy fire in this situation.

[18.6.5] As a special case, if Infiltration Fire is triggered when an enemy force is crossing a Main River hexside, then all friendly units that exert a ZOC into both the hex exited and the hex entered on the opposite bank will fire at **double** their normal Fire Strength regardless of the type of terrain in the target hex (see 17.8). Only the steps that actually cross the river are subject to this fire but, as with all Infiltration Fire, they take the fire in the hex they are exiting. It does not matter if the Major River hexside is bridged or not.

[18.7] DEFENSIVE FIRE

Defensive Fire occurs during the Defensive Fire Step of an **enemy** offensive operation. Generally, any unit belonging to the inactive player that is adjacent to an enemy unit participating in the current operation is eligible to execute Defensive Fire into any hex occupied by one of those participating units. If the participating enemy units occupy more than one hex adjacent to friendly units, then any or all such hexes can be attacked by adjacent friendly units, but each hex must be attacked individually as a separate Defensive Fire Combat. The inactive player can allocate the fire of units eligible for Defensive Fire to the target hexes available in any way he sees fit. There is no requirement that every possible target hex be fired upon. He can execute his Defensive Fire Combats in any order he desires. Inactive units eligible to execute Defensive Fire can split their fire, **by step**, to attack more than one hex (see 18.7.3), but no step can fire more than once during a Defensive Fire Step and no hex can be attacked more than once during a Defensive Fire Step, meaning that all steps that fire at a particular hex must combine their Fire Strengths into a single fire combat. Defensive Fire is executed using the standard fire combat procedure found in Case 18.2.

[18.7.1] Defensive Fire Eligibility. Any inactive unit bearing an Attack Strength that is adjacent to an enemy unit participating in the current enemy offensive operation during the Defensive Fire Step can execute Defensive Fire. It does not matter if the inactive unit is used, disrupted, or contaminated. It does not matter if the inactive unit belongs to a different formation than the units in the Objective hex. It does not matter if the inactive unit just reacted into the Objective hex.

There are two types of units that cannot execute Defensive Fire: 1) masked units and 2) rocket artillery units (because in both cases these units cannot fire on adjacent hexes).

[18.7.2] Defensive Fire Support. During the Defensive Fire Call Step of an enemy offensive operation, just before the Defensive Fire Step, **one** HQ belonging to the inactive player within Command Range of an eligible observer (see 21.3.3) can make a Fire Call (see 21.2) for fire support. The inactive player consults the friendly Fire Support Chart found in his Charts & Tables Booklet to determine which fire support assets are eligible to participate and then declares which specific artillery and attack helicopter units are being called. During the ensuing Defensive Fire Step, these units can participate in Defensive Fire Combats against any hexes occupied by enemy units participating in the current operation, but only if there is a friendly unit adjacent to the target hex eligible to observe for the calling HQ (see 21.3.3). **Note that rocket artillery units cannot provide defensive fire support because the only fire they can participate in is a strike (see 22.7).** Any fire support assets called can execute Defensive Fire against a target hex alone or in concert with other friendly units firing from adjacent hexes. Note that inactive artillery units using Direct Fire (see 22.1) to participate in a Defensive Fire Combat against adjacent enemy units do **not** count as fire support and therefore do **not** count against any limits on the number of artillery units that can provide fire support using Indirect Fire during a Defensive Fire Step.

[18.7.3] Split Fire. As a special rule that applies only to **Defensive Fire and Retreat Fire** (the two cases where it is possible to have multiple target hexes at the same time), a player can split the fire of individual units by steps. For example, if the WP is conducting a Hasty Attack and has moved two units belonging to the attacking regiment into two different hexes adjacent to a US M1 unit containing four steps, the NATO player might choose to conduct two Defensive Fire Combats, one against each of the two hexes. He might allocate two of his four steps to fire on one hex and the other two steps to fire on the other hex (or any other possible combination). Given an allocation of two steps per hex, the M1 unit would generate a Total Fire Strength of 18 (9 x 2 steps = 18) and an Effective Fire Strength of nine during the Defensive Fire Combat against each hex. **Fire support assets providing fire support to a Defensive Fire Combat can also split their fire by step.** Such splitting must be managed carefully to ensure that no **step** ever fires more than once, and no enemy unit is ever fired upon more than once.

[18.7.4] Defensive Fire from Close Terrain. When the Objective hex of an enemy offensive operation is a Close Terrain hex, the Fire Strengths of all **infantry** (mechanized infantry, motorized infantry, and airmobile infantry) **and engineer units** in that Objective hex, only, are **doubled** for Defensive Fire. This doubling never applies to any units that are executing Defensive Fire from **outside** the Objective hex, nor to any other types of units executing Defensive Fire from **inside** the Objective hex.

***Design Note:** When an attacking force attempts to clear a forest or urban area of enemy troops, it has no choice but to send its units into the heart of that terrain to pursue the defenders to their last cover. The attacker must close to point-blank engagement ranges where even the lightest anti-armor weapon is deadly. This tactical setting is where defending infantry truly comes into its own. The doubling of Defensive Fire reflects the lethal nature of this close quarters fighting.*

[18.7.5] Defensive Fire Targets. An active enemy unit participating in the current enemy offensive operation is always subject to Defensive Fire from adjacent inactive friendly units during the Defensive Fire Step of that operation, even if the enemy unit never moved in that operation or is not adjacent to the Objective hex **except** if it meets one of the **three** following conditions:

1. It ended its movement in a hex that it entered using protected movement (see 16.3) **and** it is not adjacent to the Objective hex, if any.
2. It did not move during the current operation, **and** it is not adjacent to the Objective hex, if any.

3. It did not move during the current operation, it is adjacent to the Objective hex, but it is also masked.

If enemy units participating in the current operation are stacked in a hex with other enemy units that are **not** participating in the current operation, those other enemy units are **immune** to any Defensive Fire into that hex.

***Design Note:** The basic principle of Defensive Fire is that if an enemy unit moves next to a friendly unit, whether it is attacking or not, the friendly unit will get a shot at it before it can go to ground. In the three exceptions named above, the enemy unit has already gone to ground and is not moving out of cover to attack, or its movement is being covered by other friendly units and blocking terrain.*

[18.7.6] Defensive Fire Effects. All Hits inflicted by Defensive Fire must be absorbed by step loss. Units subject to Defensive Fire receive terrain benefits according to the columns on the TEC for “Defense Modifier vs. Other Fire.”

[18.7.7] A ground unit can execute Defensive Fire once for each enemy offensive operation that results in a participating enemy unit occupying an adjacent hex (and more than once if it splits its fire, see 18.7.3). There is no limit to the number of times a ground unit can participate in Defensive Fire over the course of a turn. **Exception:** Artillery units can provide fire support to a Defensive Fire Combat using Indirect Fire (see 22.2) just once per turn, after which they receive a Fired Marker (see 22.5).

[18.8] OFFENSIVE FIRE

Offensive Fire occurs only during the Offensive Fire Step of an offensive operation. During this Step, every participating unit that survives enemy Defensive Fire and is adjacent to the Objective hex can join in a single Offensive Fire Combat against that hex. If no Objective hex was declared for the operation (see 13.5), then no Offensive Fire can occur. Offensive Fire is executed using the standard fire combat procedure found in Case 18.2.

[18.8.1] Offensive Fire Support. During the Offensive Fire Call Step, **one** HQ superior to the active formation can make **one** Fire Call (see 21.2) for fire support. The active player consults the friendly Fire Support Chart found in his Charts & Tables Booklet to determine which fire support assets (see 21.1) are eligible to participate and then declares which specific artillery and helicopter units are being called. During the ensuing Offensive Fire Step, these units can participate in the Offensive Fire Combat against the Objective hex. **Note that rocket artillery units cannot provide offensive fire support because the only fire they can participate in is a strike (see 22.7).** To make a Fire Call, there must have been at least one friendly unit **participating in the current operation** that was adjacent to the Objective hex at the end of the Movement Step and eligible to act as an observer for the calling HQ (see 21.3.2). Units that are not participating in the current operation cannot observe. If no unit eligible to observe survives enemy Defensive Fire, then the Fire Strengths of all supporting artillery units are **halved** unless an attack helicopter unit is called and survives enemy Flak Fire (see 21.3.2).

[18.8.2] Units attacked by Offensive Fire find their Defense Modifiers on the “Defense Modifier vs. Off. Fire/Strike” section of the Terrain Effects Chart.

***Design Note:** The Defense Modifiers for receiving Offensive Fire are higher than the Defense Modifiers for any other form of fire combat because units receiving Offensive Fire are defending in place and therefore able to make maximum use of all available cover and concealment. Units taking any other form of fire are, by definition, moving and therefore less able to conceal themselves. Infantry units receive much larger bonuses than armored units when defending because, when not moving, infantry can dismount from their carriers and hide far more effectively than any vehicles.*

[18.8.3] Units in the Objective hex that take Hits from Offensive Fire are eligible to absorb some of those Hits by retreat (see 18.4.) unless they would violate any of the retreat prohibitions outlined in Case 18.4.2. All Hits inflicted by Offensive Fire must be absorbed by some combination of retreat and/or step loss as soon as the result of the fire is known. However, any retreat elected is not actually executed until the Retreat Step of the operation.

[18.8.4] Because 1) units can execute Offensive Fire only during an offensive operation, and 2) units can only participate in one operation per turn, no unit can execute Offensive Fire more than once a turn.

[18.9] RETREAT FIRE

Retreat Fire is an Interrupt Action that occurs during a friendly offensive operation whenever an enemy force retreats into a hex in the ZOC of one or more friendly units. All units friendly to the active player that exert a ZOC into the hex **entered** by the retreating force can combine their fire to execute a Retreat Fire Combat against that hex. It does not matter whether these friendly units are participating in the current operation or not, only that their ZOC has been infringed. **There are two types of units that cannot execute Retreat Fire: 1) masked units and 2) rocket artillery units (because in both cases these units cannot fire on adjacent hexes).** Retreat Fire is executed using the standard fire combat procedure found in Case 18.2. As an extra modifier, the Fire Strengths of all units executing Retreat Fire are **doubled** when firing into Clear hexes. Only the units that retreated are subject to Retreat Fire; any other enemy units that started in the target hex before the retreat are immune to such fire. All Hits inflicted by Retreat Fire must be absorbed by step loss, and these Hits must be absorbed as soon as the result of the fire is known.

[18.9.1] Retreat Fire Execution. The defending player always absorbs Hits from Offensive Fire Combat by electing to retreat and taking step losses during the Offensive Fire Step. He conducts the actual retreat during the ensuing Retreat Step. Any Retreat Fire triggered is executed immediately against the hex(es) into which the defending force retreats. If the enemy force in the Objective hex splits to retreat into more than one hex, leaving friendly units adjacent to more than one possible target hex, the active player can execute multiple Retreat Fire Combats, choosing which units fire into which hex (including splitting their fire, see 18.7.3), provided that no step can ever execute Retreat Fire more than once during a friendly offensive operation nor can any target hex be hit by Retreat Fire more than once per operation. Units subject to Retreat Fire receive terrain benefits according to the columns on the TEC for “Defense Modifier vs. Other Fire.”

[18.9.2] Retreat Fire Support. Friendly fire support assets (see 21.1) **cannot** be called to provide fire support for a Retreat Fire Combat. However, if a friendly attack helicopter unit is already present on the map because it just participated in the Offensive Fire that drove the retreating units out of the Objective hex, then it **can** participate in Retreat Fire if an enemy force retreats into a hex in its ZOC during the operation for which it was called. As a reminder, attack helicopter units exert a ZOC into all six adjacent hexes, plus the hex they occupy, **regardless of whether any of these hexes are Close Terrain**, although their Fire Strength will be halved into any Close Terrain hex **except** their own hex (see 25.4.1).

[18.9.3] A friendly unit can execute Retreat Fire each time an enemy force retreats into its ZOC. There is no limit to the number of times a unit can execute retreat fire over the course of a turn.

[19.0] REACTION

Reaction is a special form of movement that can be performed by the **inactive player** during the Reaction Step of any enemy offensive operation in which the active player has declared an Objective hex. During the Reaction Step of that operation, the inactive player can move **one unit or force** into the Objective hex from as far away as three hexes. **All reacting units must start together in the same hex.** Units that react into the Objective hex of an enemy operation can participate in the Defensive Fire Step of that operation. A unit is eligible to react only if it meets all the following conditions:

1. It is a maneuver unit (see 4.1.1).
2. It is on its unused side.
3. It does not start the Reaction Step next to an enemy unit.
4. It can enter the Objective hex using three MPs or less.

In addition, no reaction is possible if **there are no friendly units in the Objective hex** (see Urban resistance, 29.6.5) or if any unit in the Objective hex is masked (see 14.4).

[19.1] WARSAW PACT REACTION

Warsaw Pact reaction movement is strictly limited to the units of regiments that have a Reserve operation planned. If the Objective hex of a NATO operation contains a unit belonging to a WP regiment with a Reserve operation planned, **then any one unit or force (all units that start in the same hex) from that same regiment** can react into the Objective hex. When a WP unit reacts into an Objective hex, all units in the hex are immediately flipped to their used sides (see 19.4). It is possible, however, for a third unit in that regiment, that neither occupies the Objective hex nor reacts into it, to remain unused, meaning that it could react later if the other two units were attacked in a subsequent enemy operation, or it could still conduct its planned Reserve operation during the Reserve Phase. **As an exception to Case 12.3.2.1, there is no requirement that a reacting WP unit start within three hexes of a Lead Unit Marker.**

[19.2] SOVIET DIVISIONAL TANK BATTALIONS

Each Soviet motor rifle division fields a Divisional Tank Battalion (DTB) comprising two Unit Counters with three to five steps (see the TO&E Card for each specific division). Soviet tank divisions and East German divisions **do not** field a DTB. DTBs were the division commander’s personal reserve force and therefore they have special abilities to react. As an **exception** to the normal rule that a regiment can react only if the Objective hex contains another unit of the **same regiment**, when a DTB is planned for a Reserve operation, a unit or force from that DTB can react into **any** Objective hex that contains **only** 1) other units of their own division and/or 2) base units from any superior base formations. For the avoidance of doubt, the DTB **can** react into a hex containing units of an independent regiment currently attached to the same division. For a DTB, there is no requirement that any of the units in the Objective hex have a Reserve operation planned, only that the DTB has a Reserve operation planned. If a DTB unit is stacked with a unit of another regiment of the same division, it is possible for both units to react, but only if both formations were planned for a Reserve operation and the units are both reacting into an Objective hex containing another unit of that other regiment.

Play Note: Because the DTB can stack with any other regiment in the same division and can react to reinforce any unit in the same division, it is the WP player's best reserve formation.

[19.3] NATO REACTION

When the WP player initiates an offensive operation and names an Objective hex, then during the Reaction Step of that operation, the NATO player can react one unit or force into that Objective hex. No task force is formed, and no Lead Unit Marker is placed. NATO units that react must meet all the following conditions:

1. They must all start in the same hex.
2. They must all belong to the same brigade as any one unit in the Objective hex. For the avoidance of doubt, units currently attached to a brigade (see 12.8.3) are considered to belong to it for reaction purposes. If the only units in the Objective hex are division or corps base units, then this requirement is dropped, and the reacting units can come from any brigade of the same nationality in the same chain of command (see 7.2.5) as one of those base units.
3. They must be within the Command Range of their Brigade HQ and that HQ must expend, or channel, one CP to initiate their reaction. Division HQs can channel a CP through a Brigade HQ, but Offmap CPs **cannot** be expended for reaction (they represent HQ resources too far up the chain of command to react that quickly). This one CP is sufficient to react all units in the reacting force.

[19.4] REACTION MOVEMENT

When a unit reacts, it moves with a Movement Allowance of three Movement Points and can use minimum movement to enter an adjacent hex. A unit that reacts **cannot** use road movement. However, as an **exception** to all normal movement rules, **it pays only one Movement Point, never more, to enter a hex along a road** regardless of the other terrain in the hex and even when crossing a Civil Bridge (see 17.3) or entering the Objective hex. When a player selects a force to react, he can reorganize any or all unused maneuver units in that force before it moves by splitting (see 11.5) or combination (see 11.6) and then react with one or more of them. Reaction movement is subject to the following restrictions:

1. A reacting force must end its movement in the Objective hex. **If it cannot reach the Objective hex, it cannot react.**
2. A reacting force can always move adjacent to enemy units when it enters the Objective hex, but it cannot move adjacent to an enemy unit in any other hex along its route of travel unless that hex is protected (see 16.3).
3. A reacting force cannot pick up or drop off units along its route of travel and multiple forces cannot converge to react.
4. A reacting force cannot violate any stacking restrictions in the Objective hex. This is one of the few times in the game when a player **cannot** voluntarily violate stacking restrictions by becoming masked.
5. A force cannot react if enemy jamming blocks reaction (see 39.0).
6. **At the end of any reaction movement, all reacting units, and all unused units in the Objective hex, must be immediately flipped to their used side.**

[19.5] REACTION AND COMBAT

Any unit that reacts into the Objective hex of an enemy operation can participate in Defensive Fire in the ensuing Defensive Fire Step. However, the reacting player pays a penalty for reaction: **Hits inflicted by enemy Offensive Fire into an Objective hex reinforced by reaction cannot be absorbed by retreat** (the original defending force must hold the hex long enough for help to arrive). The option to retreat is lost only for the current enemy operation. The option remains open in any future enemy operation against the same Objective hex unless the inactive player also reacts in that future operation.

Play Note: The rules for reaction encourage a player to form reserves and use them to utterly ruin his opponent's day. Countermeasures include striking these reserves to disrupt them (see 23.0), dropping Air/Artillery Delivered Mines on them (see 23.5), and jamming them (see 39.0). The simplest counter is to maneuver one of the attacking units behind the Objective hex to block any enemy units from getting to it. Finally, a player can drop an airmobile unit (see 29.0) into a blocking position.

[20.0] RECONNAISSANCE

Design Note: This game is based on the idea that a player can look at the board, see exactly where his opponent's units are, and still have no idea where his main forces are located and what they can do this turn. However, each army had a wide variety of resources dedicated to gathering this intelligence, including ground and helicopter reconnaissance patrols, ground surveillance radar, radio direction finding and signals intercept units, drones, and photo reconnaissance flights. Each Brigade and Division HQ had a military intelligence cell that collated all this information into actionable intelligence. The Reconnaissance Points described in the rules below represent these reconnaissance and intelligence resources.

All HQ units have a Reconnaissance Point Allowance printed in the upper right corner of their Unit Counter (note that the Forward HQ of the US 3rd Infantry Division has a Reconnaissance Point Allowance of zero). During the Reconnaissance Segment of each Activation Cycle, any HQ unit superior to the active formation can expend some or all of its RPs. Each RP expended allows a Reconnaissance Attempt against one target hex. A Reconnaissance Attempt is a bid to “acquire” a particular hex. If a hex is successfully acquired, the active player can examine all units and Step Markers in that hex and also execute a strike (see 23.0) against it.

[20.1] RECONNAISSANCE POINTS

During the Reorganization Phase at the end of each Game Turn, the WP player places a Reconnaissance Points Marker in the highest box on the Recce Track printed on his Planning Card for each HQ he has in play (this box always corresponds to that HQ’s RP Allowance). The NATO player also places a Reconnaissance Points Marker on the HQ Track printed on his Tracks Card for each HQ he has in play. The marker is placed in the box on each HQ track marked with an “RP” in the upper right corner. Each time an HQ expends an RP to make a Reconnaissance Attempt, move its Reconnaissance Points Marker down one box until no points are left. RPs renew each turn, but unexpended points can never be carried over to the next turn.

[20.1.1] Offmap Reconnaissance Points. The scenario instructions may specify that an army or corps receives a certain number of Offmap Reconnaissance Points. These points are recorded on each player’s Offmap RPs Track for that army or corps using their Offmap Reconnaissance Points Markers (these markers bear the legends “WP Intel Level” or “NATO Intel Level”). Each time a player expends an Offmap RP to make a Reconnaissance Attempt, move the marker down one box until no points are left. Offmap RPs renew each turn, but unexpended Offmap RPs can never be carried over to the next turn. The WP player also receives a special one-time allocation of two Offmap RPs each turn he declares a Main Effort (see 12.4). **These two Offmap RPs can only be expended during the Activation Cycle for the specific division making the Main Effort.**

***Design Note:** In this game, Offmap RPs represent the intelligence assets of the 8th Guards Army and VII Corps HQs. Main Effort RPs represent intelligence assets from the South East German Front.*

[20.2] RECONNAISSANCE ATTEMPTS

During the Reconnaissance Segment, a player expends Reconnaissance Points from eligible HQs or from his Offmap RP allowance to make Reconnaissance Attempts. An HQ is eligible to make a Reconnaissance Attempt during the Activation Cycle for its own formation or, in the case of a NATO Division HQ, during the Activation Cycle of **any subordinate brigade**. A NATO Division HQ must channel its RPs through a subordinate Brigade HQ exactly like it channels its CPs (see 20.2.6), meaning that the Brigade HQ must be within the Command range of the Division HQ and the spotter (see 20.2.1) must be subordinate to and within the Command Range of the Brigade HQ. HQs **can** make Reconnaissance Attempts from the Offmap Display (see 40.0). Offmap RPs can be expended during any friendly Activation Cycle for a formation in the same army or corps. **A player can never make more than one attempt against the same hex in the same Reconnaissance Segment.** He can, however, make one Reconnaissance Attempt against the same hex in the Reconnaissance Segment of **each** separate friendly Activation Cycle.

[20.2.1] To make a Reconnaissance Attempt, the active player uses the following procedure:

1. He declares which HQ will make the attempt and expends one RP by moving the RPs Marker down one box on that HQ’s RPs track or he expends an Offmap RP and moves the Offmap RPs Marker down one box on the Offmap RPs Track.
2. He declares which hex he wants to acquire, referred to as the “target” hex.
3. He locates the maneuver unit nearest to the target hex that is both subordinate to and within Command Range of the HQ expending the RP (or channeling it in the case of a NATO Brigade HQ). This unit is termed the “spotter.” **The spotter must be a maneuver unit eligible to activate in the current Activation Cycle. Exception:** See 20.2.8. If an Offmap RP is expended, then any maneuver unit belonging to the expending army or corps and currently eligible to activate can serve as the spotter without regard to whether it is in Command Range of a superior HQ and without regard to its nationality. **A dummy maneuver unit can serve as a spotter.**
4. He determines the minimum number of hexes separating the spotter from the target hex. When counting the range between the spotter and the target hex, do not count the hex occupied by the spotter but do count the target hex. This number of hexes is referred to as the “spotting range.”
5. He refers to the Reconnaissance Table, located in the Charts & Tables Booklets, cross references the row for the type of terrain in the target hex with the column for the spotting range, and finds at the intersection the “Acquisition Value” for that hex.
6. He rolls one die and modifies the die result for any DRMs indicated on the Reconnaissance Table.

7. If the modified die result is equal to or greater than the Acquisition Value of the target hex, then the hex is acquired. Place an Acquired Marker (see 6.3.2) in the hex.

[20.2.2] Empty Hexes. When the target hex contains an enemy unit, a player uses the row on the Reconnaissance Table for the terrain in that hex. However, if a player wishes to execute a strike on an empty hex, which can make sense for an ADM (23.5) or Gas (44.2) Strike, and this hex is not adjacent to a friendly unit eligible to observe (see 21.3), he must first make a successful Reconnaissance Attempt against that hex. In this case, he uses the row on the Reconnaissance Table labeled “Empty,” **not** the row for the actual terrain in that hex, and he ignores **all** die roll modifiers. **Exception:** See 20.2.3.

***Design Note:** The requirement to make a Reconnaissance Attempt prior to striking an empty hex stems from the logic that no HQ would waste scarce munitions on a plot of empty ground without an intelligence estimate indicating that this was a good idea. The Reconnaissance Attempt models both the allocation of intelligence resources to make this estimate and the probability that it is accurate. This explains why the probability of acquiring an empty hex is worse than that for acquiring an enemy unit in a Clear hex. An enemy unit presents something tangible to be found. An empty hex does not. DRMs are generally ignored for empty hexes because current conditions in the hex are irrelevant. What matters is the estimate of its future importance.*

[20.2.3] Acquiring Bridges. A player can make Fire Strikes on bridges (see 38.4.) if they are acquired. A Civil Bridge is always considered to be acquired **without a Reconnaissance Attempt**. A Military Bridge must be acquired by a Reconnaissance Attempt on the “Empty” row of the Reconnaissance Table. The active player can choose either adjacent hex for the purpose of determining the range to the target. When making a Reconnaissance Attempt against a Military Bridge, the only DRMs that apply are Fog and Night Turn.

[20.2.4] Acquiring City Hexes. A player must roll on the Empty row when he wishes to acquire an empty City hex before launching an airmobile operation to attack it (see Urban Resistance, 29.6.5). **No DRMs apply to this roll.**

[20.2.5] Spotting Units. A spotting unit must be a maneuver unit eligible to activate in the current Activation Cycle, but it is not required to activate (it can wait to react later in the turn or wait to activate during the Reserve Phase). The status of a maneuver unit (disrupted, contaminated, used) has no effect on its ability to act as a spotter. There is no limit to the number of times the same unit can act as the spotter for a Reconnaissance Attempt within the Activation Cycle for its formation.

***Design Note:** It is not the maneuver unit that is carrying out the reconnaissance. It simply represents the nearest point on the front line from which friendly reconnaissance assets in the same chain of command can operate.*

[20.2.6] NATO Division HQ Reconnaissance. A NATO Division HQ can expend its RPs during the Activation Cycles of any of its subordinate brigades. It must channel its RPs through the active subordinate Brigade HQ exactly like it channels its CPs (see 12.7.4) with the spotting maneuver unit subordinate to and located within the Command Range of the Brigade HQ.

[20.2.7] Reconnaissance by Offmap HQs. When an HQ in the Offmap Display (see 40.1) requires a spotting unit for a Reconnaissance Attempt and its formation has no units onmap, it can use any subordinate maneuver unit parked adjacent to the map edge (because that maneuver unit is entering as a reinforcement this turn, see 46.6.3), meaning that the first hex counted between the spotter and the target hex is any map-edge hex adjacent to the offmap spotter. However, any enemy unit located in a map-edge hex adjacent to that offmap spotter must still be acquired on the 2-3 hex column of the Reconnaissance Table.

[20.2.8] Reconnaissance by Offmap Airmobile HQs. Airmobile HQs are not allowed in the Offmap Display (see 40.2.1), so Case 20.2.7 does not apply to them. Before an airmobile brigade (see 29.0) has entered the map, it cannot make Reconnaissance Attempts. However, as a special rule, during the Reconnaissance Segment of the **first** Activation Cycle in which any unit of an airmobile brigade will enter the map, the active player can use **any friendly maneuver unit on the map** as a spotter for its Reconnaissance Attempts, with no requirement that the spotting unit be eligible to activate in the same cycle, nor subordinate to or within Command Range of the Brigade HQ. If there are no friendly units on the map yet, the active player can presume a notional spotter in any hex in the first offmap hex row along the assigned entry sector for any friendly reinforcements in the scenario. For purposes of this special rule, the active player can expend both the Brigade HQ’s RP and any available Offmap RPs. Once any unit of an airmobile brigade is on the map, its HQ cannot expend its RP unless it is also on the map, but the active player can still spend Offmap RPs during the brigade’s Activation Cycle even if the Brigade HQ remains off the map. Once any unit of an airmobile brigade is on the map, the spotter for any Reconnaissance Attempt made during its Activation Cycle must be a unit from the same brigade.

***Design Note:** This rule reflects the use of photoreconnaissance flights to locate targets for airborne desants in the enemy rear, in which case any friendly unit can represent the front line.*

[20.2.9] Reconnaissance by Offmap RPs. During the Activation Cycle of any friendly formation, a player can expend Offmap RPs and use any onmap maneuver unit in or attached to that formation as a spotter (**exception:** see Case 20.2.8). He can also presume a notional spotter in the first offmap hex row along the assigned entry sector for any units subordinate to the corps or army even if no

units have yet entered from that sector. The spotter does **not** have to be within Command Range of a superior HQ nor does the NATO player have to channel his Offmap RPs through the active Brigade HQ.

[20.3] ACQUIRED MARKERS

When a Reconnaissance Attempt succeeds in acquiring the target hex, an Acquired Marker (see 6.3.2) is placed in that hex. For as long as the marker remains in place, the active player can examine all enemy units and markers in that hex. **Exception:** A player who has acquired a hex cannot examine a Minefield Marker (see 37.1) to determine whether it is real or a dummy. Also, if the WP player is planning his operations by placing an Operation Marker upside down on a unit of each regiment, the NATO player cannot examine this marker. A second effect is that a player can execute a strike (see 23.0) against any hex bearing an Acquired Marker. An Acquired Marker remains in the hex where it is placed. It does not move with any unit that exits that hex. All Acquired Markers are removed during the Intelligence Fade Segment at the end of each Activation Cycle. This means that a target acquired during one formation's Activation Cycle will have to be reacquired separately to be hit by a strike during any other formation's Activation Cycle.

[21.0] FIRE SUPPORT

Design Note: Historically, most of an army's firepower was projected at arm's length along its front line. Since WWI, most of an army's firepower has come from its artillery, located well behind its own lines. Fixed wing and rotary aircraft add yet more arms capable of striking from far behind friendly lines. In Air & Armor, most of a player's firepower will come from behind his own front line.

"Fire support" occurs when a friendly HQ makes a "Fire Call" to one or more "fire support assets" to participate in a fire combat or strike. For a fire combat (Offensive or Defensive Fire) to receive fire support, three elements are required:

1. An HQ eligible to make a Fire Call
2. A fire support asset eligible to respond to that Fire Call
3. A unit adjacent to the target hex eligible to act as an "observer" for that Fire Call

For a strike (see 23.0), these same three elements are required, **except** that a player can **also** strike a target hex with **no adjacent observer present** if the target hex has been acquired by a Reconnaissance Attempt (see 20.2) or Counter-Battery Acquisition Attempt (see 23.4.2).

[21.1] FIRE SUPPORT ASSETS

A player has three types of fire support assets:

1. Artillery units (see 22.0)
2. Air units (see 24.0)
3. Attack helicopter units (see 25.0)

Generally, the Modified Fire Strength of each artillery, attack helicopter, and air unit providing fire support is added to the Total Fire Strength of the fire combat or strike it is supporting (**exception:** air units **always** attack alone, see 24.0). In the case of a **fire combat**, fire support assets can attack a hex by themselves or in concert with adjacent friendly ground units. In the case of a **strike**, fire support assets always attack by themselves (meaning without any participating maneuver units because strikes are a form of fire executed solely by fire support assets, see 23.0). In the case of ADM Strikes (see 23.5) and Gas Strikes (see 44.2), fire support assets will be executing a form of fire that does not directly involve their Fire Strength.

[21.2] FIRE CALLS

Design Note: In this game, Fire Support Assets are always "called" by an HQ unit to make a strike or participate in a fire combat. In reality, a fire call usually originates with a Forward Observer operating up at the front line. However, this call has to be made through a Fire Support Net and gets routed through a Fire Direction Center and relayed on to the artillery unit that will execute the fire. This net is operated by the command structure. The HQ unit represents this radio net, and no fire calls can be made without it.

A Fire Call is a call for fire support made by an HQ to one or more fire support assets. There are two types of Fire Calls: 1) "Army Calls" and 2) "Air Calls." An Army Call is a call to army assets (artillery and attack helicopter units) in the calling HQ's chain of command. An Air Call is a call to air force assets (an air unit). Army Calls can be made during the Strike Segment and also during the Fire Call Steps of friendly and enemy offensive operations. Air Calls can only be made during a friendly Strike Segment. A player can **never** make both an Army Call and an Air Call against the same target hex in the same Strike Segment (he must pick one or the other). Any assets called can then participate in the current strike or fire combat. Which HQs can make a Fire Call and which fire support assets can be called are governed by three factors:

1. The Alliance a player controls (WP or NATO)
2. The type of strike or operation in progress
3. The type of fire being supported

The complexities of these interactions are expressed quite simply on each player's Fire Support Chart found in the Charts & Tables Booklet. A Fire Call for fire support can occur at the following points during play:

1. During the Strike Segment of a friendly Activation Cycle
2. During the Offensive Fire Step of a friendly offensive operation
3. During the Defensive Fire Step of an enemy offensive operation
4. During a Counter-Battery Fire Cycle (an Interrupt Action that can occur at any time, see 23.4)

Each time a player wishes to make a strike, or whenever an Operation Cycle indicates that a player receives a Fire Call Step, he simply refers to the Fire Support Chart for his alliance, locates the **sub-chart** for the type of combat he wants to support (Strike, Offensive Fire or Defensive Fire), finds the row in that sub-chart for the type of strike or operation currently in progress, and then reads off that row the HQ(s) that are eligible to make the Fire Call and the types and quantities of fire support assets that are eligible to respond to each type of Fire Call (Army or Air). Note also that the fire support assets permitted to respond to a Defensive Fire Call during an enemy operation can be further restricted by enemy Jamming (see 39.0). Once a player has determined the limitations that apply to his Fire Call, he then declares the specific HQ that will make the Fire Call and the specific units that will be called.

[21.2.1] Fire Support Commitment. In certain circumstances, the Fire Support Charts will enable a player to make an Army Call for fire support from up to two artillery units and an attack helicopter unit. In this case, the player must declare each specific unit that will participate **before** any attack helicopter unit is brought onto the map (meaning before he knows the impact of any enemy Flak Fire on that attack helicopter unit, see 27.2). Once a player has entered an attack helicopter unit onto the map, he cannot add additional artillery units if enemy Flak Fire affects that attack helicopter unit. Moreover, any artillery units committed **must** participate in the strike or fire combat they were called for even if the attack helicopter unit is aborted or eliminated by enemy Flak Fire.

[21.2.2] Fire Call Restrictions. An HQ can make a Fire Call only if it is on the map or in the Offmap Display. No HQ can make a Fire Call if it is disrupted (see 23.3) or reconstituting on the Game Turn Track (see 30.4.1). **Exception:** A disrupted HQ can make a Fire Call if it is **also** the observer (see 21.3), meaning that it is adjacent to the target. No Fire Call can ever be made to provide fire support for a friendly Infiltration Fire or Retreat Fire combat nor for any fire combat during an Overrun or Close Attack (the time window in these cases is too short).

[21.2.3] Multiple Fire Calls. Only **one** Fire Call by **one** HQ is permitted for any one strike or during any one Fire Call Step of an operation. However, there is no limit to the number of times an HQ can make a Fire Call over the course of a turn.

[21.2.4] Defensive Fire Calls. Even though the inactive player may have the opportunity to execute multiple Defensive Fire Combats during an enemy operation (because the participating enemy units occupy more than one hex), he is still eligible to make only **one** Fire Call during the Defensive Fire Call Step of that operation. Whatever fire support assets respond to that single Fire Call are the **only** assets available to fire across **all** his Defensive Fire Combats in that operation. **Individual assets called can split their fire between multiple target hexes (see 18.7.3) provided that no step fires more than once and no target is attacked more than once. If Multiple assets are called (possible during an enemy Assault operation, see the Fire Support Charts), each asset can be allocated to support a different Defensive Fire Combat and individual assets can split their fire between multiple target hexes.** The inactive player does not need to pre-announce which asset will support which combat.

[21.2.5] Fire Calls and Command Range. For an artillery unit to respond to a Fire Call, it must be within the Command Range of the calling HQ (among other conditions, see 22.2). However, air units (which do not exist until an Air Call is made, see 24.2) and attack helicopter units (which start in the Ready Box on the friendly Helicopter Track, see 25.1) can be called without regard to the Command Range of the calling HQ.

[21.2.6] NATO Division HQs and Fire Calls. A NATO Division HQ can make a Fire Call in any Strike Segment and in any Offensive Fire Call Step of any offensive operation, provided these occur during the Activation Cycle of a subordinate brigade. A NATO Division HQ can also make a Fire Call if a unit in its chain of command is an eligible observer (see 21.3.3) during the Defensive Fire Call Step of any enemy offensive operation and at any time the NATO player elects to initiate a Counter-Battery Fire Cycle (see 23.4). NATO Division HQs, including the Main HQ for the 11th ACR, must be within **direct** Command Range of any observer and any artillery unit they call. This function is never channeled through subordinate Brigade HQs. There is no requirement that the Division HQ be activating in the current Activation Cycle.

[21.3] FORWARD OBSERVERS

Design Note: *By definition, fire support assets, which are based well behind the front lines, cannot make an accurate attack unless they are vectored to their target. When a target hex is observed, an FO (Forward Observer) or FAC (Forward Air Controller) is providing this direction. When a target hex is acquired, a reconnaissance asset (a scout vehicle, helicopter, or aircraft) is providing this direction.*

An HQ can make a Fire Call for a **strike** (see 23.0) against a target hex only if the hex is acquired or “observed.” An HQ can make a Fire Call to support a **fire combat** against a target hex only if the hex is “observed.” A target hex is acquired by a successful Reconnaissance Attempt (see 20.0). A target hex is observed if there is a friendly unit in an adjacent hex and that unit is 1) within the Command Range of the calling HQ and 2) in its chain of command. **Exception: No NATO unit can ever observe for an HQ of a different nationality.** The adjacent friendly unit is termed the “observer.” For the avoidance of doubt, a superior unit is in the chain of command of a subordinate HQ, which means that a superior unit **can** observe for a subordinate HQ just as well as a subordinate unit can observe for a superior HQ. An HQ unit can always observe adjacent enemy units for itself. **A masked unit (see 14.4) can never observe.** The details concerning which HQs a given unit can observe for are summarized on the Formation Interaction Chart provided in the Charts & Tables Booklets. There is no limit to the number of times that a unit can observe for a Fire Call over the course of a turn.

[21.3.1] Strike Fire Call Observation. A unit can observe for a strike **only if it is activating in the current Activation Cycle.** For a base unit that could activate in one of several different cycles (because it is superior to multiple divisions or brigades), this means that it can observe for a strike in a particular subordinate formation’s Activation Cycle **only if it commits to activating in that cycle**, after which it will be unable to activate or observe for a strike in any other cycle in the same turn (because a unit can activate only once a turn). For the avoidance of doubt, a used unit is still considered active when its parent formation activates, and a used base unit can be declared active during the Activation Cycle of any subordinate formation if it has not activated in any prior cycle (because it became used by being disrupted or engaged). This means that used units **can** observe for friendly strikes when their formation activates.

[21.3.2] Offensive Fire Call Observation. During the Offensive Fire Call Step of a friendly offensive operation, a unit is eligible to observe only if it is adjacent to the Objective hex **and** participating in that operation. If at least one participating ground unit ends its movement adjacent to the Objective hex, **but enemy Defensive Fire eliminates all eligible observers** (all adjacent **participating** units), a player can **still** make a Fire Call during the Offensive Fire Call Step, but the following rules apply. If an attack helicopter unit is called, and it survives enemy Flak Fire, it can observe for both itself and for any friendly artillery units called if 1) it ends its move onto the map in a hex from which it can fire at the target hex and 2) it is within the calling HQ’s Command Range (this is the **only** case where an attack helicopter unit needs to fire from a hex that is in range of the calling HQ). If no attack helicopter unit can observe, then the Fire Strength of any artillery units called will be **halved** (this represents a brief window of observed fire before the participating observers were destroyed).

[21.3.3] Defensive Fire Call Observation. During the Defensive Fire Call Step of an **enemy** offensive operation, each friendly unit adjacent to an enemy unit participating in the current operation is a potential observer. The inactive player can select any **one** HQ to make the **one** Fire Call he is allowed if 1) that HQ is within Command Range of at least one of these potential observers and 2) that observer is in the HQ’s Chain of Command. **This means that the availability of a valid observer determines which HQ(s) are eligible to make a Defensive Fire Call.** Once a player has declared which one HQ will make the Defensive Fire Call, if any, then any fire support assets this HQ calls can support **only** Defensive Fire Combats that can be observed by adjacent friendly units within the Command Range and in the chain of command **of this specific calling HQ.** If there are multiple possible target hexes for Defensive Fire Combats, each target hex can be observed by a different adjacent observer if each such observer is within the Command Range and in the chain of command of the calling HQ. Alternately, every target hex could be observed by the same observing unit if it were adjacent to all of them.

[21.3.4] There is no requirement that the observer participate in the same fire combat as the fire support assets for which it observes. A target hex can always be attacked solely by fire support assets.

[22.0] ARTILLERY

Design Note: *One often cited statistic of modern warfare is that artillery inflicts more casualties than any other arm. Certainly, infantry have much to fear from this arm. However, by the 1980s, the US had deployed 155mm artillery rounds specifically designed to kill vehicles, including the Copperhead laser-guided round, the M483A1 DPICM round, and the Remote Anti-Armor Mine System (RAAMS) round. Now, even armored vehicles had much to fear from this arm. The critical link in artillery employment is always the communications link. By design, an artillery unit generally lacks a direct line of sight to its target. Instead, it relies on a forward observer to call its fire onto the correct coordinates. This link is highly vulnerable to enemy jamming. Furthermore, in a rapidly developing battle, an observer can lose touch with the forces he is supporting, or with the combat situation itself. NATO addressed this vulnerability with redundant communication nets and highly mobile observers. The Warsaw Pact addressed this vulnerability by*

planning fire missions well in advance within the framework of the overall battle plan and by placing more of its artillery forward where it could fire directly. NATO's solution was more flexible. Fire could be requested from many more sources and brought to bear more responsively. These advantages are reflected in both the fire values of NATO's artillery units and in the reduced restrictions placed on their use. However, about that jamming...

Artillery units are one of the three types of fire support assets in this game (along with air and attack helicopter units). Artillery units are divided into three sub-types: self-propelled artillery, towed artillery, and rocket artillery. Save where specifically noted, all types of artillery units function identically. Like any other ground units with an Attack Strength, artillery units can fire into adjacent hexes. **Exception:** Rocket artillery units can never fire into adjacent hexes, see 22.7. This mode of fire is termed "Direct Fire." Unlike any other ground units, artillery units also can fire into a hex any number of hexes distant that is less than or equal to their printed Range. This mode of fire is termed "Indirect Fire." An artillery unit employs Indirect Fire to participate in a strike or to provide fire support to a fire combat against a distant target in response to a Fire Call made by a friendly HQ. **An artillery unit can employ Indirect Fire at most once per turn. However, an artillery unit can employ Direct Fire each time an opportunity arises to fire into an adjacent hex. There are strict limitations on when an artillery unit can employ Direct and Indirect Fire. These limitations are summarized on the Artillery Fire Chart found in the Charts & Tables Booklets. The only type of operation an artillery unit can participate in is a March operation. March operations allow artillery units to move but not to fire. This means that artillery units always fire separately from the operation in which they participate.**

[22.1] DIRECT FIRE

Direct Fire is fire by an artillery unit into an adjacent hex. Rocket artillery units (see 4.1.2.3) can **never** employ Direct Fire, meaning that they can never fire into an adjacent hex and therefore have no ZOC. Self-propelled (see 4.1.2.1) and towed (see 4.1.2.2) artillery units can always use Direct Fire to execute Defensive Fire, Retreat Fire, and Infiltration Fire against an adjacent target hex. However, because an artillery unit cannot participate in an offensive operation (it can only support one with Indirect Fire), **it cannot use Direct Fire to execute Offensive Fire against an Objective hex** (even if it starts adjacent to it). **In addition, no artillery unit can ever use Direct Fire to participate in a strike.** If eligible to fire, there is no limit to the number of artillery units that can participate in a single fire combat using Direct Fire, but they would all have to be adjacent to the target hex. Nor is there any limit to the number of times that an artillery unit can execute Direct Fire during a turn. When an artillery unit executes Direct Fire, it operates exactly like a maneuver unit, **meaning that the owning player consults the Direct Fire artillery unit column on the FEC to determine the effect of terrain on its fire.** Direct Fire is always halved and may even be quartered depending on terrain.

***Design Note:** The prohibition on artillery units using Direct Fire to participate in offensive operations and strikes reflects the doctrine of both sides, which was to keep artillery out of harm's way as much as possible. The WP **did** plan to use the howitzers in their RAGs (Regimental Artillery Groups), typically comprising a battalion of 18 x 122mm guns, in a direct fire role when necessary, which is one reason why these guns have been factored directly into the Attack Strengths of their regiments. The Fire Strength of artillery units employing Direct Fire is sharply reduced because their slow rate of fire and poor sights make them quite ineffective against moving targets at close quarters.*

[22.2] INDIRECT FIRE

Indirect Fire is fire by an artillery unit against a target hex that is **not** adjacent but **is** within range. To determine if an artillery unit is within range of a target hex, count the least number of hexes that separate them (include the target hex, but not the hex occupied by the artillery unit). If this number is less than or equal to the Range printed on the artillery unit, then the target hex is in range (as a reminder, an artillery unit's Range is the middle number in the row of values on its Unit Counter, see 4.1.2). **Indirect fire is the only mode of fire an artillery unit can use to respond to a Fire Call by a friendly HQ.** An artillery unit responding to a Fire Call can use Indirect Fire to participate in an Offensive Fire Combat, a Defensive Fire Combat, or a strike, but cannot use Indirect Fire to participate in Infiltration Fire or Retreat Fire because no Fire Call can be made during these two forms of combat. Each artillery unit can conduct Indirect Fire at most once per turn, after which it receives a Fired Marker (see 22.5). An artillery unit can use Indirect Fire only if **all** the following conditions are met:

1. It does not bear a Fired Marker (see 22.5).
2. It is not disrupted (see 23.3).
3. It is not adjacent to an enemy ground unit.
4. It is in the Artillery Pool of the calling HQ (see 22.3).
5. It is in range of the target hex.
6. The target hex is observed (see 21.3) or acquired (see 20.0).

For the avoidance of doubt, an artillery unit **can** execute Indirect Fire if it is on its used side or masked.

[22.2.1] Indirect Fire Strength. Normally, when an artillery unit uses Indirect Fire, **its Fire Strength is not modified for terrain in its own hex nor in the target hex.** **Exceptions:** The Fire Strength of an artillery unit executing Indirect Fire is **halved** when it:

1. occupies a minefield (see 37.0).
2. is contaminated and/or occupies a hex in a Gas Zone (see 44.0).
3. fires into a smoke hex (see 6.3.3).
4. **is supporting an Offensive Fire Combat against the Objective hex of a friendly offensive operation and all participating units adjacent to the Objective hex have been eliminated by enemy Defensive Fire (see 21.3.2).**

***Design Note:** When a unit is using Direct Fire, terrain affects its fire for the obvious reason that it can block its line of sight. Indirect Fire has no such limitation because the arcing trajectory of the shells and rockets means that the entirety of a hex can be exposed to fire. However, occupying a minefield or contaminated terrain seriously hinders ammo resupply and firing into a smoke hex means that the local forward observer cannot observe the fire very well.*

[22.2.2] Artillery units that employ Indirect Fire to provide fire support for an Offensive Fire Combat during a friendly offensive operation are **not** considered to be participating in that operation. They are supporting it. Accordingly, they require no CPs to fire during the operation, and they are never flipped over to their used sides after they fire.

[22.3] ARTILLERY POOLS

An Artillery Pool is the set of all artillery units that **could** respond to an HQ's Fire Call. However, the Fire Support Charts place a limit on how many artillery units are permitted to respond to **any one call**. Within these limits, a player can choose any artillery units in the Artillery Pool of the calling HQ to respond to its Fire Call. An HQ can keep making Fire Calls to artillery units in its pool until there are no unfired units left. Generally, an HQ can include in its Artillery Pool all artillery units that meet the following conditions:

1. They belong to the same formation as the HQ or to any formation in its chain of command (superior or subordinate).
2. They are within the Command Range of that HQ (see 30.1).
3. They are eligible to execute Indirect Fire (they are not disrupted, adjacent to an enemy unit, or bearing a Fired Marker).

For example, the Forward HQ of the 79th Guards Tank Division could include in its Artillery Pool all artillery units in its own division base and all artillery units in the 8th Guards Army Base but not artillery units belonging to any other division. The Main HQ of the 3rd Infantry Division could include in its Artillery Pool all artillery units in the 3rd ID and all artillery units in the 72nd Field Artillery Brigade (part of the superior VII Corps Base), but not any artillery units belonging to the WG 12th Panzer Division (which is a lateral formation and thus outside of its chain of command). Conversely, the units of the US 72nd Field Artillery Brigade can be included in the Artillery Pool of any NATO HQ in the game, because the VII Corps is the highest echelon present and therefore superior to all other formations (however, see the restriction cited in 22.3.1). Refer to the Artillery Pool Chart for a summary of which units can serve in each HQ's Artillery Pool.

***Design Note:** The principle at work here is that artillery units can fire for any HQ in its chain of command and use any observer in its chain of command but cannot fire for formations that are not in its chain of command, though this can be forced in certain operational circumstances, such as the opening of a major offensive. However, the NATO player faces additional restrictions due to the complexity of coordinating artillery fire across national command structures.*

[22.3.1] NATO Artillery Pools. Generally, a NATO HQ **cannot** include artillery units belonging to a different nationality in its Artillery Pool even if they are in its chain of command. **Exception:** A NATO HQ **can** include artillery units belonging to a different nationality in its Artillery Pool when 1) making a Fire Call for any type of strike (**except** a Counter-Battery Fire Strike, see 23.4) or 2) making a Fire Call during a friendly Assault operation, but only if those artillery units belong to a **superior corps base formation**. Thus, for example, Canadian and West German HQs can make Fire Calls to units of the US 72nd Field Artillery Brigade in the VII Corps Base for strikes and friendly Assault operations because these artillery units are in a superior corps base formation in their chain of command. For the avoidance of doubt, this means that a NATO HQ **cannot** include artillery units of a different nationality in its Artillery Pool during a friendly Hasty Attack operation, any enemy operation, or for a Counter-Battery Fire Strike (each a case where there is insufficient planning time to coordinate fire across national command boundaries).

[22.3.2] An artillery unit can be in the Artillery Pool of more than one HQ simultaneously if it meets all the conditions for being in each HQ's pool. It drops out of **all** Artillery Pools simultaneously once it receives a Fired Marker (see 22.5) or becomes disrupted (see 23.3).

[22.4] DEFENSIVE ARTILLERY SUPPORT

[22.4.1] WP Defensive Artillery Support. The WP Fire Support Chart specifies that the **only** type of artillery unit that can provide fire support to a WP Defensive Fire Combat is a **DAG** (see 4.1.2.4) and that no other WP fire support assets (air or attack helicopter units) can respond to a Defensive Fire Call at all. Since there is only one DAG per division, this means that the maneuver units in each Pact division will have at most one chance to receive fire support for a Defensive Fire Combat each Game Turn and that this fire support must come from their division's DAG. If units from multiple divisions are eligible to observe for a Defensive Fire Combat, then any fire support must come from the DAG in the same division as the HQ that the WP player uses to make the Fire Call (see 21.3.3).

***Design Note:** The restriction that only DAGs can provide defensive fire support to Pact maneuver units reflects the fact that army artillery is too high up the chain of command to react quickly enough for defensive fire and that a division's rocket artillery is too inaccurate to be employed in this role. This leaves only the DAG available.*

[22.4.2] Support for Multiple Combats. During the Defensive Fire Step of an enemy offensive operation, it is possible for supporting artillery units to have multiple target hexes to fire at (see the Example of Defensive Fire Call Observation in Case 21.3.3). In this case, a player can allocate the supporting artillery unit(s) to the possible target hexes in any way he chooses. Fire against each target hex is executed as a separate Defensive Fire Combat. A supporting artillery unit can split its fire to participate in multiple Defensive Fire Combats, per Case 18.7.3, as long as no step in that unit fires more than once.

[22.5] FIRED MARKERS

Artillery units are never flipped to their used sides when they fire. However, when an artillery unit executes **any type of fire**, whether Direct or Indirect, the owning player must place a Fired Marker on it. **An artillery unit under a Fired Marker cannot execute Indirect Fire for the remainder of the turn.** It can continue to execute **Direct Fire** whenever the opportunity arises. When an artillery unit fires, the firing player must reveal the hex in which it is located, what type of unit it is (DAG, M109, etc.) and how many steps it contains (the opposing player may choose to initiate or continue a Counter-Battery Fire Cycle based on this information, see 23.4). All Fired markers are removed from the map during Marker Removal Step of the Reorganization Phase. **Exception:** When a division declares a Main Effort (see 12.4), at the end of the Strike Segment in that division's Activation Cycle, Fired Markers are removed from all artillery units that just fired during that Strike Segment, giving them a chance to execute Indirect Fire a second time that turn.

[22.6] ARTILLERY FIRE AND MOVEMENT

The only operation an artillery unit can perform is a March operation, which is an operation that does not permit any fire. Artillery units move when they perform their March operation. Artillery units execute Indirect Fire when they receive a Fire Call and Direct Fire when an enemy unit moves adjacent to them (Defensive, Infiltration and Retreat Fire). **Accordingly, an artillery unit always moves during one operation and fires during a separate operation or Strike Segment.** An artillery unit can fire before or after its own March operation, and whether it is used or unused. WP artillery units in a division base move in the March operation for their division base. WP artillery units in higher echelon base formations can participate in the March operation of any subordinate division base. NATO artillery units organic to a brigade conduct their March operation in the Activation Cycle for their own Brigade. Artillery units in a base formation can conduct their March operations during the Activation Cycle of any subordinate NATO brigade.

[22.7] ROCKET ARTILLERY

***Design Note:** Rocket artillery units are equipped with Multiple Rocket Launchers consisting of armored trucks carrying a frame holding multiple tubes from which a rocket salvo can be launched in under a minute, after which the vehicles can quickly displace to avoid enemy counter-battery fire.*

Rocket artillery units are identified in Case 4.1.2.3. Rocket artillery units function in all ways like any other type of artillery unit **except that the only form of fire a rocket artillery unit can employ is Indirect Fire during a friendly strike (see 23.0) or Counter-Battery Fire Strike (see 23.4).** For the avoidance of doubt, this means that a rocket artillery unit:

1. cannot fire at an adjacent hex (because this would be Direct Fire).
2. has no ZOC (because it cannot fire into an adjacent hex).
3. cannot provide fire support to a friendly Offensive or Defensive Fire Combat (because these are not strikes).

***Design Note:** Rocket artillery units are barred from participating in Direct Fire because these weapons systems were not designed for a direct fire role, and all had significant minimum ranges before the rockets armed. Rocket artillery units are barred from participating in Offensive and Defensive Fire because artillery used in this role makes pinpoint attacks on targets very close to engaged friendly units. The high rate of dispersion common to a rocket artillery salvo means that employing rocket artillery in this role would endanger friendly troops. These restrictions can leave a player believing that his rocket artillery units are almost useless,*

but they are not. Their primary role is counter-battery fire, at which they excel. They are also extremely useful for suppressing (disrupting) a target by striking it before an attack goes in.

[23.0] STRIKES

Design Note: Unlike fire combats, which comprise a combination of fire and maneuver, strikes are applications of pure firepower delivered by artillery, aircraft, and attack helicopters with the aim of disrupting or destroying a target without exposing maneuver units to counterfire. Strikes represent the delivery of a wide range of munitions with differing effects.

A “strike” is an attack on a target hex made solely by fire support assets (no maneuver units can ever participate). **A strike is the only form of combat that an air or rocket artillery unit can participate in.** Each strike requires a separate Fire Call by an eligible HQ to the fire support assets that will conduct that strike. **The target hex must always be observed (see 21.3) or acquired (see 20.2).** A player can execute four types of strikes:

1. Fire Strikes (see 23.1)
2. Counter-Battery Fire Strikes (see 23.4)
3. ADM Strikes (see 23.5)
4. Gas Strikes (see 44.2)

Fire support assets are eligible to participate in these types of strikes as follows:

1. Artillery units can execute any type of strike.
2. Air units can execute any type of strike **except** Counter-Battery Fire Strikes
3. Attack helicopter units can execute Fire Strikes, only.

During the Strike Segment of each friendly Activation Cycle, a player can execute any number of strikes, in any order, without needing to declare them in advance. Each strike requires an active HQ (or a NATO Divisional HQ superior to the active brigade) to make a separate Fire Call. This Fire Call can be either an Army Call (calling up to two artillery units and one attack helicopter unit) or an Air Call (calling a single air unit), depending on the type of strike being made. **A player’s Fire Support Chart provides a complete breakdown of 1) the HQs eligible to make a Fire Call for a strike and 2) the type and number of fire support assets that can participate in each type of strike.** The target hex must be either observed or acquired. There is no limit to the number of times the same HQ can make a Fire Call for a strike during a Strike Segment save for the availability of targets and the availability of fire support assets with which to attack them. Nor is there any limit to the number of strikes than an eligible observer can observe for, save for the number of enemy occupied hexes it is adjacent to. **However, no one target hex can ever be struck more than once during the same Strike Segment.** **Exception:** It is possible for the same target hex to be struck more than once during the same Strike Segment if a Counter-Battery Fire Cycle is triggered, see 23.4.4.

Design Note: Most armed forces attempted some form of joint coordination between air force assets (jets) and army assets (artillery and attack helicopters), but these efforts were difficult to pull off at the best of times, let alone under wartime conditions in the presence of both friendly and enemy air defenses. Moreover, the risks of fratricide increased exponentially during these joint operations. Accordingly, this game system does not allow joint service strikes. A player must decide whether to strike a target with an Army Call or an Air Call, but he cannot combine the two.

[23.1] FIRE STRIKES

Like a fire combat, a Fire Strike uses the Attack Strengths of participating units to inflict Hits on the units in the target hex. A Fire Strike is executed very much like an Offensive Fire Combat, with the following differences:

1. Only fire support assets (up to two artillery units plus an attack helicopter unit, **or** an air unit) can participate.
2. The target hex can be struck without an adjacent observer **if it is acquired.**
3. Hits cannot be absorbed by retreat.
4. Hits are absorbed by the **weakest** unit first.
5. Units in the target hex can become “disrupted” (see 23.3).

[23.1.1] Fire Strike Procedure. The active player uses the following procedure to execute a Fire Strike:

1. Declare the target hex for the strike by placing a Strike Target Marker in the hex.

2. Declare the active HQ making the Fire Call (it must be on the map and undisrupted or in the Offmap Display).
3. Declare the specific fire support assets that will be called. If an air unit is called, make an Air Call using the procedure described in Case 24.2.
4. Assemble any air or attack helicopter unit called and bring it onto the map to its firing position, taking any anti-aircraft fire triggered en route (see 27.0).
5. Determine the Basic Fire Strength of each unit participating in the Fire Strike by multiplying its printed Attack Strength by the number of steps it contains at the moment of fire. Refer to the Fire Effects Chart found in the Player Charts & Tables Booklets and apply any required modifications to determine each unit's Modified Fire Strength. **Units making a Fire Strike use all sections of the FEC except the "Fire Across Hexside" section, which does not apply. Artillery units use the "Indirect" columns, and air and attack helicopter units use the "Air and AH" columns.** Retain fractions.
6. Total the Modified Fire Strengths of all participating units, rounding any remaining fraction down, to arrive at the Total Fire Strength and then divides this number by two (**exception:** see 38.4), again rounding down, to arrive at the Effective Fire Strength for the Fire Strike.
7. Roll on the CRT to determine the Hit Modifier and then adds this modifier to the Effective Fire Strength to determine the total number of Hits inflicted. The Hit Total must be absorbed by step loss according to the procedure described in Case 23.2. The Defense Strength of each unit in the target hex is adjusted using the "Defense Benefits vs. Off. Fire/Strike" columns on the TEC.
8. The opposing player places a Disrupted Marker on any of his surviving units with an Adjusted Defense Strength less than or equal to the total number of Hits inflicted (**before** any Hits were absorbed by step loss).
9. Place Fired Markers on any participating artillery units. Maneuver any attack helicopter unit back to the friendly map edge, taking flak en route, and return it to the Recovery Box (see 25.2.4). Remove any air unit from the map. **Execute any Counter-Battery Fire Cycle initiated by the inactive player (see 23.4).**

The Fire Strike procedure is summarized on the back of Sequences Card 2.

[23.2] ABSORBING HITS FROM A FIRE STRIKE

Hits from a Fire Strike can only be absorbed by step loss. Unlike a fire combat, in which step losses must come from the unit(s) with the **strongest** Adjusted Defense Strength first, step losses from a Fire Strike must come from the unit(s) with the **weakest** Adjusted Defense Strength first, **regardless of whether they are masked or not**. If there is a choice of which steps are eliminated to absorb Hits, because there is more than one unit in the hex with the same Adjusted Defense Strength, then the **striking player** determines which steps are lost first. Hits must continue to be absorbed by step loss until the number of Hits remaining is less than the Adjusted Defense Strength of the **weakest** surviving unit in the target hex. **Exception:** In the case of a Counter-Battery Fire Strike, step losses can be taken **only** from the specific artillery unit targeted, regardless of whether it is the weakest unit in the hex or not.

***Design Note:** In a fire combat, the requirement to take losses from the strongest unit makes sense because it is possible to throw the strongest unit forward to cover for weaker units to the rear. However, in a strike, fire is not delivered linearly from one side, rather it delivered from above across the entire area of the target. The effect of a shell striking near an APC is not mitigated by the presence of a tank a hundred meters away. Accordingly, it is natural that the weakest unit will succumb to the blast effects first.*

[23.3] DISRUPTION

Each time a Fire Strike is made, the defending player compares the Hit Total inflicted by the strike to the Adjusted Defense Strength of each separate unit in the target hex. If a unit's Adjusted Defense Strength is less than or equal to the Hit Total, that unit is disrupted. Place a Disrupted Marker on it. It is quite possible that some units in a hex will be disrupted while other stronger units are not. Disruption occurs **after** all Hits have been absorbed (to avoid unnecessary fiddling with markers), but always uses the **original** Hit Total (before any Hits are absorbed).

[23.3.1] Disruption Effects. Disruption has the following effects:

1. A disrupted unit is immediately flipped to its used side, if not already there.
2. Because it is on its used side, a disrupted unit cannot participate in any operation, even one planned for it, nor can it react.
3. A disrupted artillery unit cannot execute Indirect Fire (see 22.2).
4. The Fire Strength of a disrupted unit is **halved** when executing Defensive, Infiltration or Retreat Fire (the only forms of fire possible for a disrupted unit). This effect is cumulative with any other effects on its Fire Strength.
5. The Flak Strength of a disrupted unit is **halved** (retain fractions until the final total is rounded down).

6. A disrupted unit cannot retreat **or advance** and prohibits the retreat **or advance** of any other friendly units in the same hex.
7. A disrupted unit cannot be split or combined, **nor can it transfer steps**.
8. A disrupted HQ can neither expend **nor channel** Command and Reconnaissance Points and cannot make a Fire Call. Move its CPs Marker (NATO only) and RPs Marker to zero, if not already there.
9. A disrupted HQ cannot use its EW Asset to make a Jamming Attempt (see 39.0).
10. A disrupted HQ cannot decontaminate any units (see 44.6) **and a disrupted unit cannot be decontaminated**.
11. A disrupted unit in a US cavalry formation cannot conduct a Screening Action (see 41.2).
12. **During the WP Planning Phase, the WP player cannot place or keep a Main Effort Chit on the GT Track for a WP division with a disrupted HQ (see 12.4.2, #1).**

These effects are summarized on the Disruption Effects Chart found in the Charts & Tables Booklets. For the avoidance of doubt, a disrupted unit **can** still act as an observer for a Fire Call and as a spotter for a Reconnaissance Attempt or Counter-Battery Acquisition Attempt.

[23.3.2] All Disrupted Markers are removed during the Reorganization Phase. **Exception:** Disrupted Markers are **not** removed from WP HQ units until the end of the WP Planning Phase, meaning that they lose their ability to expend their CPs during the Planning Phase of the turn **after** the turn in which they are disrupted (otherwise their ability to expend CPs would never be affected by disruption).

[23.4] COUNTER-BATTERY FIRE STRIKES

Counter-Battery Fire is a special form of Fire Strike by a single artillery unit against a single enemy artillery unit that has just used **Indirect Fire**. **This is the only form of combat that attacks an individual unit, not all units in the target hex.** At the end of any strike, Defensive Fire Combat, or Offensive Fire Combat in which the enemy player has employed an artillery unit to execute Indirect Fire, a player can immediately declare that he is initiating a Counter-Battery Fire Cycle. This is an Interrupt Action. It does not matter whether the initiating player is active or inactive. However, to avoid confusion, if a Counter-Battery Fire cycle is triggered by an Offensive Fire Combat, complete the operation before executing the Counter-Battery Fire Cycle. Artillery units that use Direct Fire never trigger a Counter-Battery Fire Cycle. Only **one** artillery unit can participate in an individual Counter-Battery Fire Strike and no other type of fire support asset can participate at all.

[23.4.1] The Counter-Battery Fire Cycle. To begin a Counter-Battery Fire Cycle, a player declares that he will make a Fire Call to execute a single Counter-Battery Fire Strike on **any one** enemy artillery unit that just fired using Indirect Fire. This Fire Call can be made by **any one** HQ belonging to the initiating player and the call can be made to **any one** artillery unit in the calling HQ's Artillery Pool. Any HQ on the map can make a Fire Call for a Counter-Battery Fire Strike during any friendly or enemy Activation Cycle (meaning that the HQ making the Fire Call need **not** be an HQ in the same chain of command as the unit(s) the other player just attacked, nor even of the same nationality). After this **one** Counter-Battery Fire Strike, the opposing player can himself execute a Counter-Battery Fire Strike against the artillery unit that just fired, or he can pass, after which the initiating player can execute another Counter-Battery Fire Strike if there are more of his opponent's artillery units left to target, either because they also participated in the original strike or fire combat that triggered the cycle or because they themselves executed Counter-Battery Fire during this Cycle. Alternatively, he can pass. The players continue to alternate single Counter-Battery Fire Strikes or passes, with potentially more and more artillery units firing and thereby becoming targets themselves, until both players choose to pass back-to-back, at which point the Counter-Battery Fire Cycle ends. No artillery unit can fire more than once during a cycle (because it will receive a Fired Marker the first time it does) and no artillery unit can be attacked more than once during a cycle. It is entirely possible for the Defensive Fire Step of an operation to trigger a Counter-Battery Fire Cycle and then for the Offensive Fire Step of that same operation to trigger a second Counter-Battery Fire Cycle.

[23.4.2] Counter-Battery Acquisition Attempts. Counter-Battery Fire is not automatic. When a player wishes to execute a Counter-Battery Fire Strike, he must first make a successful Counter-Battery Acquisition Attempt against the target artillery unit. A Counter-Battery Acquisition Attempt uses the following procedure:

1. The firing player declares which **one** enemy artillery unit will be the target.
2. He declares which one friendly HQ will make the Fire Call. **Any friendly HQ on the map can make the Fire Call (however, a player would be well advised to use an HQ superior to the maneuver unit closest to the target artillery unit, see Bullet #4).**
3. He declares which **one** artillery unit from the calling HQ's Artillery Pool will execute the strike (once committed, this commitment cannot be changed).
4. He declares a spotting unit, which must be a **non-airmobile maneuver unit** that is both subordinate to the calling HQ and within its Command Range.

5. He determines the least number of hexes that separate the spotter from the target hex (do not count the hex occupied by the spotter but do count the hex occupied by the target artillery unit).
6. He consults the Counter-Battery Acquisition Table for his alliance in the Charts & Tables Booklets (**there is one table for US forces and another for all other armies on both sides**).
7. He cross-references 1) the row corresponding to the range between the **spotter** and the target hex with 2) the column for the type of artillery unit **being targeted** and finds at the intersection the Acquisition Value for the counter-battery fire mission.
8. If the Acquisition Value is “N.A.,” Counter-Battery Fire is not allowed. Otherwise, roll the die.
9. If the die result is **greater than or equal to** the Acquisition Value, the target is acquired. If the result is less than the Acquisition Value, the target is not acquired.
10. If the target is acquired, the firing player can execute a Counter-Battery Fire Strike against it with his one designated artillery unit. Use the standard Fire Strike procedure found in Case 23.1.1 but start at Step 5 and note that the results of the strike apply only to the target artillery unit per Case 23.4.3 below.
11. If the target hex is not acquired, no Fire Strike is executed, but the artillery unit committed **does** receive a Fired Marker (the strike did occur, but it missed the target).

The Counter-Battery Acquisition Attempt procedure is summarized in the Counter-Battery Acquisition Tables found in the Charts & Tables Booklets.

***Design Note:** There are two separate Counter-Battery Acquisition Tables in this game, one for US forces and one for all other forces (including both Pact forces and other NATO nationalities). The US Table reflects the effectiveness of the AN/TPQ-37 “Firefinder” counter-battery radar deployed by the US Army, which was the only counter-battery radar of that era that could backtrack a high-velocity cannon shell. All other armies, including other NATO armies, were still relying on sound-ranging microphone systems, little changed from WWII, to locate enemy guns. The Counter-Battery Acquisition Tables also reflect two other factors: 1) the increasing difficulty of accurately locating a firing artillery unit as the distance grows and 2) the probability that it will shoot and scoot before friendly counter-battery fire can arrive on target. Regarding the second factor, self-propelled artillery units can scoot much faster than towed artillery units, and rocket artillery units can deliver their unit of fire much faster than any tube artillery units, hence the separate columns on the tables for each type. When a Counter-Battery Acquisition Attempt fails, it means that the strike has missed the target because either 1) the target fix was inaccurate, or 2) the target successfully relocated before the strike came in. Airmobile units are barred from acting as counter-battery spotters because they did not carry the heavy equipment required.*

[23.4.3] Counter-Battery Fire Effects. Unlike other types of strikes, a Counter-Battery Fire Strike affects only the single enemy artillery unit targeted. **Only this unit can absorb Hits and only this unit can be disrupted.**

[23.4.4] Multiple Artillery Units in a Hex. An individual artillery unit can be targeted only **once** during a Counter-Battery Fire Cycle. However, if a player has multiple artillery units present in a hex, and they fire at any point during the same Counter-Battery Fire Cycle (including the initial combat that triggers the cycle), the opposing player can make a separate Counter-Battery Acquisition Attempt against each unit.

[23.4.5] Multiple HQs. The Fire Call for a Counter-Battery Acquisition Attempt can be made by a different friendly HQ each time. There is no requirement that all friendly Fire Calls in a Counter-Battery Fire Cycle be made by the same HQ.

[23.4.6] Counter-Battery Target Acquisition. When an artillery unit is eligible to be struck by Counter-Battery Fire, either because it fired during the original combat that triggered the current cycle or because it fired at any point during the cycle itself, and it has not been targeted yet, the opposing player can always ask for a truthful answer regarding the artillery unit’s location, type, and the number of steps that it contains before he makes a decision to execute a Counter-Battery Fire Strike against it. If he elects to make the strike, he rolls for the Counter-Battery Acquisition Attempt. **Even if the attempt is successful, he cannot examine any units or markers in the target hex.** The only thing that a successful attempt enables is the execution of a Counter-Battery Fire Strike against the target artillery unit.

[23.4.7] Other Arms. Only artillery units can participate in a Counter-Battery Fire Strike Cycle (the target is too likely to have displaced before any attack helicopter or air mission could hit its position).

[23.4.8] Offmap Targets. Artillery units that fire from the Offmap Display (see 40.1) **are** subject to Counter-Battery Fire from onmap artillery units and vice versa (see 40.5).

[23.4.9] Spotting from the Objective Hex. When a player elects to initiate a Counter-Battery Fire Cycle after enemy artillery fire in support of an Offensive Fire Combat, the execution of that cycle is **delayed** until after the end of current operation (to avoid

distracting the enemy player from completing the last bit of his operation). For the avoidance of doubt, whichever player holds the Objective hex at the end of the operation is eligible to spot for a Counter-Battery Acquisition Attempt with a unit from that hex (this is the one hex that can change hands between when a cycle is triggered and when it is executed).

[23.5] ADM STRIKES

Design Note: *By the 1980s, both alliances had developed the means to lay instant minefields deep in enemy territory. Mines could be delivered by bombs that burst at altitude to scatter hundreds of submunitions or by artillery munitions. The West Germans developed the MW-1, a one-ton underbelly dispenser that allowed a Tornado fighter-bomber to scatter as many as 4,704 submunitions in a single pass. On the artillery side of things, most armies preferred to use rockets, which could carry a large payload of mine submunitions. Uniquely, the United States developed FASCAM (Family of Scatterable Mines), built around a 155mm shell that scattered submunitions.*

An ADM Strike lays down a minefield in the target hex. An ADM Strike can be executed by some artillery units or some air units, but **never** by an attack helicopter unit. ADM Strikes can be made against empty hexes or hexes containing enemy units. In the case of a target hex containing enemy units, all such units are immediately subject to a Mine Attack (see 37.5).

[23.5.1] ADM Points. The instructions for a scenario can provide for a limited number of ADM Points. These points represent artillery or air-delivered mine munitions. Like all Combat Support Points (see 46.4.1), ADM Points do not renew each turn. Rather, they constitute a pool of points available for use over the entire scenario (although some scenarios may provide reinforcement points). NATO ADM Points have nationality, whereas WP ADM Points do not. At the start of a scenario, place an ADM Points Marker of the appropriate nationality in the box on the Combat Support Points Track equal to the number of ADM Points each nationality receives. When a NATO unit makes an ADM Strike, the NATO player must expend an ADM Point of the same nationality as the striking air or artillery unit. Any WP unit eligible to make an ADM Strike can expend a WP ADM Point. Move the appropriate ADM Points Marker down one box on the Combat Support Points Track for each point expended until none are left.

[23.5.2] ADM Strike Targets. An ADM Strike can target any hex if 1) it is **not** adjacent to a friendly unit and 2) it is acquired. Empty hexes are always acquired using the “Empty” row on the Reconnaissance Table (see 20.2.2).

[23.5.3] ADM Strike Procedure. ADM strikes are made during the Strike Segment and work like any other strikes, in that they require a calling HQ, a fire support asset (either an artillery unit or an air unit), and a target hex that is acquired. However, when an eligible unit makes an ADM Strike, it does not attack using its Fire Strength and there is no die roll on the CRT. Instead, the active player uses the following procedure:

1. Place a Strike Target Marker (see 6.3.1) in the target hex.
2. Declare the HQ making the Fire Call (see 21.2).
3. Declare the artillery unit being called, or, if an air unit is called, follow the procedure described in Case 24.2.2.
4. Expend an ADM Point of the same nationality as the striking unit.
5. If an air unit was called, assemble it, and place it on the map in its firing position. Execute any anti-aircraft fire triggered (see 27.0).
6. If the firing artillery unit has a Modified Fire Strength of eight or more, or the firing air unit has at least two steps survive enemy anti-aircraft fire, place a Real Minefield Marker in the target hex.
7. If enemy units are present in the target hex, the enemy player immediately conducts a Mine Attack on them (see 37.5).
8. Place a Fired Marker on the participating artillery unit or remove the participating air unit.

This procedure is reproduced on the ADM/Gas Strike Sequence found in the Charts & Tables Booklet.

[23.5.4] Eligible Artillery Units. If an ADM Strike will be made by artillery, only a **single** artillery unit can be called (trying to create a coherent minefield from multiple locations would be a nightmare). Moreover, only the following artillery units can make an ADM Strike:

WP BM-27



WP BM-21



US M109



WG LARS



In addition, to qualify to fire an ADM Point, an artillery unit must have a Modified Fire Strength of **eight** or more (**before** the standard division by two, which excludes the BM-21V unit in the Soviet 35th Guards Air Assault Brigade **and the artillery battery organic to the US 2/11ACR Squadron**).

[23.5.5] Eligible Air Units. All WP air units can make ADM Strikes, but only certain NATO air units can (see Case 24.2.2).

[23.5.6] ADM Strikes cannot be made into Town or City hexes (scattered mines are easy to see and destroy on paved streets).

[23.5.7] ADM Strikes cannot be used to place dummy minefields (the mines automatically armed for a minimum period).

[23.6] OFFMAP STRIKES

A player can make strikes of all types onto the map using artillery units located in the Offmap Display (see 40.1). The only strikes allowed against targets in the Offmap Display are Counter-Battery Fire Strikes executed by onmap artillery units that are within range (see 40.5).

[23.7] STRIKE RESTRICTIONS

[23.7.1] Multiple Strikes. Generally, no hex can be targeted by more than **one** strike in the **same** Strike Segment. For the avoidance of doubt, this means that a hex could **not** be targeted by a Fire Strike, then hit with an ADM Strike, and finally hit with a Gas Strike (see 44.0) in the same Strike Segment. **Exception:** If a hex contains more than one enemy artillery unit, it is possible for that hex to be subject to a friendly Counter-Battery Fire Strike once for each separate artillery unit that fires out of that hex, even in the same Strike Segment (however, each strike only affects that single target artillery unit, see 23.4.4). There is no limit to the number of times the same hex can be subjected to a strike over the course of a turn provided that each strike occurs in a different Strike Segment (meaning in a different Activation Cycle).

[23.7.2] Rules of Engagement. No strike can ever target a hex adjacent to friendly units **unless** one of those units can observe for the calling HQ (see 21.3). If a hex is adjacent to friendly units, none of which can observe for the calling HQ, then it cannot be targeted **even if it is acquired** (the calling HQ is presumed to possess enough situational intelligence to avoid dropping munitions right next to a friendly unit that cannot correct that fire). This rule means that a player can never execute a strike against an enemy unit that is adjacent to friendly units **unless** one of those friendly units is activating in the current Activation Cycle because only an active unit is eligible to observe for a strike (see 21.3.1).

STOP! You have almost read sufficient rules to play the introductory scenario. Skip to Case 31, Shatter, then skip to Case 46.0, Scenario Play (or to Case 45.0, Hidden Mode Play, if you want to play solitaire), after which set up and play the introductory scenario, Thermopylae, Case 47.1. Replay this scenario until you feel that you have mastered the basic mechanics of the game. Then read the remaining rules and play Thermopylae again with the full rule set. Once you are comfortable with this scenario, you will be ready to tackle the other 11 scenarios provided for your gaming pleasure.

[24.0] AIR UNITS

Design Note: Air units represent fighter bombers from squadrons with a primary role of battlefield interdiction or close air support. Each step of an air unit represents a flight of four aircraft. Air units operate in one of four attack profiles:

1. **High-Altitude Bombing.** In this profile the aircraft come in above 5,000 feet. The approach run will be clear to enemy radars, and well within the kill envelope of enemy SAM defenses, but out of range of most enemy ground fire. Accuracy is not high, but the maximum payload can be carried.
2. **High-Altitude Stand-off.** In this profile the aircraft come in above 5,000 feet, but the strike is made much further out from the target using air-to-ground missiles guided by TV, radio, or laser. This profile has all the advantages of a high-altitude bombing run, but with a much-reduced exposure to the kill zone of enemy SAMs. It also has a much-reduced payload (the warheads on these missiles are a fraction of their total weight), partially offset by a much higher degree of accuracy.
3. **Low-Altitude Bombing.** In this profile the aircraft come in barely above tree-top level and pop up at the last minute just high enough to acquire the target. This profile is far and away the most demanding of pilot skills, but it offers only a brief window for air defenses to get a bead on the aircraft. Moreover, a skilled pilot can deliver a highly accurate bombload and possibly combine it with a strafing run.
4. **Low-Altitude Stand-off.** In this profile the aircraft come in barely above tree-top level and pop up at the last minute just long enough to acquire the target before launching air-to-ground missiles. This profile requires either a very sophisticated fire-and-forget missile or a local laser designator trained on the target. With no ability to strafe, and a small payload of explosives, this is the weakest type of strike but also the safest. Only the US Air Force had both the munitions and the training to execute this type of attack.

*For a game called **Air & Armor**, the air support available may strike players as surprisingly stingy. This is because the game is set in the opening week of the war when every aircraft with sufficient range is being used to strike high value targets well behind enemy lines and close air support is at the absolute bottom of each air force's priority list.*

Each player receives a certain number of Air Points. When an HQ makes a Fire Call during a friendly Strike Segment, it can choose to make an "Air Call" for air support. When a player makes an Air Call, he expends Air Points and rolls on the Air Call Table to see what type of air unit responds. This air unit then appears onmap, executes the strike, and disappears. **Air units always attack alone, and they can only make strikes.** An air unit can execute any type of strike **except** a Counter-Battery Fire Strike.

[24.1] AIR POINTS

The instructions for a scenario may provide players with a limited number of Air Points. These points represent a call on air support. Like all Combat Support Points (see 46.4.1), Air Points do not renew each turn. Rather, they constitute a pool of points available for use over the entire scenario (although some scenarios may provide reinforcement points). NATO Air Points have nationality, while WP do not. At the start of a scenario, each player places his Air Points Markers for the appropriate nationality in the box on his Combat Support Points Track equal to the number of Air Points he receives. He moves his Air Points Marker down one box on his Combat Support Points Track for each Air Point he expends until none are left.

[24.2] AIR CALLS

Air Calls can be made **only** during a friendly Strike Segment. Whenever a player wishes to call an air unit to strike a target hex, he declares the type of strike he is making (Fire, ADM or Gas) and then designates one undisrupted HQ in the active formation (or a superior NATO Division HQ) to make the Air Call. An HQ can make an Air Call without regard to its Command Range. **Air Calls can never be made during a Night (see 32.0) or Fog (see 46.5) Turn.** A player must expend Air Points to make an Air Call. **A player can expend between one and three Air Points to make an Air Call, never more.** For the NATO player, these Air Points must be the same nationality as the calling HQ. Any WP HQ can expend WP Air Points, regardless of its nationality. The number of steps in the air unit that responds to an Air Call is always **equal** to the number of Air Points expended to make it. Once the Air Points have been expended, the active player refers to the Air Call Table found in the Charts & Tables Booklets and rolls a die (**exception: for ADM and Gas Strikes, no die is rolled, see 24.2.2**). A player makes one roll on the Air Call Table for each Air Call, **not** one roll for each Air Point expended. He finds the type of air unit that responds to the Air Call at the intersection of the row for his die result and the column for his alliance. Note that, for NATO, the nationality of the Air Point **expended** has no effect on the nationality of the air unit **received**. An Air Call by a WG HQ must expend WG Air Points but might result in the NATO player receiving a flight of Canadian CF-18s or US A-10s.

***Design Note:** Players may find it odd that a WG Air Call could result in a flight of US A-10s. However, this was how NATO worked. The Fourth Allied Tactical Air Force consisted of two US air divisions, a Luftwaffe air division, and a Canadian air division. The Fourth operated as a single command supporting every corps in CENTAG. All pilots and all forward observers in NATO spoke English. Any air squadron could be assigned to a mission without regard to the nationality of the troops supported. NATO Air Points have nationality in this game only to give national ground forces their fair share of air support.*

[24.2.1] WP Special Air Calls. When the WP player wishes to make an ADM (see 23.5) or Gas (see 44.2) Strike with an air unit, he declares this intent as part of his Air Call, expends at least two Air Points, and makes a normal Air Call. No matter how many Air Points are expended for the Air Call, he always expends just **one** ADM or Gas Point to make the strike.

[24.2.2] NATO Special Air Calls. When the NATO player wishes to make an ADM or Gas Strike with an air unit, he declares this intent as part of his Air Call and expends at least two Air Points of the same nationality as the calling HQ. However, he does **not** consult the Air Call Table. Instead, if Air Points **of any nationality** are expended to bring an air unit onmap for a Gas Strike, the NATO player automatically receives a US F-16 unit and expends one US Gas Point. If US or Canadian Air Points are expended to bring an air unit onmap for an ADM Strike, the NATO player automatically receives a US A-10 unit and expends one US ADM Point. If WG Air Points are expended to bring an air unit onmap for an ADM Strike, the NATO player automatically receives a WG Tornado unit and expends one WG ADM Point. As always, the number of steps in the air unit must match the number of Air Points expended to make the Air Call. If the nationality for the air unit that would appear lacks the requisite Gas or ADM Point, then no special Air Call can be made.

***Design Note:** NATO air tasking in this era considered the type of munition a ground commander was requesting. If a commander was calling for a specific type of munition, the air tasking planners would only task an air unit to respond from an air force that fielded that type of munition.*

[24.3] AIR UNIT ASSEMBLY

Air units are unique in that they are assembled with a Unit Counter, a Step Marker, and a third marker called an Attack Profile Marker. The Attack Profile Marker bears the combat values for an air unit. Once the type of aircraft responding to an Air Call has been determined, the active player assembles the incoming air unit by mating a Unit Counter for the aircraft type with both 1) an

Attack Profile Marker for the same aircraft type and 2) a Step Marker. The Attack Profile Marker features two different attack profiles on each side of the marker for a total of four possible profiles. Each profile combines an altitude level (high or low) with a munition type (bombs or standoff-missiles). Each profile displays a unique Attack Strength, Range, and Defense Strength to be used when the air unit attacks using that specific profile. When a player assembles an air unit, he selects the attack profile it will use by flipping the Attack Profile Marker to the side of the marker labeled for the altitude he wants (High or Low) and then rotating the marker so that the values for the munition he wants (Bomb or Stand-off) show right side up at the **bottom** of the marker. The attack profile must be selected and declared **before** the air unit is placed on the map. **If an air unit is making an ADM or Gas Strike, it must be assembled in a bombing profile (Hi-Bomb or Low-Bomb).** The Step Marker is always set to equal to the number of Air Points expended to make the Air Call.

[24.4] AIR UNIT DEPLOYMENT

Air units do not enter the map from a map edge and maneuver through the hex grid to their firing positions. When an air unit executes a strike, the active player simply places it directly into its firing position on the map. If the attack profile is Bomb, place the air unit in the same hex as the target. If the attack profile is Stand-off, place the air unit in any hex on the map that puts the unit within range of the target hex (as a reminder, an air unit's Range is the middle number in the row of values on its Attack Profile Marker, see 4.3 for air unit diagrams). When counting the range to the target, do not count the hex occupied by the air unit but do count the target hex. An air unit ignores stacking restrictions and can always be placed into a hex without regard to the presence of friendly or enemy units. There is no requirement that an air unit be placed within Command Range of the calling HQ. Once an air unit has been deployed on the map, it must survive enemy anti-aircraft fire (see 27.0) before it can participate in a strike. After the strike has been resolved, the air unit is removed from the map without being subject to further enemy anti-aircraft fire and disassembled into its constituent counters. The unit ceases to exist, although another air unit, possibly identical, will be reassembled the next time an Air Call is made.

[24.5] AIR UNIT FIRE

The only form of combat that an air unit can execute is a strike. Air units can execute Fire Strikes (23.1), ADM Strikes (23.5) or Gas Strikes (44.2). **An air unit always attacks alone.** Like any other unit, an air unit's Fire Strength is calculated by multiplying its Attack Strength by the number of steps it contains. Unlike any other unit, the Attack Strengths for an air unit are printed on a separate Attack Profile Marker (see 4.3) and vary according to the attack profile employed. Accordingly, an air unit's Fire Strength is calculated by multiplying the Attack Strength for the specific attack profile it is using by the number of steps it contains. An air unit's Fire Strength is **halved** if the target hex contains Close Terrain or smoke (even if the air unit occupies the target hex), but is otherwise unaffected by terrain, including, if the unit is using Stand-off munitions, any terrain in the hex the air unit itself occupies or in any intervening hexes.

[24.5.1] Special Air Strikes. An air unit making an ADM (23.5) or Gas (44.2) Strike does not use its Attack Strength but rather relies on the special effects of the munition it drops. An air unit always conducts an ADM or Gas Strike by itself. The attack profile of an air unit tasked to execute a special air strike must be set to Bomb but can be set to either altitude. The striking air unit must be placed in the target hex and any enemy anti-aircraft fire resolved (see 27.0). If at least **two steps** survive enemy anti-aircraft fire, then a Minefield or Gas Zone Marker is placed in the target hex and a Mine Attack (see 37.5) or Gas Strike (see 44.2) is conducted if there are any enemy units in the target hex (or in adjacent hexes for a Gas Strike). If less than two steps survive, then no strike is made and no marker is placed, but the ADM or Gas Point required to call the strike remains expended. Regardless, the air unit is then removed from the map.

[25.0] ATTACK HELICOPTER UNITS

Design Note: *Attack helicopter units field military helicopters designed for anti-armor operations. Each attack helicopter step represents a flight of four helicopters except for West German helicopter steps, which comprise five machines. Attack helicopter units operate in one of two attack profiles:*

1. **Gunnery.** *In this attack profile the helicopters close to within a few hundred meters of the target, close enough to attack with their cannon if they are armed with one. This profile yields the most firepower, but at a high risk to the helicopters themselves.*
2. **Stand-off.** *In this attack profile the helicopters stand off at the outer range of their anti-tank guided missiles and plink away at targets of opportunity. This profile delivers less firepower, but also substantially lowers the risk of getting shot out of the sky.*

Attack helicopter units are fire support assets that can provide fire support for a friendly Fire Strike or for a fire combat executed during an Assault operation. Attack helicopter units spend most of their time offmap on a player's Helicopter Track located on his Tracks Card. They are brought onto the map only in response to a Fire Call by a friendly HQ. When they perform a mission onto the map, this mission is composed of three steps (each embedded into the Sequence for the operation or strike in which they are called):

1. Movement from the Ready Box to a friendly map edge and then across the hex grid to a firing position, taking Flak Fire (see 27.2) en route
2. Participation in a fire combat or strike against the target hex
3. Movement back to the friendly map edge, taking Flak Fire en route, and then return to the Recovery Box on the Helicopter Track

The instructions for the scenario being played may provide a player with a limited number of attack helicopter **steps**. The instructions will specify both a helicopter type and the number of steps for that type. For the NATO player, only, each type of attack helicopter unit has a nationality (see 4.2.1). If a player receives one or more attack helicopter steps, he places them under a Unit Counter of the appropriate type in the Ready Box of his Helicopter Track. Attack helicopter units are always kept on a player's Helicopter Track when not in use. They can be called onmap by a Fire Call from any friendly HQ in their chain of command. In this game, all WP attack helicopter units are in the chain of command of all WP HQ units. US and WG attack helicopter units are in the chain of command of all HQ units **of the same nationality**. There are no Canadian attack helicopters for the HQ of the 4 CMBG to call. An attack helicopter unit can be called at three points during play:

1. During a Fire Call for a friendly Fire Strike
2. During the Offensive Fire Call Step of a friendly Assault operation
3. During the Defensive Fire Call Step of a WP Assault operation (where a NATO HQ is making the Fire Call)

These points are summarized on each player's Fire Support Chart, which also indicates that whenever an attack helicopter unit can be called, up to two friendly artillery units can also be called (the maximum participation limit for an Army Call). Any **one** attack helicopter unit that occupies a player's **Ready Box** can respond to a Fire Call from any HQ of the same nationality, without regard to that HQ's Command Range. **No attack helicopter unit can respond to a Fire Call during a Night Turn (see 32.0) or a Fog Turn (see 46.5).** **Exception:** US AH-64 helicopters (see 25.6), which carry thermal imaging systems, **can** respond at night but **not** in fog. **When an attack helicopter unit performs a mission onto the map, this mission is composed of three Steps (each Step is embedded into the Sequence for the operation or strike in which the unit is called):**

1. **Helicopter Movement Step: Movement from the Ready Box to a friendly map edge and then across the hex grid to a firing position, taking Flak Fire (see 27.2) en route**
2. **Fire Step: Participation in a fire combat or strike against the target hex**
3. **Completion Step: Movement back to the friendly map edge, taking Flak Fire en route, and then return to the Recovery Box on the Helicopter Track**

[25.1] ATTACK HELICOPTER UNIT ASSEMBLY

Attack helicopter units are assembled just like ground units from a Unit Counter and a Step Marker. The front side of the Unit Counter shows the type of helicopter it represents, and the back side shows two attack profiles (Stand-off and Gunnery). Each profile displays a unique Attack Strength, Range, and Defense Strength to be used when the attack helicopter unit is operating in that profile. When attack helicopter steps are received at the start of a scenario or enter as reinforcements, they are all assembled under **one** Unit Counter of the appropriate type and placed in the Ready Box on the friendly Helicopter Track as a **pool** of ready steps. When a Fire Call is made for an attack helicopter unit, the specific unit that responds is always assembled at that instant from the available pool of steps in the Ready Box **up to the following step limits, which represent a full WP regiment or NATO battalion:**

1. A WP Mi-24 unit can contain up to six steps (one regiment)
2. A US AH-1 unit can contain up to four steps (one battalion)
3. A US AH-64 unit can contain up to three steps (one battalion)
4. A WG PAH-1 unit can contain up to three steps (one squadron, the German equivalent of a battalion)

Step limits on attack helicopter units apply only while they are on the map. An attack helicopter unit must enter the map with it least one step.

***Design Note:** If a player runs the math on the full TO&E for each of these units, he will quickly conclude that, at four machines per step, the machine count for the maximum number of steps allowed per regiment or battalion is well below the formation's full complement of helicopters. This is because the step limits above reflect historical readiness rates for each type of helicopter. A unit can only deploy with the maximum machines currently ready to fly. In reality, most attack helicopter operations would be run from a FARP (Forward Arming and Refueling Point) located just out of artillery range behind the front lines and therefore usually on the game map. However, I did not want to saddle players with the administrative burden of managing FARPs, and therefore the game*

system utilizes the convenient fiction that all helicopter units fly in from a friendly map edge. Since a helicopter unit's flight path does not matter until it gets within Flak Range of an enemy unit, this approach is not a major sacrifice of realism

[25.2] ATTACK HELICOPTER MOVEMENT

Once a player has assembled the attack helicopter unit that will respond to a Fire Call, he removes it from the Ready Box, enters it onto the map from a friendly map edge (see 25.2.1), and maneuvers it through a path of contiguous hexes of any length to a hex, termed the "firing position," that is within range of the target hex. This range depends on the attack profile in which an attack helicopter is currently operating. US AH-64 units, only, have a Stand-off Range of three hexes and therefore can be placed as much as three hexes away from the target hex. All other attack helicopter units have a Stand-off Range of two hexes. All attack helicopter units have a Gunnery Range of one hex. There is no requirement that an attack helicopter unit be moved to a firing position that is within Command Range of the calling HQ **unless it is needed to observe for any artillery units committed to the same Fire Call during a friendly Assault Operation because all participating ground units were eliminated by enemy Defensive Fire (see 21.3.2)**. A unit's firing position does not have to be declared in advance. A player can halt an attack helicopter unit in any hex in range of its target hex, **including inside the target hex itself**, and declare that it has reached its firing position. A player can also voluntarily abort the mission (see 27.3.2) after any individual Flak Fire Combat is resolved if he believes that enemy Flak Fire is too intense to reach a good firing position.

[25.2.1] Friendly Map Edges. For helicopter entry and exit purposes, the northern map edge is always considered friendly to the WP and the southern map edge (hex 7005 to 7028) is always considered friendly to NATO (see the Compass Rose printed on each map for map directions). In addition, a helicopter unit can always enter or exit the map along any entry sector specified for friendly reinforcements in the scenario.

[25.2.2] Attack helicopter units can move an unlimited number of hexes across the map and never pay MPs to enter a hex. Attack helicopter units can always be moved into or through a hex without regard to the presence of friendly units, enemy units, or impassable terrain, and they are never subject to stacking restrictions. However, during an attack helicopter unit's movement from the map edge to its firing position, it is subject to enemy Flak Fire in **each hex it enters** that is located within two hexes of an enemy ground unit (see Anti-Aircraft Fire, 27.0). For the avoidance of doubt, attack helicopter units **are** subject to any scenario-imposed movement restrictions.

[25.2.3] No enemy ground unit is ever revealed when an attack helicopter unit moves adjacent or into its hex (its target hex must already be observed or acquired). However, an attack helicopter unit's own step value is always public information from the moment that it enters the map.

[25.2.4] During the Completion Step at the end of any operation or Fire Strike, any attack helicopter unit that provided fire support during that operation or strike must be maneuvered back to a friendly map-edge hex and then returned to the Recovery Box on the owning player's Helicopter Track. It remains subject to enemy Flak Fire along its entire return flight path to the friendly map edge. **However, a player can ignore any result except a Mandatory Hit Check (see 27.3).**

[25.2.5] A player can never have more than one attack helicopter unit on the map at a time. The operation or strike that a unit is called for must be completed before another one can be begun.

[25.3] ATTACK HELICOPTER PROFILES

Unlike air units, which must select an attack profile before they are placed on the map and stick with it, attack helicopter units vary their attack profile as they move. Generally, when an attack helicopter unit enters the map and moves to its firing position, it operates in its Stand-off profile. However, whenever a unit moves adjacent to an enemy unit, or into its hex, it **must** be rotated to its Gunnery profile. Once it has moved to a hex at least two hexes distant from **all** enemy units, it can be rotated back to its Stand-off profile (to get the better Defense Strength and Range). Whenever an attack helicopter unit fires, it uses the Attack Strength and Range indicated for its current profile. Whenever an attack helicopter unit makes a Hit Check, it uses the Defense Strength indicated for its current profile.

[25.4] ATTACK HELICOPTER FIRE

Like artillery units, attack helicopter units have a Range and can attack targets in distant hexes. When counting the range to the target, do not count the hex occupied by the attack helicopter unit but do count the target hex. This is **not** considered Indirect Fire. Once the target hex is in range, an Attack helicopter is always assumed to have a clear line of sight to it, no matter what terrain is present in the intervening hexes. An attack helicopter unit can attack a target on its own or in concert with other friendly units. Its Fire Strength is always added to the Total Fire Strength of all units firing at the same target hex. An attack helicopter unit fires exactly like any other unit: its Attack Strength is multiplied by the number of steps it contains to determine its Fire Strength. However, when an attack helicopter unit fires, it uses the Attack Strength for its current attack profile, meaning that its Attack Strength will vary with the range to the target hex. **Exception: It is possible that a unit will be forced to rotate to its Gunnery Side because it has moved adjacent to an enemy ground unit, but it is actually attacking a target that is at Stand-off range. In this case, it defends against Flak Fire using the Defense Strength for its Gunnery profile but uses the Attack Strength for its Stand-off profile.** An attack helicopter unit's Fire

Strength is **halved** when the target hex contains Close Terrain (**exception:** see Helicopter Hunting, 25.4.1) but is unaffected by the terrain in its own hex **or any intervening hexes**.

[25.4.1] Helicopter Hunting. As an **exception** to the normal rule that an attack helicopter unit's Fire Strength is halved when the target hex is Close Terrain, it is **not** halved when the helicopter unit occupies the target hex itself (when it gets close enough, it can hunt for targets between the trees or buildings).

[25.4.2] Attack Helicopters and Retreat Fire. Uniquely, an attack helicopter unit exerts a ZOC into all adjacent hexes **regardless** of any Close Terrain. It also exerts a ZOC into its **own hex**. While fire support assets cannot be called to participate in Retreat Fire, if an attack helicopter unit is **already on the map** because it just participated in the Offensive Fire Combat that caused a retreat, it is possible that defending units will elect to retreat into a hex that is adjacent to, or underneath, that attack helicopter unit and therefore in its ZOC. In this case, the attack helicopter unit can participate in Retreat Fire against that enemy force (see 18.9.2), though its Fire Strength is still halved when firing into a Close Terrain hex it does not occupy. Immediately rotate the attack helicopter unit to its Gunnery profile, if not already there, **before** executing the fire.

[25.5] HELICOPTER SORTIES

Each player has a Helicopter Track consisting of three boxes: a Ready Box, a Rearm & Refuel Box, and a Recovery Box. Helicopter units can only move onto the map from the Ready Box. When a helicopter unit is moved offmap at the end of any mission, it must always be returned to the Recovery Box. During the Reorganization Phase of each Game Turn, all helicopter units in the Rearm & Refuel Box are moved to the Ready Box and then all helicopter units in the Recovery Box are moved to the Rearm & Refuel Box. This procedure means that a helicopter unit will be able to sortie at most once every other turn.

[25.5.1] Attack Helicopter Unit Counters. Each player has four Unit Counters for the attack helicopter steps belonging to any given formation. These four Unit Counters are all marked with the Unit Designation for that formation. There is one Unit Counter for each of the three boxes on the Helicopter Track to hold **all** of that formation's steps present in that box, and a fourth Unit Counter to create the unit that flies onto the map in response to a Fire Call. Steps in a box on the Helicopter track are placed under a Unit Counter to keep track of their type and Unit Designation, but they are not considered to be part of a unit, they represent a **pool of steps** from which units can be formed once those steps return to the Ready Box. Accordingly, there are no step limits on the Helicopter Track. As units of the same formation return to the Recovery Box, their steps are always consolidated under a single Unit Counter, freeing the second Unit Counter for reuse to form another unit to fly onto the map. A player can never transfer steps between Unit Counters that differ by type or Unit Designation.

[25.6] AH-64 UNITS

US AH-64 units are unique in this game because they are equipped with thermal imaging sights (see 32.2). This means that they are the only helicopter units that can fly during Night Game Turns (see 32.0) and they are never halved when firing into smoke hexes (see 6.3.3). **However, unlike ground units with thermal imaging sights, the Fire Strengths of AH-64 units are not doubled at night.**

[26.0] UTILITY HELICOPTERS

Utility helicopter units operate much like attack helicopter units, **except** that they fly at a different point during the Game Turn and cannot fire at enemy units. Utility helicopter units are used to pick up friendly airmobile units (see 29.0) and fly them around the map. The airmobile unit is termed a "passenger unit" and its movement by a utility helicopter unit is referred to as "helicopter transport." The hex a passenger unit starts in is termed the "pick-up hex" and the hex it ends in is referred to as the "LZ hex" (Landing Zone). A utility helicopter unit in a player's Ready Box can enter the map during the Movement Step of any operation (**except** Reserve) to carry an airmobile passenger unit participating in that operation from its pick-up hex to its LZ hex, after which the helicopter unit immediately returns to a friendly map edge and then back to the Recovery Box.

[26.1] UTILITY HELICOPTER UNITS

The instructions for the scenario being played may provide for a limited number of utility helicopter steps. Unlike attack helicopter Unit Counters, utility helicopter Unit Counters have no attack profiles printed on the back of their Unit Counter, which means that they cannot participate in a fire combat or strike. Utility helicopter units have their Defense Strength printed on the front of their Unit Counter. NATO utility helicopter units have nationality and can transport only airmobile units of the same nationality. WP utility helicopter units have no nationality and can transport any WP airmobile units. **In this game, there are four utility helicopter Unit Counters for the Bundeswehr (West German Army) and four for the Pact. The purpose of the four counters is to provide one counter to hold all the steps present in each of the three boxes on a player's Helicopter Track and a fourth counter to create the unit that flies onto the map for a transport mission.**

[26.2] UTILITY HELICOPTER ASSEMBLY

When utility helicopter steps are received at the start of a scenario or enter as a reinforcement, they are incorporated into a Step Marker and placed under a utility helicopter Unit Counter in the Ready Box on the friendly Helicopter Track. **Like attack helicopter**

steps, utility helicopter steps on the Helicopter Track not considered to be part of a unit, per se, rather they represent a **pool of steps** from which units can be formed once those steps return to the Ready Box. However, unlike an attack helicopter unit, when a player forms a utility helicopter unit from the steps in the Ready Box to fly onto the map, there is **no limit** to the number of steps he can assign to that unit save for the number of steps available.

[26.3] TRANSPORT CAPACITY

Each step in a utility helicopter unit can provide helicopter transport to one step in a passenger unit. This means, for instance, that if a player receives five steps of utility helicopters, he could form a single unit with five steps to move multiple passenger units totaling five steps from a single pickup hex to single LZ hex or he could form as many as five separate single-step utility helicopter units over the course of an operation, each capable of picking up a one-step passenger unit and delivering it to a different LZ hex.

[26.4] UTILITY HELICOPTER MOVEMENT

Utility helicopter units can move during the air movement pulse (see 29.3.2) of the Movement Step of any operation involving airmobile units. **Exception: No helicopter transport is allowed during a Reserve operation.** Unlike an attack helicopter unit, which always returns to the Recovery Box at the **end** of an operation or strike, a utility helicopter unit moves onto the map, deposits its passenger unit(s) into the LZ hex, and then **immediately** returns to the friendly map edge and then to the Recovery Box. There is no limit to the number of utility helicopter units that can move onto the map in the same operation save for the number of utility helicopter steps available in the Ready Box. However, each utility helicopter unit must complete its movement and return to the Recovery Box before the next utility helicopter unit can enter the map. Each helicopter unit that enters the map is strictly limited to providing helicopter transport between **one** pickup hex and **one** LZ hex. **The pickup hexes can be a notional hex offmap where an airmobile unit entering this turn as a reinforcement can be picked up. The LZ hex must be a hex on the map unless a utility helicopter unit aborts while trying to carry a reinforcement airmobile unit onto the map.** A player moves utility helicopter units according to the following procedure:

1. He forms a utility helicopter unit from the available steps in the Ready Box on his Helicopter Track.
2. He moves it onto the map from a friendly map edge (see 25.2.1) along a continuous path of hexes of any length into the pick-up hex, subject to Flak Fire in each hex along the way (see 27.2).
3. If the helicopter unit survives to reach the pick-up hex, it can pick up any combination of passenger units containing no more steps than the number of steps in the helicopter unit itself.
4. He next moves the helicopter unit along a continuous path of hexes of any length into the LZ (Landing Zone) hex, subject to Flak Fire in each hex along the way.
5. If the helicopter unit survives to reach the LZ hex, then it can drop any surviving passenger steps into that hex.
6. Finally, he moves his helicopter unit along a continuous path of hexes of any length back to the friendly map edge, subject to Flak Fire in each hex along the way and then returns it to the Recovery Box on his Helicopter Track. On this last leg, he can ignore any Flak Fire result **except** a Mandatory Hit Check.

If the passenger unit is a reinforcement entering this turn, then the utility helicopter unit enters the map already carrying its passenger and moves straight to the LZ Hex. **A passenger unit can never be transported back offmap unless the helicopter unit carrying it onto the map aborts before it can drop the unit off (see 26.4.7, #1).**

[26.4.1] A WP utility helicopter unit can move in the Movement Step of any WP operation in which units of the 900th Air Assault Battalion or the 35th Guards Air Assault Brigade participate (these are the WP player's only airmobile formations).

[26.4.2] A NATO utility helicopter unit can move in the Movement Step of any operation in which units of the West German 26th Luftlande Brigade participate (this is the NATO player's only airmobile formation).

[26.4.3] **Night and Fog Turns.** Utility helicopter units **cannot** move during Night or Fog Turns.

[26.4.4] Utility helicopter units must enter and exit the map from a friendly map edge (see 25.2.1).

[26.4.5] **Pickup and LZ Hexes.** Both the pickup and the LZ hexes must be Clear or Light Woods. Helicopter units cannot land in any other type of terrain. Airmobile units offmap are always considered to start or end in a suitable hex.

[26.4.6] **Enemy Units.** No utility helicopter unit can move within Flak Range (two hexes) of an enemy unit at **any** point during its movement unless the passenger airmobile unit is conducting an offensive operation, in which case either its pick-up hex or its LZ hex can be within Flak Range of an enemy unit, **but not both hexes** (the operation can be an insertion or an extraction, but not both). Utility helicopter units carrying a passenger airmobile unit that is conducting an offensive operation can transit hexes containing enemy units. **However, the LZ hex cannot contain an enemy unit. Moreover, the LZ hex cannot be adjacent to an enemy unit**

unless it is also adjacent to the Objective hex (which must be observed or acquired, see 29.3.4). When the LZ hex is within two hexes of an enemy unit, Flak Fire into the hex is executed **before** the passenger unit(s) can be unloaded, meaning that no enemy units adjacent to the LZ hex are revealed until **after** Flak Fire against the helicopter unit in the LZ hex has been resolved.

[26.4.7] Flak Effects. If a utility helicopter unit's path of movement ever comes within two hexes of an enemy unit, it is subject to Flak Fire (see 27.2). The following special rules apply to a utility helicopter unit that suffers a Flak result:

1. If it aborts at any point in its journey (see 27.3), it must immediately trace a route of any length back to the friendly map edge (it need not be the same route it used to enter). If it is already carrying passenger units, then it must return to the original pick-up hex first and drop the passenger units off before returning to the friendly map edge and then moving to the Recovery Box. If a passenger unit started offmap, then it is returned offmap. It can try to re-enter the map on the next turn that a utility helicopter unit becomes available. Passenger units that are returned to their starting point are always flipped to their used sides. Once a utility helicopter unit has aborted, it is subject to Flak Fire along its entire path back offmap but can ignore any result except a Mandatory Hit Check (see 27.3.2, #2).
2. If it suffers a step loss from a Hit Check while moving on its first leg (from the friendly map edge **into** the pick-up hex), then any step loss applies only to the helicopter unit, and it can proceed to the pick-up hex if an abort is not mandatory.
3. If it suffers a step loss from a Hit Check while moving on its second leg (exiting the pick-up hex and moving to the LZ hex), then **both** the helicopter unit and the passenger unit must lose one step, but they can still proceed to the LZ hex if an abort is not mandatory.
4. **If it is on its third leg (exiting the LZ hex and moving to the friendly map edge), then it can ignore any Flak result except a Mandatory Hit Check (it is already heading home). Any step loss applies only to the helicopter unit unless it is carrying passenger units back offmap after aborting a mission.**
5. When a Hit Check causes a step loss to a utility helicopter unit carrying multiple passenger units, **the firing player** chooses which passenger unit suffers the step loss. If the helicopter unit has more steps than it needs to transport its passenger unit(s), a step loss to the helicopter unit is always assumed to come from a step carrying a passenger step.

[26.5] UTILITY HELICOPTER RECOVERY

After a utility helicopter unit has returned to the Recovery Box on the friendly Helicopter Track, it advances up the Helicopter Track by one box during each Reorganization Phase, per Case 25.5, until it reaches the Ready Box where it becomes available to fly another mission.

[27.0] ANTI-AIRCRAFT FIRE

Air and helicopter units are subject to enemy anti-aircraft fire. There are two types of anti-aircraft fire: Flak and SAM (Surface-to-Air Missile). Flak Fire attacks any air units employing a low-altitude attack profile and all helicopter units. SAM Fire attacks only air units employing a high-altitude attack profile.

[27.1] SAM FIRE

The instructions for each scenario specify each player's SAM (Surface to Air Missile) Strength. Each player has a SAM Track printed on his Tracks Card. He places his SAM Strength Marker in the box on his SAM Track corresponding to his SAM Strength. This SAM Strength remains in effect for the entire game (these are not points to be expended), unless the scenario instructions specify that a player's SAM Strength increases on a certain Game Turn. Whenever a player places an air unit with a high-altitude attack profile into its firing position on the map, the enemy player can call an Interrupt Action to execute SAM Fire against that unit **before** it can execute the strike in progress. To execute SAM Fire, the enemy player consults the Anti-Aircraft Fire Table in the Charts & Tables Booklets, rolls one die, adds his SAM Strength to the die result, subtracts 2 from the die result if the aircraft is using a Stand-off attack profile, and finds the effect, if any, on the row for the modified die result.

[27.2] FLAK FIRE

Flak Fire is projected by ground units. Whenever a helicopter unit enters a hex within **two hexes** of an enemy ground unit, it is subject to Flak Fire. This is an Interrupt Action. There is no limit to the number of times a helicopter unit can take Flak Fire over the course of its movement, save for the number of hexes it enters. Whenever an air unit with a low-altitude attack profile is placed into its firing position on the map, it is also subject to Flak Fire **but only in that one hex**. In all cases, the unit must survive Flak Fire, if any, upon entering its firing position hex **before** it can use its own Fire Strength to participate in the Fire Strike or fire combat in progress, or, in the case of a utility helicopter unit, pick up or drop off a passenger unit. There is no limit to the number of times a ground unit can execute Flak Fire over the course of a turn. When an air or helicopter unit in a particular hex is subject to Flak Fire, all enemy units within two hexes must combine their Flak Strengths to execute a **single** Flak Fire Combat. **It does not matter if the firing units belong to different formations.**

Design Note: Helicopter units are subject to Flak Fire in each hex they enter because they travel much slower than jet aircraft and thus can be acquired and shot at along their entire flight path. Jet aircraft using a low-altitude attack profile are subject to Flak Fire only in their firing position hex because anywhere else they are moving too fast and too low to be acquired. However, at the last minute they must “pop up” to acquire their target, allowing them to be acquired in turn.

[27.2.1] Flak Strength. Each step in a ground unit projects a Flak Strength. The Flak Strength of a step depends upon three factors:

1. The range to the target (zero, one, or two hexes)
2. The type of target (air or helicopter unit)
3. Whether the current turn is day or night (see 32.0)

When a player executes Flak Fire, he determines the Flak Strength of each unit located within two hexes of the target air or helicopter unit by consulting the Flak Strength Chart in his Charts & Tables Booklet. He cross-references the range to the target hex with the column for the target type and turn type (Day or Night) and finds at the intersection the Flak Strength **for each step** in the firing unit. A unit’s Flak Strength is the Flak Strength of each step multiplied by the total number of steps it contains (retain fractions). Naturally, a dummy unit projects a Flak Strength of zero (but this Flak Strength still matters because it can inflict damage, see 27.2.2).

[27.2.1.1] Units that are in a smoke hex or a Gas Zone, or are contaminated or disrupted, fire at half their normal Flak Strength. The Flak Chart is wrong in claiming that some effects on Flak Strength are cumulative. No matter how many halving effects apply, a unit’s Flak Strength is halved only once.

[27.2.1.2] Thermal imaging sights (see 32.2) have no effect on Flak Strength. A unit’s Flak Strength is never affected by the terrain it occupies (even when a step is firing out of a minefield, see 37.0) nor by the terrain in the target unit’s hex.

Design Note: At a range of two hexes, the Flak Strength of a step represents just its dedicated anti-aircraft weapons. At a range of zero to one hex, the Flak Strength of a step represents not only its anti-aircraft weapons, but also every automatic weapon available. At night, or in smoke, only the dedicated radar-directed anti-aircraft weapons are firing at any range.

[27.2.2] Flak Fire Combat. To execute Flak Fire against an enemy air or helicopter unit, a player totals up the Flak Strengths of all his steps within two hexes of the target hex and then rounds any remaining fraction down, even if this means rounding the Total Flak Strength down to zero. He declares his Total Flak Strength to his opponent (**not** the number of steps in range). A player can deliberately declare a Total Flak Strength that is **less** than his actual strength to mislead his opponent regarding the density of his forces in the area. The player then consults the Anti-Aircraft Fire Table in the Charts & Tables Booklets and rolls one die. He adds his declared Total Flak Strength to the die result and finds the effect, if any, on the row for the modified result. **A Flak Fire Combat is always executed if any ground unit is in range, even if it is only a dummy and even if the Flak Strength is zero, because a die roll of 10 will still affect the target.**

[27.3] ANTI-AIRCRAFT RESULTS

If the result of SAM or Flak Fire is “Hit Check **or** Abort,” the player owning the target unit has a decision to make. He can either 1) abort his unit, in which case no Hit Check is made but the unit must return offmap without completing its mission **or** 2) he can continue the mission and the enemy player will conduct the Hit Check procedure. If the result of SAM or Flak Fire is “Hit Check **and** Abort,” there is no choice: the Hit Check procedure is mandatory, and he must abort the mission.

[27.3.1] Hit Check Procedure. When a player conducts a Hit Check against an enemy air or helicopter unit, he simply rolls the die. No table is consulted. Instead, if the die result is **greater than or equal to** the Defense Strength on the air or helicopter unit’s current attack profile, remove **one** step from the unit, never more. Otherwise, the Hit Check has no effect. If the Hit Check was accepted voluntarily, instead of aborting the mission, then the owning player can continue with the unit’s mission even if it lost a step. If the Hit Check was mandatory, then regardless of the result, the unit must abort immediately.

[27.3.2] Abort. Whenever a player aborts a unit, the following occurs:

1. An aborted air unit is immediately removed from the map without firing.
2. An aborted **attack helicopter unit** must immediately travel along a path of any length back to the friendly map edge (it need not be the same route it used to enter) without firing and is subject to further enemy Flak Fire in each hex along its route of travel. Additional “Hit Check **or** Abort” results have no effect, but each “Hit Check **and** Abort” result will require it to undergo a Hit Check. If it survives to the friendly map edge, then it is returned to the Recovery Box.
3. An aborted utility helicopter unit is treated like an aborted attack helicopter unit **except** that it is also subject to all requirements described in Case 26.4.7.

[27.3.3] **Air Losses.** When a Hit Check results in shooting down a step from an air or helicopter unit, the firing player usually earns a VP (see Victory Conditions, 46.7). To track air unit losses, **only**, use the Air Hits Marker (see 6.7.5) to record jet losses on the VP Tracks (see 46.7.2).

[28.0] PUTTING IT ALL TOGETHER (see original rules book)

[29.0] AIRMOBILE FORCES

Design Note: Both alliances invested heavily in equipping airborne and airmobile formations to seize and hold ground deep in the enemy rear. It is an irony of history that the nation that pioneered airmobile assault operations, the US, deemed its airmobile formations too light to stand up to Soviet armor. As a result, none were earmarked for a NATO role in Germany. The West Germans, French, and British each fielded multiple airmobile brigades, all packed with ATGMs and intended to act as mobile blocking forces precisely to halt Soviet armored spearheads. Meanwhile, the Soviets were busy turning their airmobile forces into mechanized airmobile forces capable of rapid maneuver deep behind enemy lines.

Airmobile units are ground units that can be moved by air. Airmobile units in this game have a special ability to move **twice** during the Movement Step of all operations **except** Reserve. Each such movement is termed a “pulse.” One pulse can be normal ground movement. One pulse can be air movement. There are two forms of air movement possible: 1) helicopter transport and 2) paradrop. Helicopter transport is provided by utility helicopter units per the rules of Case 26.0. Paradrops are one-time events conducted by notional air transport units.

[29.1] AIRMOBILE UNITS

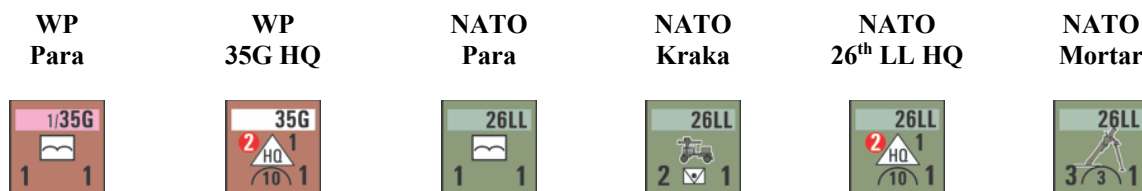
All units belonging to the WP 35th Guards Air Assault Brigade, the WP 900th Air Assault Battalion, and the West German 26th Luftlande Brigade are “airmobile” units. Airmobile units can use helicopter transport (see 29.4). All airmobile units are **also** “airborne” units with the **exception** of the two types shown below. Airborne units can paradrop (see 29.5).

Unit types that are airmobile, but not airborne:



Design Note: Players may wonder why BMD and BM-21V units are not considered airborne units in this game, when they were in fact quite capable of being dropped by parachute. The reason is that the limited heavy transports and rocket assisted parachute pallets required to drop vehicles this heavy are presumed to have been assigned to deeper drops being conducted by Soviet airborne divisions. All paradrops modeled in this game are being conducted by medium transports that could not drop these vehicles. Accordingly, any airlift of BMDs or BM-21Vs onto the map is going to require heavy lift helicopters like the Mi-6 or Mi-26, which are represented in this game by the WP player’s utility helicopter units.

Unit types that are both airmobile and airborne:



[29.1.1] **Special Airmobile Unit Functions.** All airmobile units can move by helicopter transport (see 29.4). Airborne units, only, can move by paradrop (see 29.5)

[29.1.2] **Barred Airmobile Unit Functions.** An operation conducted solely by airmobile units cannot receive Jamming support (see 39.0). No airmobile unit can act as a spotting unit for a Counter-Battery Acquisition Attempt (see 23.4.2, #4). **Airmobile operations and paradrops cannot be conducted during Night Turns (see 32.0) or Fog Turns (see 46.5).**

Design Note: Airmobile units did not carry the heavy equipment required for these special functions.

[29.2] AIRMOBILE COMMAND & CONTROL

[29.2.1] WP Airmobile formations. Each WP airmobile battalion consists of only three steps but is otherwise treated like a regiment for all purposes except Shatter (see 31.1.1). Accordingly, each operation planned for an airmobile battalion, **except** for March, costs a CP. Because the 35th is treated in all ways as a separate Soviet division, CPs to plan operations for any of its battalions can come from the 35th Brigade HQ or from Offmap CPs but cannot come from any other WP Division HQs. The CP to plan an operation for the WP 900th Air Assault Battalion, which is considered an independent regiment (see 12.5.3), can come from any HQ in the division to which it is attached, or from an Offmap CP.

[29.2.2] West German 26th Luftlande Brigade. Any four maneuver-unit steps in this brigade can form a task force. However, the NATO player **cannot** combine airmobile units with non-airmobile units **in the same task force**. This means that airmobile units will never perform an operation with non-airmobile units **except** when two different task forces are participating in the same Assault operation. CPs for any task force of the 26th Luftlande Brigade can come from the 26th Brigade HQ or from Offmap CPs but cannot come from any other WG HQs. **Exception:** See 29.2.4.

[29.2.3] Airmobile HQ Units. Because the two airmobile brigades in this game are presumed to start at airbases well to the rear, the HQs for these brigades cannot exercise any of their normal HQ functions from offmap **except** to use their CPs to assign an operation to subordinate units that are **also** offmap or to exercise the special reconnaissance function described in Case 20.2.8. Once they have entered the map, they function like any other HQ, **except** that any of their subordinate units still offmap are always considered to be outside of their Command Range. Accordingly, once the Brigade HQ is onmap, only an Offmap CP can assign an operation to offmap units of the airmobile brigade.

[29.2.4] Independent Airmobile Battalions. In some scenarios, units of the 35th Guards Air Assault Brigade or 26th Luftlande Brigade can appear in battalion strength without their Brigade HQ. When this occurs, these units are termed “independent airmobile battalions.” When a battalion of the 35th Guards Air Assault Brigade appears in a scenario without its Brigade HQ, it is treated exactly like the 900th Air Assault Battalion (see 12.5.3). When a battalion of the 26th Luftlande Brigade appears in a scenario without its Brigade HQ, it is treated exactly like an independent battalion of the 12th Panzer Division (see 12.8.3). This means that an independent airmobile battalion can treat both the HQ of the brigade to which it is attached and the Main HQ of the 12th Panzer as superior HQs.

[29.3] AIRMOBILE OPERATIONS

Any March, Hasty Attack, or Assault operation in which airmobile units will participate can be declared an “airmobile operation.” During an airmobile operation, participating airmobile units receive **two** movement pulses in the Movement Step of that operation. One pulse is normal ground movement. One pulse is air movement. During an air movement pulse, a unit can move by helicopter transport (see 29.4) or paradrop (see 29.5). Reserve operations **cannot** be declared airmobile operations. These options and restrictions are summarized on the Airmobile Operations Chart in the Charts & Tables Booklets. There is no requirement that an operation involving airmobile units be declared an airmobile operation. Airmobile units can always participate in an operation as normal ground units without an air movement pulse. **When an airmobile battalion starts offmap and uses an airmobile operation to enter as a reinforcement (which is the only way it can enter the map, see 46.6.9), any CP expended to give it an operation must come from a superior HQ also offmap or from an Offmap CP.**

[29.3.1] Ground Movement Pulse. When an airmobile unit conducts ground movement, it moves like any other ground unit using the Movement Allowance and movement characteristics that apply to the type of operation it is conducting. **Exception:** All airmobile units bearing an airborne infantry (parachute) Unit Symbol are “leg infantry units.” **Leg infantry units are barred from executing Hasty Attack operations.** When executing ground movement during **any other** type of operation, a leg infantry unit moves just **one hex** using the rules for minimum movement (see 16.2). **Uniquely, leg infantry units using minimum movement can enter any type of hex and cross any type of hexside, except an unbridged Major River hexside, even when the rules would normally block this movement.** When executing a March Operation, only, leg infantry units can use road movement to move a maximum of two hexes.

Leg Infantry Units:



[29.3.2] Air Movement Pulse. During the air movement pulse, an **airborne** unit can move by helicopter transport or paradrop. An airmobile unit that is **not** airborne can move **only** by helicopter transport. Any airmobile unit can always use helicopter transport if a utility helicopter unit of sufficient size is available in the Ready Box. Airborne units can paradrop only when a paradrop special event is permitted (see 29.5) and only if they start the turn offmap. When a WP airmobile battalion or NATO airmobile taskforce conducts

its air movement pulse, all units in that battalion must use the same form of air movement (they must all move by helicopter transport, or all move by paradrop). However, if multiple airmobile battalions are participating in an Assault operation, each individual battalion can use any mode of air movement it is eligible to conduct **as long as all units in the same battalion use the same mode**. As an **exception**, the single BMD (“2-2”) unit found in the 900th Air Assault Battalion is allowed to use helicopter transport even if the rest of the battalion is conducting a paradrop (because this BMD unit cannot paradrop).

[29.3.3] Pulse Order. During the Movement Step of an airmobile operation, a player using helicopter transport, only, can conduct his ground movement pulse and air movement pulse in any order he chooses. However, if any of the participating units are conducting a paradrop, Overrun, or Close Attack, he **must** execute his air movement pulse first.

[29.3.4] Airmobile Operations and Enemy Units. Airmobile units can use helicopter transport to enter and transit enemy occupied hexes, but no airmobile unit can land in an LZ hex containing an enemy unit. If an operation is declared to be airmobile, no participating airmobile unit can end its movement in **either pulse** adjacent to an enemy unit unless it is also adjacent to the Objective hex for that operation. A player cannot name an Objective hex for an airmobile operation unless 1) the Objective hex was acquired by a Reconnaissance Attempt earlier in the **same** Activation Cycle or 2) a friendly unit **starts** the operation adjacent to that Objective hex (**this unit need not be participating in the current airmobile operation**). The requirements of this Case do not apply if an airmobile unit is participating in an offensive operation that is **not** declared to be an airmobile operation (however, in this case, no air movement pulse is allowed). **A unit that enters a hex in an EZOC in one pulse and exits it in another pulse in the same Movement Step is subject to Infiltration Fire when it exits, even if it is exiting by helicopter transport.**

Design Note: This rule is intended to prevent a player from using his perfect view of the map to cherry-pick a target deep in the enemy rear for an airmobile raid unless he first acquires the target hex through a successful Reconnaissance Attempt.

[29.3.5] Airmobile Assaults. During a WP Assault operation conducted by the 35th Guards Air Assault Brigade, one or more airmobile battalions can participate. During an Assault operation conducted by the 900th Air Assault Battalion, it can conduct the operation alone or in concert with any other regiments of the division to which it is attached (see 12.5.3). During a NATO Assault operation conducted by the 26th Luftlande Brigade, one or more airmobile task forces can participate. During an Assault operation conducted by a NATO independent airmobile battalion, it can conduct the operation alone or in concert with any other task forces of the brigade to which it is attached (see 12.8.3).

[29.4] HELICOPTER OPERATIONS

[29.4.1] Pulse Options. When a player intends to use helicopter transport for an airmobile operation, he has two options. If he executes his air movement pulse first, then his utility helicopter units can transport his airmobile units from their pickup hexes to their LZs. In the ensuing ground movement pulse, the airmobile units can use ground movement to move out from their LZ hexes. If he executes his ground movement pulse first, his airmobile units can use ground movement to move into their pick-up hexes. In the ensuing air pulse, his helicopter units can transport them to their LZs.

[29.4.2] Flak Range and Operations. An airmobile unit cannot use helicopter transport to move within Flak Range (two hexes, see 27.2) of an enemy unit unless it is participating in an **offensive operation**, in which case either its pick-up hex **or** its LZ hex can be within Flak Range of an enemy unit, **but not both hexes** (the operation can be either an insertion or an extraction). If a utility helicopter unit is subject to Flak Fire while transporting an airmobile unit, then the provisions of Case 26.4.7 apply.

[29.5] PARADROPS

The instructions for a scenario may specify that an airmobile brigade (either the Soviet 35th Guards Air Assault Brigade or the WG 26th Luftlande Brigade) is eligible to declare a paradrop during certain Game Turns. A paradrop is a special event that a player can declare just **once** during a scenario. A paradrop is entirely optional: a player is never required to declare one. A paradrop is declared at the start of the Activation Cycle for the airmobile brigade that will conduct it. During that Activation Cycle, **any offmap airborne unit that is participating in an Assault operation can enter the map by paradrop during the Movement Step of that operation**. If the WP 900th Air Assault Battalion is available and offmap, it can activate with the 35th Guards Air Assault Brigade and paradrop in the same Activation Cycle (this is considered an attachment per Case 12.5.3). There is no limit to the number of airborne units that can enter by paradrop during the Activation Cycle in which a paradrop is declared. Airmobile units can also enter the map using helicopter transport during the same Activation Cycle in which a paradrop has been declared.

Design Note: Airborne units are required to conduct an Assault operation to paradrop even if they will land nowhere near an Objective hex because this type of movement is planning intensive and thus requires a CP. Moreover, paradropped units require some time to reorganize at the LZ so their initial movement is limited. A paradrop can occur just once in a scenario, if permitted at all, because the fighter cover required to protect such a drop is a ferocious drain on a player's air force.

[29.5.1] Paradrop Procedure. When a player wishes to move a WP airborne battalion (treated as a regiment, see 29.2.1) or NATO airborne task force onto the map by paradrop movement, that formation **must** be conducting an Assault operation and it **must** execute its air movement pulse **first**. The active player follows this procedure during the air movement pulse (which must be the first pulse):

1. He organizes every offmap airborne unit assigned to the operation as a one-step unit (there are sufficient Unit Counters provided to enable this). **Exception:** the 26th Luftlande Brigade's mortar unit (3-3-1) drops as two steps.
2. He places each participating airborne unit directly onto the map **in any Clear LZ hex** containing no enemy units. **Unlike helicopter transport, paradrop cannot be used to drop into a Light Woods LZ hex.**
3. Each airborne unit must drop into a separate LZ hex.
4. **No airborne unit can be placed adjacent to an enemy unit unless it is also adjacent to the Objective hex (see 29.3.4).**
5. After placement, each airborne unit that is within two hexes of an enemy unit is subject to enemy Flak Fire (see 27.2) exactly as if it were an air unit employing a low-altitude attack profile. Any unit that receives an adverse result (meaning any result **except** "No Effect") is automatically eliminated.
6. The owning player then rolls one die for each surviving airborne unit that has dropped. This is termed the "disorganization" die roll. On a result of 1, the unit is eliminated (it is either too scattered to form up or critical equipment has been lost).

No enemy units that are adjacent to an LZ hex are revealed until after the paradrop procedure has been run for every participating unit in the Assault operation. If the scenario counts step losses, any steps eliminated during this procedure count for VPs (see 46.7.2). Once this procedure is completed, the air movement pulse ends, and participating units then execute their ground movement pulse (which must be the second pulse).

[29.5.2] Airmobile units that are not airborne (see 29.1) or that are already on the map **cannot** participate in a paradrop.

[29.5.3] Paradrops cannot be conducted during Night Turns (see 32.0) or Fog Turns (see 46.5).

[29.5.4] Base units that are airborne can paradrop onto the map as part of a March operation but not within Flak Range of an enemy unit.

[29.5.5] The WP 900th Air Assault Battalion is a special case. It has one BMD ("2-2") unit (an airmobile unit which cannot paradrop) and two leg infantry ("1-1") units (airborne units which can paradrop). As an **exception** to the rule that all units of a battalion must use the same form of air movement, if the leg infantry units are paradropped, the BMD unit can participate in the same operation, but only if there is a utility helicopter step available to provide helicopter transport onto the map. Also, because leg infantry units cannot participate in Hasty Attacks, the only offensive operation this formation can conduct is an Assault.

[29.6] AIR MOVEMENT RESTRICTIONS

[29.6.1] A player can always conduct an offensive operation and use air movement to land units behind enemy lines (or pick them up, in the case of helicopter transport) **without naming an Objective hex** as long as none of the participating airmobile units **end** either pulse next to an enemy unit. **The point of conducting such an offensive operation would be to enable the participating units to pass through enemy Flak Fire to reach the LZ hex (see 26.4.6).**

[29.6.2] **Enemy Fire Types.** The air movement pulse and the ground movement pulse of an airmobile operation are each subject to enemy fire using separate rules. During the air movement pulse, an airmobile unit is subject only to enemy Flak Fire. During the ground movement pulse, an airmobile unit is subject only to Infiltration Fire.

[29.6.3] **Dummy Airmobile Units.** A player cannot move dummy airmobile units by any form of air movement (the transport assets were just too valuable). However, once an airmobile unit has landed in its LZ or paradrop hex, it can always split into real and dummy units.

[29.6.4] No airmobile unit can use any form of air movement during a Reserve operation.

Design Note: Airmobile units are barred from using air movement during a Reserve operation to minimize their chance of moving twice in a row before the opposing player has a chance to respond with an Activation Cycle of his own.

[29.6.5] **Urban Resistance.** A WP airmobile unit, only, cannot use a ground movement pulse to enter an empty NATO-controlled City hex. However, the WP player **can** make an empty NATO-controlled City hex the Objective of an offensive operation conducted by airmobile units **and then advance into it after combat.** If the airmobile units are conducting an **airmobile operation**, then the Objective hex must meet the requirements of Case 29.3.4, meaning that 1) it must be acquired by a Reconnaissance Attempt earlier in the same Activation Cycle, or 2) a friendly unit must start the operation adjacent to that hex. If the WP player needs to acquire the hex, he must use the "Empty" row on the Reconnaissance Table. **If the airmobile units are not conducting an airmobile operation, then any NATO-controlled City hex can be declared the Objective hex without restriction.** No NATO unit can react into an empty City Objective hex. There will be no Defensive Fire from the Objective hex (it is empty), though there might be Defensive Fire from

enemy units in other hexes adjacent to the attacking units. **Airmobile units attacking an empty City Objective hex must be revealed to the opposing player. Attacking WP airmobile units can only advance into an empty NATO-controlled City hex if their Offensive Fire inflicts at least one Hit. There is no Defense Strength for the Objective hex, and no terrain modifications apply to that non-existent Defense Strength: simply inflicting one Hit is sufficient to clear the hex. However, if an attacking unit fails to advance into the hex after inflicting a Hit, it remains NATO controlled and no WP unit can enter it until a Pact unit does advance after inflicting a Hit. WP airmobile units can never retreat into a NATO-controlled City hex. If players are using the optional rules for Close Attack (see 43.0), no airmobile unit is ever allowed to execute a Close Attack against a NATO-controlled City hex (whether occupied or not).**

***Design Note:** This rule presumes that local police and reserve units can defend a NATO-controlled City hex against lightly armed airmobile troops. The requirement to acquire the City hex for an airmobile operation does not reflect poor Pact map reading skills but rather the reality that an attack into a City held by real enemy military units is likely to end in disaster. In this case, the Reconnaissance Attempt reflects the need to confirm that the target hex is in fact empty of major military units.*

[29.6.6] Overruns and Close Attacks. If players are playing with the optional rules for Overrun (see 42.0) or Close Attack (see 43.0), then airmobile units participating in an airmobile operation that are executing a Hasty Attack operation can execute an Overrun and airmobile units that are executing an Assault operation can execute a Close Attack, **but only if they execute their air movement pulse first and the Objective hex is observed or acquired at the start of the operation.** Airmobile units conducting offensive operations that are **not** airmobile operations can conduct Overruns and Close Attacks normally.

[29.7] AIRMOBILE REINFORCEMENTS

Because airmobile units start well to the rear, they can never enter the map by ground movement. They can enter only by helicopter transport or paradrop (if the scenario instructions allow one). See Case 46.6.9. for more details.

[30.0] HEADQUARTERS UNITS

***Design Note:** Headquarters units are the locus for a wide variety of game functions. Accordingly, the rules for these functions are spread like a hologram throughout the major sections of this booklet. The rules in this section provide a single centralized summary for player reference as well as some additional rules unique to HQ units.*

HQs provide the following functions:

1. CPs to assign units to operations (see 12.0) or enable a NATO force to react (see (19.3))
2. RPs to make Reconnaissance Attempts (see 20.0)
3. Fire Calls (21.2) to friendly artillery units (22.0), air units (24.0), and attack helicopter units (25.0) to provide fire support to fire combats (18.0) and strikes (23.0)
4. Jamming (39.0) through their attached EW Assets
5. Decontamination (see 44.6) for units contaminated by enemy Gas Strikes

An HQ can provide all these functions whether it is on its used side or its unused side. However, an HQ unit can provide **none** of these functions if it is disrupted or reconstituting (see 30.4.1). **Exception:** A disrupted HQ can make a Fire Call if it is the observer. A NATO Division HQ must channel its CPs and RPs through an active subordinate Brigade HQ (see 12.7.4 and 20.2.6).

[30.1] HQ COMMAND RANGE

No HQ can exercise its command functions for or through another unit unless that unit is 1) in that HQ's chain of command (see 7.0) and 2) within its Command Range. **There are two exceptions:** 1) Fire Calls made to friendly air and attack helicopter units ignore the Command Range of the calling HQ and 2) Reconnaissance Attempts made using special rule 20.2.8. also ignore the Command Range to the spotter **and** the requirement that the spotter must be in the same chain of command. Otherwise, to determine whether a unit is within an HQ's Command Range, count the least number of hexes that separate the two (include the hex occupied by the unit but not the hex occupied by the HQ). If this number is less than or equal to the Command Range printed on the HQ unit, then the unit is within range. An HQ that is in the Offmap Display projects its Command Range according to the rules of Case 40.3.

[30.2] HQ MOVEMENT

HQ units can only move in March operations. WP HQ units move during the March operation for their division base. NATO Brigade HQ units conduct their March operation during the Activation Cycle for their brigade. NATO Division HQs can conduct their March operation during the Activation Cycle of any subordinate brigade. An HQ is flipped to its used side after its March operation, **but this has no effect on its ability to exercise its command functions.**

[30.3] HQ NATIONALITY

[30.3.1] WP HQs. The nationality of WP HQs is provided for informational purposes, only, and has no impact on play. A superior WP HQ can provide its functions and resources to subordinate units regardless of nationality. An EG HQ can include any artillery units in the 8th Guards Army Base in its Artillery Pool, and an attached Soviet independent regiment could treat that EG HQ as a superior HQ for all purposes.

[30.3.2] NATO HQs. No NATO HQ can apply any of its command functions to a unit of a different nationality. **Exception:** A NATO HQ can include any superior artillery unit of a different NATO nationality in its Artillery Pool if it is making a Fire Call for a strike (not a Counter-Battery Fire Strike) or a Fire Call during the Offensive Fire Call Step of a friendly Assault operation, only (see 22.3.1).

[30.4] HQ SPECIAL RULES

HQ units have no Attack Strength and therefore do not exert a ZOC. This means that HQ units can never fire at enemy ground units. However, HQ units do have a Flak Strength and can participate in Flak Fire against enemy air and helicopter units. HQ units are **always** one step and therefore bear no Step Marker. HQs have no stacking limit. An HQ can observe for its own Fire Calls against an adjacent target hex, but it cannot serve as the spotter for its own Reconnaissance Attempts or Counter-Battery Acquisition Attempts because it is not a maneuver unit. An HQ can provide its functions only to or through a unit that is **subordinate** to it with the following **exceptions, where it can provide its functions to superior units as well:**

1. Any unit in an HQ's chain of command can observe for a Fire Call it makes.
2. Any artillery unit in an HQ's chain of command can serve in its Artillery Pool. **Exception:** See 22.3.1.
3. An HQ can always call an attack helicopter unit in its chain of command (in this game, any helicopter unit of the same nationality).
4. A Division Main HQ can decontaminate any units in its chain of command (see 44.6).
5. An offmap airmobile HQ can use **any** onmap maneuver unit as a spotter (see 20.2.8) for a Reconnaissance Attempt whether it is in the HQ's chain of command or not.

An HQ always treats units that have been attached to its formation as subordinate.

[30.4.1] HQ Reconstitution. When an HQ unit is eliminated, it can be reconstituted by placing it in the box on the Game Turn Track **two** Game Turns out from the current Game Turn (unless the game will end by then). Thus, if an HQ is eliminated on GT3, it is placed in the GT5 Box on the GT Track. **While an HQ is reconstituting on the Game Turn Track, it cannot exercise any of its functions.** It is returned to play on that future Game Turn during the HQ Reconstitution Step of the Reorganization Phase by placing it in the same hex as any subordinate unit that is **not** adjacent to an enemy unit. If there are no subordinate units left in play that are not adjacent to an enemy unit, then the HQ is permanently eliminated. **EW Assets (see 39.1) are never reconstituted.**

[30.4.2]. Non-Operational WP HQs. If all HQs in a WP division are disrupted or reconstituting, only Army Offmap CPs can be expended to plan operations for its regiments. When the division activates, only Offmap RPs can be expended to make Reconnaissance Attempts, and no Fire Calls can be made. A missing or disrupted HQ may also block a Main Effort (see 12.4.2, #1).

[30.4.3] Non-Operational NATO HQs. When a NATO Brigade HQ is disrupted or reconstituting, no superior Division HQ can expend any CPs or RPs during the Activation Cycle for that brigade (because the Brigade HQ cannot channel those points). However, during that brigade's activation, any superior Division HQ can still make Fire Calls and use units of that formation as spotters or observers for Fire Strikes, Counter-Battery Fire Strikes, Offensive Fire, or Defensive Fire because these functions are never channeled through a subordinate Brigade HQ. Moreover, Corps Offmap CPs and RPs can always be expended to make Reconnaissance Attempts and create task forces during the Activation Cycle for that brigade because Offmap CPs and RPs are never channeled through a Brigade HQ. If a NATO Division HQ is disrupted or reconstituting, any remaining Division and Brigade HQs in the same division continue to operate normally.

[30.4.4] HQ Removal. Once a WP division or NATO brigade has lost every step it started with, save its HQ(s), those HQs are **permanently** removed from play (they do not earn VPs) and the formation no longer receives an Activation Cycle.

[31.0] SHATTER

Design Note: History proves that a formation loses most of its effectiveness long before it loses most of its troops. Depending on morale and training, one unit can falter at 10% casualties, while another will shatter only at 50%. In either case, the enemy does not have to knock out the entire formation to stop it dead in its tracks.

Each NATO brigade and WP regiment has a Shatter Value. This Shatter Value can be found on the Shatter Table printed in the Charts & Tables Booklets. During the Reorganization Phase at the end of each Game Turn, each player must check each of his regiments and brigades to determine if any of them must make a Shatter Check. When the total number of steps remaining to all **maneuver units** (see 4.1.1) in a WP regiment or NATO brigade is less than or equal to its Shatter Value, it must check for Shatter. The owning player rolls a die. If the die result is higher than the total number of maneuver steps remaining to that regiment or brigade, it has Shattered. Otherwise, the formation has not Shattered, but the owning player will have to make a Shatter Check once in each ensuing Reorganization Phase until it does Shatter (**exception**: see 31.1.4). Do not count any steps in a NATO brigade that are not in a maneuver unit (meaning that NATO HQ, engineer, and artillery steps do **not** count towards avoiding Shatter). When a WP regiment Shatters, place a WP Shattered Marker face up in its Operation Box. When a NATO brigade Shatters, flip its Command Points Marker over to its Shattered side. Once Shattered, a formation never recovers. A player can always ask his opponent for truthful information regarding which regiments and brigades are Shattered. He can also ask for a true answer regarding how many maneuver steps are left in an opposing regiment or brigade.

[31.1] SPECIAL SHATTER CASES

[31.1.1] 35th Guards Air Assault Brigade. Generally, the four airmobile battalions in the 35th Guards Air Assault Brigade are each treated as a separate regiment. However, the 35th Guards Air Assault Brigade rolls for Shatter as a single formation, meaning that it must roll for Shatter when the total number of maneuver steps remaining to all its battalions combined is less than or equal to its Shatter Value. When it Shatters, all its component battalions Shatter.

[31.1.2] Independent Airmobile Battalions. An independent airmobile battalion (see 29.2.4) always has a Shatter Value of one step. It rolls for Shatter separately from whatever formation it is attached to, and its steps are **not** included in that formation's maneuver step total for the purpose of calculating whether that formation must check for Shatter.

[31.1.3] WG Independent Battalions. Each WG Jäger (see 12.8.3) or VKK battalion (Territorial Army formations that appear in some scenarios) always has a Shatter Value of two steps. The battalion rolls for Shatter separately from the brigade it is attached to, and its steps are **not** included in the brigade's maneuver step total for the purpose of calculating whether the brigade must check for Shatter.

[31.1.4] When the last surviving **real** unit of an Unshattered formation exits the map, the owning player is no longer required to roll for Shatter for that formation, even if it is at or below its Shatter Value. This means that the formation's steps will count towards any Victory Points that a scenario awards for such an exit (see 46.7.4).

[31.1.5] Unless the scenario instructions specify otherwise, players do **not** roll for Shatter **on the final turn of a scenario** because the Reorganization Phase is ignored on the final turn (see 46.7.3). **However, any formation that has lost all its maneuver unit steps is always considered Shattered for Victory Point purposes at the end of a scenario even if it has never failed a Shatter roll.**

***Design Note:** This rule prevents players from gaming the last turn by selectively targeting almost-Shattered formations (information they would not have in reality).*

[31.2] SHATTER EFFECTS

When a formation Shatters, the following effects apply to all its units:

1. The only operations they can be assigned to are March operations.
2. **They cannot move adjacent to enemy units, not even into a protected hex, except to retreat.**
3. They cannot react.
4. **They cannot enter a minefield.**
5. **When playing in Hidden Mode (see 45.0), they suffer a -1 DRM when a player rolls for them on the Revelation Table. This DRM is **not** noted on the Revelation Table.**

The effects of Shatter occur **after** a formation has failed a Shatter Check, not at the instant the formation loses the last maneuver step that puts it at or below its Shatter Value.

[31.2.1] Shattered HQs. When a NATO brigade Shatters, its Brigade HQ can still make Fire Calls and expend RPs, but its CPs will be useless because none of its subordinate units can be assigned to any operation requiring a CP. Similarly, when all the regiments in a WP division or all the brigades in a NATO division have Shattered, the Division HQs can still make Fire Calls and expend RPs, but their CPs will be useless because none of their subordinate regiments or brigades can be assigned to any operation requiring a CP (unless a division has an attached independent regiment that has not Shattered). A Shattered HQ cannot utilize any EW Asset it might have because jamming occurs only during an offensive operation (see 39.0).

[32.0] NIGHT

Design Note: Both alliances placed great emphasis on night operations and the concept of a 24-hour battlefield. Without doubt, the first 72 hours of war in Europe would have featured continuous combat operations. The major characteristics of night warfare are that 1) troops slink off to sleep unless pushed unmercifully, 2) engagement ranges shorten brutally, and 3) command and control techniques are tested to the limit. Training for night operations varied wildly across armies. The British were exceptionally good at it, as they proved in the 1982 Falklands war. In the early 1980s the US Army had only marginal proficiency in night fighting. However, by the mid-'80s, with the introduction of the Abrams, Bradley and Apache, each equipped with thermal imaging sights, and the provisioning of night vision goggles to individual infantrymen, the US Army actually began to live up to its doctrine of "We own the night."

Each scenario specifies the hour and day of the first Game Turn. When setting up a scenario, place the Game Turn Marker in the box on the Game Turn Track corresponding to that hour and day (the Game Turn Track extends for two days). When the Game Turn Marker is advanced into a Game Turn Box colored black, that Game Turn is a Night Turn.

[32.1] NIGHT EFFECTS

During Night Turns, the following effects apply:

1. No Air Calls can be made at night.
2. No paradrops can be conducted at night.
3. No attack or utility helicopter units can fly at night **except US AH-64 units**.
4. During Night Turns, the Flak Strength of a ground unit step drops to 1/3 of a Flak Point against helicopters at all ranges (only radar-guided weapons are operational).
5. There is a -2 DRM to any Reconnaissance Attempt made during a Night Turn (Counter-Battery Acquisition Attempts are unaffected by night).
6. All US ground units with thermal imaging sights (see 32.2) fire with double their normal Fire Strength.

All night effects are summarized on the Night Effects Chart found in the Charts & Tables Booklets.

[32.2] THERMAL IMAGING SIGHTS

The following types of units have thermal imaging sights:

US M1



US M2



US M3



WG Leopard 2



US AH-64



[32.2.1] Thermal Imaging and Night. The Fire Strengths of all **ground units** with thermal imaging sights are **doubled** during Night Turns. The Fire Strengths of AH-64 units are **not** doubled at night, but they are allowed to fly and fire. As always, a unit's final modified Fire Strength can never be more than twice its Basic Fire Strength. The Flak Strengths of ground units with thermal imaging sights are not doubled.

[32.2.2] Thermal Imaging and Smoke. Units with thermal imaging sights, including AH-64 units, are **not** halved when firing into and/or out of a smoke hex. This ability to see through smoke applies to both day and night turns.

Design Note: Because darkness slows everything down, Night Game Turns represent six hours of time versus two hours for a Day Game Turn. Fire Strengths are effectively reduced at night by a large factor because a fire combat at night represents triple the engagement time. Even doubled, the Combat Strengths of units with thermal imaging sights are still lower at night, per hour, than during the day. Air Calls cannot be made at night because the limited aircraft types that could make night strikes would have been allocated to much higher priority missions than close air support. While the AH-64's thermal imaging systems enable it to fly and shoot at night, the Fire Strengths of Apache units are not doubled because their sortie rates drop sharply.

[33.0] ENGINEERING

Design Note: In most wargames, engineer units are treated, at best, like minor combat units. In **Air & Armor**, players will find that their engineer units are extremely valuable and should be kept as far away from combat as possible.

During the Engineering Phase at the end of each Game Turn, an engineer unit can conduct one Engineering Action. Engineering Actions include:

1. Building a Military Bridge (34.2)
2. Dismantling a Military Bridge and recovering the Bridging Point (34.5)
3. Digging an improved position (35.0)
4. Creating an obstacle (36.0)
5. Removing an obstacle (36.0)
6. Laying a minefield (37.3.1)
7. Clearing a minefield (37.3.2)
8. Blowing a Civil Bridge by Engineer Charges (38.2)

These actions are summarized on the Engineering Chart found in the Charts & Tables Booklet. An engineer unit can conduct an Engineering Action only if it meets **all** the following conditions:

1. It is unused.
2. It is not masked.
3. It is not in an EZOC (otherwise, it **can** be adjacent to an enemy unit). **Exception: Military Bridges can neither be placed (see 34.2) nor recovered (see 34.5) if an enemy unit occupies the adjacent hex on the opposite bank.**

For the avoidance of doubt, an engineer unit can place and remove multiple Engineering Markers in the same hex as long as each individual marker is placed or removed by a separate Engineering Action (either by the same engineer unit on different turns or by multiple engineer units on the same turn). Note that Ferry and Amphibious Crossings are not Engineering Actions and occur at a different point in play (during operations in the Maneuver Phase). However, like any other units, engineer units that participate in a river crossing operation become **used** at the end of that operation, meaning that they will not be eligible to perform an Engineering Action later in that turn.

***Play Note:** Because an engineer unit must be on its unused side to undertake an Engineering Action, the normal course of operations is one turn to move to a hex where an Engineering Action is needed, and one turn to execute it. Repeat. Unless a player needs multiple Engineering Actions in the same turn, there is no good reason to ever put more than one engineer unit in the same hex.*

[34.0] MILITARY BRIDGES

Military Bridges can be built across river hexsides during play by engineer units using Bridging Points.

[34.1] BRIDGING POINTS

The scenario instructions for each scenario may assign a player a certain number of Bridging Points (typically two per division). Bridging Points represent pontoon bridge sections and have two uses. First, they can be expended to build Military Bridges. Second, while unspent, they can be borrowed by engineer units to conduct Ferry Crossings (see 17.4). **NATO Bridging Points have nationality. WP Bridging Points do not. At the start of the game, each player places a Bridging Points Marker of the appropriate nationality on the friendly Combat Support Points Track printed on his Tracks Card in the box corresponding to the number of Bridging Points received. WP Bridging Points can be expended or borrowed by any WP engineer unit regardless of its nationality. NATO Bridging Points can be expended or borrowed only by an engineer unit of the same nationality.**

[34.2] MILITARY BRIDGE CONSTRUCTION

During the Engineering Phase, an engineer unit that is adjacent to a river hexside can undertake an Engineering Action to build a Military Bridge by expending a Bridging Point. Move the Bridge Marker down one box on the friendly Combat Support Points Track. Place a Bridge Marker on its unblown side in the hex the engineer unit occupies with an arrow pointing towards the hexside that the bridge is intended to cross. That hexside functions as a Military Bridge from that point forward. A Military Bridge cannot be built if an enemy unit occupies the adjacent hex on the opposite bank.

[34.3] MILITARY BRIDGE MAINTENANCE

A Military Bridge over the Main River, but **not** the Fränkische Saale, must be maintained continuously by the engineer unit that emplaces it. When an engineer unit emplaces a Military Bridge across the Main River, the unit is placed **under** the Bridge Marker and becomes an integral part of that bridge. Thereafter, it cannot undertake any Engineering Actions save bridge recovery (see 34.5), it cannot participate in a fire combat, and it cannot be attacked (but the bridge it is maintaining can be attacked, see 38.3 and 38.4).

However, if the bridge it is maintaining is destroyed by enemy action, the engineer unit is also destroyed. While it is maintaining a Military Bridge, an engineer unit exists only in the hexside with the bridge and has no ZOC **except** in the two hexes adjacent to that bridge hexside. It retains its normal Flak Strength and can execute Flak Fire as if it were located in either hex adjacent to the bridge. During any Activation Cycle in which the engineer unit is eligible to activate, it can simply reappear in either hex adjacent to the bridge and move normally, but in this case the Military Bridge it was maintaining is immediately eliminated, and no Bridging Point is recovered (see 38.3).

Design Note: Pontoon bridges built over fast-moving rivers like the Main require motorboats in continuous operation with their bows abutting the bridge to counter the force of the current. Without these boats, the bridge would soon buckle and disintegrate. The engineer unit maintaining the bridge is operating these boats.

[34.4] MILITARY BRIDGE EFFECTS

A Military Bridge negates all **movement** effects of the river hexside it spans and permits any ground unit to move across that hexside at a Movement Cost of +1. If a Military Bridge is built where an Autobahn or Road Bridge has been blown, the original bridge is not restored, it is replaced by the Military Bridge. Place a Military Bridge Marker atop the Blown Bridge Marker. **This distinction is important because a unit can never use road movement to enter a hex across a Military Bridge hexside.** A Military Bridge that is not being maintained by an engineer unit (i.e., over a Minor River) can be crossed by units belonging to either player, regardless of which player built it. **A Military Bridge that is being maintained by an engineer unit can be crossed only by the player who owns that unit** (however, the enemy player can move up to that bridge and destroy it, see 38.3.2).

[34.5] BRIDGE RECOVERY

Bridging Points expended to build a Military Bridge can be recovered by dismantling the bridge, but only by the player that built it. During any Engineering Phase, an engineer unit maintaining a Military Bridge over the Main, or an engineer unit adjacent to a Military Bridge hexside over the Fränkische Saale, can undertake an Engineering Action to dismantle the bridge by removing the Bridge Marker and returning the Bridging Point to the owning player's Combat Support Points Track. The engineer unit can be moved to the opposite bank as part of this action. On the following turn, any engineer unit that was maintaining that bridge resumes its normal ability to move, fight, and undertake other Engineering Actions. Bridge recovery is blocked if an enemy unit occupies either hex adjacent to the Military Bridge.

[35.0] IMPROVED POSITIONS

Design Note: Improved positions represent foxholes, trenches, bunkers, firing ramps, berms and other defensive works. Improved positions also represent another aspect of warfare: camouflage and concealment.

In some scenarios, a player can place Improved Position Markers (see 6.2.2) on the map before play begins. Additional improved positions can be created by engineer units during play. During the Engineering Phase, an engineer unit can undertake an Engineering Action to create an improved position in its own hex. Place an Improved Position Marker in the hex. An improved position adds +2 to the Defense Strength of each unit in the hex when it is attacked by Offensive Fire or a Fire Strike. Improved positions never increase the Defense Strength of a unit receiving **any other type of fire**. This +2 Defense Modifier is cumulative with any other Defense Modifier for the primary terrain in the hex. When a player makes a Reconnaissance Attempt on a hex containing enemy units in an improved position, he must apply a -2 DRM to his die result (they are camouflaged). When a player makes any type of Jamming Attempt on a hex containing enemy units in an improved position, he must apply a -2 DRM to his die result (they have laid wire). Improved positions only benefit the side that created them. To tell them apart, each player should place his Improved Position Markers with the lead foxhole facing his opponent's side of the map. Improved Position Markers remain on the map whether they are occupied or not and can be reoccupied by any friendly unit. They are immediately removed from the map when the last occupying unit is eliminated **by enemy fire**, or when the hex is entered by a real enemy unit (dummies cannot enter, see 11.3, #3). A player can always remove one of his own Improved Position Markers if he wants to reuse it elsewhere.

[36.0] OBSTACLES

Design Note: Obstacles represent barbed wire, downed trees, demolished overpasses, cratered roads, anti-armor ditches, and other passive barriers and traps designed to impede enemy movement.

In some scenarios, a player can place Obstacle Markers on the map before play begins. Additional obstacles can always be created by engineer units during play. During the Engineering Phase, an engineer unit can undertake an Engineering Action to create an obstacle in its own hex. Place an Obstacle Marker in the hex. An Obstacle Marker has the following effects:

1. It prevents road movement **into** the hex it occupies, but not out of it (**exception**, see 36.1.1).
2. A unit must pay one extra Movement Point to enter the hex but can exit it without additional penalty.
3. A unit can retreat or advance **out** of an obstacle hex but cannot retreat or advance **into** one.

4. No unit can overrun (see 42.0) or close attack (see 43.0) an enemy unit from an adjacent obstacle hex, nor can a unit in an obstacle hex be overrun or close attacked.
5. When a player makes a Reconnaissance Attempt on an obstacle hex containing an enemy unit, he receives a +1 DRM to his die result (obstacles cause enemy units to spend more time in the hex). **This DRM does not apply to an obstacle occupied solely by the engineer that built it.**

Obstacles have no friends. They affect both players equally. They can be removed by engineers of either side. An Obstacle Marker can be removed **only** by an engineer unit that enters the hex on one turn and then remains unused in the following turn to undertake an Engineering Action to clear the obstacle. Save for its impact on advance and retreat, an obstacle has no effect on combat, **except** that a unit cannot conduct an Overrun (see 42.0) or Close Attack (see 43.0) into or directly out of an obstacle hex.

[36.1] OBSTACLES AND TERRAIN

Some effects of an Obstacle Marker depend on the type of terrain in the hex.

[36.1.1] Bridge Hexsides. An obstacle in a hex negates all roads in that hex but does not negate any adjacent bridge hexsides. Units can **enter** an obstacle hex across any type of bridge hexside by paying the standard +1 MP cost for the bridge hexside plus the full cost for the terrain in the hex and a +1 MP cost for the obstacle itself. They can also **exit** an obstacle hex over a Military or Civil Bridge for the standard +1 MP or over a Civil Bridge using road movement if eligible.

***Play Note:** The best use for obstacles, by far, is to block roads leading through Heavy Woods hexes. They have a secondary use to prevent units defending in Clear hexes from getting overrun (there is nothing like being airborne over an anti-tank ditch to ruin a tank commander's day).*

[37.0] MINES

***Design Note:** Conventional wisdom had it that NATO's greatest counter to the Warsaw Pact's huge tank force was its air power. This is not quite accurate. NATO's greatest counter was in fact its landmine inventories. The US alone had a stockpile of over 19,000,000 mines. West Germany had another 4,000,000 mines. Not counting the inventories of Britain, France, Belgium, or the Netherlands, these two stockpiles alone were sufficient to lay 17 mines per meter along the entire border from the Baltic to the Austrian border. A hundred-dollar mine can destroy a million-dollar tank. Put that way, seeding a field with a thousand mines is a solid investment with a 10:1 return if it nets even a single tank. As the defender, the lowly landmine would have been NATO's best friend. As the attacker, the landmine would have been the Warsaw Pact's biggest headache. By this era, the mine was no longer just a buried canister set to explode at a certain trigger weight. Mines were buried by tracked minelayers, hurled by projectors, scattered by helicopters, dropped from aircraft, and fired off by rockets. The mines themselves were getting smart and directional and came with anti-handling devices to dissuade would-be clearers. The following rules are quite extensive because mine warfare plays a major role on the modern battlefield.*

A "minefield" is defined as any hex containing a Minefield Marker, which can be real or dummy. Minefields are placed on the map as part of the initial setup for a scenario or placed on the map during play by engineer units or ADM Strikes (see 23.5). To create a minefield, a player must expend a Mine Point. Mine Points are received as part of the scenario instructions. Whenever a unit enters a real minefield, it is subject to a Mine Attack. Minefields can be cleared by engineer units.

[37.1] MINEFIELD MARKERS

There are two types of Minefield Markers: Real and Dummy. Real Minefield Markers show a minefield icon on **both** sides of the Marker. Dummy Minefield Markers show a minefield icon on their front side but a dummy icon on their back side. The scenario instructions may specify that a player can place a number of Real and Dummy Minefield Markers on the map before play begins. Unless the instructions say otherwise, such Minefield Markers can be placed in any hex where the player could deploy a unit and in any adjacent hex (meaning one hex farther out from where units can deploy). Minefield Markers can also be placed during play by an Engineering Action or an ADM Strike. All Minefield Markers are placed with their front side up, hiding their actual status. A Minefield Marker is never revealed when the enemy makes a successful Reconnaissance Attempt against that hex. A Minefield Marker is flipped to reveal its true nature only when a **real** enemy unit enters the hex. **A dummy unit cannot enter a hex containing a Minefield Marker.** Whenever a real unit of **either side** enters a dummy minefield, the Dummy Minefield Marker is immediately removed from the map and the moving unit can continue to move normally. Whenever a real unit of **either side** enters a real minefield, or one is dropped on it by an enemy ADM Strike, it is immediately subject to a Mine Attack (see 37.5).

***Design Note:** A dummy unit cannot determine if a minefield is real because it isn't real either.*

[37.2] MINE POINTS

There are two types of points for mines in this Game: Mine Points and ADM (Artillery/Air Delivered Mine) Points. The scenario instructions may specify that a player receives a limited number of these points, either at the start of play or as reinforcements. NATO

points have nationality. WP points do not. Place the appropriate national marker for the appropriate type of point in the corresponding box on the Combat Support Points Track. Move the marker one box down the track each time a point is expended. Mine Points are expended by engineer units to create minefields during the Engineering Phase (see 37.3.1). **Any WP engineer unit can expend WP Mine Points, but NATO engineer units can only expend Mine Points of the same nationality.** ADM Points are expended by air and artillery units to create minefields during the Strike Segment (see 23.5). Minefields created by Mine Points and ADM Points function identically.

[37.3] ENGINEERS AND MINEFIELDS

[37.3.1] Mine Laying. During the Engineering Phase, an engineer unit can undertake an Engineering Action to lay a minefield by expending a Mine Point of the same nationality. Place a Minefield Marker in the hex occupied by the engineer unit. The marker can be real or dummy, but a Mine Point **must** be expended either way to maintain credibility. A minefield cannot be laid in a hex containing other friendly units **nor in a Town or City hex.**

[37.3.2] Mine Clearing. Real Minefield Markers (including markers placed by an ADM Strike) are removed during the Engineering Phase when an engineer unit in the same hex undertakes an Engineering Action to clear the minefield. Mine Points are never recovered.

Design Note: No serious minefield can be cleared in two hours. But a usable lane can be cleared in this time.

[37.4] MINEFIELD EFFECTS

A real minefield has the following effects:

1. Whenever a unit **enters** a minefield hex, the player who placed the Minefield Marker must reveal it, if it is not already revealed. The unit must end its movement and the number of steps it contains is revealed to the opposing player (this does **not** make it acquired). The unit then immediately suffers a Mine Attack (see 37.5).
2. Whenever an enemy unit is hit by an ADM strike that successfully creates a minefield in that hex, it immediately suffers a Mine Attack (see 37.5).
3. An engineer unit is never attacked by a minefield it lays and can exit the hex without movement penalty. **Any other unit that starts its movement in a minefield is subject to a Mine Attack when it exits.** A unit can exit the hex in one of two ways. It can make a “Deliberate Exit” by moving into an adjacent hex **and stopping** (this is considered minimum movement). This option provides a +1 DRM on the Mine Attack Table. Or it can make a “Forced Exit” by entering an adjacent hex at a cost of **three** extra Movement Points over the normal cost to enter that hex and then continue to move with any remaining MPs. This option provides no DRM on the Mine Attack Table (and only makes sense if the unit is executing an operation providing six MPs).
4. A unit **can** retreat or advance into or out of a minefield but will be subject to a Mine Attack each time it does so.
5. Any ground unit firing **out** of a minefield has its Fire Strength **halved** even artillery units using Indirect Fire. However, Flak Fire out of a minefield is unaffected.
6. The Fire Strength of a ground unit firing **into** a minefield is unaffected.
7. Engineer units cannot undertake any Engineering Action in a minefield save to clear it.
8. When a player makes a Reconnaissance Attempt on a hex containing an enemy unit in a minefield, he receives a +2 DRM to his die result (enemy units in a minefield signal their presence with the smoke columns from their wrecks). **This DRM does not apply to a minefield occupied solely by the engineer that laid it.**
9. No unit can overrun (see 42.0) or close attack (see 43.0) an enemy unit from an adjacent minefield hex, nor can a unit in a minefield hex be overrun or close attacked.

Minefields have no friends. They affect both players equally. They can be removed by engineer units of either side. The fire and movement of air and helicopter units are completely unaffected by minefields **except** that a utility helicopter unit can never pick up or land a passenger unit in a hex containing a Minefield Marker.

[37.5] MINE ATTACKS

A Mine Attack is an Interrupt Action that occurs whenever a ground force **enters or exits** a real minefield hex, whether by movement, retreat, or advance. A Mine Attack also occurs during the Strike Segment whenever an ADM Strike creates a minefield in a target hex occupied by enemy ground units (see 23.5). **Exception:** an ADM strike into a hex that already contains a real minefield has no effect (the enemy is already prepared for mines). A unit can **remain** in a minefield indefinitely without further attack and is never subject to an attack triggered by other units entering or exiting. To execute a Mine Attack, the player owning the units entering or exiting the

minefield consults the Mine Attack Table found in the Charts & Tables Booklets and rolls once on the table for each **step** in the moving force. The player adds any DRMs that apply and then finds the result on the table corresponding to the modified die roll.

[37.5.1] EZOCS and Minefields. There is a -1 DRM when a Mine Attack occurs in an EZOC. For the avoidance of doubt, when a WP force enters a minefield, any adjacent US armored cavalry unit must elect to screen (see 41.2) **before** the WP player executes the Mine Attack because the -1 DRM for being in an EZOC might not apply if the cavalry unit retreats.

[37.5.2] Engineers and Minefields. When present, an engineer unit provides a +1 DRM for Mine Attack die rolls against itself and any other units subject to the attack provided that those units are in the same chain of command. Multiple engineer units provide no extra DRMs. An engineer unit counts as present if 1) it is part of the moving force entering or exiting the minefield, or 2) it simply occupies the minefield hex when the Mine Attack occurs. If engineer units are present in the moving force, the owning player must roll for a Mine Attack against each engineer step first. If all engineer steps in the moving force are eliminated, no +1 DRM applies to rolls against any other steps subject to the Mine Attack. For the avoidance of doubt, an engineer unit will only be subject to loss if the Mine Attack occurs a hex in an EZOC because otherwise its +1 DRM guarantees that no loss will occur. No Mine Attack roll is ever made against an engineer unit that is already present in the minefield hex and **not** part of the moving force (though it still provides a +1 DRM).

[37.6] UNKNOWN UNITS AND MINEFIELDS

When a player moves a force whose step strength is unknown to his opponent into a minefield hex and that minefield proves to be real, the moving player must immediately reveal the exact composition of that force to his opponent. When playing in Hidden Mode (see 45.0), an unrevealed unit entering a minefield is revealed first and the owning player can examine the Minefield Marker only if the unit is revealed to be real (see 45.4.5). If the unit is revealed to be a dummy, it is removed from play, and the owner cannot examine the Minefield Marker in the hex he just entered. A unit revealed in a minefield is not acquired, but the minefield makes it more likely that it can be acquired (see 37.4, #8).

***Design Note:** When a unit runs into a minefield, the sound of the mines detonating and the smoke from the wrecks provide a strong indicator that an enemy force is present. Accordingly, when a unit encounters a minefield, any stealth is gone, and it becomes revealed to the enemy player. However, the enemy player must still vector reconnaissance assets to get a target fix if he wants to strike it.*

[38.0] BRIDGE DEMOLITION

***Design Note:** The map for this game is dominated by the Main River, which most ground units can cross only at a bridge. Accordingly, bridges become extremely important features in the game. The following rules are quite detailed in order to provide players with all the options for destroying bridges that a real commander would have had available.*

Both Civil and Military Bridges can be destroyed. There are two types of Civil Bridges, depending upon the type of road carried. Civil Bridges are “Autobahn” Bridges where an Autobahn crosses a river hexside and “Road” Bridges where a Bundesstraße or Minor Road crosses. Autobahn Bridges are harder to destroy. A **“Demolition Attempt” is an attempt to blow a Civil Bridge.** Bridges can be destroyed in four ways:

1. By Set Charges (Civil Bridges, only)
2. By Engineer Charges (Civil Bridges, only)
3. By moving a real unit with an Attack Strength into an adjacent hex (Military Bridges, only)
4. By Fire Strike (all bridges)

Military Bridges can also be dismantled and reused by the player who created them (see 34.5). Each of these actions occurs at a separate point during the Sequence of Play.

[38.1] SET CHARGES

***Design Note:** All bridges close to the West German border were pre-wired to permit them to be blown in short order. In time of war, small West German reserve detachments were tasked to install the actual explosives and man the blasting machine (plunger). With the passage of time, some of this wiring would have failed, and some bridges that did blow would have failed to come down. Accordingly, there is always a chance of failure when a player attempts to detonate the charges.*

During the Bridge Demolition Segment of any NATO Activation Cycle, the NATO player can attempt to blow any Civil Bridge on the map by Set Charges **unless** prohibited on that turn by the scenario instructions. **Military Bridges can never be destroyed by Set Charges.** To make a Demolition Attempt, the NATO player consults the Demolition Charges Table in the Charts & Tables Booklets, finds the Demolition Value at the intersection of the row for “Set Charges” and the column for the type of bridge being blown, and

rolls the die. If the die result is **greater than or equal** to the Demolition Value, the attempt succeeds, and the bridge is blown. Place a Blown Bridge Marker in either hex adjacent to the bridge hexside. If the die result is less than the Demolition Value, the Demolition Attempt fails. Place a Bridge Marker on its unblown side in either hex adjacent to the bridge hexside to indicate that the bridge cannot be blown by Set Charges for the remainder of the game. The NATO player can attempt to blow as many Civil Bridges by Set Charges as he wishes during any Bridge Demolition Segment, but he can never attempt to destroy a specific bridge by Set Charges more than **once** per game. The WP player can never attempt to blow a bridge by Set Charges.

[38.1.1] The NATO player can blow a **Civil Bridge** by Set Charges even when an enemy unit is adjacent to the bridge (meaning in one or both of the two hexes sharing the bridge hexside), but only if no enemy unit has crossed the bridge hexside yet (see 38.1.2). However, if a WP unit is adjacent to a Civil Bridge when the NATO player attempts to blow it by Set Charges, he must apply a -2 DRM to his die result.

[38.1.2] Cutting the Wires. If a real WP unit crosses a Civil Bridge hexside before the NATO player has attempted to blow it by Set Charges, place a Bridge Marker on its unblown side in one of the hexes adjacent to the bridge hexside to indicate that the bridge cannot be blown by Set Charges for the rest of the game (the WP unit is assumed to have overrun the demolition squad and cut the wires). **No dummy WP unit can cross a Civil Bridge hexside unless a real WP unit has already crossed it, or the bridge is inside a WP setup area** (dummies cannot clear the NATO demolition squads defending Civil Bridges).

[38.2] ENGINEER CHARGES

An engineer unit belonging to either player that is adjacent to a Civil Bridge hexside (meaning in one of the two hexes sharing the bridge hexside) during the Engineering Phase can make a Demolition Attempt, provided that there is no enemy unit in the hex on the other side of that bridge hexside. This counts as an Engineering Action (see 33.0). The procedure is identical to the Set Charges procedure **except** that the Demolition Value is found on the “Engineer Charges” row of the Demolition Charges Table. However, unlike Set Charges, there is no limit to the number of times that a player can attempt to blow a specific bridge with an engineer unit, provided that only **one** attempt is made per Engineering Phase. An engineer unit can only attempt to blow **one** bridge a turn, so if it starts adjacent to more than one Civil Bridge hexside, the owning player must pick which bridge to blow.

[38.3] MILITARY BRIDGE DESTRUCTION

Whenever a real friendly ground unit **ends its operation** in a hex adjacent to a Military Bridge (meaning in one of the two hexes sharing the bridge hexside) with no maintaining enemy engineer, he has the option to eliminate the bridge by removing the Bridge Marker from the map, **regardless of which player built it**. No Bridging Point is recovered. The ground unit cannot be an HQ or rocket artillery unit (it must have an attack strength it can exert into an adjacent hex) and it cannot be a dummy unit. It can be executing any type of operation (**exception**: see 38.3.2). This option does not apply if a unit **advances** or **retreats** adjacent to a Military Bridge. This option, in a slightly modified form, can be exercised by a friendly engineer unit maintaining a Military Bridge when that engineer unit activates. The engineer unit is removed from underneath the Bridge Marker and placed in either hex adjacent to the bridge hexside on its unused side. It can then move normally (it is simply abandoning the bridge). The Bridge Marker is immediately removed from the map and **no Bridging Point is recovered** (unlike a Bridge Recovery Action taken during the Engineering Phase, see 34.5).

[38.3.1] If the Military Bridge a player wishes to eliminate is currently being maintained by a **friendly engineer unit**, and the active player ends the **operation** of a different friendly unit next to that bridge (before the engineer unit has had a chance to activate), then the friendly engineer unit is placed unused in either hex adjacent to the bridge before the active player eliminates it.

[38.3.2] If the Military Bridge a player wishes to eliminate is currently being maintained by an **enemy engineer unit**, the active player must conduct an Offensive operation with the bridge hexside as the Objective hex (place the Objective Marker in either adjacent hex). Participating friendly units can then enter either hex adjacent to the bridge hexside (including the hex occupied by the Objective Marker) and can displace the enemy engineer to the opposite bank (still underneath the Bridge Marker) but, per Case 34.4, no friendly unit can cross the bridge hexside. If friendly units manage to enter both adjacent hexes without crossing the bridge hexside, the enemy engineer unit can temporarily stack with one of the friendly forces (it is still considered to be in the hexside itself). If a friendly unit in either hex adjacent to the bridge hexside survives enemy Defensive Fire (which cannot come from the enemy engineer unit but can come from any other enemy units), then both the Military Bridge and the enemy engineer unit maintaining it are automatically eliminated and removed from the map during the Offensive Fire Step of the operation (but no Offensive Fire is actually conducted).

[38.3.3] A Civil Bridge is invulnerable to destruction by any type of friendly or enemy ground operation.

***Design Note:** The rules in this Case represent the action of a friendly unit to shoot up the pontoons of a Military Bridge until they sink. Civil Bridges cannot be shot up like this because they are engineered to be extremely tough to bring down.*

***Play Note:** Because a unit must **end its operation** adjacent to a Military Bridge to destroy it, it follows that it must first survive enemy Defensive Fire.*

[38.4] BRIDGE FIRE STRIKES

A Fire Strike can target any type of bridge. Special rules apply. **No other type of fire is allowed against a bridge.**

[38.4.1] Acquisition and Observation. As with any strike, the target must be observed or acquired. A bridge is observed if a ground unit eligible to observe for the calling HQ occupies either of the two hexes adjacent to that bridge hexside. If not observed, a Civil Bridge is automatically acquired with no need for a Reconnaissance Attempt. If not observed, a Military Bridge **must** be acquired by a Reconnaissance Attempt using the “Empty” row on the Reconnaissance Table. The active player can choose either hex adjacent to the bridge hexside for the purpose of determining the range from the spotter to the bridge. Only the DRMs for smoke, fog and night apply. However, the DRM for smoke applies if smoke is present in **either** adjacent hex.

[38.4.2] Eligible Fire Support Assets. In addition to the normal restrictions on how many units of each arm can participate in a Fire Strike, the following restrictions apply to a Fire Strike on a bridge:

1. An air unit can execute a Fire Strike on any type of bridge.
2. The two artillery units permitted for a Fire Strike can only attack a Military Bridge
3. An attack helicopter unit can never execute a Fire Strike on any type of bridge (ATGMs and small caliber rockets are singularly ineffective against bridges).

[38.4.3] Bridge Fire Effects. **When a player executes a Bridge Fire Strike, he refers to the Bridge Fire Strike Chart, determines the column appropriate for the type of bridge being attacked and the row appropriate for the type of fire support asset making the strike and finds at their intersection the effect on the fire. The attacking player ignores any normal terrain effects that apply for any terrain in the two hexes adjacent to the bridge, meaning that an attacking air unit is not halved even if both adjacent hexes are Close terrain (a bridge out on the water cannot take cover). However, if a Smoke Marker is present in either adjacent hex, then the Fire Strengths of all attacking units are halved, cumulative with any other effects.**

***Design Note:** Civil Bridges are extremely difficult to destroy. They are engineered to withstand earthquakes, tidal waves, and hurricanes. They are also very difficult to hit. Even direct fire from heavy artillery is unlikely to bring down a civil bridge. In 1945, the Ludendorff Bridge at Remagen, built during WWI, first survived the detonation of its set charges, and then survived attacks by 367 aircraft sorties, 11 V2 missiles, and over 100 artillery pieces, 62 of them of 150mm or greater, firing at the rate of one shell every 30 seconds for ten days straight before it finally collapsed. In the era of this game, only aircraft carried both the weight of high explosives and the precision munitions needed to drop a Civil Bridge. However, employing guided munitions meant flying high enough to be in the kill envelope of enemy SAMs. Flying low enough to avoid SAMs meant attacking with dumb bombs and therefore sacrificing the accuracy needed to hit the bridge. Accordingly, the Bridge Fire Strike Chart penalizes both artillery and low-altitude air strikes.*

[38.4.4] Bridge Fire Strike Procedure. A Fire Strike against a bridge does not use the CRT. Instead, players use the following procedure:

1. Follow all normal steps for a Fire Strike up through Step 4.
2. Modify the Fire Strength of each participating unit according to the effects listed in the Bridge Fire Strike Chart. Halve again if a Smoke Marker is present in either adjacent hex.
3. Add together the Modified Fire Strength of each participating unit to determine the Total Fire Strength.
4. Refer to the Bridge Fire Strike Chart and find the **Bridge Factor** that applies to the type of bridge being attacked.
5. Instead of the standard division by two, divide the Total Fire Strength by the Bridge Factor and round down to determine the Effective Fire Strength.
6. Roll the die.
7. The bridge is destroyed if the die result is **less than or equal to** the Effective Fire Strength.

A Fire Strike on a bridge has no effect on any enemy units in the two adjacent hexes. **When an air unit conducts a Fire Strike against a bridge and employs a low-altitude attack profile, it is subject to enemy Flak Fire from all enemy units within Flak range (two hexes) of either hex adjacent to the Bridge hexside, meaning that some firing units can be within range of one of the two hexes adjacent to that bridge hexside and some can be within range of the other hex.**

[38.5] BLOWN BRIDGES

[38.5.1] When a Civil Bridge is destroyed, place a Blown Bridge Marker in one of the hexes adjacent to that bridge hexside. When a Military Bridge is destroyed, the Bridge Marker is simply removed from the map, along with any engineer that was maintaining it (see

34.3). When a Civil Bridge bears a Blown Bridge Marker, the road connecting the two adjacent hexes has been **severed** and is treated as if it does not exist, meaning that a unit must pay the full MP cost for both the hexside and the hex on the opposite side, if crossing is even possible (a blown Civil Bridge across the Main River means the hexside is blocked for normal ground movement). If a blown Civil Bridge is replaced by a Military Bridge, a unit must still pay +1 for the Military Bridge hexside and the normal (non-road) Movement Cost to enter the hex on the other side.

[38.5.2] A Bridge Marker has three uses. On its Bridge side, it is used to mark Military Bridge hexsides or to mark Civil Bridge hexsides where an attempt to blow the bridge by Set Charges has failed. On its Blown side, it is used to mark a blown Civil Bridge. Since it is possible to build a Military Bridge in the same hexside where a Civil Bridge has previously been blown, there could be some confusion as to whether an unblown Bridge Marker represents an intact Civil Bridge after a Set Charges failure, or a Military Bridge replacing a blown Civil Bridge. If a Military Bridge is constructed where a Civil Bridge once stood, place a Military Bridge Marker atop the Blown Bridge Marker.

[39.0] ELECTRONIC WARFARE

***Design Note:** It is widely believed that the Warsaw Pact enjoyed a significant lead over NATO in the dimension of jamming. It not only deployed far more jamming sets, but the equipment itself, if not more sophisticated, was certainly more powerful. It got a lot of practice trying to keep Western broadcasts out of the Eastern bloc. It can also be argued that the Pact's advantage in electronic warfare partially compensated for its less flexible command and control system. The commander whose subordinates understand their part in the plan has a distinct advantage over the commander who has both more initiative and more authority but cannot communicate with his subordinates. The Pact's advantage in this dimension is reflected in this game by the allocation of an EW Asset to each WP HQ unit (two per division), whereas the NATO player receives only one EW Asset per division. And the Pact has more divisions.*

Certain HQs possess an EW Asset that can attempt to jam enemy radio nets during a friendly operation. This jamming may reduce or eliminate the enemy player's ability to make Defensive Fire Calls and to react units into the Objective hex.

[39.1] EW ASSETS

The TO&E Chart indicates which HQ units receive an EW Asset Counter. Each EW Asset can make one "Jamming Attempt" per turn. A Jamming Attempt is an attempt to shut down the opposing player's ability to call for fire support and react reserves into the Objective hex of a friendly offensive operation. Each EW Asset is color coded for the division it belongs to (the counter bears the same color as all other units in that division). At the start of play, each EW Asset is deployed beneath the HQ unit that owns it. EW Assets are treated as part of that HQ and move with it. They do not count as a separate step. Each time an EW Asset is used to make a Jamming Attempt, there is a material risk that it will be destroyed. If the EW Asset is destroyed by use, **the HQ is unaffected**. If the HQ is destroyed, the EW Asset is destroyed with it. When an HQ unit is reconstituted (see 30.4), any EW Asset it possessed does **not** return with it. A player never earns a VP for destroying an enemy EW Asset. An EW Asset beneath an HQ on the Offmap Display (see 40.0) can make a Jamming Attempt. An EW Asset beneath a disrupted HQ cannot make a Jamming Attempt.

***Design Note:** In reality, a jamming set would be deployed as far away from friendly HQs as possible, for fear of inadvertently knocking them off the air. However, the tactical deployment of jamming sets is well below the resolution of this game and so each asset is deployed with its HQ for simplicity. Certainly, disrupting or eliminating the HQ would prevent the asset from receiving orders wherever it was located.*

[39.2] JAMMING ATTEMPTS

During the Jamming Step of any friendly offensive operation, the active player can employ an unused EW Asset to make a Jamming Attempt against his opponent. The EW Asset must belong to an HQ that meets both of the following conditions: 1) it is superior to a unit participating in the current operation and located adjacent to the Objective hex, and 2) it is within Command Range of that unit. A Jamming Attempt cannot be made if no Objective hex has been declared. To resolve a Jamming Attempt, a player refers to the Jamming Table found in his Charts & Tables Booklet and roll one die. If the **unmodified** die result is a 1 or a 2, the Jamming Asset is eliminated, and the attempt fails. On any other result, the Jamming Asset survives. Next, modify the die result for all DRMs that apply and then consult the row on the Jamming Table for the modified die result to determine the effect on the defending player. Although a Jamming Attempt is always made against the Objective hex and uses Die Roll Modifiers that apply only to that specific hex, **the results of the attempt apply to the defending player as a whole, not just to the units in the Objective hex**. However, no results on the defender apply past the end of the operation in which the attempt was made. After the attempt, flip the EW asset to its used side.

***Design Note:** The die roll modifiers on the Jamming Table deserve explanation. Jamming during a NATO Hasty Attack operation suffers because jamming requires considerable preparation. A NATO Hasty Attack operation is an ad hoc affair, whereas all Pact operations are planned in detail. Forces in improved positions benefit because they can lay cable and thus maintain some external contact. Forces in Close Terrain benefit because leaves and buildings absorb substantial radio energy and thus attenuate the jamming signal. NATO forces in Towns and Cities also benefit from ready access to the civilian phone network, which the West*

German government intended to commandeer for military purposes in the event of war. Forces that are not within Command Range of a superior HQ suffer because their communication links will already be weak. Masked forces do not count for being within Command Range of a superior HQ because they are not eligible to observe.

[40.0] OFFMAP PARTICIPATION

Design Note: In some scenarios, a player must fight his way onto the map. The rules in this section provide each player with an offmap “rear area” so that his artillery and HQ units can operate without exposing themselves to early destruction in the FEBA (Forward Edge of Battle Area).

HQ and artillery units can operate while offmap according to the following rules.

[40.1] OFFMAP DISPLAYS

Each player has an Offmap Display printed on his Tracks Card containing two rows of Heavy Woods hexes, one labeled “FIVE hexes offmap” and one labeled “TEN hexes offmap.” During the Reinforcement Phase, on any turn in which an **HQ** or **artillery** unit is scheduled to arrive as a reinforcement, it **must** be placed in a hex on the friendly Offmap Display. **Exception: the HQ and artillery units belonging to an airmobile brigade (see 29.0) are never placed in the Offmap Display (they must enter by air movement, see 40.2.1).** No other units besides HQ and artillery units can ever be placed in the Offmap Display and no units scheduled to arrive as reinforcements on a **future** turn can ever be placed in the Offmap Display unless specifically called for by the scenario instructions. A unit in the Offmap Display can enter the map on the same turn it arrives, or on any turn thereafter, subject to certain movement restrictions (see 40.4).

[40.2] OFFMAP ACTIONS

Units in an Offmap Display hex can execute the following actions:

1. Artillery units can conduct Indirect Fire against targets onmap, including Counter-Battery Fire Strikes.
2. HQ units can expend CPs to assign operations to units that are onmap or that will enter the map in the current turn.
3. HQ units can expend RPs to make Reconnaissance Attempts against target hexes onmap.
4. EW Assets can make Jamming Attempts against Objective hexes onmap.

[40.2.1] Offmap Airmobile Units. As an **exception** to the general rule, offmap airmobile brigades due to enter in the current turn **never** deploy any of their HQ and artillery units to the Offmap Display. Such offmap airmobile HQ units cannot take any actions **except** to expend CPs to assign offensive operations to subordinate units that will enter the map this turn and to make the special Reconnaissance Attempts described in Case 20.2.8. Airmobile artillery units can never fire while offmap.

Design Note: These airmobile brigades start at air bases well to the rear and can act on the battlefield only after they fly in.

[40.3] OFFMAP RANGE

[40.3.1] Offmap Units. Units in the Offmap Display conduct their actions by counting the range to a onmap hex as follows. Units in a hex labeled “FIVE hexes offmap” count the first hex on the map edge as being at a range of five hexes from their hex and then count out from there. Units in a hex labeled “TEN hexes offmap” count the first hex on the map edge as being at a range of ten hexes from their hex and then count out from there. **The first hex counted on the map edge must be a hex that the offmap unit could enter as a reinforcement.** If a player has placed a reinforcement maneuver unit offmap but adjacent to a map-edge hex during his Reinforcement Phase (see 46.6.3), any superior HQ in the Offmap Display can use this unit as a spotter for a Reconnaissance Attempt or Counter-Battery Acquisition Attempt, meaning that the first hex counted between the spotter and the target hex is any map-edge hex adjacent to the offmap spotter. Army or Corps Offmap RPs can also use such a unit as a spotter. However, any enemy unit located in an adjacent map-edge hex must still be acquired on the 2-3 hex column of the Reconnaissance Table.

[40.3.2] Onmap Units. Units on the map trace a range to a unit in the Offmap Display by counting the range to any map-edge hex that offmap unit is allowed to enter as a reinforcement and then adding five or ten to that number depending on the hex row occupied by the unit in the Offmap Display. An onmap HQ is within Command Range of any offmap ground unit **not** in the Offmap Display and due to enter as a reinforcement in the current turn if the HQ is in Command Range of any map-edge hex that the offmap unit is allowed to enter as a reinforcement and the HQ still has at least one more hex of range left (i.e., the HQ is within Command Range of the first notional hex row offmap).

[40.4] OFFMAP MOVEMENT

Any unit in the Offmap Display can move onto the map **along its designated entry sector (see 46.6.2)** by participating in a March operation during any Activation Cycle in which it is eligible to activate, **including on the first turn it is placed in the Offmap Display.** However, its Movement Allowance is not the normal six MPs for March (the only operation that HQ and artillery units can conduct),

but is instead determined by the hex in the Offmap Display it starts in. Units in a “FIVE hexes offmap” hex enter the map with just **three** Movement Points. Units in a “TEN hexes offmap” hex enter the map with just **one** Movement Point (however, they can enter the map using minimum movement, see 16.2). For the avoidance of doubt, this means that no reinforcement HQ or artillery unit will ever be able to enter the map with more than three MPs (they will arrive realistically echeloned behind their forward combat units) because when these types of units are scheduled to arrive as reinforcements, they are always placed on the Offmap Display first. Alternatively, a unit in the Offmap Display can use its March operation to move from a “TEN hexes offmap” hex to a “FIVE hexes offmap” hex or vice versa. No unit in an Offmap Display hex is ever required to enter the map. **In addition, HQ and artillery units, only, that are currently on the map can enter or re-enter an Offmap Display from any friendly map edge (see 46.3.1) by expending a number of MPs equal to the Movement Cost of the map-edge hex they occupy. Alternatively, if a road runs from their hex off the map and they are eligible to use road movement, they can expend the fraction of an MP required to exit along the road.** Units which exit the map for any reason (usually to win Victory Points) are not placed in the Offmap Display but rather remain just offmap along the map edge they have exited to serve as a record.

[40.5] OFFMAP COMBAT

HQ and artillery units located in the Offmap Display are **not** subject to enemy Reconnaissance Attempts and generally cannot be attacked. As an **exception**, any artillery unit that fires from an Offmap Display Hex is subject to enemy Counter-Battery Fire. A Counter-Battery Acquisition Attempt uses the range **from an onmap spotter** to an eligible map-edge hex (any hex that the target unit could enter as a reinforcement) **plus** the range to the target offmap (always an additional five or ten hexes, depending upon which row on the Offmap Display the target occupies). Counter-Battery Fire by an onmap artillery unit against an offmap target uses the range **from the firing artillery unit** to an eligible map-edge hex (any hex that the target unit could enter as a reinforcement) **plus** the range to the target offmap (always an additional five or ten hexes, depending upon which row it occupies). When an artillery unit in the Offmap Display is attacked by enemy Counter-Battery Fire, it is the **only** unit affected by that fire even if it is stacked with other units. Its Defense Strength is adjusted using the terrain benefits for a Heavy Woods hex.

***Design Note:** Although the number of hexes in the Offmap Display is limited, the offmap area is sufficiently large that each offmap unit is presumed to actually occupy a hex by itself.*

[41.0] GAME SPECIFIC RULES

The following rules are specific to this game and might not apply to other games in the *Air & Armor* series.

[41.1] US 2/11 ARMORED CAVALRY SQUADRON.

The US 2/11ACR Armored Cavalry Squadron (all units bearing a light blue color stripe and the Unit Designation “2/11ACR”) is a special case. **This squadron (technically a large battalion) is treated in all respects as the fourth brigade of the 3rd Infantry Division**, meaning that units of the squadron can treat the Forward and Main Division HQs of the 3rd ID as superior HQs for all purposes. This means that the two US Division HQs can:

1. channel CPs and RPs through the Squadron HQ.
2. use 2/11ACR maneuver units as spotters for Reconnaissance Attempts (see 20.0) during their Activation Cycle.
3. use 2/11ACR units as observers for a Fire Call (see 21.3) for a strike, Defensive Fire or Offensive Fire.
4. use 2/11ACR maneuver units as spotters when conducting a Counter-Battery Acquisition Attempt (see 23.4).
5. make a Jamming Attempt (see 39.0) to support the 2/11ACR when the squadron conducts an offensive operation.
6. decontaminate 2/11ACR units (see 44.6).

[41.1.1] A special -2 DRM applies on the Reconnaissance Table when the WP player is attempting to acquire a hex occupied solely by cavalry units (M1 or M3) from the 2/11ACR (these troops were exceptionally good at hiding their presence).

***Design Note:** The 2/11 Armored Cavalry Squadron was part of the 11th Armored Cavalry Regiment attached to V Corps. It was not tasked to fight in the VII Corps sector. However, it was garrisoned at Bad Kissingen on the game map and therefore could easily have become engaged there in the opening hours of a surprise attack. When it appears in a scenario, it is attached to VII Corps only because it has become engaged in the VII Corps’ area of operations. Its fight is being managed by the VII Corps HQ, but it can draw support from the 3rd Infantry Division. Although only a battalion in size, the squadron deploys seven steps because the armored cavalry troops (companies) of the squadron were quite large and have therefore been split into two steps per troop. The squadron is allowed to form a seven-step task force because such a task force still represents a single battalion.*

[41.2] US ARMORED CAVALRY SCREENING

***Design Note:** US armored cavalry units trained for a special type of operation called screening. The job of these units was threefold: 1) to mimic the signature of a unit three times their size, 2) to force the enemy to take time deploying into attack formation (but to not*

be there when the attack materialized), and 3) to identify the enemy's main axis of attack. In peacetime, their job was to patrol the Inner German Border, which meant that they spent far more time in the terrain they would defend than any other units. Their training and their familiarity with the ground gave them an enhanced ability to fall back under pressure without getting decisively engaged.

The term "cavalry unit" refers to any **maneuver unit** in a US armored cavalry formation regardless of whether it is an M1 unit bearing an armor Unit Symbol or an M3 unit bearing an armored cavalry Unit Symbol. Whenever a WP force enters a hex adjacent to a cavalry unit by movement, advance, or retreat, the NATO player may have the option to declare a Screening Action after the Contact Procedure is run. A Screening Action is an Interrupt Action. If a WP force is moving during the Movement Step of a WP offensive operation and moves adjacent to a US cavalry unit, a Screening Action will interrupt that force's movement. This action will either succeed and immediately halt that enemy force, or it will fail, allowing that force to complete its remaining movement with no further Screening Action possible. A cavalry unit can attempt just **one** Screening Action against each individual WP force (**exception:** see 41.2.8 #1), but it can attempt a Screening Action against each separate enemy force that moves adjacent to it for as long as it remains eligible. A Screening Action is conducted as follows:

1. As soon as a WP force enters a hex adjacent to a cavalry unit eligible to screen, and the Contact Procedure establishes that the cavalry unit is real, the NATO player can declare that he will attempt a Screening Action. **If the adjacent hex the WP force enters contains a minefield, the NATO player must declare and execute any Screening action before the WP force suffers a Mine Attack (see 37.5.1).**
2. **If the NATO player chooses to screen,** he refers to the Screening Table and rolls the die.
3. He finds the result of the Screening Action at the intersection of the row for the die roll and the column for the terrain in the hex occupied by the cavalry unit.
4. He flips the screening cavalry unit to its used side (it is now committed to defending its current sector for the remainder of the turn).

[41.2.1] Screening Failure. If the Screening Action fails, then the WP force is free to continue to move. The cavalry unit cannot attempt to screen that force again for the remainder of its movement. **However, if the moving force does not end its movement in an adjacent hex to "pin" the cavalry unit (see 41.2.4, #2), then** the cavalry unit can attempt to screen any other WP force that moves adjacent to it later on, including another force moving in the same WP operation.

[41.2.2] Screening Success. If the Screening Action succeeds, then the moving WP force ends its movement in its current hex, and the cavalry unit **must** retreat one hex. This retreat must follow all normal retreat priorities as defined on the Retreat Priorities Chart. The screened WP force is allowed to **advance** into the vacated hex during the Advance Step of the operation **if the vacated hex remained the Objective hex at the end of the Movement Step** (see 41.2.8, #1). This advance may trigger another Screening Action by the cavalry unit, allowing it to fall back again.

[41.2.3] Screening Eligibility. A cavalry unit **can** conduct a Screening Action regardless of whether:

1. it is used or unused.
2. it is located in the Objective hex of the current enemy operation or not.
3. the WP force entering the adjacent hex is moving, advancing, or retreating.
4. **it occupies an obstacle hex.**

[41.2.4] Screening Restrictions. A cavalry unit **cannot** attempt a Screening Action if:

1. it is disrupted.
2. it is "pinned" by an adjacent enemy unit that is **not** currently moving (**though it can be part of the current operation**).
3. it is stacked with a non-cavalry unit or a cavalry unit from a different squadron.
4. it occupies a hex containing a minefield.
5. retreating one hex would require it to enter a hex prohibited by the Retreat Priorities Chart **or to move next to a WP unit.**
6. **it is a dummy (because it should have been removed during the preceding Contact Procedure).**

[41.2.5] Multi-Unit Screens. If a WP force moves adjacent to two or more cavalry units simultaneously, not all cavalry units need participate in a Screening Action, but all units **that choose to screen** execute a single Screening Action. If the screening units occupy more than one type of terrain, use the column on the Screening Table for the terrain that is most favorable to the NATO player. If the Screening Action is successful, the moving WP force is halted, and all screening units must retreat. If it fails, all screening units stand

their ground. In either case, all screening units are flipped to their used sides. If a WP force moves adjacent to both an armored cavalry unit and a non-armored cavalry unit at the same time, the armored cavalry unit can attempt to screen only if it is located in a separate hex.

[41.2.6] When a WP unit retreats adjacent to a cavalry unit, the cavalry unit can either can conduct a Screening Action or it can conduct Retreat Fire if it exerts a ZOC into that hex, **but it cannot do both.**

[41.2.7] When a WP unit advances into an Objective hex adjacent to a cavalry unit, the cavalry unit can attempt a Screening Action if still eligible **unless it has just retreated out of that Objective hex as a result of enemy Offensive Fire.** A successful Screening Action does not prevent the advance, but it does allow the cavalry unit to retreat a hex and remain out of contact.

[41.2.8] Impact on Regimental Operations. If a WP unit moves adjacent to an Objective hex containing a cavalry unit, and this cavalry unit successfully screens, then, per Case 13.5.3, the WP player has two choices:

1. He can move any remaining units in the regiment adjacent to that now empty Objective hex, proceed through the remaining Steps of the operation normally (including any NATO Defensive Fire), and then advance all adjacent participating units into the Objective hex during the Advance Step of the operation, **including the unit that was just screened** (it stopped to attack this hex). This advance may trigger another Screening Action by the cavalry unit that retreated out of the Objective hex **because any unit that enters the Objective hex will be moving adjacent to that cavalry unit.**
2. He can declare a new Objective hex for the operation, which could be the hex currently occupied by the cavalry unit that just screened or could be any other hex. **The WP unit just screened remains where it is, but** any WP units participating in the current operation that have **not yet moved** can then attempt to move next to this new Objective hex. If this Objective hex contains a cavalry unit, including the cavalry unit that just screened, that cavalry unit can attempt another Screening Action if it remains eligible.

The WP player can repeatedly be screened and then declare a new Objective hex until:

1. a Screening Action fails, whereupon he can attack the current Objective hex.
2. he declares an Objective hex that does not contain a cavalry unit eligible to screen.
3. he runs out of participating units to move.

If a cavalry unit **not** in the Objective hex conducts a successful Screening Action and halts a moving WP force adjacent to its Objective hex, that WP force can still attack the Objective hex and can still advance into it if the hex is cleared.

[41.2.9] If a NATO unit in the Objective hex attempts a Screening Action, and that action fails, then the NATO player **cannot** react a force into that Objective hex (he does not get to reinforce a position he was attempting to abandon).

[41.3] US COUNTER-BATTERY ACQUISITION TABLE

There are two Counter-Battery Fire Tables in this game, one for Counter-Battery Acquisition Attempts by US units and one for attempts by all other nationalities (including WP nationalities).

***Design Note:** US artillery units have a much greater chance of successfully acquiring a counter-battery target because the US was the only army at this time that possessed an effective counter-battery radar (the AN/TPQ-37 Firefinder). Every other army had counter-battery radars, but they were both limited in range and effective only against slow, high trajectory mortar and rocket rounds (whose fins made excellent radar reflectors). Thus, other armies still attempted to locate enemy artillery batteries using sound-ranging microphone systems little changed from WWII. The Firefinder, birthed at the dawn of the US microelectronics revolution, could detect and backtrack a cannon shell out to 15 miles. The US table has a row for 16-30 hexes that applies only if the target is a rocket artillery unit because rockets have a much larger radar cross-section and the Firefinder could track them out to that range.*

[41.4] WEST GERMAN COUNTERATTACKS

Once a turn, the NATO player can declare a single Hasty Attack by a West German task force as a “Gegenangriff” (counterattack). He makes this declaration during the Commitment Step of the operation. Just before the Defensive Fire Call Step of the operation, the NATO player rolls on the West German Gegenangriff Table found in the Charts & Tables Booklets. If the die roll is a 5 or higher, the normal order of fire is reversed, meaning that the NATO player executes his Offensive Fire Call and Offensive Fire Steps **before** the WP player executes his Reaction, Defensive Fire Call and Defensive Fire Steps. If the die roll is a 4 or less, then the normal sequence of Steps applies. When the sequence is reversed by a successful Gegenangriff attack, after NATO Offensive Fire, the WP player can elect to retreat and then applies any remaining Hits to step loss, but he does **not** yet execute that retreat. Next, but only if 1) a WP unit survives in the Objective hex and 2) the WP player did **not** elect to retreat, he can conduct his Reaction Step. He then makes any Defensive Fire Call to his DAG and executes Defensive Fire with all surviving friendly units adjacent to the participating WG units.

If there are no WP units adjacent to the attacking WG units after WG Offensive Fire, then a DAG cannot be called because there is no unit left to observe its fire. After the Defensive Fire Step, normal play resumes with the Retreat Step of the regular Hasty Attack sequence. In this Step, if the WP player elected to retreat, the retreat is executed by the surviving WP units in the Objective hex. The rest of the operation is then completed normally. A Gegenangriff cannot be declared if the Hasty Attack operation is instead declared to be an Overrun (see 42.0) or Close Attack (see 43.0) operation.

Design Note: In a tradition that dates to WWI, the German Army excelled at launching local counterattacks. However, such counterattacks are not without risk, hence the probability of failure embodied in the table.

STOP! Unless you wish to play with the following optional rules, or to play solitaire (see Case 45), you have reached the end of the rules. Proceed to the Play Book and set up a scenario to play.

[42.0] OVERRUN [OPTIONAL]

Design Note: An Overrun represents a high-speed charge to close with an enemy position, all guns blazing. This type of operation trades fire support for speed and shock. The advantage of this trade-off is that a small enemy force can be overwhelmed quickly, without giving it time to call for help. The disadvantage is that if the enemy force turns out to be larger than expected, the charging force may be annihilated. Every time I picked up the original game in the years after its publication, I found myself wanting this form of combat. It's very Soviet. However, in playtesting, we found that the threat of enemy strikes inevitably kept both sides hugging any form of covered terrain and so the actual opportunities for Overrun were few and far between. This rule is optional because it adds complexity without being used much. But it sure is fun when it happens!

If the Objective hex of a Hasty Attack operation is a **Clear** hex, then the active player can declare that operation to be an "Overrun." An Overrun is a variant of a Hasty Attack operation in which the participating units move into, and possibly out of, the Objective hex using a different sequence of Steps than a normal Hasty Attack. To participate in an Overrun, a regiment or task force must consist entirely of mechanized maneuver units (**no leg infantry, no infantry units with truck symbols, and no engineer units are allowed**). When a player declares an Overrun, the normal sequence for a Hasty Attack Operation Cycle is ignored and the following sequence is used instead:

1. **Commitment Step.** If the active player is the WP, he declares which regiment is executing its planned Hasty Attack operation and declares the Objective hex (see 13.5). If the active player is NATO, he declares a Hasty Attack operation, forms a single task force by placing a Lead Unit Marker on the lead unit and declaring which other active units within three hexes of the lead unit will join that task force, expends one Command Point to assign the task force to the operation, and then declares the Objective hex. The active player then declares that he is conducting an Overrun against the Objective hex. **If all participating units start the operation adjacent to the Objective hex, skip to Step 4.**
2. **Movement Step.** The Movement Allowance and movement capabilities of participating units are exactly the same as for a Hasty Attack operation. The active player forms a single overrunning force by converging participating units on a meeting point hex (see 16.6.2) and then moving the combined force into a single hex adjacent to the Objective hex. The overrunning force must be able to move adjacent to the Objective hex with sufficient MPs remaining to enter the Objective hex **or the Overrun cannot be declared.** Any participating units that do not join this force for any reason must move **before** the overrunning force is moved and cannot be moved adjacent to an enemy unit (though they can remain next to one, in which case they are immune to Defensive Fire during this operation). If the Hasty Attack operation is also declared to be an airmobile operation, participating airmobile units that are mechanized (meaning **only** Soviet BMD units with unit values of "2-2") can form an overrunning force during their ground movement pulse.
3. **Defensive Fire Step.** All inactive units adjacent to the overrunning force execute Defensive Fire as normal. Note that there is no **Jamming Step**, Reaction Step, nor a Defensive Fire Call Step (the operation unfolds too rapidly for any of these actions to occur).
4. **Overrun Step.** Any surviving units in the overrunning force must now move **into** the Objective hex (place the overrunning units on top of the defending units), expending **one** MP to enter the hex (the normal cost for a Clear hex). The active player will want to remember how many MPs remain to the overrunning force after it has entered the Objective hex. The movement into the Objective hex does **not** trigger Infiltration Fire from any inactive units. At this point, the active player will know the exact composition of the enemy stack in the Objective hex. He must now declare one of two options: 1) "fight to the finish", or 2) "charge through." To charge through, the overrunning force **must** have sufficient remaining Movement Points to enter at least one hex adjacent to the Objective hex and that hex cannot be adjacent to any enemy units that are located outside the Objective hex.
5. **Defender Point-Blank Fire Step.** The defending units in the Objective hex, only, execute a second round of Defensive Fire against the overrunning force at **double** their normal Fire Strength (before the standard division by two, so these two effects cancel each other out). For the avoidance of doubt, the overrunning units receive no terrain benefits because they now occupy a Clear hex. **No units outside the Objective hex can participate in this fire.**

6. **Attacker Point-Blank Fire Step.** The surviving units in the overrunning force, only, execute Offensive Fire at **double** their normal Fire Strength (before the standard division by two, so these two effects cancel each other out). No units outside the Objective hex can participate in this fire. There is no Offensive Fire Call Step. **The defending unit(s) cannot absorb Hits by retreating.** If the active player opted to fight to the finish, proceed to Step 7. If he opted to charge through, skip to Step 8.
7. **Fight to the Finish Cycle.** If a defending unit survives in the Objective hex, then repeat Steps 5 and 6 until only **one** player has units remaining in the hex, or **five rounds** of Point-Blank Fire have been exchanged. If both sides have surviving units in the Objective hex after five rounds of Point-Blank Fire against each other, the overrunning force must withdraw to the hex from which it entered and end its movement there. This withdrawal does not cost any MPs and does not trigger any type of fire. Once only one player has units remaining in the Objective hex, skip to Step 9.
8. **Charge Through Step.** The overrunning force **must** exit the Objective hex unless no enemy units remain in it. It can exit the Objective hex in any direction if it still has the MPs to enter that adjacent hex and it can continue to move thereafter with any MPs remaining. However, the overrunning force cannot move adjacent to an enemy unit located outside of the Objective hex.
9. **Completion Step.** Flip all participating units to their used side. Flip any surviving defending units in the Objective hex to their used side. Remove the Lead Unit Marker and the Objective Hex Marker.

[42.1] OVERRUN RESTRICTIONS

An Overrun cannot be initiated if the Objective hex:

1. is not a Clear hex.
2. contains an obstacle or minefield.
3. would have to be entered from an adjacent hex that contains an obstacle or minefield.
4. would have to be entered from an adjacent hex that is separated from the Objective hex by any type of river hexside (whether bridged or not).
5. would have to be entered from an adjacent hex by moving **upslope** across a Slope hexside (an overrunning force **can** enter the Objective hex by moving downslope across a Slope hexside).
6. would have to be entered from an adjacent hex that contains friendly units that are **not** participating in the Overrun operation unless the overrunning force starts in that adjacent hex.

[42.1.1] Improved Positions. Units that occupy a Clear hex containing an improved position can be overrun. However, only the defending units benefit from the improved position.

[42.1.2] Other Fire. An overrunning force is **never** subject to Infiltration Fire from enemy units when it **enters or exits the Objective hex**, but it is subject to Infiltration Fire in any other hexes along its path of movement.

[42.1.3] Multiple Overruns. Only the Objective hex of a Hasty Attack operation can be overrun. There is no limit to the number of times the same hex can be overrun, but each Overrun requires a separate Hasty Attack operation. **If the Objective hex of an Overrun proves to be empty of enemy units, another Objective hex can be selected, but only if it meets the standard requirements for an Overrun.**

[43.0] CLOSE ATTACK [OPTIONAL]

***Design Note:** A Close Attack is a close quarters assault by dismounted infantry into Close Terrain where infantry excels. It is executed much like an Overrun except that all participating units must start adjacent to the Objective hex. This rule is optional for the same reason that Overrun is optional. It is valuable as a threat but will seldom occur.*

If the Objective hex of an **Assault operation** is **Close Terrain**, then the active player can declare that operation to be a “Close Attack.” A Close Attack is a variant of an Assault operation in which the participating units move into the Objective hex before combat using a different sequence of Steps than a normal Assault. To participate in a Close Attack, a unit must meet **both** of the following conditions:

1. It must be an infantry unit (mechanized, motorized or leg) or an engineer unit.
2. It must start the operation in a hex **adjacent** to the Objective hex. **Exception:** An airmobile infantry unit need only start the **ground movement pulse** adjacent to the Objective hex, meaning that it can use an air movement pulse to get there.

When a player declares a Close Attack, the normal sequence for an Assault Operation Cycle is ignored and the following sequence is used instead:

1. **Commitment Step.** If the active player is the WP, he declares which regiment is executing its planned Assault operation and declares the Objective hex (see 13.5). If the active player is NATO, he declares **an Assault operation**, forms a single task force by placing a Lead Unit Marker on the lead unit and declaring which other active units within three hexes of the lead unit will join that task force, expends one Command Point to assign the task force to the operation, and then declares the Objective hex. The active player then declares that he is conducting a Close Attack against the Objective hex (which must be a Close Terrain hex). **Unlike a normal Assault operation, only one regiment or task force can be committed to a Close Attack operation because more would become masked in the Objective hex.**
2. **Movement Step.** The Movement Allowance and movement capabilities of participating units are exactly the same as for an Assault operation. Any units participating in the operation that do not start adjacent to the Objective hex must move **first** and cannot be moved adjacent to an enemy unit (though they can remain next to one, in which case they are immune to Defensive Fire during this operation). Next, any infantry and engineer units that **start** the operation adjacent to the Objective hex can move into the Objective hex atop the defending units. **Exception:** Infantry units executing an airmobile operation **can** use their air movement pulse to move adjacent to the Objective hex and then Close Attack into it in their ensuing ground movement pulse (**however, per Case 29.3.4, the Objective hex would have to be acquired or observed at the start of the operation**). Unlike an Overrun, the active player is not limited to a single force. Participating units can enter the Objective hex from multiple adjacent hexes. Movement into the Objective hex never triggers Infiltration Fire from inactive units.
3. **Defender Point-Blank Fire Step.** The defending units in the Objective hex execute a round of Defensive Fire against the close attacking units. **All normal effects for firing out of a Close Terrain hex apply: infantry and engineer units fire at double their normal Fire Strengths because they are firing from a Close Terrain Objective hex (see Case 18.2.2, #12), armor units fire at half their normal Fire Strengths and artillery units fire at a quarter of their normal Fire Strengths (see the Fire Effects Chart).** No units outside the Objective hex can participate in this Defensive Fire. There is neither a Reaction Step nor a Defensive Fire Call Step (the action occurs too rapidly for help to arrive). For the avoidance of doubt, close attacking units benefit from the terrain in the Objective hex using the column on the CRT labeled “Defense Modifier vs. Other Fire.”
4. **Attacker Point-Blank Fire Step.** The surviving close attacking units execute a round of Offensive Fire at **double** their normal Fire Strength (before the standard division by two, so these two effects cancel each other out). No units outside the Objective hex can participate in this Offensive Fire. There is no Offensive Fire Call Step. **The defending unit(s) cannot absorb Hits by retreating.**
5. **Fight Or Flight Step.** The active player can elect to withdraw any surviving units to any adjacent hexes that were friendly occupied at the start of the operation (with no requirement to return to the same hex). If he does not make this election, the inactive player can elect to withdraw his surviving units to any adjacent hex that did not contain an enemy unit at the start of the operation **and does not now**. **Neither withdrawal triggers any type of fire.**
6. **Fight to the Finish Cycle.** If neither player withdraws his units, then repeat Steps 3, 4, and 5 until only one player has units remaining in the hex, or **five rounds** of Point-Blank Fire have been exchanged. If both sides have units in the Objective hex after five rounds of Point-Blank Fire, the active units must withdraw **to any adjacent hexes that were friendly occupied at the start of the operation (with no requirement to return to the same hex).**
7. **Completion Step.** Flip all participating units to their used side. Flip any surviving defending units to their used sides. Remove the Lead Unit Marker and the Objective Hex Marker.

[43.1] CLOSE ATTACK RESTRICTIONS

No adjacent infantry or engineer unit can enter the Objective hex if any of the following apply:

1. It is separated from the Objective hex by any type of river hexside (whether bridged or not).
2. It would have to enter the Objective hex by moving upslope across a Slope hexside (a close attacking force **can** enter the Objective hex by moving downslope).
3. It occupies an obstacle or minefield hex, or the Objective hex contains an obstacle or minefield.

[43.1.1] Improved Positions. Units that occupy an improved position can be close attacked. However, only the defending units benefit from the improved position.

[43.1.2] Other Fire. No force of either side is subject to Infiltration Fire or Retreat Fire when entering or withdrawing from the Objective hex during a Close Attack.

[43.1.3] **Multiple Close Attacks.** There is no limit to the number of times a single hex can be close attacked, but each Close Attack requires a separate **Assault** operation.

[44.0] POISON GAS [OPTIONAL]

Design Note: *Meticulous studies of chemical warfare have demonstrated that the primary impact of chemical weapons is psychological. Historically, actual casualty rates from poison gas were in the single digits, but the fear factor could break even veteran troops once they were enveloped in clouds of toxic vapor. This fear factor would have been amplified in any clash between NATO and the WP by the use of nerve agents. Theoretically, a single liter of the VX nerve agent stockpiled by both sides contained enough individual doses to kill a million souls. The challenge to chemical warfare is that gas impedes the operations of the attacker even more than the defender. Both sides are forced to button up with very limited visibility, but at least the defender knows where he is and what direction the enemy is likely to come from. The attacker can easily lose his bearings entirely and will struggle to spot where enemy fire is coming from. Accordingly, the most likely use of gas was actually defensive: to protect the flanks of a breakthrough from counterattack so the armored spearheads could keep rolling through the breach. These Poison Gas rules are optional because 1) this game does not need another dimension of combat to manage and 2) the combatants avoided chemical warfare in WWII and quite possibly would have avoided it again in WWII for all the same reasons.*

[44.1] GAS POINTS

The instructions for the scenario being played may provide each player with a limited number of Gas Points. The NATO player will never receive Gas Points unless US forces are in play (no other NATO country possessed chemical munitions). These points represent artillery or air delivered chemical munitions. There are two types of Gas Points: 1) Persistent Gas Points and 2) Non-Persistent Gas Points. Like all Combat Support Points (see 46.4.1), Gas Points do not renew each turn. Rather, they constitute a pool of points available for use over the entire scenario (although some scenarios may provide reinforcement points). If a player receives Gas Points, he places a Gas Points Marker of the appropriate type (Persistent or Non-Persistent) in the box on the Combat Support Points Track equal to the number of Gas Points he is allocated. Gas Points are expended to make Gas Strikes. **The NATO player cannot expend a Gas Point unless the WP player has expended one first.**

[44.2] GAS STRIKES

Gas Strikes create Gas Zones which can contaminate or eliminate enemy units. Gas Strikes are made very much like ADM Strikes (see 23.5 and the ADM/Gas Strike Sequence found in the Charts & Tables Booklet) **except** that a Gas Point is expended instead of an ADM Point; where an ADM Strike creates a minefield, a Gas Strike creates a Gas Zone; and where a minefield makes a Mine Attack, a Gas Zone makes a Gas Attack. A Gas Strike can be made by:

1. any one WP artillery unit with a Modified Fire Strength of eight or more (before the standard division by two).
2. any one US artillery unit (**except** a rocket artillery unit) with a Modified Fire Strength of eight or more (before the standard division by two).
3. a US F-16 air unit (see 24.2.2) or any WP air unit. The air unit must **use a bombing profile and** contain at least two steps **after** enemy anti-aircraft fire.

Gas Points can be expended equally by either an air unit or an artillery unit (these points represent a call on limited resources, not a specific munition). **WP Gas Points can be expended by any WP artillery unit, regardless of nationality.** Gas Strikes cannot be made by attack helicopter units.

[44.2.1] A Gas Strike can target any hex if 1) it is **not** adjacent to a friendly unit and 2) it is acquired. An empty hex can be targeted if it has been acquired using the “Empty” row of the Reconnaissance Table (see 20.2.2).

[44.2.2] When a player makes an Air Call for a Gas Strike, he must expend a Gas Point **before** the air unit enters the map. If enemy anti-aircraft fire reduces the air unit to less than two steps, the Gas Strike fails, and no Gas Zone is created. The Gas Point remains expended.

[44.2.3] Once the WP player expends a Gas Point, the NATO player is free to start using his own Gas Points.

[44.3] GAS ZONES

When a Gas Strike is made, place a Gas Zone Marker in the target hex (see 6.3.5). If the strike expends a Persistent Gas Point, place a Persistent Gas Zone Marker. If the strike expends a Non-Persistent Gas Point, place a Non-Persistent Gas Zone Marker. **A Gas Zone exists in the hex containing the Gas Zone Marker and in the six adjacent hexes.** All Non-Persistent Gas Zone Markers on the map are removed during each Reorganization Phase. Persistent Gas Zone Markers are never removed. **The Fire and Flak Strengths of a ground unit firing out of a Gas Zone hex are halved for as long as it remains in that hex.** These effects are **not** cumulative with the effects of contamination (see 44.4) but are cumulative with any other effects on Fire and Flak Strengths. A Gas Zone hex has no effect on fire **into** the hex, only on fire **out** of it.

[44.4] CONTAMINATION

A force or stack can become contaminated in any of four ways:

1. It occupies the target hex of a Gas Strike when that strike lands, in which case it is **automatically** contaminated. **Place a Contaminated Marker (see 6.1.4) on each unit in the hex.**
2. It occupies one of the six hexes adjacent to the target hex of a Gas Strike when that strike lands, in which case it must make a Contamination Check (see 44.4.1)
3. It enters a hex in a Gas Zone at any point during play (including advance and retreat), in which case it must make a Contamination Check for each individual hex in the Gas Zone that it enters. This contamination check is an Interrupt Action.
4. It ends the Activation Cycle for its formation in a Gas Zone (whether it moved or not), in which case it must make a Contamination Check during the Contamination Segment of that Activation Cycle. **Units from base formations belonging to a Corps, Army, or Front, which can move during the Activation Cycles for any subordinate formations (except NATO formations of a different nationality), check for contamination during the Contamination Segment of the first Activation Cycle in which they can legally move, whether they actually move or not.**

Gas Zones have no friends. An uncontaminated unit entering or remaining in a hex inside a Gas Zone is subject to a Contamination Check no matter which player created that zone. Air and helicopter units are never subject to contamination.

[44.4.1] Contamination Check. Whenever a force or stack is subject to a Contamination Check, the owning player consults the Contamination Check column of the Chemical Warfare Table in the Charts & Tables Booklets and rolls one die. On a die roll of 1-5, every unit in the force or stack becomes Contaminated. Place a Contaminated Marker on top of each affected unit. **For the avoidance of doubt, if a Contamination Check is made during a Gas Strike, a contamination result affects all units in the hex. If a Contamination Check is made when an active force enters or remains in a hex inside a Gas Zone, then a contamination result affects only that active force (whether it moved or not), not any other units in the same hex.** Once a unit is contaminated, it is **not** subject to further Contamination Checks until it is decontaminated.

[44.4.2] Overlapping Gas Zones. If two Gas Markers each project a Gas Zone into the same hex, there is no additional effect when a force enters that hex. The moving force makes a single Contamination Check.

[44.4.3] Contaminated Markers. Once a Contaminated Marker is placed on a unit, that marker remains until the unit is decontaminated (see 44.6). **It does not matter whether the Gas Zone that caused the contamination is Persistent or Non-Persistent.** No unit bearing a Contaminated Marker can combine with an uncontaminated unit, nor can it transfer steps to one. **A contaminated unit can split, but each successor unit must bear a Contamination Marker.** Contaminated units that stack with uncontaminated units do not affect the uncontaminated units. Keep the contaminated units under their markers and the uncontaminated units above them.

[44.4.4] Contamination Effects.

A unit that becomes contaminated **during a Gas Strike** is immediately subject to a Gas Attack (see 44.5). A unit that becomes contaminated by entering a Gas Zone or ending its Activation Cycle in a Gas Zone is never subject to a Gas Attack (it is already buttoned up). Regardless of how a unit becomes contaminated, it suffers the following effects for as long as it remains contaminated:

1. Its Fire Strength is halved. This effect is not cumulative with the halving effect for occupying a hex in a Gas Zone but is cumulative with any other effects on Fire Strength.
2. **Its Flak Strength is halved**
3. It moves with just 2/3 of its normal Movement Allowance. **Contaminated leg infantry cannot use road movement.**
4. **If playing in Hidden Mode (see 45.0), an unrevealed unit is immediately revealed.**
5. **If playing in Hidden Mode, its steps are not returned to the pool during the Return to Pool Step.**

There are no further effects for being contaminated, and a unit can remain contaminated indefinitely.

Design Note: *The effects of contamination reflect the reality that once a unit is contaminated, all soldiers are keeping their MOPP suits on indefinitely and anyone in a vehicle is staying fully buttoned up. This is because, within the short timeframe of this game, no soldier is going to trust the fine distinction between persistent and non-persistent agents. Once a unit is contaminated, nothing will make a soldier come out of his gear or his vehicle except a decontamination wash station. MOPP suits don't breathe, so heat stroke is a problem, and both vision and performance are severely degraded.*

[44.5] GAS ATTACKS

When a stack is **first** contaminated by a Gas Strike, it is subject to a Gas Attack, **unless it already occupied a hex in a Gas Zone (in which case it was already buttoned up before the strike)**. Like a Mine Attack, a Gas Attack is executed by the player owning the units in the stack. When a stack is subject to a Gas Attack, the owning player must first reveal the number of steps contained in each unit in the stack to the opposing player. The owning player then consults the Gas Attack column of the Chemical Warfare Table in the Charts & Tables Booklets and rolls the die once for each **step** in every unit in the stack. A step is eliminated on a die roll of 1 and survives on any other result. When playing in Hidden Mode (see 45.0), any unrevealed unit subject to a Gas Attack is revealed before the Gas Attack is conducted. A unit that is contaminated by entering or remaining in a Gas Zone is never subject to a Gas Attack (its troops would have entered already buttoned up and in MOPP gear). Once a unit is contaminated for any reason, it is never subject to further Gas Attacks even if targeted by another Gas Strike (once buttoned up, it remains buttoned up).

***Design Note:** The principal at work here is that the first Gas Strike on a unit can catch it by surprise, and therefore possibly kill the troops. But once a unit deliberately enters or remains in a Gas Zone or gets hit by another Gas Strike while already contaminated or in a Gas Zone, there is no chance of troop loss because the troops are already fully prepared.*

[44.6] DECONTAMINATION

During the Reorganization Phase, each **undisrupted** Division Main HQ (see 4.1.4.4 and 4.1.4.5) in play can decontaminate friendly units. **Exception: The 35th Guards Air Assault Brigade HQ cannot decontaminate friendly units.** A WP Main HQ can decontaminate up to **nine steps** each turn. A NATO Main HQ can decontaminate up to **four steps** each turn. All units to be decontaminated must occupy the same hex (the decontamination wash station) and must meet all the following conditions:

1. They belong to the same division as the decontaminating Main HQ or to a base formation in the same chain of command. **Exceptions: Any WP Main HQ can decontaminate steps from an attached independent regiment or battalion, and the US 3rd Infantry Division Main HQ can decontaminate units from the 2/11 ACR and 4 Canadian Mechanized Brigade Group.**
2. They are within the Command Range of the decontaminating Main HQ.
3. **They are not disrupted.**
4. They do not occupy a hex in a Gas Zone.
5. They are not within **six hexes** of an enemy unit (do not count enemy airmobile units).

A player cannot decontaminate some steps in a unit and not others: he must split the unit first so that all decontaminated steps end up in their own unit. When a unit is decontaminated, its Contaminated Marker is removed **and it is flipped to its used side**, meaning that it will be unable to participate in any operation on the following turn. Decontamination using this procedure is the only way that a Contaminated Marker can ever be removed from a unit (though Decontamination Markers are always separated from Unit Counters when they are removed from the map).

[44.7] CHEMICAL WEAPONS PENALTY

Whenever the WP player initiates chemical warfare by expending his first Gas Point, whatever Victory Scale he ultimately achieves (see 46.7.1) is moved one level against him. Thus, if he wins a Marginal Victory, this becomes a Draw, and if the NATO player wins a Marginal Victory, this becomes a NATO Tactical Victory.

[45.0] HIDDEN MODE PLAY

***Design Note:** The Air & Armor game system simulates the “fog of war” by hiding a player’s unit strengths from his opponent. The Hidden Mode rules provide a mechanism to keep this “fog of war” intact when a player plays the game solitaire. These rules do not provide any means for autonomous command of enemy forces. A solitaire player must still actively command both sides.*

*Nevertheless, these rules do provide a dynamic tension to playing solitaire because a player will still have no idea what is going to happen when he initiates an operation. Although Hidden Mode was originally designed for solitaire play, we discovered in playtesting that Hidden Mode also works well for playing games against a live opponent. Hidden Mode layers in a very realistic disconnect between the precision of operational plans and the chaos of their implementation under fire. This chaos includes not only uncertainty regarding **enemy forces** but also the real-world breakdowns a commander can face directing his **own forces** due to communications lapses, poor reporting, orders getting missed, misunderstood, or ignored, logistics failures, and a host of other factors that can go wrong in the crucible of combat. **Accordingly, these rules not only enable solitaire play but also provide an entire second way to play Air & Armor with another player.** In this alternate approach, **both** players use the Hidden Mode rules to determine the strength of their **own** maneuver units. This is entirely appropriate. After all, the first known use of the term “fog of war” appeared in the 1896 book “The Fog of War” by Sir Lonsdale Augustus Hale (a colonel in the British Army) in which he described the fog of war as “the state of ignorance in which commanders frequently find themselves as regards the real strength and position, not only of their foes, **but also of their friends.**”*

A player has three options for solitaire play. He can play both sides in Open Mode (the mode described in all previous rules). He can pick a side as “his” and play that side in Open Mode, while playing the opposing side in Hidden Mode. Or, for the fullest “fog-of-war” experience, he can play both sides in Hidden Mode. Players have two options for play with a live opponent. They can both play in Open Mode, or they can both play in Hidden Mode.

[45.1] HIDDEN MODE UNITS

When a side is played in Hidden Mode, all maneuver units belonging to that side are deployed on the map **with no Step Markers**. A unit with no Step Marker is “unrevealed.” The steps that would normally be deployed under these units are kept off the map in a “pool” of steps for each unique regiment or brigade in play. These pools are tracked on the Pool Card provided for each player. The steps in each pool are assigned to a specific unit only when that unit is detected or acquired. The process of assigning steps to a unit is termed “revelation” and the number of steps assigned to a unit is based on a die roll on the Revelation Table. Once a unit bears a Step Marker, it is “revealed.” However, a revealed unit returns to its undetected state in Hidden Mode exactly as it does in Open Mode (see 11.2) and, once it becomes undetected again, the opposing player cannot examine it. At the end of each turn, all steps beneath all revealed maneuver units, with a few exceptions, are returned to their pools, each revealed unit loses its Step Marker, and the cycle of revelation begins anew.

Designer’s Note: Physicists playing Air & Armor in Hidden Mode may be reminded of Schrödinger’s cat.

[45.1.1] Pool Cards. The WP player has two Pool Cards, and the NATO player has one. The Pool Cards display a Unit Counter Box and a Step Box for each type of maneuver unit in each unique regiment or brigade that a player controls. The Unit Counter Box shows a picture of the exact type of unit for the pool (unused Unit Counters can be kept in this box) and the Step Box shows the original number of steps in the pool (the number of steps of that type that the formation started with). When playing a side in Hidden Mode, a Step Marker is always kept in the Step Box(es) for each formation in play to indicate the number of steps currently in each pool, **except** that when the pool reaches zero, the Step Marker is removed.

[45.1.2] Brigade/Type. Where the Pact player has a step pool for each unique regiment, the NATO player has a step pool for each unique “brigade/type.” A brigade/type refers to the set of Unit Counters and steps for each unique type of unit in a NATO brigade. For example, the four steps and three Unit Counters for M1 units in the US 197th Infantry Brigade constitute a brigade/type. The four steps and three Unit Counters for Bradley units in the 197th constitute a brigade/type. And the four steps and three Unit Counters for M113 units in the 197th constitute a brigade/type. Thus, the US 197th Infantry Brigade will normally start a scenario with an M1 pool of four steps, a Bradley pool of four steps, and an M113 Pool of four steps. Accordingly, each Step Box for the 197th should contain a Step Marker set to four steps.

[45.1.3] Hidden Mode Stacking Restrictions. When moving, advancing, or retreating revealed units in Hidden Mode, a player can violate the standard stacking limits of nine steps of maneuver units for the WP and four steps for NATO at the normal price of masking the excess steps (see 14.4). However, a player **cannot** violate these stacking limits during the Revelation Procedure (see 45.3). When Revelation leads to more maneuver steps appearing in a hex than the stacking limits allow, the excess steps that just appeared **must** be returned to the step pool. In Hidden Mode, players **also** face a limit on the number of maneuver **Unit Counters** that can stack in a hex at the end of any operation. **This limit is three maneuver Unit Counters for the WP player and two maneuver Unit Counters for the NATO player.** Engineer, artillery, HQ, air, and helicopter Unit Counters never count against this limit. If a player stacks more maneuver Unit Counters in a hex than permitted, he must mask the excess units, whether revealed or not. **In all cases, used units that start an operation unmasked in a hex cannot be chosen to be masked** (they already “own” the hex).

[45.2] HIDDEN MODE UNIT SETUP

When a player decides to play a side in Hidden Mode, he follows the instructions below to set up formations that start the scenario on the map or that enter as reinforcements.

[45.2.1] WP Maneuver Unit Setup. Place the WP Pool Cards near the map. Deploy on the map **all** available Unit Counters for each WP regiment that starts on the map, all **without** Step Markers. Create the pool for each regiment by placing a Step Marker on the Pool Card in the Step Box for that regiment with a step strength equal to the number printed in that box unless the step strength of the regiment is reduced by the scenario instructions.

[45.2.2] NATO Maneuver Unit Setup. Place the NATO Pool Card near the map. Deploy on the map **all** maneuver Unit Counters for each brigade that starts on the map, all **without** Step Markers. Create the pool for each brigade/type by placing a Step Marker on the Pool Card in the Step Box for that brigade/type with a step strength equal to the number printed in the box unless the step strength for that brigade/type is modified by the scenario instructions. For example, when deploying the 1st Brigade of the 3rd Armored Division, the NATO player would normally place an 8-Step Marker in the Step Box for its M1s and 8-Step Marker in the Step Box for its M113s.

[45.2.3] Airmobile Unit Setup. All airmobile formations enter the map as reinforcements. Each airmobile formation has one Unit Counter for each step available. In Hidden Mode, airmobile units are always treated as one-step units. Accordingly, they have no step pools on the Pool Cards because their step strength is never a mystery.

[45.2.4] Artillery Unit Setup. There are no step pools for artillery units. They deploy on the map with player-controlled Step Markers exactly as they do in Open Mode (see 11.1.4) and a player can always split and combine his artillery units at will **where possible**.

[45.2.5] Support Unit Setup. HQ and engineer units are always one step units exactly as they are in Open Mode.

[45.2.6] Air & Helicopter Units. Air and helicopter units deploy exactly as in Open Mode, with the players always in control of the number of steps that an air or helicopter unit contains.

[45.2.7] Minefield Setup. If the scenario instructions indicate that a side sets up a certain number of real and dummy minefields, deployment depends on the player(s). If a player is playing solitaire, place the indicated number of markers of each type into a cup, shake, and then randomly draw and deploy the markers with their Hidden side face up and therefore unknown to the player. If a game is being played by two live opponents who have chosen to play using Hidden Mode, each player can choose where to deploy his Real and Dummy Minefield Markers exactly as he would in Open Mode.

***Play Note:** If playing this game solitaire on Vassal, deploy Real Minefield Markers with their “?” side up, and roll a die when a unit first enters the hex. On a 1-5, the minefield is a dummy. Replace the Real Minefield Marker with a Dummy Minefield Marker. On a 6-10, the minefield is real. Flip the Real Minefield Marker over. Once the number of real or dummy minefields revealed equals the number permitted by the scenario instructions, no more rolls are made. All remaining minefields are automatically the type whose limit has not yet been reached.*

[45.2.8] Reinforcements. When a player enters a reinforcement formation, he must enter **all** available maneuver Unit Counters in its TO&E. All maneuver units enter **without** a Step Marker. If all steps in a formation have already been revealed (because they made contact as they entered), a player must still enter any remaining Unit Counters, which will automatically be dummies should they be revealed this turn.

[45.3] REVELATION

At any point in the game when the Step Marker underneath a non-airmobile maneuver unit would normally be revealed to the opponent, **or when it attempts an action that requires it to be real, such as entering a minefield or crossing an enemy controlled bridge**, the controlling player uses the following Revelation Procedure:

1. Refer to the Revelation Table in the Charts & Tables Booklets.
2. Roll a die.
3. Apply any DRMs indicated on the table.
4. Cross reference the row for the modified die result with the column for the type of unit and find at the intersection the number of steps revealed.
5. Remove this number of steps from the appropriate pool on the Pool Card by adjusting its Step Marker down and then place a Step Marker equal to the result under the unit just revealed.

Generally, a unit will become revealed when it is detected. However, just because it is revealed does not automatically mean that it remains detected. A unit is detected, **and therefore subject to strike**, only if it is **currently** adjacent to an enemy unit or under an Acquired Marker. If a unit is revealed to have zero steps, then it is a dummy and must be removed from the map immediately. If the number of steps revealed in a unit would cause the total number of steps currently revealed in that hex to exceed the stacking limit for that player, **then only the maximum number of steps that would not violate this limit are placed under the unit and any excess steps are returned to the pool**. Conversely, if there are not enough steps left in the pool to supply the number of steps just revealed, then only the number of steps available in the pool are placed under the unit **and the Step Marker is removed from the Steps Box to indicate that the pool is currently empty**. If two or more unrevealed units are stacked in a hex, the owning player can always choose which unit to roll for first **except that unmasked units must be revealed before any masked units**. Once a unit is revealed, its Step Marker remains on the map until the Return to Pool Step of the Reorganization Phase, but the opposing player **cannot** ask for its value unless he has an adjacent unit, or the unit is currently under an Acquired Marker.

[45.3.1] When playing in Hidden Mode, the Contact Procedure described in Case 16.8.1 is ignored and instead the Hidden Mode Contact Procedure is run as follows:

1. If no unit in the moving force is already revealed when contact occurs, **the active player runs the Revelation Procedure first** for each unit in that force. Units revealed to be dummies are immediately removed from the map.
 - a. If no unit in the moving force proves to be real, then the **inactive player** need not reveal any of his adjacent units.
 - b. If any of the units in the moving force prove to be real, then the **inactive player** runs the Revelation Procedure for all his unrevealed units adjacent to that moving force. All units revealed to be dummy units are immediately removed from the map.
2. If any unit in the moving force is already revealed (it has a Step Marker beneath it) when contact occurs, the active player declares that his force is real, and **the inactive player runs the Revelation Procedure first** for all his unrevealed units adjacent to that moving force. All units revealed to be dummy units are immediately removed from the map.
 - a. If there are no inactive units adjacent to the moving force at the end of this revelation process (because they all proved to be dummies), then no active units in the moving force need be revealed and the moving force continues its movement.
 - b. If any of the inactive units prove real, then all unrevealed units in the active force must be revealed.
3. If both players prove to have real units in contact after all revelation has been completed, then each player can examine all opposing adjacent units **except** that the active player cannot examine any Hidden Minefield Markers in hexes adjacent to his moving force.
4. The active player then decides whether to end his force's movement in that hex or continue with any MPs remaining.

The Hidden Mode Contact Procedure can also be found in the Charts & Tables Booklet.

[45.3.2] When the last unrevealed maneuver unit on the map for a specific WP regiment or NATO brigade/type must be revealed and there are steps remaining in its pool, the unit does **not** automatically receive those steps. The owning player must still roll on the Revelation Table to determine how many steps the unit receives. When playing in Hidden Mode, it is entirely possible for a formation to have all its units revealed and still have steps remaining in its pool.

Design Note: The possibility that some steps will “go missing” on some turns is a very intentional feature of Hidden Mode and reflects the reality that units are often not where they are supposed to be, not where they think they are, or simply out of communication. Coping with this chaos is a commander's job.

[45.3.3] Once a regiment or brigade/type's step pool is exhausted (at zero steps), no more rolls are made on the Revelation Table until steps are returned to its pool. Any remaining unrevealed units in that regiment or brigade/type are automatically removed from the map as dummies if they must reveal. The owning player is not required to remove them from the map unless he is forced to reveal them by enemy action. However, **for as long as a regiment or brigade/type's step pool is exhausted**, the owning player can **voluntarily** remove any unrevealed unit at any point during the Activation Cycle for its formation (and immediately reuse the Unit Counter to split a revealed unit if desired).

[45.3.4] The set of maneuver units committed to a single NATO task force can never total more than four steps. If a specific revelation die roll causes the total number of revealed maneuver-unit steps committed to a task force to exceed four, then any excess steps just revealed are returned to the pool immediately. If an excess occurs before all maneuver units committed to a task force have been revealed, **then any remaining unrevealed units are immediately flipped to their used sides and drop out of the task force without being revealed**. Because they are now used, they will not be able to join any other task force this turn.

Design Note: This rule deliberately presents the NATO player with a trade-off when he attempts to ensure that he will get four steps in a task force by assigning an excessive number of units to it.

[45.3.5] An unrevealed US cavalry unit is always revealed when a WP unit moves into an adjacent hex. If the cavalry unit is revealed to be real, then it can conduct a Screening Action if it is eligible to do so.

[45.3.6] When the NATO player rolls on the Revelation Table to reveal a US cavalry unit and receives a “Dummy” result, he treats this as a result of “1” if the cavalry unit bears a Deliberate Defense Marker and a step is available in the pool.

[45.3.7] A -1 DRM applies when rolling on the Revelation Table for a unit from a Shattered formation. This DRM is **not** noted on the Revelation Table.

[45.4] OPERATIONS

[45.4.1] **Splitting and combining units.** The following rules apply to splitting and combining units in Hidden Mode:

1. Revealed units can be split and combined per all normal rules.
2. Unrevealed units can **never** be split or combined.
3. Revealed units can **never** be combined with unrevealed units.

Design Note: *The prohibition against splitting or combining unrevealed units acts as a brake on having steps “teleport” across the map from one turn to another. However, a certain amount of “teleportation” is a logical consequence of having some steps go missing. They can reappear in unexpected places.*

[45.4.2] Stacking. A player can stack a revealed maneuver unit with unrevealed maneuver units even if the revealed unit already contains the maximum number of steps allowed by the stacking limit. However, in this case, any unrevealed maneuver units in the hex will automatically be dummies if they are revealed because steps cannot be assigned in excess of the stacking limit.

[45.4.3] Ferry Crossings. When an unrevealed maneuver unit conducts a Ferry Crossing (see 17.4), it is revealed just **before** the crossing is made. If it contains more steps than can be ferried across, and there is no Unit Counter available to embody the steps that will cross, then any identical **unrevealed** Unit Counter located anywhere on the map can be removed from play and immediately reused for this purpose. Place a Step Marker underneath it equal to the number of steps that have crossed. If there is no unrevealed Unit Counter available, then the Ferry Crossing cannot be made.

[45.4.4] Amphibious Crossings. When a WP motor rifle regiment makes an Amphibious Crossing Attempt over a Major River hexside (see 17.5) with an unrevealed unit, it is revealed just **before** the crossing is made. The WP player then consults the Amphibious Crossing Table and rolls a die to determine the number of steps that successfully cross to the other bank. If some steps cross and others do not, and there is no Unit Counter available to embody the steps that make it across, then any identical **unrevealed** Unit Counter located anywhere on the map can be removed from play and immediately reused for this purpose. Place a Step Marker underneath it equal to the number of steps that have crossed. If there is no unrevealed Unit Counter available, then the Amphibious Crossing Attempt fails, and all steps remain in the crossing site.

[45.4.5] Minefields. When an unrevealed unit enters a hex containing an Hidden Minefield Marker, **the unit is revealed first**. If it is revealed to be a dummy unit, it is removed from play immediately and the active player **cannot** examine the Minefield Marker. If the unit is revealed to be real, the Minefield Marker is then flipped to determine if it is real. If the minefield is real, then each step in the force that just entered is subject to a Mine Attack. See also 45.5.3.

[45.4.6] Contamination. *When an unrevealed unit becomes contaminated, it is immediately revealed.*

[45.4.7] Step Transfer. When a side is played in Hidden Mode, step transfer is allowed only between **revealed** units (see 11.7).

[45.4.8] Exiting the Map. When a unit exits a map edge (usually to earn Victory Points, see 46.7.4), the following rules apply:

1. If the unit is revealed, both the unit and its steps remain offmap (the steps are **not** returned to the pool during the next Reorganization Phase) and may count for Victory Points at the end of the game.
2. If the unit is not revealed, the owning player rolls for revelation the instant it exits. Any steps it acquires, up to the stacking limit, remain offmap with the unit (the steps are not returned to the pool during the next Reorganization Phase) and may count for Victory Points at the end of the game.
3. *When a Pact regiment earns VPs for exiting a map edge (not by step but by regiment), it counts as exited if 1) all surviving steps have exited or 2) all three counters have exited even if steps remain in the pool. This rule supersedes any scenario instructions that say all surviving steps must exit because these instructions were written for Open Mode.*

[45.4.9] Hidden Mode Reaction. A player can react a force containing unrevealed units into an Objective hex, whereupon they are immediately revealed. However, per Case 45.3, no maneuver steps can be revealed in excess of the stacking limits nor can the number of Unit Counters in the hex exceed a player’s Hidden Mode Unit Counter stacking limits (see 45.1.3). However, a player **is** allowed to combine reacting units with units in the Objective hex **after** the reacting units have been revealed to meet the Unit Counter limit at the end of the reaction movement. If all reacting units turn out to be dummies, the units in the Objective hex are still flipped to their used sides and cannot retreat (they are holding the hex in expectation of reinforcement).

[45.4.10] Eliminated Units. When a maneuver unit is eliminated, return its Unit Counter to the Unit Counter Box for its regiment or brigade/type on the Pool Card. **Exception:** Airmobile maneuver units have no pool (they are always one-step units), and thus an eliminated Airmobile maneuver unit is permanently removed from play.

[45.5] RETURN TO POOL

[45.5.1] During the Return to Pool Step of the Reorganization Phase, all Step Markers are removed from all maneuver units on the map belonging to a side being played in Hidden Mode, **except** for Step Markers underneath units that:

1. remain adjacent to an enemy unit.
2. belong to a regiment or brigade/type that has conducted a Ferry or Amphibious Crossing **in the last two turns (the current turn or the prior turn)** and still has units of the same type on **both** sides of a Major River (see 45.5.2).
3. occupy a minefield (see 45.5.3).
4. **are contaminated (44.4).**
5. are surrounded by a continuous ring of hexes containing enemy units or EZOCs (at any distance, see 45.5.5).
6. have exited the map.

Steps removed are returned to the appropriate pool for each WP regiment or NATO brigade/type and the Step Markers for these pools on the Pool Cards are increased accordingly. Steps eliminated during play are never returned to the pool.

[45.5.2] **River Crossings.** Revealed units that share a common pool and are located on opposite sides of a Major River after one or more of those units have crossed the Major River by a Ferry or Amphibious Crossing **in the last two turns (the current turn or the prior turn)** do **not** have their Step Markers removed and their step strength returned to the pool but rather keep their Step Markers onmap until the first Reorganization Phase in which **all** surviving steps of that regiment or brigade/type on the map are on the **same** side of the Major River **or the river crossing is now more than two turns in the past.**

***Play Note:** Players should use common sense for this rule. Steps cannot teleport over Major Rivers. They must have been transported there by a legitimate operation.*

[45.5.3] **Minefields.** A revealed unit that occupies a minefield does **not** have its Step Marker removed and its step strength returned to the pool but rather keeps its Step Marker until the first Reorganization Phase in which it no longer occupies a minefield.

[45.5.4] **Contamination.** A contaminated unit is always revealed immediately and does **not** have its Step Marker removed and its step strength returned to the pool but rather keeps its Step Marker until the first Reorganization Phase in which it is decontaminated.

[45.5.5] **Pockets.** A revealed unit that is surrounded by a continuous ring of hexes containing enemy units or EZOCs does **not** have its Step Marker removed and its step strength returned to the pool but rather keeps its Step Marker until the first Reorganization Phase in which it is no longer surrounded. The ring can be at any distance from the revealed unit.

[45.6] REDEPLOYMENT

When a maneuver unit is eliminated, combined, or revealed to be a dummy, its Unit Counter is always returned to the Unit Counter Box for that regiment or brigade/type found on the Pool Card. During the Redeployment Segment of each Activation Cycle, a player can return to the map any or all Unit Counters for the active formation currently located on the Pool Card. A player can combine revealed units that start in the same hex during the Redeployment Segment in order to return the surplus Unit Counter(s) elsewhere, or even back to the same hex, as unrevealed units. Returning units can be placed in either of the following locations **provided that they can never be placed in a hex adjacent to an enemy unit:**

1. In any hex on the map containing another unit from the same regiment or brigade/type
2. In any hex on the map containing a superior HQ

A player is never required to redeploy all available Unit Counters during the Redeployment Segment. He can choose to reserve some or all counters to split revealed units later on and he can keep counters on the Pool Card indefinitely.

[45.6.1] Unit Counters **can** be deployed onto the map during the Redeployment Segment in violation of a player's Hidden Mode unit counter stacking limit. However, a player must meet unit stacking limits by the end of the Activation Cycle **or mask the violating units.**

[45.6.2] **Unit Counter Deployment Limits.** A player can return Unit Counters to the map even if all available steps for a formation have been revealed. However, the number of Unit Counters present on the map for a regiment or brigade/type cannot exceed **twice** the total number of steps remaining to that regiment or brigade/type (the total number of steps on the map and in the pool). Do **not** return Unit Counters to the map if their return would violate this ratio. If a step loss causes the number of Unit Counters on the map to exceed this ratio, then the owning player immediately removes **unrevealed** counters from the map until the limit is met. Once the last

maneuver step in a regiment or brigade/type has been eliminated, all Unit Counters for that regiment or brigade/type are immediately removed from the map and never return to play.

[45.7] HIDDEN MODE FLAK

Since a unit's Flak Strength is based on the number of steps it contains, and this number will be a mystery when an unrevealed unit participates in Flak Fire, players use the following step values for calculating the Flak Strength of an **unrevealed** unit:

1. WP maneuver units belonging to a regiment: three steps
2. WP maneuver units belonging to a DTB: two steps
3. NATO maneuver units: one step

These values are displayed on the Flak Strength Chart. Maneuver units that have been revealed, airmobile, HQ, artillery and engineer units all use their actual step value to calculate their Flak Strength, exactly as they would in Open Mode.

[45.8] DELIBERATE DEFENSE

A Deliberate Defense Marker is placed on top of a unit to increase the likelihood that it will receive steps if it is revealed **during an enemy Activation Cycle**. A unit beneath a Deliberate Defense Marker receives a +2 DRM to its die roll on the Revelation Table. **When a US cavalry unit beneath a Deliberate Defense Marker receives a "Dummy" result, it is treated as a result of "1" instead.** Deliberate Defense Markers are placed on individual units, not on hexes. A Deliberate Defense Marker can be placed on top of a unit regardless of whether it is currently revealed or not (a revealed unit may become unrevealed by the time the marker is needed).

[45.8.1] During the Deliberate Defense Segment at the end of each WP Activation Cycle, the WP player can place a Deliberate Defense Marker on **one** unit of each regiment in the active division (including any DTB or attached regiment).

[45.8.2] During the Deliberate Defense Segment at the end of each NATO Activation Cycle, the NATO player can place Deliberate Defense Markers on **two** maneuver units belonging to the active brigade or attached to it.

[45.8.3] A player can always place his full allocation of Deliberate Defense Markers (one per WP regiment and two per NATO brigade) on formations that set up on the map at the start of any Scenario.

[45.8.4] A player is never required to deploy his full allocation of Deliberate Defense Markers. [add a space after this case]

[45.8.5] A Deliberate Defense Marker travels with the unit it is placed on if that unit reacts or moves during the Reserve Phase.

[45.8.6] A Deliberate Defense Marker must be removed 1) once the unit it marks is revealed or 2) during the Redeployment Segment of the formation's next Activation Cycle.

[45.8.7] This case is eliminated.

[46.0] SCENARIO PLAY

To play this game, players first pick a "scenario." There are 12 scenarios included in this game, each depicting a unique battle situation. The instructions for playing a scenario are divided into eight sections:

1. **Scenario Briefing:** Provides the background situation leading up to the battle
2. **Map and Game-Length:** Specifies the area of the map used for play and the number of Game Turns to be played
3. **Starting Unit Deployment:** Provides the setup locations for all formations that start on the map
4. **Starting Game Points:** Specifies the number and type of Game Points that each player starts with
5. **Reinforcements:** Provides a schedule of reinforcement units and Game Points that arrive during play
6. **Special Rules:** Details any special rules that apply to the scenario
7. **Victory Conditions:** Specifies how each player can win the scenario
8. **Scenario Notes:** Provides advice to each player on how to play the scenario.

[46.1] PLACING UNITS ON THE MAP

In all scenarios, one or both players will start with units already located on the map. The scenario instructions will indicate which formations start on the map and where they can be set up. Setup instructions will usually describe an area in which the units of a

formation can be placed, such as: "The 28th Tank Regiment is deployed anywhere within five hexes of 3530." When a whole formation is mentioned without reference to a number of units or steps, then the entire formation is deployed with all Unit Counters and all steps available as shown on the TO&E Cards. When a specific number of steps or Unit Counters is mentioned, then only those specific steps and Unit Counters enter play. When the instructions indicate that steps are removed from a formation, all its Unit Counters remain in play unless the instructions specifically remove some. The owning player can deploy a formation's available Unit Counters and steps in any combination allowed (see 11.1) and in any number of hexes, so long as all stacking restrictions are observed. **A player can always place HQ and artillery units deployable on the map into the Offmap Display instead. When playing in Hidden Mode, any WP regiment deployed on the map at the start of the game can have a Deliberate Defense Marker placed on one of its units and any NATO brigade deployed on the map at the start of the game can have a Deliberate Defense Marker placed on two of its units.**

[46.2] MAP QUADRANTS

This game comes with two map sheets that together comprise "the map" (the game board). The northern map sheet is labelled "Map A" and the southern map sheet is labelled "Map B." The map is divided into four sections, termed "Quadrants", with borders indicated by gray dashed Quadrant Boundary lines. The Quadrants are numbered from 1-4, with Quadrant 1 being the northernmost Quadrant and Quadrant 4 being the southernmost Quadrant. Play in some scenarios will be limited to specific Quadrants. No unit can be set up in an unused Quadrant, nor can units ever enter such a Quadrant except to permanently exit the play area. When the scenario instructions state that a scenario is played on Map A or Map B, this means that it is played on the northern two Quadrants or the southern two Quadrants using the center Quadrant boundary between Quadrants 2 and 3 as the map edge.

[46.3] MAP EDGES

The scenario instructions will specify that reinforcement units enter play from certain map-edge sectors and the scenario Victory Conditions may specify awards when units exit from certain map-edge sectors. A map edge can be a Quadrant Boundary if a scenario specifies that the play area is limited to certain Quadrants. For the avoidance of doubt, unless a Quadrant Boundary is used, map edges are defined as follows:

1. Northern map edge: hexes 1001-1034
2. Eastern map edge: hexes 1001-7001
3. Western map edge: hexes 1034-7034
4. Southern map edge: hexes 7001-7034

[46.3.1] Friendly Map Edges. Helicopter units must always enter and exit the map from a friendly map edge. An LOC (see 46.7.6) must be traced to a friendly map edge. Unless otherwise specified by the scenario instructions, the northern edge of the play area is friendly to the WP and the southern edge of the play area is friendly to NATO. In addition, a player can consider as friendly any map-edge sector from which the scenario instructions allow him to enter reinforcements.

[46.4] GAME POINTS

The scenario instructions will specify that each player receives a starting allocation of Game Points, some of which renew each turn, and some of which do not. In addition, the reinforcement schedule for the scenario may increase the number of points that renew each turn or provide additional points that can be spent only once.

[46.4.1] Combat Support Points. The scenario instructions can provide a player with a starting balance of various Combat Support Points (Bridging Points, Air Points, ADM Points, Mine Points, Persistent Gas Points and Non-Persistent Gas Points). Combat Support Points have nationality for the NATO player but not for the WP player. Place the appropriate national Combat Support Points Markers on the friendly Combat Support Points Track printed on each player's Tracks Card in the box that corresponds to the number of points that nationality receives. **Combat Support Points do not renew each turn.** Once expended, they are gone. However, some scenarios will provide reinforcement points.

[46.4.2] Offmap Command Points. The scenario instructions will specify how many Offmap CPs (see 12.2.3) each player receives. He records his points by placing his Offmap Command Points Marker (see 6.4.2) on his Offmap CPs Track printed on his Tracks Card. **Offmap CPs must be spent or lost but renew at the start of each turn.**

[46.4.3] Offmap Reconnaissance Points. The scenario instructions will specify how many Offmap RPs (see 20.1.1) each player receives. He records his points by placing his Offmap Reconnaissance Points Marker (see 6.4.4) on his Offmap RPs Track printed on his Tracks Card. **Offmap RPs must be spent or lost but renew at the start of each turn.**

[46.4.4] Victory Points. Some scenario instructions will award one player a starting stock of VPs. He records these VPs using his Victory Points Markers on the Victory Points Track found on his Tracks Cards. VPs are never expended.

[46.4.5] SAM Strength. The scenario instructions will specify a player's SAM Strength. Each player places his SAM Strength Marker on his SAM Strength Track found on his Tracks Card. A player's SAM Strength is never expended. The scenario instructions may specify that it increases by reinforcement.

[46.5] FOG

The scenario instructions may indicate that certain turns are Fog Turns. During a Fog Turn, the following rules apply:

1. A -1 DRM applies to all Reconnaissance Attempts.
2. No Air Points can be expended to make Air Calls.
3. No helicopter units can enter the map **and no paradrops can be conducted.**

Before play begins, place the Fog Turn Marker on the Game Turn Track found on the WP player's Tracks Card to indicate which turn is the first Fog Turn. Advance the Fog Turn Marker with the Game Turn Marker until the turn that Fog ends.

[46.6] REINFORCEMENTS

In most scenarios, one or both players receive reinforcement units and reinforcement Game Points over the course of the scenario. During the Reinforcement Phase, reinforcements due to arrive in the current Game Turn are placed as follows:

1. HQ and artillery units are placed in any hex on the friendly Offmap Display (see 40.1).
2. Helicopter units are placed in the Ready Box on the friendly Helicopter Track.
3. All other units are placed just offmap at their entry points (see 46.6.3) until the Activation Cycle when they enter play.
4. Any Combat Support Points are added to the current balances recorded on the Combat Support Points Track.
5. Any increase to a player's Offmap Command Points or SAM Strength is recorded on the appropriate track.

While the Reinforcement Phase is normally simultaneous, the NATO player can require the WP player to deploy his reinforcements first if he feels it matters.

[46.6.1] Entry Timing. Ground units arriving as reinforcements enter the map during the Maneuver Phase. When a player is eligible to activate a formation, he can choose to activate a formation due to arrive as a reinforcement in the current turn (or possibly in a prior turn if it was voluntarily withheld offmap). If part of a formation is already on the map, then any further reinforcements for that formation will enter whenever it is activated. Reinforcement units from higher echelon base formations can enter during the Activation Cycle of any subordinate formation.

[46.6.2] Entry Sectors. Units of a reinforcement formation are always assigned an entry hex or an entry sector (a range of contiguous hexes) by the scenario instructions and must enter the map by moving into one of the map-edge hexes indicated, unless every hex along its entry sector is blocked by an enemy unit, an EZOC, a minefield, or a Gas Zone. In this case, the formation can enter at the first unblocked road or Autobahn hex along the same map edge or any adjacent map edge that is **nearest** to the originally specified entry sector. If available entry hexes are equidistant, the player can choose. **However, a player can always choose to enter some or all units along their assigned sector.**

[46.6.3] Unit Organization. During the Reinforcement Phase, all HQ and artillery units due to arrive this turn must be placed in the Offmap Display (see 40.1). All other reinforcement units due this turn must be assembled with their Step Markers and placed just off-map, adjacent to the first hex they will enter, in a stack that meets all stacking limits. **Exception:** Units of the 35th Air Assault Brigade are never placed in the Offmap Display or along the map edge, as they will fly onto the map from bases far to the rear. If more than one stack will enter at the same hex (common when units enter at a road hex), then each additional stack is chained back offmap in a column of legal stacks. A friendly reinforcement unit can be placed just off the map adjacent to an enemy unit in a map-edge hex, and a friendly unit can move into a map-edge hex adjacent to an enemy reinforcement unit just offmap. In either case, no interaction occurs. The Contact Procedure is not run, neither unit is considered to observe the other, and no fire can be exchanged. Instead, the reinforcing unit must enter the map before any interaction can occur. **Exception:** A friendly reinforcing unit just offmap can be used as a spotter to make a Reconnaissance Attempt against an adjacent onmap enemy unit using the 2-3 hex range column on the Reconnaissance Table. The reverse is not true.

[46.6.4] Entry Movement. Reinforcing ground units pay the normal Movement Cost to enter their first (map-edge) hex from offmap. If the hex contains a road or Autobahn running offmap, they can enter the hex using road movement provided this is allowed for the type of operation they are conducting. If more than one stack will enter at the same hex, then each stack must enter one behind the next. The Movement Cost a stack pays to enter the first map-edge hex equals the Movement Cost of that hex **plus** that same cost

multiplied by the number of stacks that preceded it. Thus, the fourth stack to enter the map at the same Minor Road map-edge hex would pay two MPs to enter that first hex ($\frac{1}{2}$ for the first hex onmap plus $3 \times \frac{1}{2}$ for the three stacks that entered ahead of it = 2).

[46.6.4.1] Base Units. WP base units enter the map by participating in a division base March operation **except** that engineer units can also enter the map during the operation of any subordinate WP regiment that is entering the map on the same turn. NATO base units enter the map by participating in a March operation during the activation cycle of any subordinate brigade. **Reinforcement artillery and HQ units always enter the map from the Offmap Display and use the special rules for such entry (see 40.4).**

[46.6.4.2] Enemy Units. If a reinforcement unit just offmap starts its operation adjacent to an enemy unit in a map-edge hex, it can 1) enter a map-edge hex next to that enemy unit, whereupon the Contact Procedure is run immediately, or 2) choose to enter at the nearest map-edge hex in its entry sector that is **not** blocked by an enemy unit, an EZOC, a minefield, or a Gas Zone, at no extra cost in MPs (if no such hex is available, see Case 46.6.2). A reinforcing unit is never subject to Infiltration Fire when **entering** a map-edge hex, though it will be subject to Infiltration Fire for **exiting** a map-edge hex if that hex is in an EZOC. A reinforcing unit can conduct a Close Attack into a map-edge hex if it starts the operation adjacent to it (not farther back in the queue offmap). A reinforcing unit can always conduct an Overrun into any Clear hex on the map that it can reach.

[46.6.5] Withholding Reinforcements. A player is not required to enter his reinforcement units onto the map on the turn they are scheduled to arrive. Some or all such units can enter on any later turns. **Exception:** Non-airmobile HQ and artillery units that are withheld **must** be placed in a hex in the friendly Offmap Display (see 40.1). A player can withhold reinforcements even if he has planned an operation for them. Combat Support Points **cannot** be withheld. **The attachment for any formation that must be attached (WP independent regiments, see 12.5.3, the 35th Guards Air Assault Brigade, see 29.2.1, and any NATO independent battalion, see 12.8.3) is declared only when it actually first enters play, not necessarily on the GT it is scheduled to arrive. No steps can be withheld that are not underneath a Unit Counter, meaning that if steps are withheld offmap, at least one Unit Counter of the appropriate type must remain offmap to hold them.**

[46.6.6] WP Operations. A WP regiment entering play as a reinforcement in the current turn can be planned for any type of operation **except Reserve** while still offmap and then execute that operation when it enters. The WP player can plan operations for offmap regiments using:

1. Offmap CPs
2. The CPs of any superior HQ in an Offmap Display hex (see 40.1)
3. The CPs of any superior HQ already on the map

An **offmap** regiment is always assumed to be within the Command Range of an **offmap** HQ or Offmap CP. Except for airmobile units (see 46.6.9), an offmap regiment is also assumed to be within the Command Range of any **onmap** HQ if that HQ's Command Range extends to the first row of hexes offmap (if the map were extended one hex, see 40.3.2).

[46.6.7] NATO Operations. The NATO player can assign units arriving as reinforcements to any type of operation **except Reserve** using the same rules regarding onmap and offmap HQs and CPs as the WP (see 46.6.6). His task forces are also assumed to start just one hex offmap. He can form task forces offmap from any combination of maneuver units in the active brigade, subject to the limit of four maneuver steps. Any engineer unit of the same nationality and in the same chain of command can enter with a task force.

[46.6.8] Lead Units. When entering WP units committed to any operation save March or NATO units committed to a task force, a player must place a Lead Unit Marker in any map-edge hex along their entry sector and the units must enter the map within three hexes of this marker. Units committed to a March operation ignore this requirement.

[46.6.9] Airmobile Formations. Because airmobile units start at air bases far to the rear, they can never enter play by ground movement. Instead, airmobile units enter play by helicopter transport (see 26.4) from any friendly map edge (see 46.3.1). Alternately, if they are also airborne units (see 29.1), they can enter play by paradrop (see 29.5) on any turn permitted by the scenario instructions. Airmobile units remain offmap until they enter play. They are never queued up along the map edge, and airmobile HQ and artillery units are never placed in the Offmap Display. Offmap airmobile HQs are never in range of onmap units and vice versa. **When an airmobile battalion or taskforce enters as a reinforcement, any CP expended to give it an offensive operation must come from a superior HQ also offmap or from an Offmap CP.**

[46.6.10] Non-airmobile maneuver units can enter the map during the Reserve Phase if they are executing a Reserve operation. However, reinforcing units can never use reaction movement (see 19.0) to enter the map.

[46.7] VICTORY CONDITIONS

At the end of the last turn of each game, the players determine who won. The Victory Conditions for each scenario describe how a player wins the game. Some scenarios contain Decisive Victory Conditions, which allow a player to win the scenario outright by achieving a certain objective. Otherwise, a player wins by earning more “Victory Points” (VPs) than his opponent (a sufficiently large difference in VPs can also produce a Decisive Victory). The Victory Conditions detail how each player earns VPs. Players should use their VP Markers to keep a running total of the VPs they earn during play on the Victory Point Tracks printed on their Track Cards. After the last turn of play, each player adds to his VP total the number of Air Hits and HQ Hits recorded on his VP Track and any VPs that are earned only at the end of the scenario. The player with the larger VP total subtracts his opponent’s total from his own to determine the net VPs. He then finds the result on the scenario's VP Scale to determine the magnitude of his victory.

[46.7.1] **Standard Victory Point Scale.** Many scenarios use this Standard Victory Point Scale for net VPs:

Net VPs	Victory Level
0-5:	Draw
6-10:	Marginal Victory
11-15:	Tactical Victory
16+:	Decisive Victory

[46.7.2] **VPs for the Destruction of Enemy Steps.** The destruction of enemy steps is a common way of earning VPs. A player usually receives one VP for each enemy ground unit, helicopter unit, and air unit **step** eliminated (see the scenario instructions for specifics). Each time an enemy step is eliminated, a player advances his VP Marker(s) on his VP Tracks printed on his Tracks Card to record the Victory Point earned. **Exception:** Eliminated air (not helicopter) and HQ steps are recorded by adjusting the Air Hits and HQ Hits Markers on the VP Tracks. Destroyed EW Assets do **not** earn VPs.

***Design Note:** Air and HQ losses are tracked separately on the Victory Point Tracks because a player will often lose track of the number of enemy steps he has eliminated during play and will need to reconstruct this number at the end of the game. This can be done by comparing the number of ground and helicopter steps the enemy started with to the number of steps remaining in play at the end of the game. However, the number of enemy air steps shot down cannot be reconstructed because these units disappear, whether shot down or not. The number of HQ steps eliminated cannot be reconstructed because these units can be reconstituted repeatedly. The use of separate markers for Air Hits and HQ Hits addresses these challenges because these VPs are rare and much easier to track accurately in isolation.*

***Play Note:** When not playing in Hidden Mode, players are well advised to use their Pool Cards to keep track of the steps remaining in each formation. This will enable them to keep accurate track of VPs during play so that there is never a need for a unit-by-unit reconstruction at the end of the game. This approach also ensures that if a player accidentally adds or loses steps as he splits and combines his units, he can readily confirm the correct number of steps that should be on the map.*

[46.7.3] **VPs for Shatter.** Some scenarios award VPs for Shattering enemy formations and for achieving certain victory conditions with Unshattered friendly formations. **Note that the Reorganization Phase is never executed on the last turn of a scenario unless the scenario instructions specifically say otherwise, so the second to last turn of a scenario is normally the final turn in which a formation can be Shattered.**

[46.7.4] **VPs for Location.** Some scenarios require units to enter a certain map area to earn VPs or a Decisive Victory. Some scenarios require units to exit a map edge to earn VPs or a Decisive Victory. Units can exit the map by entering a map-edge hex with sufficient Movement Points remaining to enter another identical hex offmap. Exited units remain off the map and cannot reenter. Units that retreat off a map edge do not count towards earning VPs or meeting any other Victory Condition. **When a unit must be Unshattered to count for a Victory Condition, unless the scenario instructions specifically say otherwise, the unit must be Unshattered at the end of the game (however, see Case 31.1.4).**

[46.7.5] **VPs for Hex Control.** Certain Victory Conditions require a player to control specific hexes. A hex is WP-controlled if:

1. a WP unit was the last to pass through it.
2. a WP unit currently occupies it.
3. a WP unit could have set up in that hex, and a NATO unit has never entered it.

Otherwise, the NATO player controls all hexes. **Note that a dummy unit can never change which player controls a hex.** For the avoidance of doubt, the cities of Schweinfurt and Würzburg are defined as follows:

1. Schweinfurt consists of all hexes adjacent to hex 3215 plus hex 3416.

- Würzburg consists of all City hexes adjacent to hex 5721 plus hexes 5624, 5723, and 5919-5921.

[46.7.6] Line of Communication. The Victory Conditions may require a player to trace a “Line of Communication” (LOC) between a hex and a friendly map edge. The first two hexes from the starting hex (not including the starting hex itself) can be any type of terrain. **The third hex out must be a Town, City, Minor Road, Bundesstraße, or Autobahn hex that can trace a continuous path of connected Town, City, Minor Road, Bundesstraße, or Autobahn hexes (the path can alternate these terrain types) to a hex along the indicated map edge.** No LOC can be traced across an Impassable Slope hexside or an unbridged Major River. An LOC cannot be traced over a Major River hexside across a blown Civil Bridge unless it has been replaced by a Military Bridge. In addition, an LOC must be uninterrupted by enemy units or EZOCs, **except** that dummy units, airmobile units (29.0), and their ZOCs never count for blocking an LOC. Friendly units do not negate EZOCs in their own hex. When playing in Open Mode, if a player must establish an LOC, the enemy player must **first** remove all dummy units from the map. When playing in Hidden Mode, the enemy player must **first** reveal all unrevealed units that could conceivably block the LOC by rolling on the Revelation Table and then remove any dummies. The friendly player then determines if he can trace an LOC. **Minfields, obstacles, and Gas Zones do not block an LOC.**

[46.7.7] Dummy Units. For the avoidance of doubt, no dummy unit ever counts towards earning any Victory Condition. A unit must contain at least one step to earn a Victory Condition award.

[46.7.8] Chemical Warfare. Whenever the WP player initiates chemical warfare by expending his first Gas Point, whatever Victory level he ultimately achieves (see 46.7.1) is moved one level against him. Thus, for example, if he won a Marginal Victory, this becomes a Draw, and if the NATO player won a Marginal Victory, this becomes a NATO Tactical Victory.

[46.7.9] Hidden Mode Victory. When playing in Hidden Mode, players must sometimes determine the number of Victory Points earned by units that have achieved a scenario Victory Condition, such as reaching a Quadrant or exiting a map edge. When an unrevealed unit exits the map, it is immediately revealed. Both the Unit Counter and its steps are kept offmap and the steps are never returned to the pool. **At the end of the game, do not return onmap steps to the Pool Cards.** Each player uses the following procedure to calculate his Victory Points:

- Remove all unrevealed units from the map if their step pool is at zero.
- If a scenario awards VPs for certain steps that exit a map edge, then the player counts the total number of steps under his units that have met this condition and earns these VPs.
- Next, if a player can earn VPs for steps on the map, the player rolls to reveal any unrevealed units on the map in any order he desires. He then determines if any of his steps now on the map have earned a VP award. Any steps remaining in the pool after all onmap units of a regiment or brigade/type have been revealed are **not** counted for VP purposes.

***Design Note:** This rule attempts to give a player the maximum credit for units that have penetrated the farthest, but steps that remain in the pool after all revelation rolls have been made are stragglers and thus do not count towards the success of the mission.*

[46.8] MULTIPLAYER GAMES

Air & Armor can be played quite smoothly by up to seven players. The basic concept is that each player commands a single division, leaving room for three or four players in the medium-sized scenarios and up to seven players in the final scenario (Hammer & Anvil). Players on the same side win as a team using the normal scenario Victory Conditions. Each team will have to cooperate in the sharing of army and corps assets and Combat Support Points.

[46.9] VASSAL PLAY AND PBEM

Air & Armor: Würzburg can be played online using a free application called Vassal. Our Vassal Developer, Kevin Conway, has added so many useful player aids and menu options that this entire section has been rewritten. The Vassal application can be found at this web address:

<https://vassalengine.org/>

Once you have downloaded the application, you will also need to download the specific Module for this game found here:

https://vassalengine.org/library/projects/Air_Armor_W%C3%BCrzburg_Tactical_Armored_Warfare_in_Europe_%E2%80%93_Designer_Signature_Edition.

Vassal is a surprisingly easy way to play a board game on a computer. It supports both solitary play and online play against a live opponent anywhere in the world. Players can play in real time or asynchronously via Play By E-Mail (PBEM). Playing *Air & Armor* on Vassal permits players to save and resume games at will without consuming a dining room table for days at a time. Vassal also provides automated gaming support features that substantially speed play. All you need is a computer, the Rule Book, the Play Book,

and the Charts & Tables Booklets. All other components are included in the Vassal Module. When playing in real time against a live opponent, players will want to use a separate voice service to talk, such as Discord or WhatsApp.

[46.9.1] Installing Vassal. Vassal will run on Windows, Mac OS, and Linux. After you have downloaded the app and the module, launch Vassal. In the Module Library window that appears, select **File** from the Top Menu and then **Open Module** in the drop-down menu and navigate to the *Air & Armor* Module file you just downloaded. Select the file and then hit the Open Button to open the module. Thereafter, the Module will appear directly in the Module Library window that opens every time Vassal is launched. When you first launch the *Air & Armor* Module, it is critical that you follow this procedure to modify certain default settings:

1. Select **File** and then **New Game**.
2. Join the game as any side and hit the **Finish** Button.
3. Say **No to Start new logfile?**
4. Select **File** and then **Preferences** (or **Settings** on a Mac).
5. In the **General Tab** that opens:
 - a. Check the box that says **Ask “Wizard” questions at startup**.
 - b. Uncheck the box that says **Center on opponent’s moves**.
6. Click the **OK** button to save.

[46.9.2] Creating the Game. A player sets up a game as follows:

1. Launch the Vassal program (vassal.exe on a Windows machine and vassal.app on a Mac).
2. When the Module Library window opens, select the Vassal Module for *Air & Armor*.
3. When the *Air & Armor* Module opens, you are presented with three options: A) **Start new game offline**, B) **Look for a game online**, or C) **Load saved game**.

[46.9.2.1] Start New Game Offline. When you select **Start new game offline**, you must first choose your **role** (you can change it at any time) and then hit the **Finish** button at the bottom of the window. *Air & Armor* can be played by up to nine players simultaneously on Vassal. Roles include:

1. **Observer** (allows you to watch the game, but you cannot interact with the game pieces)
2. **Warsaw Pact through Warsaw Pact 5** (up to five WP players)
3. **NATO through NATO 4** (up to four NATO players)
4. **Solo** (best for playing the game solitaire)

You will be asked if you want to start a new Logfile (used for PBEM) and then the game map will appear, after which a preset scenario can be loaded or a new game can be set up and played.

[46.9.2.2] Find Game Online. When you select **Look for a game online**, you must click on the **Finish Button** at the bottom of the window. You will appear in the **Main Room** for the *Air & Armor* Vassal Server. In the **Active Game Rooms** window, you can see all **Game Rooms** that have been created already (your opponent might be in one). You can join a **Game Room** by clicking on its name in the **Active Game Rooms Window**. If you are the first to arrive, then you can create your own **Game Room** by typing a name in the **New Room** entry line and then hitting the **Create Button**. Create or load your *Air & Armor* game using the Vassal **File** menu, and your opponent will see the game map appear as soon as he has joined the **Game Room**. If for any reason a player does not see the game up when he joins a **Game Room**, he should **right click** on his opponent’s name and then choose the **Synchronize** option.

[46.9.2.3] Load Saved Game. When you select **Load saved game**, you can load a saved game or, if you are playing a PBEM game (see 46.9.4), you can load a logfile containing your opponent’s latest moves. Follow these steps:

1. Click on the **Next** button.
2. Click on the **Select** button at the top of the next window that appears. This opens a navigation window.
3. Navigate to where you have stored the saved game or logfile on your computer or cloud storage, click on the game filename, and then hit the **Open** button at the bottom of the navigation window.
4. Click on the **Finish** button at the bottom of the **Load Saved Game Window**.
5. Select your player role if asked.

6. Select whether you wish to start a new logfile or not (you will not be asked this question when loading a logfile).
7. Your saved game or your PBEM opponent's latest logfile is now ready for play.

[46.9.3] Playing with Vassal. A Vassal game is played on the screen just like the physical board game, except that you use your mouse in place of your fingers. There is a button in the Menu Bar running along the top of the Vassal Window named "Vassal." When you click that button, a display window will open a document that explains the function of each of the Vassal Buttons and unit menus and provides tips on how to manipulate units and markers. For the avoidance of doubt, although Vassal allows players to spawn any number of Unit Counters, a player is strictly limited to the number of Unit Counters shown on a formation's TO&E Card.

[46.9.4] Play By E-Mail. For such an interactive game, the *Air & Armor* system is reasonably easy to play asynchronously by e-mail using Vassal. **Player One** starts a logfile which records his actions as he plays until he reaches a point where he needs **Player Two** to take an action, whereupon he closes the logfile (**File/End Logfile**) and sends it to **Player Two**. **Player Two** loads the logfile into the *Air & Armor* Mod exactly as he would load a saved game and then uses the **Logfile Button** in Vassal to step through each of **Player One's** actions, one action at a time. Hitting the **Undo Button** reverses an action. At the end of that logfile, **Player Two** is up to date and can start the next logfile of his own actions to send back to **Player One**. Players must always make sure to create a new logfile for each play session. Vassal presents the option to create a logfile when a game is first started and also when the current logfile has been entirely stepped through to the end. As he plays, a player can watch the logfile being created line-by-line in the **Logfile Window** just below the **Menu Bar**. Three tools make communicating your actions to your opponent quite easy. You can use a **Flare** (**Alt+left-click** on Windows and **Option+left-click** on a Mac) to draw temporary attention to a hex, or you can right-click on any unit and select "Target" to make a Target Marker appear. Target Markers can be dragged to any hex, and their number can be changed using the open and close bracket keys. Under the **Markers Folder**, there is an option for **Notes**, which can be dragged onto the map and then annotated to send a note that refers to the hexes marked with Target Markers. Finally, comments can be typed directly into the **Comment Line** (the line just above the map and just below the log entries), and these notes will appear in the logfile at exactly the point when they were typed. Note that there are two types of Step Markers available in the game. The normal type cannot be seen by the opponent when they have been made invisible. The PBEM type can be revealed by the opponent during his play session by clicking on the Step Marker and selecting the "Hide/Show Strength" menu option. Find general instructions for PBEM using Vassal here: <https://obj.vassalengine.org/images/8/8c/Userguide.pdf>. The following Cases offer specific suggestions for facilitating PBEM play.

***Design Note:** These suggestions were developed by experienced PBEM players who playtested this game. They are simply recommendations and are not intended to be binding. Players can choose to play PBEM however they wish.*

[46.9.4.1] Hidden Intelligence. To speed PBEM play, the *Air & Armor* Vassal Mod includes special PBEM Step Markers that can be made invisible by the owning player but, unlike regular Step Markers, can also be revealed by his opponent when he would normally be eligible to examine a stack. If players wish to PBEM in Open Mode, we recommend that they use the PBEM Step Markers and ensure that they are invisible (right click on a PBEM Step Marker and select the "Hide/Show" menu option). When the active player moves adjacent to an enemy unit or acquires it, he can reveal its PBEM Step Marker for himself without having to exchange a file. If players wish to PBEM in Hidden Mode, when the active player acquires or moves adjacent to an unrevealed enemy unit, he immediately rolls for the revelation of that unit and places the resulting Step Marker underneath it. Use a **regular** Step Marker from your opponent's Step Marker Folder as a reminder to your opponent that he needs to replace it with a PBEM Step Marker when he gets the file back (Vassal tracks who dragged the marker to the map: if you use one of his PBEM Markers, you will see it even when your opponent thinks he has made it invisible). The active player should also decrement the number of steps revealed from the appropriate step pool on his opponent's Pool Card. Note that Step Markers on the Pool Cards are always visible to both players because they are public information per Case 11.2.4. The WP player should make his Main Effort and Operation Markers invisible (right click on the markers to see this menu option). A player on Vassal is always allowed to examine his opponent's stacks (but this will give him no more information that he could glean in the physical game, since the Step Markers underneath his opponent's maneuver units remain invisible). Always deploy any Minefield Markers placed before the start of play on their Hidden side (the side showing a "?"). Players can lock any Minefield Markers they place if they don't want their opponent to be able to see if they are real (right click on the marker to see this menu option), but locking is not recommended for PBEM play.

[46.9.4.2] PBEM Die. The first item in the Markers/Map Marker folder is a red die designed for PBEM play. This die can be dragged to any hex on the map. Right-clicking on this die brings up a wide range of specific die roll options. When one of these options is selected, the action, the die result, and the hex where the die is located are all written to the logfile (you can view this in the logfile window in the upper left of the Vassal window). This die makes it very easy for you to show your opponent where the action is unfolding without having to write anything in the log yourself. There is also a red die shown in the set of Vassal Buttons running along the top of the screen. This die shows the same menu options, but it cannot be dragged to the map and therefore cannot write the hex where the action occurs to the logfile.

[46.9.4.3] Reconnaissance Attempts. To make a Reconnaissance Attempt, simply drag the PBEM die to the hex you would like to see, flare the nearest spotting unit you will be using, expend an RP, and then right-click on the PBEM die to select the option for

“Make a Recon/CB Acq. Attempt.” You can expend the RP by moving the RP Counter on the HQ’s Command Track or you can right click on the HQ itself in Vassal and select the option to “Use RP.” This action will decrement the number shown in the white circle on the unit itself (this number automatically resets when the Reorg Button is pressed). If playing in Open Mode, right click the PBEM Step Markers under any units you acquire and select “Hide/Show” to reveal their values. If playing in Hidden Mode, roll on the Revelation Table for each enemy maneuver unit acquired and then place the appropriate regular Step Marker from the opponent’s Strength Markers folder as a reminder that he will need to replace it with a PBEM Step Marker when he receives the file.

[46.9.4.3] Strikes. Place a Strike Target Marker (found in the Markers/Map Markers folder) in the hex you would like to strike. Use the **Comment Line** to note in the log which Fire Support assets will participate in the Strike. Enter any striking aircraft or helicopters and fly them to their firing positions (air units can be placed directly into their firing position, but helicopters must be moved one hex at a time to show the path from a friendly map edge to their firing positions). Send the logfile to your opponent to resolve any anti-aircraft fire if there is doubt about his Flak or SAM Strength, but otherwise the active player can execute any anti-aircraft fire himself using the PBEM die in the hex where the air unit is located. Move the PBEM die to the strike target hex and select the option for “Make a combat roll on the CRT.” After the strike is resolved, enter a comment indicating the number of Hits inflicted and the number of steps removed from each unit in the target hex. Adjust Step Markers and place Disrupted Markers as necessary. Place Fired Markers on any artillery units that fired and, if Counter-Battery Fire is possible, also place Target Markers on them (right-click on the units to see these options). Proceed to your next strike. When you have completed all strikes, send the logfile to your opponent to consider any Counter-Battery Fire. If no Counter-Battery Fire is possible, then proceed directly to your Operations Segment.

[46.9.4.4] Counter-Battery Fire. When a player has stepped through his opponent’s logfile, he has the option to execute **one** Counter-Battery Fire Strike against each enemy artillery unit that fired (hopefully his opponent will have marked these units with a Target Marker). If he wishes to make such a strike, he drags the PBEM die to the hex containing the artillery unit he wishes to acquire and then right-clicks on the die to select the option for “Make a Recon/CB Acq. Attempt.” If the target is acquired, he executes his Counter-Battery Fire Strike by selecting the PBEM die option for a CRT roll and then removes any steps eliminated and notes this action in the Comment Line. He then removes the Target Marker on the enemy artillery unit he just fired at and places a Fired Marker and a Target Marker on his **own** artillery unit that just fired. To speed play, when playing in PBEM mode, it is best for a player to complete **all** of the Counter-Battery Fire Strikes he wishes to make before returning the file. When he is done, he returns the logfile to his opponent to continue the Counter-Battery Fire Cycle.

[46.9.4.5] Operations. When conducting an offensive operation, a player should enter a comment into the Comment Line indicating the participating units, the type of operation he is conducting, and the Objective hex, if any. If a player selects the button just to the right of the Range Button in the menu line at the top of the Vassal window, each unit will display a movement trail showing its movement path. Any offensive operation should be conducted through the Jamming Step, which means that the **active player** executes any Infiltration Fire his opponent is allowed. Enter comments in the logfile before and after the PBEM dice roll to indicate the Effective Strength of the units conducting Infiltration Fire and the Hits inflicted. Pass the logfile to the opponent to react, if possible, and to conduct Defensive Fire. Again, the opponent should comment before and after the dice roll to indicate the Effective Strength of the units conducting Defensive Fire, and the Hits inflicted. Use the PBEM die to indicate each hex where a roll takes place. Then return the logfile to the active player to execute his Offensive Fire and any Counter-Battery Fire. If a retreat is possible and the inactive player has not indicated his retreat preference, then the file must be exchanged again to enable the defending player to absorb the Hits inflicted. If an advance is possible, and the attacking player has not noted his preference for advancing, then one more logfile exchange must be made. If either player enters a helicopter unit, the logfile might need to be exchanged at that point to execute any Flak Fire. Always exchange the logfile after any fire in which artillery units have been used (mark them with Target Markers) to enable any possible Counter-Battery Fire. Once an operation and any Counter-Battery Fire associated with it has been completed, remove all Target Markers, and continue to the next operation.

[46.9.4.6] Engineering. During the Engineering Phase, players can right-click on their engineer units and select the “Engineering Functions” option to see a sub-menu showing all the Markers than can be placed.

[46.9.4.7] Reorganization. When the Reorg Phase has been reached, one player should hit the Reorg Button (just once). This action will automatically flip all used units on the map to their unused side, reset the CP and RP numbers on all HQs to their full values, remove all markers from the map that should be removed at the end of the turn, and advance each player’s Game Turn Markers one box up his GT Track. Once this button has been pressed, players will need to manually:

1. adjust all CP and RP Markers on the NATO HQ and WP Planning tracks.
2. decontaminate units and then flip them to their used sides.
3. check formations for Shatter and Shatter each unit where appropriate (right-click on a unit to see this option).
4. return any reconstituted HQ units from the GT Track to the map.
5. return any Bridging Points borrowed this turn for Ferry Crossings to the friendly Combat Support Points Track.

- return steps to the step pools if playing in Hidden Mode.

SCENARIO ERRATA

[47.1] THERMOPYLAE

[47.1.4.2] **NATO Starting Game Points.** Add this line: **ADM Points: 1 x US**

[47.1.5] **Reinforcements.** The first sentence of the entry for WP Game Turn 2 should read:

The 4th Tank Regiment of the East German 4th Motor Rifle Division enters along the **eastern** edge of the map on from 1001 to 2801.

[47.2] RACE FOR THE BRIDGES

[47.2.5] **Reinforcements.** This scenario originally started on GT8. We decided that the Pact player needed an extra turn, so it now starts on GT7, but we failed to adjust the rest of the scenario for the earlier start time. Accordingly, amend the reinforcement schedule as follows:

WP Game Turn 7: The 170G, 174G, and 241G Regiments of the 57th Guards Motor Rifle Division and the division base enter along the northern map edge from 1001 to 1018.

WP Game Turn 8: The 51G Tank Regiment and the DTB from the 57G MRD, plus the 325th Engineer Battalion (from the 8th Guards Army Base), enter along the northern map edge from hexes 1001 to 1018.

NATO Game Turn 10: The 4 Canadian Mechanized Brigade Group enters from hex 7027 on the southern map edge. NATO receives one Canadian Mine Point, one Canadian Bridging Point. NATO also receives one Off map Command Point from this turn forward.

WP Game Turn 11: Place three Mi-24 steps in the Ready Box on the WP player's Helicopter Track. The WP also receives three Air Points.

NATO Game Turn 11: Place three WG PAH-1 steps in the Ready Box on the NATO player's Helicopter Track. NATO also receives three WG Air Points.

[47.2.6.2] Amend this Case as follows:

The WP player automatically wins the initiative for the first Activation Cycle of Game Turn 7.

[47.3] OUT OF THE FOG

[47.3.6.4] **US GS and GSR Artillery Support.** During rules layout, the artist accidentally repeated the last eight sentences. Please ignore the duplicate sentences.

[47.9] BOLT FROM THE BLUE

[47.9.3.1] **NATO Starting Unit Deployment.** Amend Bullet Point #7 as follows:

- The West German 35th Brigade HQ sets up in hex 3529 (Lager Hammelburg) along with one Leopard 1 unit with four steps, one Marder unit with four steps, one M113 unit with one step, **the engineer unit**, and one Jaguar unit with one step. **Note that the missing steps in this brigade will enter as GT1 reinforcements.**

[47.12] HAMMER AND ANVIL

[47.12.6.4] Amend this Case as follows:

Fog is in effect for GT1 (see 46.5). **For the avoidance of doubt, this means that a Paradrop is not possible on GT1, and no air or helicopter units can fly.**

[47.12.6.7] **Opening Barrage.** Amend this case as follows:

The following special rules apply on GT1, only. As an **exception** to normal rules, the WP player makes no Reconnaissance Attempts. Instead, during any Strike Segment on GT1, the WP player can make **Fire Strikes, only, with artillery units in the Offmap Display, only**, against any hexes in range, **even though those target hexes are not acquired**. The WP player can make no other type of strike (Gas or ADM) on GT1. Furthermore, no artillery units can make a Fire Strike **after** they have entered the map, although onmap artillery units can still support a fire combat or conduct a Counter-Battery Fire Strike. Note that Case 23.7.2 still applies to target hexes that are adjacent to a friendly unit. Otherwise, all Fire Strikes are conducted normally **except** that the NATO player never reveals his units in the target hex. The NATO player absorbs any Hits inflicted and places markers on any units disrupted but declares

only the type and number of steps that are lost, **not** the contents of the hex. If sufficient Hits are inflicted to eliminate a step from a unit, but that unit is actually a Dummy, the NATO player **must** disclose that it is a dummy and remove it from the target hex, meaning that the Hits are applied instead to the next unit in the target hex with an equal or higher Adjusted Defense Strength. If the target hex is cleared of all enemy units, then any Improved Position in the hex is removed. When playing in Hidden Mode, to reflect NATO thinning out its front lines in anticipation of such a barrage, if WP Fire Strike inflicts sufficient Hits to require a step loss from the weakest unrevealed unit in the target hex, the NATO player rolls to reveal that unit on the US Cavalry Unit column of the Revelation Table. He does **not** share the die result with the WP player, but he does declare the type and number of any steps lost. If the unit is revealed to be a dummy, it must be removed and the Hits are now applied to the next strongest unit in the hex, which must reveal if there are sufficient Hits to require a step loss. The process continues until there are either no units left in the hex or there are insufficient Hits remaining to force the revelation of the next strongest unit in the hex.

[47.12.7.1] Warsaw Pact VPs. Amend Bullet #3 as follows:

4. Three VPs for each Unshattered regiment and two VPs for each Unshattered DTB that completely exits from the southern map edge (meaning that every surviving step has exited the map). Airmobile units do not count. **If playing in Hidden Mode, only, a regiment counts as exited if all three counters have exited even if steps remain in the pool.**

CHARTS & TABLES ERRATA

Bridge Fire Strike Chart. Amend Bullet Point #2 in the Timing section to read:

2. A player can choose to eliminate a Military Bridge by ending the operation of a real, non-HQ, **non-rocket** unit in an adjacent hex (see 38.3)

Fire Effects Chart. Make the following changes:

Close Terrain Hex row: **Replace the “H” in the cell for Air and AH units firing out of a Close Terrain hex with “N/A”.**

Infiltration Fire row: **Replace the “D” in the cell for Air and AH units executing Infiltration Fire with “N/A”.**

Point Blank Fire row: **This row only applies to Overruns. There should be a second row for Close Attacks that reads D, H, Q, N/A, N/A.**

Reconnaissance Table. The DRM modifiers for an obstacle or minefield do **not** apply to an engineer unit alone in a hex with an obstacle or minefield it created.

Revelation Table.

Add a new DRM line: **Unit from a Shattered formation -1**

The DRM that reads “WP unit more than 3 hexes from another unit in regiment” should read “Inactive WP unit more than 3 hexes from another unit in regiment.”

Screening Table. Footnote 3 references Case 41.2.7 but should reference **Case 41.2.5.**

Sequences Card 1. In the **Sequence of Play Summary**, make the following two changes:

1. In the **Reinforcement Phase**, the exception for Airmobile units should reference **Case 46.6.9, not Case 46.6.8.**
2. In the **Sequence of Play Summary**, in the **WP Planning Phase**, strike the second half of the first sentence as follows:
WP player plans operations for his regiments (see Operations Summary Chart and 12.3) **and places one Lead Unit Marker per regiment.**

In the **Activation Cycle Summary**, make these two changes:

1. In the Activation Segment, add this sentence:
The WP player, only, places a Lead Unit Marker on each maneuver regiment activating in the current cycle (see 12.3.2).
2. In the Strike Segment, the Case reference for ADM Strikes should be **Case 23.5** not Case 23.6.

MAP ERRATA

There is a missing road that runs out of Karlstadt (4732), crosses the Main River into hex 4733, and then runs into hex 4434 and off

the map edge. A Sticker has been provided to correct this omission.

UNIT ERRATA

Although three Unit Counters are provided for the 307/34 MRL (Multiple Rocket Launcher) Artillery Regiment, the TO&E Chart is correct that the regiment consists of only two of these counters with a total of two steps. The third Unit Counter should not have been printed and is never placed in play.

The MLRS unit in the 72nd Field Artillery Brigade was misidentified as the 4-24 Battalion. **It was actually the 4-27 Battalion.**

[52.0] INDEX

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