GOSS CHANGE NOTES

GOSS has been extensively reorganized. While the primary case numbers remain the same, the topics within each primary case have been reorganized to clarify the rule process. Most of the changes in case and wording are simple clarifications; however, there are changes within the rules. Many of the changes are those that have been discussed over the last few years, and we have simply implemented those changes formally. Some changes are new, and reflect the experience gained thru the development of the series. Some rules have been standardized throughout the series and thus are now in the GOSS rules. Rules that are specific to one game have remained in the scenario rules, while some that were in GOSS earlier have been moved to the scenario rules. Example would be the rules pertaining to Bocage and Hedgerow are specific to AW and have been removed from GOSS. The term Axis has been incorporated into the rules to cover future games where other national forces may be used. The PDF version of the rules are linked to the Table of Contents so that players may download a copy and if reading the rules electronically, may click on the case number in the table and go directly to the case number within the rules.

1.3.0 Game Charts & Tables
Charts and tables have been reorganized and updated. The Unit Breakdown Chart and Unit Type Chart have not been included in the update as they have no real effect on play. The standard GOSS charts are in an entirely new format with more information provided. I would appreciate any feedback on these charts. Feedback will determine how the charts are displayed in the next game.

Chart Notes:
Allied Recon Btns displaying the Daimler Humbar should breakdown into 2 Coys displaying the same symbol. M8 Greyhound symbol breakdown into 3 Coys displaying the same symbol.
Three Coy hybrid units displaying a M4 and M5 Coy should breakdown into 1x M5, 1x M4, and 1x Mech Inf Coy.
Para, Glider, and Bicycle infantry units may breakdown into normal Inf Coys, using the same breakdown as Inf Btns.
Canadian, Polish, and French units may not have specific breakdown counters for either some or all of their units. Canadian and Polish units may use British breakdown counters. French may use US breakdown counters. Both follow the same rules as the parent nationality.
Except as noted above, Btns without the same type breakdown counters may not breakdown (i.e. MG, Ost, etc.).

1.6.0 Glossary & Abbreviations
There are new terms used in the rules.

3.0 THE GAME TURN
The sequence of play has been modified. Some segments have been renamed or moved (Combat Reserve Designation Segment), while some (Demolition Segment) has been added. The abbreviated SoP has been removed from the back of the GOSS rules. See each game’s scenario rule Book for that game’s abbreviated SoP.

4.4.4 Green Divisions
The Green Division rule has been extensively revised. PR values are no longer affected; instead units in a green status receive unfavorable column shifts in GA.

4.5.6 Rangers & Commandos
Definition of Commando expanded to cover future games.

4.5.8 Commonwealth Recon Btns
CW Recon Btns consist of two steps for all games, unless otherwise noted in scenario rules.

5.3.0 Exploitation (Exploit) Mode
Units moving using Exploit movement can now be subjected to GS missions, and if conducting an overrun, may be subject to an artillery FS mission.

5.4.2 Limitations
Changed time frame to seven days.

6.1.2a Mech Companies
Rule added, two, one step coys may stack as one unit when moving using road movement and Strat Movement.

7.3.3f Supply
Distance changed from 2 to 3 hexes (two intervening).

7.7.0 Strategic Road Movement
Assembly Area rule moved to optional rules. This rule was rarely used by players, although scenario rules in some cases may still require the use of the rule.

11.2.2 Spotting Unit
To avoid confusion in terms, when conducting a FS mission, the observing unit is now called the Spotting unit or Spotter. No change to the rule, just a terminology change.

11.2.4 Mission Capacity
Naval unit capacity has been modified to better reflect the design intent.

11.6.1 Determine the Result
Exception as noted below, no real changes, reorganized to facilitate working thru the process.

11.6.2 Artillery Shifts (AS) Results
MAJOR CHANGE: Stacks are limited to one AS marker. Only one AS marker on a side can influence a GA. This was done to ease the complexity of determining column shifts and to resolve design intent regarding the effects of AS hits.

11.6.3 Maximum Step Loss
Reorganized and clarified. 11.6.4c Dropping off Units
Process for determining who takes remaining hits simplified.

12.1.0 Excessive Attack Designations
This section added, if there are stacks that are attack designated that due to ADV limits could not attack. The owning player now follows this process to remove the attack designation.

13.4.1 Surrender
HQ no longer check for surrender of a whole stack.

13.5.1d Combined Arms
MAJOR CHANGE: a single Inf coy can no longer provide combined arms to more than one other unit. The old requirement did not have this stipulation and was subject to abuse. Change reflects design intent.
13.6.2 Column Shift Limits
Number of shifts for each qualifier no longer listed in section. GA Charts and Procedures list exact column shift for all qualifiers.

13.6.2c Adjacent Defenders
Rule changed to reflect maximum AS allowed per hex. Since only one AS is allowed per hex, if a supporting unit is in a hex with a vantage point and has an AS marker, that supporting unit will still be able to confer one column shift for the defender.

13.6.2f AS Markers
Rule changed to reflect maximum AS allowed per hex.

13.9.0 Applying GA Results
This section has been reorganized for ease of play.

13.9.3a Convert Discretionary Hits
MAJOR CHANGE: Rule modified to give more options to the players when passing their PR check if wishing to convert mandatory hits to discretionary hits.

15.2.4 Extended Supply Paths Penalties for extended supply clarified. 15.2.4a Additional Trucks
NEW RULE: Allows trucks made available by dis-mounting Mech Units to be used to negate extended supply path penalties.

15.7.2 Surrender
HQ no longer check for whole pocket. Surrender is done on a stack by stack basis.

15.8.0 Depots
Depot rule now part of GOSS, rule will be used in future games.

16.0 LOGISTICS & TRUCKS
MAJOR CHANGE: ADV determination for army and corps has changed. Instead of receiving ADV, AmP are now delivered by a DR on the logistics table. This resolved numerous terminology issues, and simplified the ADV determination process. Numerous sections within 16.0 have been changed or reorganized to cover this change.

17.3.2c Bridge Collapse
The type of AFV that cause bridge collapse has changed. Heavy and Very Heavy AFVs are the only AFV that trigger bridge collapse, the rule is no longer confined to German tanks to take into account heavy and very heavy Soviet tanks that will appear in later games.

17.4.0 Defensive Works
The term has been added to define all types of fieldworks, forts and fortified areas.

17.5.0 Fortified Area Hexes
The term fortified area hex has been added. Defines all fortifications printed on the map (i.e. WW, Cherbourg perimeter, etc.).

20.2.2 GS versus Exploiting Units
New rule, allows GS against Exploiting units. Previously there was nothing an opposing side could do to stop rampaging Exploiting units,

20.2.3 GS Mission Errors
Rule has been modified to reduce number of scatter results and take into account updated flak rules.

20.3.0 Ground Interdiction (GI)
MAJOR CHANGE: Ground Interdiction now uses the AW rules. Wacht and Hurtgen AP strengths will be modified to account for change. All games now use this process as it reflects the designer’s intent, and speeds play.

20.4.1 Conducting Supply Interdiction
Clarification made regarding which truck points are attacked.

20.6.0 Air Superiority (ASup)
New rule added to cover ASup against GI mission routine.

20.7.0 Anti-Aircraft (Flak)
MAJOR CHANGE: Flak has been incorporated into unfavorable DRMs when determining mission success.

22.5.0 Unit Consolidation
Z-step consolidation added.
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Terrain Key lists all of these features. The defender always chooses which terrain feature he is utilizing when defending in a hex. When moving a unit, the highest terrain cost in the hex or across a hexside is used; unless a unit is using some form of road movement.

Note: Each scenario book will cover any unique terrain for the campaign covered. The Terrain Effects Charts for each game may not list all terrain in later games.

1.2.1 Roads
There are three types of roads in the game: primary roads, secondary roads and trails; the term “road” encompasses all three.

1.2.1a Railroads (RR)
Some games will depict railroads on the game map. RR’s are considered trails for movement purposes.

1.2.2 Rivers & Streams
Rivers and streams are hexside terrain features that affect movement and combat. For a more natural look, these features do not conform exactly to the hexsides. Apply their effects to the hexside that is nearest to them. There are three types of rivers that could be present. From the smallest to largest they are: River (sometimes referred to as a Minor River), Major River, and Great River. Streams are not considered rivers however they do affect combat and movement.

1.2.3 Covering Terrain
Covering terrain represents terrain in which units are more difficult to detect or engage. There are two kinds of covering terrain (CT), movement CT (MCT) and observation CT (OCT). This concept is explained fully in 8.0.

1.2.4 Constricted Terrain
Constricted terrain represents terrain in which, bluffs, steep canyons, or very rugged terrain severely restricts movement. Constricted terrain is depicted by dashed lines drawn from one hexside to another in the same hex; more than one line may be in a hex. The rules governing constricted terrain are contained in the appropriate sections of the rulebook.

1.2.5 Soft Ground, Marsh, & Swamp
Soft ground, marsh, and swamp are special terrain types that may be combined with other types of terrain. Each game will designate whether the terrain is treated as soft ground, swamp, or marsh and any other special rules that are applied. Unless specifically stated in the rules, the terms soft ground, marsh, or swamp is used interchangeably.

1.3.0 Game Charts & Tables
Charts and tables are used as explained in the appropriate rules sections. Each game in the series comes with various charts and displays. Some are standard GoSS charts and displays others will be specific to that game.

1.3.1 Unit Type Chart
The Unit Type Chart (UTC) gives examples of every type of unit, value, and symbol used on the unit counters. A unit’s historical ID is shown as company/battalion/regiment (or brigade if British)/division designations. Sometimes a unit has a Kampfgruppe name (if German) or a Combat Command designation (if US). Independent units attached to corps or armies use battalion IDs and corps or army IDs. Corps HQ IDs are always roman numerals. Army IDs have “Armee” or the letter ‘A’ at the end. Corps/Army IDs may be depicted using Corps/Army insignia in the place of the numbered designation.

1.3.2 Unit Breakdown Chart
The Unit Breakdown Chart (UBC) shows how a unit may be broken down into smaller units called ‘breakdown units’ or ‘breakdown companies’ (18.0).

1.3.3 Informational Markers Chart
This chart shows the informational marker counters used in the game. The use of each marker is explained in the appropriate rules sections. The ‘ace of spades’ marker is used as a step loss marker and can also be used in many other ways throughout the game.

Example: The ace of spades may be used to designate stacks as attack eligible by placing markers on top of those stacks until the resolution of combat.

Design Note: The ace of spades (hit) marker can be used to signify many different things. As long as it is agreed among the players what a marker is being used for, that is fine.

1.3.4 Terrain Effects Charts
The Terrain Effects Charts (TEC) summarizes the effects of terrain on movement, observation, and combat. For convenience the TEC is depicted on the Movement, Ground Assault Tables and Fire Support Tables with each table depicting the pertinent data required to show the effect of terrain on that function.
1.3.5 Unit Replacement Table
Unit Replacement Table (URT) summarizes the number of replacements points required to replace losses and to rebuild units.

1.3.6 Logistics Charts & Procedures
This group of charts provides the variables and process for managing the game’s logistic procedures.

1.3.7 Fire Support Charts & Procedures
This group of charts provides the variables and process for conducting all types of Fire Support Missions.

1.3.8 GA Charts & Procedures
This group of charts provides the variables and process for conducting Ground Assaults.

1.3.9 Movement Charts & Procedures
This group of charts provides the variables and process for conducting all types of movement, including construction.

1.3.10 Ground Assault Table
This table is printed out on a full sheet providing the results of ground assaults and a convenient mnemonic for DRMs and combat shifts.

1.3.11 Ten-Sided Dice
Two ten-sided dice are provided with the game. See 1.6.0 for how the dice are used.

1.4.0 The Playing Pieces
The game’s cardboard pieces are called counters. Unit counters, or simply “units,” represent headquarters (HQs) and combat units that participated in the battle. Most units are identified by historical designations found on the upper corners of the counters. Company breakdown units use generic ID numbers. The other numbers on the units represent their combat or movement capabilities. Units are color-coded by nationality, political affiliation, or branch of service.

Most units are double-sided, with the reverse side showing the unit after it has suffered a step loss. The reverse side of company breakdown units may represent another unit entirely if there is no zero step (Z-step) image of the unit on this side. The front side of artillery units shows the unit “in-battery” (ready to fire), and the reverse its “out-of-battery” (ready to move) mode. Leader counters are also provided, one side depicting the leader in an inactive mode and the reverse representing the leader after activation. All other counters that are not units are collectively called “markers.” Markers are used to record or keep track of information on the game map or on off-map record tracks. Markers also keep track of any change in a unit’s supply status, strength, or mode.

1.4.1 Punching Out the Counters
It is recommended that players study the counter sheets (and even make photocopies of them) before punching them out and sorting them. The counters are generally arranged by divisions and by type for corps/army artillery and combat engineers and other assets. It will be much easier to find a counter if you have a copy of the counter sheets handy to quickly ID the unit.

1.5.0 The Rounding Rule
Fractional numbers will normally be rounded up to the next whole number. There may be some cases in scenario rules that require fractional numbers to be rounded to the nearest whole number (i.e. any number less than one-half is rounded down and any number equal to or greater than one-half is rounded up). When calculating the ground assault value for a GA, retain fractions for each individual unit, totaling all units participating, then round the total value up to the next whole number.

Example: A stack of two Inf Btns and one engineer Coy is defending against a ground assault (GA). The stack is out of supply, which causes all combat strengths to be halved. Each Btn has a printed, defense strength of five and the engineer unit has a printed, defense strength of three. The total would be 
\[ (5 ÷ 2 = 2.5) + (5 ÷ 2 = 1.5) = 6.5 \text{ rounded up to } 7. \]

1.6.0 Glossary & Abbreviations

Active (side or units): The side performing the activities listed during a segment or a phase within a game-turn. An active unit is a unit belonging to that side. The other sides’ units are inactive.

Afternoon Game Turn (PM): The second game turn (GT) of any given game day (GD) representing the hours from noon to early evening.

Air Point (AP): Unit of measure used to abstractly represent the air assets available to each player side (20.0).

Ammunition Depletion (AD): Artillery units are considered ammo depleted, if after conducting a barrage, they fail their AD die roll (DR) check (11.8.0 & 16.3.1).

Ammunition Point (Amp): Unit of measure used in the replenishment of AD artillery units or to increase the ammo depletion value of an army (16.3.3).

Ammunition Point Value: A basic numerical value that indicates the approximate level of ammunition supply available to an army or corps.

Ammunition Depletion Value (ADV): The value that is used when determining if an artillery unit is ammo depleted or is able to be replenished (16.3.0).

Anti-Tank (AT) Value: The strength of a defending unit’s AT weapons against attacking armored fighting vehicle (AFV) units (13.7.5).

Armor Factor (AF): The rating of an AFV equipped unit’s weapon and armor protection in battle (13.7.5).

Armored Fighting Vehicle (AFV): An armored protected vehicle (usually tracked) capable of combat against the enemy at close range. All units displaying an armor silhouette contain AFVs and are either ‘pure armor units’ (if they contain only AFVs) or ‘hybrid units’ (if they also contain an infantry or recon symbol) (UTC & 4.0).

Armored Infantry: The term encompassing units that typically transport and sometimes fight from armored type vehicles (i.e. halftracks, armored cars, and light armored vehicles); armored infantry, panzergrenadier, armored engineers, and armored recon are all considered armored infantry.

Army: A collection of one or more corps, attached units, or formations that may sometimes be referred to using the XXX unit size symbol.

Artillery Barrage: A fire support mission conducted by artillery units using their ability to engage an enemy target using indirect fire.

Air Transport Point (ATP): A type of air point that is used to deliver supply.

Attachment: Units of one ‘formation’ are temporarily subordinated (for combat, supply, and movement) to another formation (9.6.0).

Attacker: Player initiating a ground assault or fire support mission.

Battalion (Bn): Any unit with a battalion symbol (4.1.1).

Battle Group (BG): The term used to define an independent sub-formation not currently attached to a formation.

Breakdown Unit (BU): A company-sized, or zero step (Z-step) unit that has been created from a larger parent unit (18.0).

Brigade: A collection of units that may use be referred to using the X unit size symbol (See Sub-formation).

Combat Reserve (CR): Designated units (under a CR marker) eligible to provide additional support to a given ground assault (7.9.1).

Command: The chain of command that exists from HQ to unit. The order goes from army HQ to corps HQ to formation HQ and, finally, to a non-HQ unit (9.0).

Company (Co): A one or two-step unit that has a company-sized unit symbol. Units with two steps are considered two companies. For AFV units, the step indicator is in the place of the company symbol (4.1.2). Some one step company units have a Z-step unit on the reverse side.

Corps: A collection of units that may sometimes be referred to using the XXX-unit size symbol. A corps is...
usually subordinate to an army.

Covering Terrain (CT): Terrain in which units are more difficult to observe; there are two types of covering terrain, movement, and observation (8.2.0).

Current Combat Strength: A unit’s attack and defense factors after any reductions due to step losses but before any other modifications (4.3.2).

Defender: Player whose unit(s) is the target of a barrage, airstrike, naval gunfire, ground assault, or overrun.

Defensive Works: Term used to describe all types of man-made defensive positions, including fieldworks, forts and fortified areas.

Deployed Heavy Bridge: Heavy bridge units under construction or fully constructed (17.3.1c).

Detachment: A unit or units that have been reassigned to another formation or designated as an independent unit or sub-formation (9.6.0).

Die Roll (DR): DRs always consist of one of two types, and may be modified by die roll modifications.

* 1d10: Indicates the need for rolling one ten-sided die. A “0” is a result of zero.
* 2d10: Indicates the need to roll two ten-sided dice (with one die representing the tens and the other die the ones). Results can range from 00-99.

Die Roll Modifier (DRM): A numerical value either added or subtracted from a DR to represent specific conditions present that would affect the variable outcome of a given circumstance. Unless noted otherwise DRMs are cumulative.

Division: A collection of units that may sometimes be referred to using the XX-unit size symbol (See Formation).

Entrenchment (ET): Defensive positions that may be constructed in the context of the game, representing improved communications, fields of fire and temporary emplacements or improvements in existing structures that offer additional protection for defending units (17.3.3b & c).

Exploitation (Exploit): Term used to define either a unit mode or game phase that allows a side to take advantage of a break through or to react to an enemy advance (5.3.0).

Extended Night Activity (ENA): Special game turn conducted after the night game turn which represents additional effort on the part of troops at night when they normally would be sleeping or refitting (3.4.0).

Fieldworks (FW): Entrenchments (ET) and improved positions (IP) are classed as FW and can be constructed in the context of the game (17.3.3).

Final Assault Value (FAV): The value obtained to resolve ground assaults, after applying all required column shifts to the ground assault value (13.6.3).

Fire Support (FS): The term used to describe an attack using air, artillery or naval gunfire points that is conducted against an enemy-occupied target hex (11.0).

Fog of War (FoW): Simulates the confusion and uncertainty of battlefield conditions. Even though a unit or stack may be observed by enemy units, FoW rules still limit the level of information an opposing player can determine (6.5.0).

Formation: A division or an independent brigade that has a headquarter counter. All units of a division or independent brigade have a color box behind their divisional or brigade ID to aid in sorting and identifying the units of that formation on the map.

Fortifications (Fort): Represent hardened defensive positions built prior to the commencement of any game, and may not be constructed within context of the game (17.6.0).

Fortified Area: Represents hardened defensive positions printed on the map. West Wall hexes are the most common type of fortified areas (17.5.0).

Fuel Point (FP): A unit of measure used to quantify the fuel requirements of mechanized formations and or units (16.4.0).

Game Day (GD): Unit of measure used to determine the historical dates of a given game. GDs are divided into three regular game turns (AM, PM, and Night) and a possible ENA period.

Game Turn (GT): Unit of measure used to regulate the flow of play during any given GD (3.0).

General Supply (GenS): Form of supply based upon tracing a supply path from a primary supply source (15.0).

Ground Assault (GA): The term used to describe the act of attacking enemy units from adjacent hexes (13.0).

Ground Assault Table (GAT): Table used to resolve GAs.

Ground Assault Value (GAV): Value obtained by comparing the attacking ground assault strength to that of the defender’s final ground assault strength, prior to any column shifts (13.5.0).

Ground Support: A fire support mission conducted using air points.

Game Turn Record Track (GTRT): The track used to record game turns and game days. In some games reinforcements, air point availability, and historical weather are also listed on this track.

Headquarters (HQ): Unit representing the command structure of a given formation or chain of command. HQs have special functions outlined in the appropriate rules sections.

Heavy Bomber (HB): Represents heavy bombers and assigned fighter escorts.

Hex: A hexagonal game space enclosed by hex sides that regulates unit location and movement on the game map.

Hybrid Unit: A mechanized unit that is a mixture of AFVs and infantry (includes units with the recon symbol), thus rules that pertain to AFVs apply to Hybrids unless specifically stated in the rules.

Improved Position (IP): Defensive positions that may be constructed in the context of the game representing rudimentary fox holes, designated fields of fire, and a slightly improved communications network (17.3.3a).

Independent Unit: A unit that does not belong to any formation (usually a corps or army level asset), or one that has been detached from its formation and made independent.

Infantry (Inf): Units with the plain infantry symbol (two crossed lines) appearing anywhere in the unit-type box. Other symbols may also be superimposed on the infantry symbol (glider, parachute, armored). Most infantry units are leg class units for movement purposes; although an armor oval or wheels under the unit box signify that the unit is mechanized. Combat engineers/pioneer and machine gun units are considered to be a type of Inf.

In-Battery (IB): Used to describe when an artillery unit is organized to conduct fire support. Most in-battery artillery units cannot move.

Kampfgruppe: A German term used to describe an ad-hoc sub-formation grouped together to complete a specific mission. In game terms, some German formations are divided into Kampfgruppe which are usually marked with the leader historically associated with the group. Treat all Kampfgruppen as sub-formations.

Lead Unit: The unit selected in ground assaults that is used to determine the proficiency for the attacking or defending units.

Leg Units: Units that move predominantly on foot; usually infantry. See the Unit Type Chart for a graphic explanation (4.2.0).

Line of Sight (LOS): A straight line from the center of a spotter’s hex to the center of the target hex that is unobstructed and allows a unit to accurately identify targets and/or lay down a field of fire (8.1.0).

Maneuver Reserve (MR): A specific mode that a formation may enter that represents a time that the formation may rest its personnel and repair equipment allowing the formation to operate at a higher level of performance for a given time period after exiting MR mode (5.4.0).

Mechanized Infantry (MI): Term used to
encompass both armored Inf and other Inf types that are motorized.

Mechanized Units (Mech or MU): Units that move using tracked or motorized vehicles. These units are all classified as mechanized units on the Unit Type Chart. Horse-drawn units and ‘heavy bridge’ columns are also considered MU (4.2.0).

Morning Game Turn (AM): The first GT of any given GD representing the hours from just before sunrise to noon.

Movement Allowance (MA): The total number of movement points a unit can expend in a Movement Phase (7.1.1).

Movement Point (MP): Unit of measure used to determine the length of time it takes a unit to move into a specific hex or cross a specific hex side. MPs may also be used to determine the length of time a specific function may take (7.1.2).

Naval Gunfire (NG): A fire support mission conducted using naval assets.

Night Game Turn: The third GT of any given GD representing the hours from early evening to the start of the next GD.

Observed: Enemy units may be observed or un-observed. The term “observed” denotes the ability of a unit to direct fire onto a unit (i.e. conduct a fire support mission). Just because a unit or stack is observed (8.0), does not mean an enemy player is entitled to any information concerning that unit or stack beyond what is allowed by the FoW rules (6.5.0).

On Hand Supply (OhS): The supply status of a unit or HQ that indicates the unit/HQ is unable to trace a valid supply path to its superior HQ (15.5.0).

Open Terrain: Any terrain that is not ‘covering terrain’. Clear terrain is open terrain, but open terrain is not necessarily always clear terrain (8.2.0).

Organic Unit: A unit that is historically subordinate to a formation. Organic units will have the name of the formation to which they are assigned in the upper right hand corner of the counter.

Out-of-Battery (OoB): Used to describe when an artillery unit is organized to move (5.6.0).

Out of Command (OoC): Used to describe a formation or unit’s status if the proper chain of command cannot be defined or if a formation/unit is outside its zone of operations (9.0).

Out of Supply (OoS): Used to define the supply status of a formation or unit when they are in a situation that does not allow them to obtain the supplies required to operate normally (15.6.0).

Panzergrenadier (PzGd): German term to denote armored Inf.

Pioneer (Pio): Term used to denote engineer units, the terms engineer, and pioneer are interchangeable, except where denoted in the rules.

Population feature: Term to denote a location, village, town, or city.

Prepared Assault (PA): A mode that a combat unit may enter representing a planned attack allowing greater support and coordination between units (5.2.0).

Primary Supply Source (PSS): A position on the game map or more typically a location off map that army, corps, and formation HQs use to determine their supply status (15.3.0)

Proficiency (PR): A measure of a unit’s performance-efficiency in combat. Unit proficiency during an attack is quantify by their offensive PR and during a defense by their defensive PR (4.4.0).

Pure Armor Unit: A unit that contains only AFVs. Pure AVF units have the silhouette of the AVF type on their counter with no other symbol present.

Exception: US Recon Coys (those with Armored Car silhouette), are hybrids and not considered “pure” AVF units.

Reconnaissance Unit (Recon): Unit representing light AVFs, jeeps, and/or other motorized vehicles and their accompanying personnel (see Unit Type Chart). Mech Recon units are considered Hybrid units with AVFs. Recon units have numerous special capabilities including: Exploitation Mode (5.3.0), stacking (6.1.2), Fog of War (6.5.0), Regimental Integrity Bonus (13.7.4), converting mandatory step losses (13.9.2), and advance after combat (13.10.2).

Regiment (Rgt): A collection of units that may sometimes be referred to using the III-unit size symbol. It is the standard term used throughout the rules to define a sub-formation (See Sub-formation).

Note: While Commonwealth units are typically designated as Bn-sized Rgts, and Rg-sized brigades, the US Regimental system terminology is used throughout the rules.

Regimental Integrity Bonus (RIB): A DRM awarded to GAs (both attacking and defending) representing the ability of formations to better coordinate attack and defensive actions when either most or all of the units involved are part of the same sub-formation (13.7.4).

Replacement Point (ReP): A unit of measure used to quantify personnel and/or equipment returned to a unit that is not at full strength (22.0).

Road: Any secondary or primary road or trail (1.2.1).

Self-Propelled Artillery (SPA): Artillery units representing guns mounted on a self-motorized platform (typically a tracked vehicle). SPA units have a red box around their MA (in some games, a white box, or other designation).

Sequence of Play (SoP): The order in which all actions during a GT are regulated and conducted (3.2.0).

Steps: A quantification of the strength (in Coy equivalents) a unit has present for combat (4.0).

Strategic (Strat) Movement: A form of movement that allows a unit or formation to take full advantage of the road system at the expense of being able to conduct combat operations (7.7.0).

Sub-formation: A distinct subset of units within a formation (e.g. a regiment, brigade, combat command, regimental combat team or kampfgruppe) (9.3.4b & c).

Subordinate: When used in the context of the game, it refers to all HQ and units currently assigned and attached to the HQ being discussed.

Supply Path: A path of hexes not exceeding a certain length that is traced from a primary source of supply thru the chain of successively lower HQ until finally reaching an individual unit (15.2.0).

Truck Point (TP): A unit of measure used to represent the ability of an army to transport fuel, ammunition, and units (16.1.0).

Unit: A game piece (counter) that represents an actual military unit consisting of men and equipment (4.0).

Volley: Increments of eight or less fire support mission points that require a 1d10 to resolve (11.4.1)

Zero Step Unit (Z-step): A detachment-sized unit that is smaller than a Coy and is less than a one step in strength (4.1.3 & 18.7.0).

Zone of Operations (ZOP): The area in which a corps, army, or army group may operate without penalties (9.0).

1.7.0 Game Scale
One map hex is approximately one mile of actual distance. Units represent a company, multiple companies, a battalion, or regiment. Each AM or PM GT equals about one-half of available daylight time. The night GT represents the hours of darkness. The extended night activity represents additional effort on the part of troops at night when they normally would be sleeping or refitting.

1.8.0 Inventory of Game Parts
A complete list of game components is provided in each game’s scenario rules.

2.0 SETTING UP THE GAME

2.1 Choosing Sides
The players choose which side they will play.
• The Allied side controls all Allied units including all American (US), British/Commonwealth (CW), Soviet (SO) and any other minor Allied units (such as Free French).
• The Axis side controls all German (including SS, Kriegsmarine, and
Luftwaffe) Italian, Japanese and other minor Axis allied units. 

**Note:** Actual national forces will be outlined in scenario rules.

### 2.2.0 Setting up the Map & Pieces

Scenario rules will explain how maps are joined together if there is more than one map sheet. The units and markers should be sorted by formations and usage.

**Note:** Units of the same formation usually have a color-code behind their parent formation’s ID to aid in identifying them for sorting and during play. Once a scenario has been decided on, units that begin the scenario on the map are set up according to the scenario rules. When setting up units, note that a hex is identified by the letter of the map it is on, and the number printed within its borders.

### 3.0 THE GAME TURN

All game activity, and the order it occurs, is controlled by the sequential phases within a GT. The “Sequence of Play” (SoP) is the order these phases occur in, and phases may be further subdivided into smaller periods of game activity called segments. Each GD of historical time is composed of three GTs: AM, PM, and night turn. Night GTs can sometimes be prolonged by extended night activity (ENA) if either side desires it.

#### 3.1 Scenario First Turn Rules

Some scenarios may begin with a GT that has a non-standard SoP. Scenario rules will explain when and how this occurs.

#### 3.1.1 Game Turn Record Track

The Game Turn Record Track is printed on the map (or sometimes on a stand-alone chart) and will contain the historical date, and GD number. A Game Turn Record Track may also contain historical weather, number of air points, reinforcement, withdrawal information, and replacement tables for both sides. In addition to the GD boxes, there are the AM, PM, and night GT boxes, which is where the marker for each GT of the GD is placed. GT and GD markers are placed in the appropriate boxes to record the passage of days and GTs. When a new GD and/or GT start, the appropriate markers are advanced on the Game Turn Record Track.

#### 3.2 Sequence of Play

3.2.1 Active Player

A GT usually consists of several preliminary phases, an Allied player turn, and then an Axis player turn. During a player turn, one side is designated the active player; the other side is called the inactive player. Generally, only the active player performs tasks during his player turn, although there are exceptions, as described in the SoP.

#### 3.3 Game Turn Sequence Outline

Each GT proceeds with the phases (and segments) occurring in the order listed in this SoP.

**Note:** Some phases will be listed as happening only in certain GTs of the GD; e.g. “(AM)” means that this phase will only happen on AM turns. Some phases and/or segments may be modified or omitted entirely by exclusive rules.

3.3.1 Air Allocation Phase (AM)

Scenario rules will determine availability of air points (AP) and how APs are assigned (20.0) along with any restrictions and/or special rules.

- Both sides determine the number of APs they have available for the entire GD.
- Both sides assign available AP to specific missions. These points can then be used throughout the AM and PM GT of that GD. Adjust the AP markers to reflect the number of APs that have been assigned to each mission.

3.3.2 Weather Determination Phase

**Weather Segment:** Determine the atmospheric condition, ground condition, and precipitation for the current GT (19.0).

**Ground Interdiction Value Segment:** Allied air interdiction values are determined (20.3.0).

**Naval Unit Assignment Segment:** Players determine the number of available naval units (11.9.0).

**Lull Determination Segment:** Lull declarations are made (24.0).

3.3.3 Command Phase (AM)

**Command Segment:**

- Both sides secretly designate which GT will be their rest GT (3.5.0).
- Both sides may change or create new command assignments and boundaries (9.0).
- Both sides determine the supply status of all HQ (15.0).

**Leader Activation Segment:** Both sides attempt to activate leaders (23.1.0).

**Surrender Segment:** Both sides determine if isolated units’ surrender (15.7.0).

3.3.4 Transport & Logistics Phase (AM)

Both sides perform the following segments with each of their armies. The Transport & Logistics Phase may be modified for one or both sides consult scenario rules.

**Truck Point Assignment Segment:** Determine the total number of TP available to each army and allocate these points to one of the three tasks (16.1.0): ammunition, fuel, and/or motorization.

**Ammo Delivery Segment:** Determine the ADV for each army. Refer to the Logistics Table to obtain the number of AmP received by each army (16.2.0 & 16.3.0).

**Fuel Delivery Segment:** Refer to the Logistics Table to obtain the number of fuel points received by each army (16.2.0). Assign FP to HQ as desired (16.4.0).

**Depot Placement Segment:** Move or place new depots (15.8.0).

**Replacement Point Segment:** Both sides can place new depots (15.8.0).

3.3.5 Allied Player Turn

The Allied side is the active player; the Axis side is the inactive player.

3.3.5a Allied Mode Determination Phase

- Roll 1d10 for each HQ marked “low” or “no fuel.” Consult the Fuel Level Table to determine the effect (16.4.5).
- Determine the mode each unit will be in for this GT (5.0).
- Artillery units are placed in-battery or out-of-battery (5.6.0).

3.3.5b Allied Construction Phase

The Allied side conducts construction of fieldworks and bridges (17.3.0).

- All FW and bridge markers eligible to be finished are flipped to their “completed” sides.
- Advance the construction of bridges by removing hit markers from “under construction” markers.
- Start construction of bridges and FWs by placing “under construction” markers of the appropriate type in hexes where the construction is being initiated. If time of construction is greater than one GT, place hit markers equal to the number of GTs required to complete the construction.

**Demolition Segment:** Engineer units may attempt to destroy bridges (17.3.2).

3.3.5c Allied Movement Phase

The Allied side moves units. Units in maneuver reserve (MR) (5.4.0) or exploitation (Exploit) mode (5.3.0) may not be moved.

**Combat Reserve Designation Segment:** Eligible units may have combat reserve (CR) marker placed on them (7.9.1 & 13.7.3). Units designated CR may not move.

**Movement Segment:** Units are moved in strict order (7.2.2). Ground Interdiction may take place during this segment (20.3.0). Delay markers may also be placed (7.9.5).

- Units in Tactical Mode (5.1.0)
- Tactical road movement (7.7.0)
- Strategic road movement (7.6.0)
- Tactical non-road movement (7.4.0)
- Units in PA mode (7.5.0)

**Quick Construction Segment:** The Allied side may finish FWs eligible to be completed at this time (17.3.3).

**Note:** The only form of combat that may occur during this Movement Phase is
enemy air interdiction attacks against moving units (20.3.0).

3.3.5d Axis Exploitation Phase

• Axis formations in Maneuver Reserve (MR) mode may enter Exploitation (Exploit) mode (5.4.5).

Note: Axis formations may have entered Exploit mode during a friendly Mode Determination Phase.

• Axis units in Exploit mode may move up to one-half of their MA, and may conduct overruns (7.3.1b & 7.11.0).

• Exploit units may be subject to ground support attacks while moving and if conducting an overrun to artillery FS missions.

Note: During night GTs, a unit in Exploit mode may be moved its full MA, but each side only gets one Exploit Movement Phase (3.3.8).

3.3.5e Allied Combat Phase

The steps used to resolve combat occur in the following order:

Attacker Designation Segment: The Allied side designates which units will make tactical assaults (10.2.0) and then attempts to remove delay markers (7.9.5c).

Replacement Segment: Eligible Allied units may receive RePs (22.0).

Fire Support (FS) Segment: Both sides may perform air (20.2.0), artillery and naval FS missions (11.0) and naval (11.9.0) FS missions. The below sequence must be followed in order.

Offensive Air Support: The Allied side conducts ground support missions.

Defensive Support: The Axis side conducts artillery, then either air or naval missions.

Offensive Support: The Allied side conducts artillery and then naval missions.

Attacker Status Adjustment Segment: The Allied side removes attack designation markers (both Tactical and PA) from units that are no longer adjacent to enemy units and who meet the requirements in 12.1.0. The Allied side may then voluntarily remove attack designation markers from units that are adjacent to enemy units (12.0).

Ground Assault (GA) Segment: The Allied side attacks Axis units using GA (13.0). Hasty demolition (17.3.2b) and collapse (17.3.2c) of bridges may occur during GAs. Isolated defenders may surrender (15.7.2). After completion of all combat, remove all AS markers.

3.3.5f Allied Exploitation Phase

• Allied formations in Maneuver Reserve (MR) mode may enter Exploitation (Exploit) mode (5.4.5).

Note: Allied formations may have entered Exploit mode during a friendly Mode Determination Phase.

• Allied units in Exploit mode may move up to one-half of their MA, and may conduct overruns (7.3.1b & 7.11.0).

• Exploit units may be subject to ground support attacks while moving and if conducting an overrun to artillery FS missions.

Note: During night GTs, a unit in Exploit mode may be moved its full MA, but each side only gets one Exploit Movement Phase (3.3.8).

3.3.5g Allied Administrative Phase

The Administrative Phase activity occurs in the following order:

Air Resupply Segment: (AM and PM)

The Allied side may conduct air supply missions (20.5.0).

Supply Determination Segment: The supply status of Allied units (not HQs) is checked. Mark units with on-hand supply (OhS) and out of supply (OoS) markers as required (15.0).

Mutual Ammo Replenishment Segment: The Allied side may replenish depleted artillery units by conducting DRs or expending AmP. The Axis side may replenish artillery units by expending AmP (16.3.4b).

Fatigue Recovery Segment: Allied units in tactical mode (only) may be eligible to remove one level of fatigue (14.0).

3.3.6 The Axis Player Turn

The Axis player turn is identical to the Allied player turn, with all roles being reversed. Once this player turn is over, the current GT is complete.

3.3.7 Update Game Turn Indicator

If the last turn in the scenario is complete, the game is over; determine who won. If the scenario being played has sudden death victory conditions, determine if those conditions have been triggered. Otherwise, the GT marker is advanced to the next turn and a new GT begins.

3.3.8 Night GT Exploitation Phase

The SoP for night GTs is identical to AM and PM GTs except for the Exploitation Phases. During night (and extended night activity periods) GTs, each side may only conduct activity during one of the two friendly Exploitation Phases of a GT, but they may move using their full MA.

Note: Both sides can only use one of their Exploitation Phases. Neither side can move one formation in one Exploitation Phase and then other units in their side’s other Exploitation Phase.

Example: The German player has a KG in Exploit mode and the Allied Movement Phase for the November 17 Night turn has just ended. The German player can now choose to move the KG units up to their full MA in this Exploitation Phase, or he could wait until his night player turn and take an Exploitation Phase following the end of the Axis November 17 Night Combat Phase. The German player may not do both, however.

3.4.0 Extended Night Activity

At the end of the Axis player turn of each night GT, either side may extend the GT with extended night activity (ENA). This ENA period uses the special SoP outlined in 3.4.3. Units that move or conduct combat may suffer fatigue (14.1.2).

Note: Not all scenarios allow ENA periods.

3.4.1 Player Determination

Each side conducting ENA must first make an ENA die roll (1d10). The side with the higher DR (Axis win any tie) will choose which side will be the first player in the ENA SoP. These DRs are also used to determine the number of unit activations for this ENA (3.4.2).

Note: Scenario rules may award modifiers to the ENA DR.

3.4.2 ENA Activation of Units

The ENA DR result for each side is the number of units that side may attempt to activate for that ENA period. A unit cannot be OoS, OOC and must be in tactical or Exploit mode.

3.4.2a ENA Activation by Leader

A player may choose to use a formation leader to activate units.

• Leader must be active and stacked with, in the case of a formation, the formation HQ, or in the case of a sub-formation leader, stacked with a unit of that sub-formation.

• The leader makes a PR check (use leader’s activation number). If the DR is less than this number, all units of his formation/sub-formation (including any attached units) are activated for ENA.

• When a leader attempts to activate units under this rule, the leader’s attempt uses one-half of the allowable ENA activation capacity for that ENA period. If the leader failed his ENA activation DR, none of the units may activate, however one-half of the allowable number of activated units is still considered used.

Example: The Allied player rolled an 8 on his activation DR. General Rose (2nd US Armored Division) is active, his activation number is 7 and he rolls a 6. All units of the 2nd Armored Division may activate for ENA, leaving the Allied player 4 more units able to activate for ENA (one-half of activation DR of 8).
• **Pass:** Unit is activated.
• **Fail:** Unit is not activated. The failure counts against the number of attempts allowed. The unit is not fatigued.

### 3.4.3 ENA Sequence of Play

Extended night activity then occurs in the following order:

#### 3.4.3a ENA First Player Turn

- First Player Movement Phase
- Second Player Exploitation Phase (full MA)
- First Player Combat Phase
- First Player Exploitation Phase (full MA)

#### 3.4.3b ENA Second Player turn

- Second Player Movement Phase
- First Player Exploitation Phase (full MA) if the first player did not use his Exploitation Phase in the First player turn, he may conduct this segment.
- Second Player Combat Phase
- Second Player Exploitation Phase (full MA) if the second player did not use his Exploitation Phase in the first player turn, he may conduct this segment.

**Designer’s note:** There is no Mode Determination Phase, this was omitted intentionally.

### 3.4.4 ENA Mutual Fatigue Phase

Each unit activated during the ENA period has a fatigue marker placed upon it during the Mutual Fatigue Phase (14.1.2).

**Exceptions:** Units in an MR bonus period (5.4.6) and units that defended against GA at half strength (14.1.2).

#### 3.4.5 ENA Restrictions

During an ENA period, units may not:
- Use strategic movement.
- Conduct any type of construction.

**Note:** Units may attempt hasty bridge demolition (17.3.2b).

#### 3.4.5a ENA & Fuel

Mech units use the fuel status of their formation in the immediately preceding night GT.

#### 3.4.5b ENA & Fatigue

Units that were activated for ENA or defended against a GA during ENA at full strength suffer fatigue (14.1.2).

### 3.5 Rest GTs

Units cannot operate 24 hours a day for days on end. Units need time to rest and perform maintenance/repair. To reflect this requirement a player normally will be required to conduct one rest GT each GD.

#### 3.5.1 Allied Rest Turns

All western Allied forces must take a rest turn each night GT.

**Designer’s note:** Allied tactical doctrine (especially for CW units) was such that units tended to utilize this time to reorganize and supply their units. Additionally, with a few exceptions, most commanders were either unable or unwilling to attempt the coordination required for a large scale assault during hours of darkness.

### 3.5.2 German Rest Turns

During the Command Phase of every GD the Axis side must secretly denote which GT (AM, PM or Night) of that GD that is designated as a rest turn.

### 3.5.3 Rest Turn Mode Restrictions

Units may not enter PA or Exploit Mode during a rest GT. Units already in Exploit mode may remain in that mode.

### 3.5.4 Rest Turn Movement

The following restrictions are in effect during rest turns:
- Units that move more than one-half of their modified MA incur one fatigue hit. The unit is fatigued immediately upon completion of its movement. This includes units in Exploit mode.
- Units may not move from a hex adjacent to any enemy unit to another hex adjacent to that same or different enemy unit.

**Exception:** Units that are marked with an Isolated marker, and moving towards their source of GenS are exempt from the above adjacent enemy unit restriction, although normal movement halts and MP costs still apply.

#### 3.5.4a Exempt Units

The following units are exempt from rest turn movement restrictions.
- Mech units (including leg units using truck points) using any form of road movement and that remain at least six hexes from an enemy unit (five intervening hexes).
- Units that exit Maneuver Reserve Mode directly to Exploit mode (5.4.5) during a rest turn or are in a Maneuver Reserve Bonus period (5.4.6).

### 3.5.5 Rest Turns & FS Missions

Artillery units that conduct any type of FS mission incur one fatigue hit if they use more than one-half of their barrage strength.

#### 3.5.6 Rest Turns & Ground Assaults

Units that conduct a tactical assault during a rest turn automatically receive one fatigue hit after completion of the assault. Units already Fatigue-1 become Fatigue-2. Units defending against a GA during their rest turn incur one fatigue hit, unless they defend at one-half strength.

**Designer’s note:** Historically the Allied forces were not trained for night combat and doctrine called for units to hold and/or (in the case of armor) to withdraw to refit, repair and refuel at night.

### 4.0 UNIT CHARACTERISTICS

This section discusses unit size, movement class, and strength.

#### 4.1.0 Unit Size

Unit size affects several game functions, primarily stacking (6.0). Units range in size from battalions (largest) to zero-step units (the smallest). Most units have a unit size symbol printed on their counter. The Unit Type Chart displays the unit size symbology used in the game.

**Note:** Soviet and some Italian units may be shown as regiments. See scenario rules.

#### 4.1.1 Battalions

A battalion (Btn) will always have a battalion size symbol (two vertical lines) on its unit counter. Btns normally contain three companies. Three step hybrid units are considered Btns.

Some Btns contain one or two steps. They are still treated as Btns unless specifically noted otherwise. Rear echelon Btns, Commonwealth Recon Btns, and Btn-sized HQ units normally have only two steps.

#### 4.1.2 Companies

Company (Coy) sized units can consist of one or two Cosys.
- A Coy sized unit will always have a white stripe behind the unit type box, and will sometimes have a Coy size symbol (a single vertical line).

  **Note:** There are artillery units designated as company and Z-step units. Unless specifically stated in scenario rules, all artillery units (except Z-step units) consist of one step.

- If the unit consists of two Cosys, there will be a unit type box superimposed over another such box. In the case of AFVs there will be two silhouettes.

- AFV Cosys will display an AFV silhouette with a white strip behind it.

...
4.3.1b One Step Units
One step units without a Z-step unit on the back are eliminated when they take their first step loss. One step units with a Z-step unit on the back are reduced to a Z-step unit.

4.3.1c Two & Three Step Units
Two and three steps units that suffer a step loss are inverted to reveal their reduced strength side (indicated by a color band behind the unit’s strength values). Two-step units are eliminated when they take their second step loss. Three step units that suffer a second step loss have a ‘hit’ (ace of spades) marker placed under them, with the reduced strength side face up. The combat strength of three step units with one step remaining is explained in 4.3.2.

* The “Ace of Spades” marker is a step loss marker when placed under a unit. It is placed underneath the unit, but for the purposes of illustration they are placed “below” this diagram.

**Example:** Using the diagram above:
- Unit on the left (1/9/2 Inf Bn) is shown at full strength (3 steps) with a current combat strength of 7-8-6.
- Next unit shown is the Bn with one step loss (inverted) with a current combat strength of 5-6-6.
- Third unit shown is the Bn with two step losses (still inverted with “ace of spades” marker under it). Unit now has a current combat strength of 3-3-6.
- The fourth unit is the CCR1/7A at full strength, then with one step loss, and finally with two step losses and a current combat strength of 4-3-12.

**Note:** Step losses do not affect proficiency ratings or armor/AT values.

4.3.2 Current Unit Combat Strength
A unit’s combat strength is dependent on the number of steps the unit has remaining. The combat strength of a unit is always given by the values on the side of the unit that is facing up, unless a hit marker is present under the unit. When a three-step unit suffers its second step loss, its strength is calculated by halving the combat values shown on the reduced side (round fractions up).

**Examples:** If a 7-8-6 three-step US Inf Bn takes a step loss, it is flipped over to its reduced strength side and is now a 5-6-6. If it were to take another loss a hit marker would be placed underneath the unit, and its ground assault strengths would now be 3-3-6. If a three step hybrid unit starts with factors of 10-8-12, when it takes a step loss it is flipped over to its reduced strength side and is now an 8-6-12. If it takes a second hit, a hit marker would be placed under it and its ground strengths would be 4-3-12.

4.4.0 Unit Proficiency
All units have proficiency ratings (PR) that measure training, morale, and leadership. The Unit Type Chart shows the location of these ratings on the counters. A unit’s PR can affect combat, and is used when making proficiency checks. Most units have both offensive and defensive PRs. There are some units that have a defensive PR but not an offensive PR. Those units may not participate in an offensive ground assault if they are the only unit in a hex. They may conduct an offensive ground assault if stacked with a non-Z-step unit that possesses attack proficiency. They may not be selected as the lead PR unit.

**Exception:** Ranged artillery units (those units with a printed range of greater than zero) may never participate in an offensive ground assault.

4.4.1 Proficiency Checks for Units
Use the below procedure when making a PR check.
- Roll 1d10, and if the result is equal to or greater than the PR value of the unit, it has failed its PR check.
- The offensive PR is used when the unit is on the active side.
- The defensive PR is used when the unit is on the inactive side.
- In phases where both sides are active (e.g. the Command Phase) check the specific rule requiring the check to determine whether the offensive or defensive PR is used.

4.4.2 Proficiency Checks & Leaders
Leader PR checks use the same procedure as unit PR checks, with the DR being compared to the leader’s activation number. If a leader is in the hex when a unit or stack is required to make a PR check, apply a -1 DRM.

4.4.3 Breakdown Unit Proficiency
Unless stated otherwise in scenario rules, the standard PR ratings for breakdown units are as follows:
- German 1-2-6 Leg Infantry Cosys: 4/5
- All other German Leg Cosys: 5/6
- German Mech Cosys: 6/6
- All Allied Cosys: 5/6

**Note:** Other Axis nationalities and Allied national exceptions will be covered in scenario rules.

**Designer’s Note:** Players may track which units break down and which breakdown Cosys were created by those units. If this is done, breakdown Cosys retain the PR ratings of their parent units. In this case, breakdown Cosys can only be reformed back into units with the same or lower PR ratings.

4.4.4 Green Divisions
Historically many formations new to
combat did not initially perform well during their “introduction” to combat. There are three levels of training in the game; Green One, Green Two, and Veteran.

- Independent (corps/army asset units, including ArmCav Groups) are not affected by this rule.
- All units subordinate to a Green Two formation suffer two unfavorable column shifts when attacking and one when defending.
- All units subordinate to a Green One formation suffer one unfavorable column shift when attacking or defending.
- Green One and Two units may not be attached to a formation that is in a Green One or Two status, but may be attached to a veteran formation. While attached to another formation the units suffer the unfavorable column shift(s) even if stacked with veteran units.
- Green One and Two, US armored formations may not operate as a formation until at least two combat commands (CC) subordinate to the formation have gained veteran status. Each combat command (can include division support units) must operate as an independent sub-formation. They may be attached to a veteran formation, as above.
- If veteran units (including those units listed in the first bullet) are attached to a green formation, they suffer the same penalties as the green units.
- Scenario rules will outline which formations are considered green and any additional special affects this may incur.

4.4.4a Green Division Checks
A Green formation can increase its status by:
- Two subordinate sub-formations achieving a higher level of experience (i.e., Green Two to Green One, or Green One to Veteran). Sub-formations change status when:
  - At least two Btns eligible to contribute toward RIBs and are subordinate to the same sub-formation participate in the same successful offensive GA.
  - The GA is considered successful if the defending units suffered more total hits (mandatory and discretionary) than the attacking units.
  - Immediately after the completion of the GA, roll 1d10 if the result is greater than 3, the sub-formation gains one level of experience. If the formation has an active divisional leader, apply a +1 DRM (the leader can be anywhere on the map).
  - A sub-formation can conduct this check after each successful GA; however, each sub-formation can only increase its experience by one level per GD.
  - Once at least two sub-formations (Rgt or combat command) gain a level of experience, the entire formation moves up one level (i.e., from green two to green one, etc.).

4.5 Special Units & Formations

4.5.1 German Panzer Battalions
Some games have generic Pz Bn Btns available to the Germans. These Btns are type specific, representing one type of panzer. The German player may remove three steps of pure armor that are all of the same type as the Pz Bn and substitute them with one Bn counter of the same type (18.9.0).
- Once the Bn counter is on the map, it functions with the combined strength of all three Pz Coy and the PR ratings of any one Coy it replaced. It is considered to be a normal three-step Bn.
- If a panzer Bn suffers a step loss, one of the off-map Pz Coy’s must lose a step (note that it could be flipped to its z-step side if it has one). Two z-step Pz units are equal to one Coy, so if the Bn suffered two step losses and each unit had a zero-step side, the German player could recombine the two z-step units into one full strength Coy.
- The Axis player never has to divulge how many units or the actual strength of that Bn to the Allied side, until the unit attacks or is attacked. Axis players should keep track of the units assigned to the Bn on paper or in a makeshift holding box.

4.5.2 Flak Regiments
Unless scenario rules dictate otherwise, follow the below procedures when Luftwaffe Flak regiments are present:
- Each Rgt contains a variable number of Coys that consist of motorized 88mm Flak guns (the 20 and 37mm guns have been abstracted within the units).
- Each Rgt counts as an independent BG for both fuel and ADV purposes.
- Each Coy may be broken down into two z-step 88mm Flak units (Coys are back printed with one of the Z-step units).
- Coy units of these formations also have a limited ability to conduct FS missions (11.4.1b).
- Coys may be attached to formations. There is no restriction on how many may be detached from each Rgt.

Note: It is to the advantage of the Axis side to attach these units to individual formations as soon as possible to avoid multi-formation GA penalties and the additional fuel required to move them around.

4.5.3 Rear Echelon Units
Each game outlines which units are considered Rear Echelon (RE) units. RE units may not break down, receive RePs, and may not be resurrected if eliminated.

When recycling step losses (22.1.3) do not count step losses from RE units.

4.5.4 German Nebelwerfer Brigades
Nebelwerfer brigades are treated as army/corps artillery assets. Individual units of these brigades may not be attached to a formation or sub-formation.

Note: Some of these units are considered self-propelled (see counters).

4.5.5 Kangaroos
Some games are provided with Kangaroo transport units. Each Kangaroo unit may transport one infantry Bn or Coy. All rules pertaining to mounting and dismounting (7.8.0) are in effect with the following exceptions:
- Use of Kangaroos, does not reduce the Allied divisional organic transport capability.
- Units mounted in Kangaroos are considered Mech units for all purposes and are treated as if they were pure armor units.

4.5.6 Rangers & Commandos
Throughout the rules, the term commando (CDO) will be used for US ranger, German Brandenburger, and CW commando units. Commandos have the following capabilities and restrictions:
- CDOs may ignore movement halts due to the presence of adjacent enemy units (7.3.3a, 7.3.3b, & 7.3.3c). Roll 1d10 and if the result is a 0-4 they may ignore the movement halt in that hex. They may make this attempt in every hex that requires a movement halt.
- CDOs may not be selected as the lead unit in a GA unless the hex being attacked contains a fort, is a fortified area hex, or is a special objective detailed in scenario rules.
- No more than one CDO may be attached to any one division.
- See 13.7.2e for special engineering capabilities.

4.5.7 Engineer Tanks
AFV units with special engineering functions have the following capabilities:
- They are considered pure AFV units for all purposes.
- Each step is the equivalent of one step of combat engineers, for ground assault purposes.
- They do not possess construction engineer capabilities.

In some games there are Engineer Tanks identified as Flame Tanks. These units have a “F” in place of their offensive combat strength. These units may be part of an offensive GA, but do not contribute to the total strength of the attacking force.

4.5.8 Commonwealth Recon Btns
These Btns are subject to the following restrictions:
- If alone in a hex, they cannot conduct
any type of offensive GA unless the only unit in the enemy hex is a z-step unit.
• If stacked with other units, they cannot be the lead unit.
• Unless they are the only unit in a hex with armor or AT factors, they cannot be used to determine offensive or defensive armor/AT bonuses.

**Designer’s note: CW Recon units were used as a light screening and reconnaissance force. They were not normally used as spearheads of an assault or in heavy defensive battles.**

### 5.0 UNIT MODES

A military force’s organization to accomplish different tasks is represented by the mode a player chooses for it during a friendly Mode Determination Phase. Each mode is suited for different activities; some combine movement and combat functions in a flexible manner, while others sacrifice mobility for greater combat power.

This forces a degree of planning upon players. Most of the time, the mode chosen for a unit may not be changed voluntarily until the next GT. Exceptions include leaving MR mode (5.4.5) or when adjusting attacker status (12.0). There are several events that may force an involuntary change of mode. Units cannot be in more than one mode at a time. A unit is not required to stay in the same mode from turn to turn.

#### 5.1.0 Tactical Mode

Tactical mode is the most flexible in terms of maneuver and combat; a unit without a mode marker is in tactical mode. Units will be in tactical mode most of the time.

##### 5.1.1 Movement

Units that are in tactical mode may use Strat road movement, road movement and tactical movement. A unit may only move using one of these three forms of movement in a single phase.

##### 5.1.2 Combat

Units in tactical mode cannot participate in multi-hex ground assaults and may never advance more than one hex after combat (13.10.2). Units in Tactical mode may be attack designated during the Attack Designation Segment of the Combat Phase (10.2.0).

##### 5.1.3 Other Functions

A unit must be in tactical mode to perform the following functions:
• Breakdown into component Coys, or reform into its original unit (18.0).
• Be designated combat reserve (7.9.1).
• Reduce its fatigue by one level (14.4.0).
• Engineer units may assist other units in crossing streams or rivers (17.2.0).

**Note:** Engineer units may also assist other units in crossing streams and rivers while in PA mode.
• Perform any kind of construction task, including bridge demolition (17.3.0).
• Receive replacements (22.0).

#### 5.2.0 Prepared Assault Mode

Prepared assault (PA) mode maximizes attack capability and advance after combat. Units in this mode are marked with a prepared assault marker.

##### 5.2.1 PA Mode Restrictions

The following units may never enter PA mode:
• HQ units
• Artillery units
• Units in a hex that is over stacked
• Out of supply (OoS) units
• Units marked with a Fatigue-2 marker
• Out of command (OOC)
• Units that could not physically PA move to a hex that is adjacent to an enemy unit.

##### 5.2.2 Movement

Units in PA mode, move using prepared assault movement (7.5.0). Engineer units in PA mode can assist other units in cross-river movement (17.2.0).

##### 5.2.3 Combat

Units in PA mode must participate in a GA if adjacent to an enemy unit at the start of the GA segment. PA Units:
• May combine with adjacent units that are also in PA mode to conduct a multi-hex ground assault (13.3.0).
• Are not restricted to a one hex advance after ground assault (13.10.0).
• Receive a one-column shift in their favor when conducting an offensive ground assault (13.6.2a).
• May be supported by a greater number of artillery and air units (11.2.4).
• Immediately revert to tactical mode at the conclusion of the GA segment.
• Receive no benefit for terrain, population features or FWS/fort/fortified areas when the target of an FS mission.
• Are always observed by adjacent enemy units, even if in covering terrain.
• May always observe enemy units in adjacent hexes regardless of the terrain or features.

##### 5.2.4 No/Low Fuel

If a Mech unit’s formation is in a low/no fuel state, the formation must have:
• Received a result of at least six MP on its Fuel level DR (16.4.5b).
• Chose to designate a number of units, less than or equal to result of the DR, to move their full MA (16.4.5c). Only those units may enter PA mode.

**Note:** Leg units are not affected by fuel levels and thus are not affected by this rule.

#### 5.3.0 Exploitation (Exploit) Mode

Units in Exploit mode are marked with an exploitation marker. These units move during friendly Exploitation Phases; they may not voluntarily move in any other phase. To be placed in Exploit mode a unit must:
• Be a Mech unit.
• Be Leg unit that is motorized using truck points.
• Not be adjacent to an enemy unit.

**Note:** Units are not forced to leave Exploit by an enemy unit’s presence (except for 5.3.4b).

#### 5.3.1 Formation

Units do not enter or exit Exploit mode individually; they must do so as part of a formation or BG. To enter Exploit mode, all MU (currently on the map) of a formation or BG (this includes attached units) must enter Exploit mode. Mechanized divisional asset units can be placed in Exploit mode along with a sub-formation of the same formation.

**Note:** A division could have all units of one of its sub-formation not enter exploit mode, however it could not have part of that sub-formation enter Exploit while other units of the same sub-formation do not.

**Exception:** Individual Recon units with the specific Recon symbol (see UTC), this includes armored cars, but does not include light tanks, may be put into Exploit mode without having to place the whole formation into Exploit mode. All other rules regarding entering Exploit mode are in effect. Recon units in Exploit mode may not stack with units not in Exploit mode.

**Note:** 6.1.2, 6.1.3, and 6.1.4 apply, meaning that an ‘individual Recon unit’ for purposes of this case may include a German AFV coy, a Z-Step unit, and/or an Engineer unit as allowed by those rules.

**Player Tip:** This means that divisional recon can be used to exploit without having to place the whole division into Exploit mode. Keeping a recon unit in Exploit directly behind the front line allows a player to possibly take advantage of an opening in the opposing side’s line.

#### 5.3.2 Fuel

A formation in a “no fuel” status cannot be placed into Exploit mode, and must immediately revert to tactical mode if fuel points are not allocated to it during the AM Transport and Logistics Phase.

#### 5.3.3 Reentering Exploit Mode

Individual units that have been forced out of Exploit mode involuntarily by 5.3.4b may re-enter it during a subsequent Mode Determination Phase if their formation (or sub-formation) is still in Exploit mode.

#### 5.3.4 Movement

Each side has two Exploitation Phases in each GT. During Night GTs and ENA periods, each side may use only one of its
two available Exploitation Phases. A unit in Exploit mode may not utilize Strat road movement. Units using Exploit mode within six hexes of an enemy unit may be the target of a GS mission (20.2.2). **Designer’s Note:** During a Night GT or ENA period, the player must choose one of the two friendly Exploit Phases to move all his units in Exploit mode.

5.3.4a Movement Allowance
A unit may use half of its normal MA during each AM/PM friendly Exploitation Phase and its full MA during one of its Exploitation Phases in a night GT or ENA period. During a night/ENA GT, a player may not move some of his units in one Exploit Phase and different units in the other Exploit Phase.

5.3.4b Enemy Units
Units in Exploit mode pay no additional MPs to move adjacent to enemy units if the hex being entered contains movement CT. A unit in Exploit mode that begins an Exploitation Phase adjacent to an enemy unit in PA mode must retreat. The unit may retreat up to the maximum retreat distance allowed by 13.9.4. After completion of this retreat the unit reverts to tactical mode. The enemy player may advance (not required) units in PA mode one hex and replace the PA marker with a tactical assault marker or the marker may simply be removed with the unit reverting back to tactical mode (owning player’s choice).

5.3.5 Supply
A unit with on-hand supply goes out of supply (OoS) after it moves during an Exploitation Phase. A unit that is marked OoS must leave Exploit mode immediately.

5.3.6 Overrun
Units in Exploit mode may conduct overruns during movement (7.11.0). Units conducting an overrun may be subject to artillery FS missions (7.11.1).

5.3.7 Ground Assault
Units in Exploit mode may not conduct an offensive GA. They may participate in a defensive GA, but suffer a one-column unfavorable shift on the GA CRT.

5.4.0 Maneuver Reserve Mode
Maneuver Reserve (MR) mode represents the retention of a formation from activity so that it can be introduced into battle at a later time that is more advantageous to the owning side.

5.4.1 Placing Units into MR
Units are not placed in MR mode individually; they enter as part of a sub-formation or formation. To enter MR mode all units (except for artillery units) of a formation/sub-formation must be placed in MR mode. To enter MR, all units of the formation/sub-formation must be:
- In GenS.
- Within six hexes of its superior HQ.
- At least four hexes away from an enemy unit.

**Note:** Units attached to a formation/sub-formation may enter MR mode if the formation does so.
A maneuver reserve marker is then placed on the HQ unit to show that all of its units (with the possible exception of artillery units) are in MR mode.

**Example 1:** Units of the 30th Infantry Division are attached to the 2nd Armored Division, if the 2nd Armored Division enters MR, the attached 30th Infantry Division units would enter also.

**Example 2:** CCB of the 2nd Armored Division is detached and operating as an independent sub-formation. The owning player could place CCB (and attached units) into MR mode.

5.4.2 Limitations
A formation cannot enter MR mode if it has been in MR bonus period in any of the previous seven GDs.

5.4.3 Fuel
Prior to entering MR mode, Mech formations must have been allocated enough FP’s to put them in normal fuel status (not low or no fuel). This allocation must have been accomplished prior to the formation going into MR. No further fuel allocations are needed while in MR. When the formation is released from MR it is considered to be in a normal fuel status for the remainder of that GD and for one additional GD.

**Example:** A division is released the AM, PM, or Night GT of 24 Dec. The formation would not require fuel again until the AM GT of 26 Dec.

5.4.4 Effects
Once a formation is in MR, its units may not move until the formation is released from MR mode. For a formation to remain in MR mode can be adjacent to an enemy unit. If a unit violates these restrictions, the entire command immediately enters tactical mode and receives no MR bonus (remove the MR marker from the HQ). If additional units or sub-formation are attached to the formation or sub-formation that is currently in MR mode, the formation adds on GD for each sub-formation added to the total time required to receive the MR bonus.

5.4.5 MR Mode to Exploit Mode
Formations, sub-formations, and individual recon units in MR may enter Exploit mode at the beginning of any friendly Exploitation Phase, whether the formation or unit is eligible for an MR bonus yet or not. This is an exception to the rule that all voluntary mode changes occur during the Mode Determination Phase. If a formation or an individual Recon unit leaves MR mode to enter Exploit mode in this manner, it loses any game turns it has accumulated toward an MR bonus.

**Example:** A formation has been in MR mode for four game turns. The formation could exit MR during their friendly Exploitation Phase, however since it has not spent requisite number of game turns in MR the formation would not be eligible for the MR bonus and if it reenters MR mode, it would be at turn one for MR bonus determination.

5.4.6 MR Bonus
Once a formation has been in MR mode for at least nine consecutive GT’s, it is eligible to receive a MR bonus. This bonus lasts for two full GT’s. The MR bonus applies to all units exiting MR mode and entering any other mode, if they meet the above criteria.

**Example 1:** A German formation is released from MR during the German Mode Determination Phase of the 20 December PM GT would receive the MR bonus until the beginning of the German Mode Determination Phase of the 21 December AM GT (ENA period does not count as a GT for this purpose).

**Example 2:** A German formation is released from MR mode during the German Exploitation Phase of the German Player turn on the 20 December PM GT, the formation would receive the MR bonus until the beginning of the German Exploitation Phase of the German Player turn of the 21 December AM GT (ENA period does not count as a GT for this purpose).

5.4.6a Movement Allowance
Formations or individual recon units that move during a Movement or Exploitation Phase while in a MR bonus period roll on the Fuel Level Table (using the out of reserve line) to determine their MA bonus for the phase. In the case of units moving during an AM/PM Exploitation Phase add the MR bonus and any leader bonus prior to halving their MA. This DR is conducted each Movement or Exploitation Phase.

5.4.6b Combat
GAs involving units that are in an MR bonus period receive a one-column shift in their favor. This includes units in an MR bonus period that are in Exploit Mode conducting an overrun.

5.4.6c General Supply (GenS)
Units in a MR Bonus period are automatically in GenS.

5.4.6d ENA
Units that are activated during the first ENA Period after being released from MR are not subject to fatigue for operating in
an ENA period.

5.5.0 Replacements & Mode
In order to receive replacement steps, a unit must be in tactical mode. It cannot be fatigued or attack designated.

Note: Mech units may not be adjacent to an enemy unit and may not be observed by an enemy ground unit. Leg units may be adjacent to an enemy unit if the unit receiving RePs is in observation CT.

5.6.0 Artillery Units & Mode
Artillery units are either in-battery or out-of-battery (OoB). Artillery units that are not self-propelled (SP) must be in-battery to participate in barrages. Likewise, such artillery units must be OoB to move.

Exception: In-battery one hex movement (7.10.1).

Note: All in-battery artillery units are always in tactical mode, while OoB artillery units may be in tactical, MR, or Exploit mode.

5.7.0 Reinforcement Units & Mode
Units that are entering the map as reinforcements enter in tactical mode. They may enter using Strat road movement.

6.0 STACKING

Placing more than one unit in a hex is called stacking; such a combination of units in the same hex is called a stack. The number of units that may be stacked in a single hex is controlled by the stacking limit which is usually enforced only at the end of any phase; however, see exceptions for Strat Move (6.2.1) and Mech units using road movement (6.2.2). Players may not voluntarily create a stack that exceeds the stacking limit; such a condition is called an overstack. All overstacks must be corrected in the next friendly Movement Phase, if possible. Overstacks due to retreat due to combat are allowed.

6.1 Stacking Limits

The basic stacking limit in most hexes is three units, two of which may be Bns. In constricted terrain hexes, the limit is two units, only one of which may be a Bn.

Important: The maximum stacking for a hex is three units (two if constricted terrain). This means that without using 6.1.2, 6.1.3, or 6.1.4 only three Coys plus two Z-step units could stack in a non-constricted terrain hex.

Exception: Strategic movement (6.2.1) and Mech units during road movement (6.2.2).

Note: 6.1.2, 6.1.3, & 6.1.4 may increase the number of actual units in the hex. See 6.1.5 & 6.1.6 for summary of stacking.

6.1.1 Applying Stacking Limits

Stacking limits normally apply at the end of each phase, however there are restrictions that require adherence to stacking limits at all times such as tactical road movement and Strat movement. A side may not end a phase with units voluntarily overstacked.

Exception: Units that conduct a retreat may overstack (with any stack), however the overstack must be corrected by the end of the next Friendly Movement Phase.

When applying 6.1.2, 6.1.3, & 6.1.4, if the units did not start the Movement Phase stacked together, they may not continue moving once they are in the same hex. They must begin a friendly Movement Phase stacked together; these units pay all normal movement costs for entering the same hex, including the road movement penalty for entering a hex with another Mech unit.

Example: A Mech Inf Bn uses tactical road movement to enter a hex containing a panzer Coy. The Mech Inf Bn will pay the additional two MPs and may move no further that Movement Phase. However, the two units are immediately treated as one unit in accordance with 6.1.2.

6.1.2 AFV Coys

A German AFV company (one full step only) may stack for free with any Mech infantry (motorized and armored), Mech engineer or recon Bn, Hybrid or Coy-sized unit from the same panzer division (dismounted Mech Inf units are eligible).

Note: Pz Coys cannot be stacked for free with breakdown Coys.

• No more than three (two if in constricted terrain) of these Coy-sized attachments may be in the hex at a time.

• The two units are treated as a single unit (including maximum step loss; 11.6.3) as long as they remain stacked together. Although the units are now one for all purposes, that one combined unit can now:
  • Contribute the presence of AFVs when determining FS DRMs (11.5.3).
  • Each step counts when determining FS DRMs for unit density (11.5.4).
  • Individual units still count when determining RIBs (13.8.4).
  • When moving, use the MA of the slowest unit.
  • Treat the combined unit as a MU for all movement and stacking purposes.
  • The PR of the Bnn or Hybrid unit is always used. If both units are Coy-sized units, use the PR of the Coy with the lowest PR.

Example: The German panzer company (AFV) 1/1/33 may stack for free with any of the other types of units shown above.

Note: The example does not represent a stack it is only an example of what type units may allow a Pz Coy to stack for free.

6.1.2a Mech Companies

Two 1-step Mech Coys that start the Movement Phase stacked together may be treated as a single unit for all movement purposes when using road movement and Strategic Road Movement. Both Coys must be single step units. They are still considered two units for all other purposes.

6.1.3 Z-Step Units

Some Coys (usually AT and AFVs) can be broken down into two zero-step (Z-step) units to provide a wider frontage of AT capability. These units are noted by the lack of a step dot on the unit and the white or red circle behind the type symbol.

• No more than two Z-step units may be present in a non-constricted terrain hex.

• No more than one Z-step unit may be present in a constricted terrain hex.

• Z-step units have no effect on stacking, including Strat movement and Tactical road movement.

• If Z-step units occupy a hex by themselves;
  • FS missions: Z-step units must resolve the first numerical hit as a retreat, if more than one numerical hit is inflicted the z-step units are eliminated.
  • Ground Assaults: Any hit that cannot be resolved as a retreat eliminates the Z-step units.

Designer’s Note: Some breakdown Coys have different combat factors in different games and thus Z-step units may also vary in strength. Check the Unit Breakdown diagram for exact composition.

6.1.4 Engineer/AT Units

For each Bnn-sized or two step hybrid unit in a hex, one (single step) Eng Coy or AT Coy may stack for free.

• Players may substitute a TD or PzJ Coy for the towed AT Coy.

• No more than two (one if in constricted terrain) of these Coy-sized attachments may be in the hex at a time.

Example: A player could not have two Bns each with an engineer or AT Coy stacked for free, and they have a two-step hybrid unit with an Eng or AT Coy stacking for free.

• The Eng or AT Coy is considered part of that Bnn; the two units are treated as a single unit (including maximum step loss; 11.6.3) as long as they remain stacked together.

Although the units are now one for all purposes, that one combined unit can now:

• Contribute the presence of AFVs when determining FS DRMs (11.5.3).

• Each step also counts when determining FS DRMs for unit density (11.5.4).

• Individual units still count when determining RIBs (13.8.4).

• When moving, use the MA of the slowest unit.
• The PR of the Btn/Hybrid is used.
  **Note:** Situations will arise where a Leg and Mech unit will be stacked together using this rule. All movement restrictions that apply to each movement class must be adhered to.

6.1.4a US Arm Cav Btn
A US M5 Coy may stack for free with a US armored cavalry Btn. All the rules that apply to engineer/AT Coy stacking with Bns also apply to this case.
  **Note:** The M5 Coy is a substitute for the AT/Eng Coy; it is not in addition to 6.1.4).

6.1.5 Stacking (Normal Terrain)
The below list shows the maximum number of units allowed in normal and constricted terrain.

**German**
- Any Btn + 1 AFV Coy and 1 Eng Coy or 1 AT/TD Coy.
- Any Btn + 1 AFV Coy and 1 Eng Coy or 1 AT/TD.
- Any non-Btn sized unit + 1 AFV Coy
- 2 zero step units.
  **Note:** The maximum will be less if the Bns are not of the types specified in 6.1.2.

**Allied**
- Any Btn + 1 AT/TD or Eng Coy
- Any Btn + 1 AT/TD or Eng Coy
- Any non-Btn sized unit (if this unit is a hybrid unit) + 1 AT/TD or Eng Coy
- 2 zero step units.
- Max of seven units (since only two Eng or TD/AT Coys are allowed total for the stack, not three, under 6.1.4).

6.1.6 Stacking (Constricted Terrain)

**German**
- Any Btn + 1 AFV Coy and 1 Eng Coy or 1 AT/TD Coy.
- Any Btn + 1 AFV Coy and 1 Eng Coy or 1 AT/TD.
- Any non-Btn sized unit + 1 AFV Coy
- 1 zero step unit.
- Max of six units.
  **Note:** The maximum will be less if the Bns are not of the types specified in 6.1.2.

**Allied**
- Any Btn + 1 Eng Coy or 1 AT/TD Coy.
- Any non-Btn sized unit + 1 Eng Coy or 1 AT/TD Coy.
- 1 zero step unit.
- Max of four units (since only one Eng or TD/AT Coy is allowed total for the stack, not two, under 6.1.4).

6.2 Stacking & Movement

**Units are moved individually, not in stacks**
  **Exceptions:** 6.1.2, 6.1.3, & 6.1.4

6.2.1 Strategic Movement
Units using Strat movement may not enter a hex already containing a MU. A MU using any other type of movement may not enter a hex with a unit that is marked with a Strat Movement marker.
  **Exceptions:** 6.1.2, 6.1.3, & 6.1.4

6.2.2 Static MUs
In-battery artillery units (including in-battery self-propelled artillery), dismounted Mech Inf units (7.8.1), Mech engineer units conducting any form of construction (in a hex with an “under construction” marker), and HQ units are ignored for the purposes of road movement stacking. All other stacking restrictions still apply at the conclusion of the Movement Phase. See 7.6.3 for road movement stacking.
  **Note:** Artillery units that move using one hex in-battery movement (7.10.1) are considered in-battery for purposes of this rule.

6.3.0 Mixed Mode Stacking
Units that are in different modes may be stacked together.

6.4.0 Overstack Effects

6.4.1 Overstack & GA
Overstacked units suffer a one-column shift penalty during ground assault when attacking or defending. Stacks may not attack or defend with more units than could legally stack in the hex. The owning player chooses which units do not participate in the GA.

6.4.2 Overstacking & Movement
Units that are overstacked in the Mode Determination Phase may not enter PA mode. Units that begin a Movement or Exploit Phase overstacked may not use either tactical or Strat road movement.

6.5.0 Fog of War
Stacks cannot be freely examined by the opposing player. When more than one unit is present in a hex, the owning player is free to choose any non-HQ unit to be the topmost unit in the stack. Players are always able to view the top unit in a stack, unless that stack is in a FW or Fort. Markers other than FW/Fort markers do not inhibit a player from seeing the top combat unit. At specific times within the sequence of play, players are required to divulge information as to the composition of their stacks.
  **Note:** Do not confuse the term “observed” or “observed unit” with the Fog of War rules. Fog of War rules determine what knowledge a player may obtain concerning enemy units/fires. Observation status determines the ability of a player to target units with a fire support mission, and the ability of friendly units to affect the movement of enemy units.

6.5.1 Recon Units
When a recon unit ends its movement adjacent to an enemy stack(s), the recon unit is able to determine if the stacks have any armor and if so, if it is a mixed or pure AFV (the owning player reveals the above information but is not required to reveal the type of AFV or any other information). If the stack is in a fieldwork, the Recon unit can examine the top combat unit under the FW marker in addition to the information above. A Recon unit may not examine any of the units if the stack is in a hex with a Fort. The owning player is only required to reveal the presence of any armor in the hex.
  **Note:** This recon does not change the observation status of the units involved.

6.5.2 Vantage Points
Units occupying a vantage point are entitled to the same level of information as an adjacent recon unit for all enemy stacks within their LOS that are not in observation covering terrain.
  **Designer’s Note:** This is another reason vantage points are important.

6.5.3 Fire Support
When initiating a FS mission, but before the target hex is selected, the barraging player may under the following situations determine if there is armor in a potential target hex:
- When conducting defensive FS missions, any observed stack (attack designated units or those units in open terrain).
- When conducting offensive FS missions, only if the stack is in open terrain or if a unit on a vantage point can observe the potential target hex.

After the target hex has been determined, the defending player only is required to reveal the armor and density DRMs. He is not required to reveal actual unit composition, strength or any other information not required to resolve the FS mission.

6.5.4 Ground Assault
During step three of the GA sequence of play, opposing players determine if armor units will standoff. At that time both players reveal if they have armor participating in the GA. They are not required to reveal AT capability, or type of armor.

7.0 MOVEMENT

Players move their units during the friendly Movement and Exploitation Phases. Displacement due to combat is not considered movement.

7.1.0 Movement Terms

7.1.1 Movement Allowance (MA)
The basic MA of a unit is printed on its counter in the lower right corner. Units are not required to expend their entire MA, but unused MPs cannot be saved for use in later phases or transferred to other units. A unit’s MA will sometimes be reduced or increased due to conditions imposed upon the unit.
  **Exception:** The MA for units in PA mode is expressed in hexes, not MPs, and is not...
A unit’s MA is the maximum number of movement points (MPs) it may expend in a single phase, unless it is in a MR bonus period or using Strat road movement.

**Exception:** A unit in Exploit mode has its basic MA halved during an AM or PM Exploitation Phase. During a Night GT or ENA period, it uses its full MA during any one Exploitation Phase.

### 7.1.2 Movement Points (MPs)

All unit movement uses MPs to measure how far a unit may be moved. A running total of a unit’s expended MP is kept as the unit is moved from hex to hex. A unit cannot enter a hex if this MP total would exceed the unit’s MA for that phase.

**Exception:** Minimum movement (7.1.2b) and PA movement (7.5.0).

#### 7.1.2a Expending MPs

The MP cost to enter a hex depends on the movement class of the unit being moved and:
- The terrain in the hex being entered.
- The hexside being crossed.
- Enemy units in adjacent hexes.
- MP costs to enter a hex are listed on the Movement Terrain Effects Chart. Hexside terrain and the cost of moving adjacent to enemy units are added to the cost of terrain in the hex. Use the most expensive hex and hexside terrain MP cost (based on the unit’s movement class) to enter a hex, unless some form of road movement is being used (7.6.0).

#### 7.1.2b Minimum Movement

A unit may always move one hex regardless of MP costs as long as it:
- Does not violate rules 7.3.4a & 7.3.5.
- Does not move into a prohibited hex or cross a prohibited hexside.

**Exception:** Due to lack of fuel (16.4.5c & 16.50), Mech units may not be able to move even one hex.

### 7.1.3 Movement Class

Each unit in the game is characterized by being in one of two movement classes:
- **Leg units:** are generally slower and represent units moving on foot.
- **Mechanized units:** move faster on roads and open terrain, and represent units riding in vehicles (tracked, wheeled and horse-drawn).
- Each unit’s type determines whether it is leg or mechanized unit for movement purposes. See the Unit Type Chart (UTC).
- A unit’s movement class determines which column of MP costs on the TEC it uses and determines what the terrain cost (in MPs) must be expended.
- Leg units can become MUs by use of truck points (7.8.3).
- Mech units can dismount (leave their vehicles) and become leg units (7.8.1).
- Leaders may use Mech and/or leg class MP costs in the same phase.

**Note:** All units that are not leg units are mechanized units.

#### 7.1.4 Movement Type

Four types of movement can be used:
- Strategic movement (road only)
- Tactical road movement
- Tactical non-road movement
- Prepared assault (PA) movement

With the exception of leaders, a unit can only use one type of movement per phase. Movement of units can be limited by a number of factors including unit mode, enemy units, and terrain, and scenario rules.

**Designer’s note:** Do not confuse ‘unit mode’ with ‘movement type’. Units in tactical mode can move using Strat movement, road movement, and non-road movement. Units in Exploit Mode can use tactical road movement, and tactical non-road movement.

### 7.2.0 Movement Procedure

Units are moved individually, their path of movement traced through contiguous hexes on the map. Skipping hexes is not allowed. Some combinations of units are treated as a single unit for movement purposes (6.1.2, 6.1.3, & 6.1.4). This process requires a unit to expend MPs from its MA. A unit must stop moving once it has either exhausted its MA or encountered a condition requiring a movement halt. A player is not required to move a unit up to its full MA. Unless scenario rules state otherwise, there is no limit as to how many friendly units may move through a single hex or hexside during a movement phase.

#### 7.2.1 Movement Eligibility

During a friendly Movement Phase, the active player may move any number of his units. Units in Combat reserve (CR), Exploit mode, and maneuver reserve (MR) mode or those units conducting construction may not move. During Exploitation Phases, only units in Exploit mode may move.

#### 7.2.2 Movement Order

Movement order is determined by the type of movement being used and the mode of the unit. Units follow a strict order of movement:
- Units in Tactical Mode (5.1.0)
- Strategic movement (7.7.0)
- Tactical road movement (7.6.0)
- Tactical non-road movement (7.4.0)
- Units in PA mode (7.5.0)

During a Exploitation Phase, only friendly units in Exploit mode may move. Use the same order as above. Units in Exploit mode may not use Strat movement.

**Example:** The diagram shows a hybrid (Unit A) since it is using Strat movement it moves first. It moves three hexes (units using Strat movement must use road movement).
- Next, unit B moves along the road using tactical road movement to move two hexes.
- Unit C then uses tactical non-road movement to move two hexes.
- Finally, Unit D moves one hex in PA mode.

### 7.3.0 MA Modifications

Certain conditions or events may impede, stop, or increase the movement of a unit. Units cannot enter hexes containing enemy units.

**Exception:** When conducting overrun movement during the Exploitation Phase.

#### 7.3.1 Reduced MA

A unit’s printed MA may be reduced due to certain conditions or events in the game. Fractions are always rounded up.

##### 7.3.1a MA & Fuel

The printed MA of Mech units is reduced when a Formation is in a low or no fuel status (16.4.0). The reduced MA is the MA used when implementing 7.3.1b & c.

##### 7.3.1b MA Halved

A unit’s MA is halved if it is out of supply, marked with a Fatigue-1 marker, OOC, or moving during an AM or PM Exploitation Phase.

##### 7.3.1c MA Quartered

A unit’s MA is quartered if the unit is marked with a Fatigue-2 marker or if any two or more halving conditions in 7.3.1b affect the unit. A unit’s MA is never reduced below a quarter of its base MA due to conditions listed in 7.3.1b & 7.3.1c.

#### 7.3.2d MA & Ground Conditions

Adverse ground conditions will also reduce a unit’s MA. After all modifications noted in 7.3.1a through 7.3.1c are taken into account, adjustments in a unit’s MA are made for adverse ground conditions (19.4.0).

**Note:** Some conditions increase or decrease the MP cost of certain types of terrain. Scenario rules may further reduce the ability of a unit to conduct movement.

**Example:** A Mech formation is in a low fuel status. The formation rolls a 6 on the Fuel Level Table resulting in a “6”. The player could move six units of the formation their full MA, or move all MUs.
of the formation a maximum of 6 MP. The player chooses to move all MUs a maximum of 6 MP (16.4.5). Current ground condition is 'mud'. All units of the formation are in tactical mode. No units are adjacent to or observed by enemy units.

- The first unit the player wishes to move is an in-battery SPA unit with a printed MA of '6'. Since the unit's printed MA does not exceed the MA result on the Fuel Level Table, the unit retains its printed MA. The player decides to move the unit along a primary road (all units using tactical road movement move before units using tactical non-road movement). Checking the Movement Terrain Effects Table, the player determines that a MU moving on a primary road in tactical mode pay one-half MP per hex, thus the unit may move up to 12 hexes along a primary road (mud condition does not affect units moving along a primary or secondary road).

- The second unit of the formation that the player wishes to move is a MU (MA of 12) in tactical mode, currently in a clear terrain hex and will, use non-road movement. The unit's base MA is '6' (due to low fuel DR) and due to mud ground conditions (using non-road movement) the unit's MA is halved (19.4.3), thus the unit has '3' MP for this movement phase. The player wishes to move the unit into a forest hex (MP cost for a MU is 4). Normally the unit could not move into the forest hex, however due to the minimum move rule (7.1.2b) it may move one hex. The unit enters the forest hex, completing its move for that phase.

- The third unit is a leg unit (MA 6) attached to the Mech formation. Leg units are not affected by low fuel, so the unit retains its printed MA of '6'. The unit is under a Fatigue-2 marker, and the player wishes to move the leg unit into a hex not along a road. The leg unit's modified MA is '1' (6 ÷ 4 (Fatigue-2) = 1.5, rounded up = 2 ÷ 2 (mud conditions) = 1). Again the minimum move rule can be used to allow the unit to move one hex, no matter the cost of the terrain or the presence of enemy units.

7.3.1e Movement during Night GTs

A unit moving at night must pay an extra one MP for each hex that is entered unless it is using road movement along a secondary or primary road or is a leg unit moving along any type of road.

7.3.2 Movement Increase

A unit's basic MA is increased (fractions are rounded upward) if the unit is using Strat movement (7.7.0) or the unit is in a maneuver reserve bonus period (5.4.6a). Leaders can increase a unit's MA (23.2.0).

Note: All of these increases are cumulative with the exception of Strat movement.

Example: A formation enters Exploit mode during the Exploitation Phase. The formation leader is active. The player rolls on the Fuel & Level Table, rolling a 6 on the out of reserve line. Each unit is awarded a +3 to its movement allowance, and another +1 due to its active formation leader being stacked with the formation HQ. A unit of that formation with a printed MA of 12 would have 8 MP ((12 +3 +1) ÷ 2 = 8) to expend during this Exploitation phase.

7.3.3 Movement Halts

GOSS does not use the concept of "zones of control" as many war gaming systems do. Instead, units can move next to (and past) enemy units without any restrictions other than those set forth in 7.3.3, 7.3.4, & 7.5.1. A unit must immediately stop moving if it encounters a movement halt. A movement halt occurs if any of the cases listed below applies.

Note: The opposing player must demonstrate the existence of conditions generating a movement halt in order to enforce such a halt on the moving player's units. Something like pointing to an artillery unit in range and revealing that a hex has met the minimum requirements for a movement halt.

7.3.3a Artillery

A unit encounters a movement halt if it enters a hex without movement CT that is adjacent to a hex with at least two steps of non-artillery, non-HQ enemy units and that hex is within range of a non-ammo depleted enemy art unit with a red hexagon.

7.3.3b Heavy AT/Flak

A movement halt occurs in a hex containing no movement CT, if that hex is adjacent to an enemy Heavy AT or Flak units with a red hexagon.

7.3.3c Defensive Works

A movement halt occurs whenever a unit moves next to an enemy unit in an ET or Fort/fortified hex (not IPs); terrain in the hex entered and number of enemy steps has no effect on this.

7.3.3d Overruns

Movement halts generated from a hex about to be overrun are ignored, however other units, not in the overrun hex (adjacent units) can generate a movement halt prior to the overrun being conducted. Also, if an overrun is unsuccessful, a movement halt occurs (the movement halt occurs in the hex from which the overrunning unit entered the overrun hex).

7.3.3e Air Interdiction

A movement halt occurs if a unit suffers any step losses or fatigue results due to enemy air interdiction missions. This movement halt occurs in the target hex where the interdiction occurred.

7.3.3f Supply

With the exception of ranger/commando units, units may not move into a hex that would put them OoS and that is within three hexes of an enemy unit (i.e., two intervening hexes). A unit can advance after combat into a hex that would put it OoS.

Exceptions: A unit that begins the movement phase in an OoS situation, may move towards friendly supply in violation of this rule (at one-half MA if OoS) if not adjacent to an enemy unit.

7.3.4 Move Adjacent to Enemy Units

Leg units pay one MP to move adjacent to any enemy units, MUs must pay two MPs to do so.

Note: Multiple enemy units do not increase this cost. A unit does not pay the additional cost if:

- The unit moves adjacent to an enemy unit during the Exploitation Phase and the hex it is entering is movement CT.
- During a regular or exploitation movement phase, the only adjacent enemy units are pure AFVs and the hex being entered contains movement CT and does not have a road of any type connecting it to the adjacent enemy occupied hex.
- The unit is a ranger or commando and the hex they enter contains movement CT.

7.3.4a Movement & Forts

A unit may never move into a hex adjacent to an enemy-occupied intact Fort/fortified area hex or a hex containing an ET-3 directly from another hex adjacent to that same hex no matter what form of movement is used. Scenario rules may add further restrictions.

Exception: Units may advance one hex (the original defender’s hex) even if it is advancing from a hex adjacent to a FT-3/fort/fortified area to another hex adjacent to the same occupied ET-3/fort/fortified area hex.

Note: Units have additional restrictions during rest GTs (3.5.4).

Example: Unit 1 cannot move directly into the hex with the outline arrows because unit E is in a intact fortified area hex and adjacent to both hexes. Units 2 and 3 may enter the indicated hexes (using the black arrow movement paths) since they did not move hex to hex adjacent to the same enemy unit.

7.3.5 Movement & Fortified Area Hexes

Each scenario will designate which side is
the owning side of that fortified area. Both the owning and opposing side suffer movement penalties for moving into or thru intact fortified area hexes.

7.3.5a Fortified Areas & MUs
MU’s belonging to the owning side must pay two extra MPs to enter a fortified area hex unless using some form of road movement.

7.3.5b Fortified Areas & Enemy Units
All intact fortified area hexes are treated as constricted terrain (7.4.4) by the non-owning side. 7.4.4b does not apply and roads do not negate this effect. This is for movement purposes only and does not affect stacking.

7.4 Tactical Movement
Tactical movement allows a unit to move cross-country in an efficient manner ready for enemy contact. Units must be in tactical mode or Exploit mode to use tactical movement. MU’s using tactical movement cannot use roads, and any bridges are treated like a ford (they may use fords).

Designer’s Note: Tactical mode and tactical movement do not mean the same thing. A unit in tactical mode may use strategic movement or road movement as well.

7.4.1 Leg Units, Roads, & Bridges
Leg units using tactical movement may enter hexes through road hexsides as though those hexes were clear terrain, i.e., at a cost of 1 MP. Leg units ignore MP costs for crossing rivers if using a bridge and may cross a major river over a bridge as if the bridge were a ford. Leg units may use fords across river hexsides only. MUs may use tactical movement to move for actual combat.

7.4.2b Rivers & Leg Units
Leg units may use fords and/or bridges to reduce or negate the cost of crossing rivers. Leg units can use engineers to reduce the cost of crossing a river (17.2.1).

7.4.3 TAC Mode & Major/Great Rivers
• MUs may use tactical movement to move across major or great river hexsides only at bridges, RR lines, or fords (bridges and RR lines act as fords in such cases, and still cost three extra MP’s).
• Leg units may cross an un-bridged or unforded major river only if a friendly engineer unit is present in one of the two hexes involved in the crossing (17.2.2).
• Leg units may use tactical movement to cross a bridge over a major or great river. The bridge is treated like a ford for this purpose.

7.4.4 Constricted Terrain
A movement can be penalized by constricted terrain.
• Artillery (SPA and towed) may never enter constricted terrain using tactical non-road movement unless 7.4.4b applies.
• Leg units using a road to enter and/or leave constricted terrain can still treat it as clear terrain for movement. Leg units may use fords across river hexsides only. MUs may use tactical movement to move for actual combat.

7.4.4a Constricted Terrain Penalty
If a unit’s movement does not satisfy 7.4.4b, a unit incurs MP penalties to exit and/or enter a constricted terrain hex:
• Mech units must expend their entire MA.
• Leg units must expend one MP.

Example:
• Unit A (a hybrid MU with MA of 12 in tactical mode) can use road movement along the primary road to move three hexes at a cost of one and one-half MP. Unit A could instead opt to use tactical movement, paying the cost of terrain for each hex entered (in this case all three hexes are clear terrain, 1 MP per hex) and treat the bridges as fords (+3 MP’s for each bridge) for a total of 9 MP’s.
• Unit B (a hybrid MU with MA of 12 in tactical mode) must use tactical movement (since the unit is not starting its movement on a road) however the unit can cross the river using the ford (+3 MP’s) and then must pay the terrain cost (in this case it is a clear hex for 1 MP) on the other side of the river for a total cost of 4 MP’s. The outline arrow shows a river loop treated as one river hexside.

7.4.2b Rivers & Leg Units
Leg units may use fords and/or bridges to reduce or negate the cost of crossing rivers. Leg units can use engineers to reduce the cost of crossing a river (17.2.1).

7.4.3 TAC Mode & Major/Great Rivers
• MUs may use tactical movement to move across major or great river hexsides only at bridges, RR lines, or fords (bridges and RR lines act as fords in such cases, and still cost three extra MP’s).
• Leg units may cross an un-bridged or unforded major river only if a friendly engineer unit is present in one of the two hexes involved in the crossing (17.2.2).
• Leg units may use tactical movement to cross a bridge over a major or great river. The bridge is treated like a ford for this purpose.

7.4.4 Constricted Terrain
A movement can be penalized by constricted terrain.
• Artillery (SPA and towed) may never enter constricted terrain using tactical non-road movement unless 7.4.4b applies.
• Leg units using a road to enter and/or leave constricted terrain can still treat it as clear terrain for movement. Leg units may use fords across river hexsides only. MUs may use tactical movement to move for actual combat.

7.4.4a Constricted Terrain Penalty
If a unit’s movement does not satisfy 7.4.4b, a unit incurs MP penalties to exit and/or enter a constricted terrain hex:
• Mech units must expend their entire MA.
• Leg units must expend one MP.

Example:
• Unit A (a hybrid MU with MA of 12 in tactical mode) can use road movement along the primary road to move three hexes at a cost of one and one-half MP. Unit A could instead opt to use tactical movement, paying the cost of terrain for each hex entered (in this case all three hexes are clear terrain, 1 MP per hex) and treat the bridges as fords (+3 MP’s for each bridge) for a total of 9 MP’s.
• Unit B (a hybrid MU with MA of 12 in tactical mode) must use tactical movement (since the unit is not starting its movement on a road) however the unit can cross the river using the ford (+3 MP’s) and then must pay the terrain cost (in this case it is a clear hex for 1 MP) on the other side of the river for a total cost of 4 MP’s. The outline arrow shows a river loop treated as one river hexside.

7.4.2b Rivers & Leg Units
Leg units may use fords and/or bridges to reduce or negate the cost of crossing rivers. Leg units can use engineers to reduce the cost of crossing a river (17.2.1).

7.4.3 TAC Mode & Major/Great Rivers
• MUs may use tactical movement to move across major or great river hexsides only at bridges, RR lines, or fords (bridges and RR lines act as fords in such cases, and still cost three extra MP’s).
• Leg units may cross an un-bridged or unforded major river only if a friendly engineer unit is present in one of the two hexes involved in the crossing (17.2.2).
• Leg units may use tactical movement to cross a bridge over a major or great river. The bridge is treated like a ford for this purpose.

7.4.4 Constricted Terrain
A movement can be penalized by constricted terrain.
• Artillery (SPA and towed) may never enter constricted terrain using tactical non-road movement unless 7.4.4b applies.
• Leg units using a road to enter and/or leave constricted terrain can still treat it as clear terrain for movement. Leg units may use fords across river hexsides only. MUs may use tactical movement to move for actual combat.

7.4.4a Constricted Terrain Penalty
If a unit’s movement does not satisfy 7.4.4b, a unit incurs MP penalties to exit and/or enter a constricted terrain hex:
• Mech units must expend their entire MA.
• Leg units must expend one MP.

Example:
• Unit A (a hybrid MU with MA of 12 in tactical mode) can use road movement along the primary road to move three hexes at a cost of one and one-half MP. Unit A could instead opt to use tactical movement, paying the cost of terrain for each hex entered (in this case all three hexes are clear terrain, 1 MP per hex) and treat the bridges as fords (+3 MP’s for each bridge) for a total of 9 MP’s.
• Unit B (a hybrid MU with MA of 12 in tactical mode) must use tactical movement (since the unit is not starting its movement on a road) however the unit can cross the river using the ford (+3 MP’s) and then must pay the terrain cost (in this case it is a clear hex for 1 MP) on the other side of the river for a total cost of 4 MP’s. The outline arrow shows a river loop treated as one river hexside.

7.4.2b Rivers & Leg Units
Leg units may use fords and/or bridges to reduce or negate the cost of crossing rivers. Leg units can use engineers to reduce the cost of crossing a river (17.2.1).

7.4.3 TAC Mode & Major/Great Rivers
• MUs may use tactical movement to move across major or great river hexsides only at bridges, RR lines, or fords (bridges and RR lines act as fords in such cases, and still cost three extra MP’s).
• Leg units may cross an un-bridged or unforded major river only if a friendly engineer unit is present in one of the two hexes involved in the crossing (17.2.2).
• Leg units may use tactical movement to cross a bridge over a major or great river. The bridge is treated like a ford for this purpose.

7.4.4 Constricted Terrain
A movement can be penalized by constricted terrain.
• Artillery (SPA and towed) may never enter constricted terrain using tactical non-road movement unless 7.4.4b applies.
• Leg units using a road to enter and/or leave constricted terrain can still treat it as clear terrain for movement. Leg units may use fords across river hexsides only. MUs may use tactical movement to move for actual combat.

7.4.4a Constricted Terrain Penalty
If a unit’s movement does not satisfy 7.4.4b, a unit incurs MP penalties to exit and/or enter a constricted terrain hex:
• Mech units must expend their entire MA.
• Leg units must expend one MP.

Example:
• Unit A (a hybrid MU with MA of 12 in tactical mode) can use road movement along the primary road to move three hexes at a cost of one and one-half MP. Unit A could instead opt to use tactical movement, paying the cost of terrain for each hex entered (in this case all three hexes are clear terrain, 1 MP per hex) and treat the bridges as fords (+3 MP’s for each bridge) for a total of 9 MP’s.
• Unit B (a hybrid MU with MA of 12 in tactical mode) must use tactical movement (since the unit is not starting its movement on a road) however the unit can cross the river using the ford (+3 MP’s) and then must pay the terrain cost (in this case it is a clear hex for 1 MP) on the other side of the river for a total cost of 4 MP’s. The outline arrow shows a river loop treated as one river hexside.
PA Movement Example: Two German units in prepared assault mode move to attack units 1 and 2.
- Unit B (leg unit) may only move one hex.
- Unit A (Mech unit) may move up to two hexes.
- Unit A cannot move to hex E; it would have to stop when entering woods hex D, since it would not be entering the hex along a road.
- Unit A would not be able to reach hex B because PA Mode units must stop when they move adjacent to an enemy unit.
- Although not shown in the diagram Unit A could also have moved directly into hex A.

7.6.0 Road Movement
Road movement allows Mech units to move along roads using road movement rates. Leg units do not use road movement, however 7.4.1 applies. In order to use road movement, units:
- Must be a MU or have been motorized (7.8.0).
- Must be in tactical or Exploit mode.
- Must have begun the phase in a hex containing a road or during normal ground conditions, a clear hex.
- Must move entirely along contiguous road hexes through hexsides connected by a road.
- May move adjacent to enemy units. During normal ground conditions a MU may treat clear terrain hexes as if they were road hexes. MP cost is one and one-half (1.5) MP for each clear hex. Units using clear hexes as roads are exempt from the +2 MP in 7.6.3 and may ignore the stacking restrictions in 6.2.2.

Note: When a Mech unit uses this option, the unit is considered to have used the road to exit the previous hex as long as the two hexes are connected by a road.

7.6.1 Intersections
A unit can only switch movement from one road to another (in the same phase) in hexes where the two road symbols actually intersect; it is not enough that the roads merely exist in the hex.

Exception: MU using road movement in clear terrain hexes. The MU pays the MP cost of the road to enter the intersection hex, and if the ground condition is normal and the hex is a clear terrain hex, the unit may switch to the non-connected road by expending the cost of the switching roads (1.5 MP). Alternately the unit could enter the clear hex by paying the 1.5 MP as outlined in 7.6.0, thus saving the extra MP.

Note: In some cases, a Mech unit could not exit the previous hex without using the road, thus it would cost the road movement MP to enter the clear hex and then additional 1.5 to switch to another non-intersecting road.

Designer’s Note: Unlike other games, in this one, you cannot jump onto another road if there is no road connection between the two.

7.6.2 Bridges
Units using road movement may cross streams and rivers using a bridge or a ford. If using a ford, the unit pays the cost of the ford in addition to the cost of entering the hex on a road. Certain armor units may cause a bridge collapse and thus be unable to use bridge as a result (17.3.2c). Bridges across streams are not vulnerable to bridge collapse.

Note: Bridges are considered to exist wherever any type of road crosses a stream.

7.6.3 Mech Units
A MU may use road movement to enter a hex containing one MU, but it costs two MPs and the moving unit must end its movement in that hex. Units may not use road movement if they:
- Begin the phase overstacked.
- Begin the phase in a hex that contains more than two MUs.
- Move into a hex with more than one other Mech unit, intending to qualify for the stacking exceptions in 6.1.2, 6.1.3, and 6.1.4.
- Enter a hex already containing two other MUs. Exception: 7.6.0.
- Mech units that begin the phase stacked together may apply 6.1.2, 6.1.3, & 6.1.4. They are considered one unit for all purposes.

Example: A Mech Coy uses road movement along a road to enter a non-clear terrain hex containing a Mech Inf Bn. The Coy would pay one MP to enter the hex and two MP to stack with the Mech Bn. The Coy would then be required to end its movement in the hex.

- Then unit A moves along the road to hex 1. Unit A may not move into the hex with Units F and C (6.2.2). Instead, unit A moves along the road into and through E’s hex at no extra MP cost (Unit E is a leg unit thus Unit A would not pay a MP penalty).

Note: If unit A had desired to road move along the trail in hex 2, it would first have had to move to the intersection in hex 1 under rule 7.6.2 (unless the hex unit A started from and hex 2 are both clear terrain hexes and the ground condition was normal, in which case the MU could pay the normal cost of the terrain (1.5 MP) and then continue along the trail).

- The first unit to move of units B, D and G can only use road movement if the ground condition is normal and the hex they are stacked in is a clear terrain hex (7.6.1). That first unit could move into hex 1 at a cost of one and one-half (1.5) MP and then at that point use the regular road MP cost for the type of road being used.

- Then if the player desired he could move either of the two remaining units via road movement directly from the hex they are stacked, to hex 1.

Designer’s Note: The situation could occur where two MUs enter a hex with prohibited terrain using road movement. In this case, the only way the units could leave or retreat from the hex would be along a road. A third Mech unit could never enter such a hex, since road movement is not allowed into hexes already containing two such units.

7.7.0 Strategic Road Movement
A MU in tactical mode may use Strat road movement to move greater distances along roads of any kind. All road movement rules (7.6.0) apply unless otherwise noted.

7.7.1 Strat Move Eligibility
Strat move markers are placed and removed during a friendly Mode Determination Phase.

Exception: If a unit in Strat move, is ground assaulted, and any type of result against the unit in Strat move is incurred. A unit is eligible to have a Strat move marker placed on it, if it is:
- A Mech or leg unit that is being transported by TP.
- In Tactical mode.
- In GenS.
- In command (unless entering as a reinforcement).
- Eligible to conduct road movement (7.6.0).
- Not fatigued.
- Not stacked with two or more MU (rules 6.1.2, 6.1.3, and 6.1.4 apply).
- Not in a “no” fuel status.
7.7.2 Strat Move Benefit
A unit conducting Strat movement increases its MA by 50% (e.g., 12 goes to 18.) A unit with a Strat move marker is always in command.

7.7.3 Strat Move Restrictions
Strat movement cannot be conducted during ENA periods. Units using Strat movement must:
• Use road movement.
• Not move adjacent to an enemy unit.
• Not move into a hex that would allow it to be observed by an enemy ground unit.
• Not be stacked with another MU at any time (6.1.2, 6.1.2a, 6.1.3, & 6.1.4 apply).

Exception: A unit may have a Strat Move marker placed on it while stacked with another Mech unit, however after moving out of that hex, it must abide by the above bullet.
• Not conduct any type of construction or demolition activity.

7.7.4 Combat
Units marked with a Strat move marker may not:
• Act as an observer for FS missions.
• Conduct offensive ground assaults.
• When defending against a GA, units marked with a Strat move marker:
  • May not contribute to RIB.
  • Confers column shifts in favor of the attacker.
  • Are eliminated if unable to retreat through a road hexside or clear hex (during dry ground conditions only).

7.7.5 Leg Units
While not eligible for Strat movement, leg class movement units gain some benefit while moving along roads even if not mounted. Leg class units that move solely along a secondary or primary road may increase their MA by two if they:
• Are not observed by enemy ground units at any point in their movement.
• Are able to trace GenS throughout the entire move.
• Do not start, move, or end adjacent to an enemy unit.

7.8 Movement Class Changes
These rules apply to all units that convert from Mech to Leg class units and from leg to Mech class units. Mount and dismount always takes place during a friendly Movement Phase.

Note: Artillery units change their battery status during the Mode Determination Phase. For ease of play, when using TP, they mount and dismount during the Movement Phase using the same procedures as leg units.
• Static and leg class movement units may mount (using truck points), or dismount removing the truck points.
• Mech class, Inf type units may dismount (convert into their dismounted equivalent type unit) or mount (convert back into their Mech class unit).
• Units may mount or dismount and breakdown during the same Movement Phase at the total cost in one-half the unit’s MA (18.0).

Note: In some games there are specific “dismounted” markers available. The number of markers is not a limit on how many units may dismount.

7.8.1 Dismount Procedure
A Mech class Inf type unit can dismount at any time during the friendly Movement Phase. Units:
• Must be in tactical mode and not have expended more than one-half of its modified Mech MA as outlined in 7.3.0.
• May be in PA mode, if it has not moved.
• May continue moving after dismounting. To determine the number of MP remaining, subtract the number of MP expended (prior to dismounting) from the MA of the dismounted unit. The result is number of MP remaining to the unit.
• Can use tactical road movement prior to dismounting and still continue moving as a leg unit (this is an exception to 7.1.4).
• Which dismount while in PA mode, move at the PA leg rate (one hex).
• Dismounted units are considered leg class units for all purposes.

Example: A mounted unit expends 3 MP, and then dismounts. The unit has a leg MA of 6, thus the leg unit may expend 3 MP after dismounting.

Note: Do not forget to add the TP back into the appropriate army TP's allocated to truck point motorization. The TP are not available until the next friendly Movement Phase.

7.8.2 Dismounted Effects
Dismounted Mech units function exactly like leg units of the same type. Dismounted Mech units are modified as follows:
• Their MA is 6.
• Dismounted Inf units, subtract one from all combat values, including armor/AT. Attack and Defense strength can never be less than one.
• Dismounted armored Inf do not qualify as a mixed AFV when the target of a FS mission.

7.8.3 Dismounted to Mounted
Dismounted units, static units and leg class Inf units may be mounted (converted to Mech class units) at any time during the friendly Movement Phase. To be eligible to be mounted a unit:
• Must be in tactical mode and not have expended more than one-half of its modified (7.3.0) leg class MA.
• Must be in GenS and not fatigued.
• Must be in terrain not prohibited to an MU (unless there is a primary or secondary road present in the hex).

If the above criteria are met, replace the leg unit with the mounted unit type, remove the dismounted marker or place a motor unit marker on the unit.
• To determine MP remaining, halve the Mech MA of the unit and subtract any MP used prior to mounting.

Example: A dismounted unit expends 3 MP, and then removes the dismounted marker (remounting). The Mech has expended 9 MP and has 3 MP remaining (3 + (12 ÷ 2) = 9, 12 – 9 = 3).

7.8.3 Truck Point Motorization
TPs must come from the army TP pool to which the unit is assigned and must have been assigned as available to motorize units (16.1.2c). Units mounting or dismounting utilizing TP use the procedures outlined in 7.8.1 & 7.8.2.
• Each TP can motorize three units of any size (each unit counts as one no matter the organizational size).
• TP may use any type of leg unit and static AT/Flak units. They may also motorize artillery units that are denoted to show that they do not possess inherent transport (see UTC). Horse artillery may not be transported by TP.
• Units motorizing utilizing TP move exactly like MUs with a MA of 12 and are required to abide by all fuel status constraints dictated by low or no fuel status.
• Units subordinate to a leg formation use the fuel status of their superior corps HQ.
• Units motorized by TPs may not participate in an overrun or be marked with an attack designation.

7.8.4 TP Availability
TP used for motorization must have been allocated to motorization during the Transport and Logistic Phase (16.1.2c).

7.8.5 Allied Division Assets
Each Allied infantry division has one organic TP that may be used to motorize leg units of that division. Units motorized using Allied inherent divisional transport are treated as if they were mounted using army TP's. More than three leg units of the same Allied division may be mechanized, but the additional units would require the use of army TP's.

7.9.0 Special Movement Rules
7.9.1 Combat Reserve
Units marked with a Combat Reserve (CR) marker may not move. A player may voluntarily remove a CR marker at the beginning of a friendly Movement Phase (13.7.3).

7.9.2 Leg Class AT Units
AT units with a printed MA of six and/or nine leg class MP may be treated as Mech units (including using Strat road movement and Exploit mode).
The decision to use Mech movement or leg class movement must be made prior to the unit expending any MPs.

Units can use either type of movement but only one type may be used during each phase.

If in PA mode they move as leg units.

They advance and retreat as leg units.

### 7.9.3 Allied AT Units

Allied AT units are normally MUs, but they may move up to one hex as a leg unit either at the start or the end of their movement (this includes tactical road movement). Such movement costs them six MPs, and they are prohibited from entering or crossing any terrain prohibited to leg units. They may choose to retreat in the same manner as leg units.

### 7.9.4 Allied Engineers

Allied engineer units are normally depicted as leg class units; however, they also possess inherent transport. Allied engineer units may mount and dismount using the procedure in 7.8.0. They do not require the use of army TPNs or do they use the one TP inherent Allied divisional transport capability.

**Designer’s Note:** Allied engineer units all had their own motor assets.

### 7.9.5 Delay Markers

Some games provide delay markers for one side or the other. To deploy a delay marker a unit must:

- Be an infantry (leg or Mech) type unit.
- Have a defensive PR of 5 or greater.
- Currently have at least two steps remaining.
- Begin the movement phase in a hex containing allowed terrain as called for by scenario rules.
- Be in GenS (not OhS).
- Be in Tactical mode.

### 7.9.5a Creating Delay Units

The number of delay markers provided with each game is the maximum number of delay markers that can be in play at any given time. Delay markers cannot be removed and used again in the same movement phase.

- Delay markers are placed during the Friendly Movement Phase, prior to the placing unit expending any MP.
- A unit can only attempt to create one delay marker per GT.
- Only one delay marker attempt may be made per hex per GT.
- The unit must pass a PR check using its defensive PR.
- If a delay marker is created the owning side randomly picks one delay marker and places it in the hex with the DRM face down.
- The unit that attempted to create a delay marker (whether it passed or failed the PR check) has its MA halved for that movement phase.
- MPs expended to create a delay marker during a rest turn do not count against a unit’s total MP expenditure for fatigue purposes.
- Units attempting to create a delay marker must vacate the hex of attempted placement using tactical or tactical road movement. Movement must be toward the unit’s source of GenS.
- A unit that attempts to place a delay marker may not expend MP for any other purpose except movement.

### 7.9.5b Delay Marker Effects

A delay marker generates an immediate movement halt on all enemy units entering the hex occupied by the delay marker. At the beginning of the Attack Designation Segment of the Combat Phase, after placing Tactical Assault markers, the opposing side determines the status of all delay markers stacked with friendly attack designated units.

- The owning player must conduct an offensive PR check using the unit with lowest PR in the hex. Apply the DRM noted on the delay marker.
- If the unit passes the PR check, there is no effect. Remove the marker.
- If the unit fails the PR check, all attack designated units in the hex must remove their attack designation marker. Remove the marker.

### 7.9.5c Removal of Delay Markers

Delay markers removed from the map are available for random selection the during the owning player’s next Movement Phase. Delay markers are left in place until one of the following occurs:

- An attack designated unit conducts its PR check in the hex with the delay marker.
- At the end of an enemy’s attack designation segment if stacked with an enemy unit that is not attack designated.
- At the end of the owning player’s Movement Phase.

### 7.10.0 Movement & Artillery Units

All artillery units, except static artillery, are MUs. At any given time, an artillery unit is either “in-battery” (IB) or “out-of-battery” (OoB). This status is chosen during the friendly Mode Determination Phase and lasts until the next friendly Mode Determination Phase. Towed artillery units may generally not move if they are IB (exception 7.10.1). SPA units that are IB can move a portion of their normal MA as shown on their “in-battery” side. SPA units that are IB may use road movement.

**Example:** In both the examples above the artillery unit on the left is “in-battery” and the artillery unit on the right is “out-of-battery.”

**Note:** Self-propelled artillery is noted by showing a white or red square around the MA of the unit on their counter.

### 7.10.1 Movement & In Battery Artillery

All artillery units designated as; 105H, 155, 150, Brit 25lb artillery, German 150NW, or German 150 (or less) may move one hex while in-battery unless they are labeled with a G following their gun size. This is an exception to the rule that towed artillery units may not move while in battery. The hex must not be prohibited to the unit for tactical movement.

### 7.10.2 Static Artillery/Flak Units

Static artillery, AT, fortress and Flak units are units that have a printed MA of zero, or that have wheels under the unit type box that are hollow (i.e. not blackened in; these hollow wheels show that such units lack organic transport). Static units may only be moved if allocated TPNs from their assigned army truck point pool.

### 7.10.3 Horse-drawn Artillery

All artillery units that are not static (zero MA) or mechanized (possessing wheel symbols or the tracked oval) are considered to be horse drawn. They have the letter “H” after their MA on the counter. They move like MUs and have all of the stacking characteristics of MUs but they are unaffected by fuel.

**Note:** Horse Art is not eligible for the one hex retreat in 11.6.4d but is eligible for the one hex movement in 7.10.1.

### 7.11.0 Overruns

Overruns combine movement and combat and allow exploiting forces to displace or destroy enemy forces while on the move. A unit expending the required number of MPs may overrun an adjacent enemy-occupied hex. Overruns are allowed only during an Exploitation Phase by MU in exploitation mode.

### 7.11.1 Overrun Procedure

- Each overrun may be conducted by only one unit or stack at a time (i.e., the overrun units must have begun the phase stacked together).
- Artillery, HQ, TP motorized leg units, OoS units, and fatigue units may not conduct overruns.
- A unit may not conduct an overrun from a hex without movement CT if that hex is adjacent to more than one enemy occupied hex.

**Note:** During night GTs, all observation CT is also considered movement CT.

**Designer’s Note:** This is an important condition that is easily overlooked.

- The overrunning units must enter the hex...
to be overrun and expend one MP in addition to the MP cost of entering the overrun hex. All normal terrain and movement costs apply, including any cost of moving next to an enemy unit. Do not apply the adjacent unit penalty based on the hex being overrun. An overrunning unit using road movement uses road MP costs. A unit may begin its movement by conducting an overrun.

• If all units in the defending hex are in Exploit mode, they suffer a one-column unfavorable CRT shift on the GA CRT.

**Example:** The diagram below shows the effect of adjacent units and covering terrain has on overrun eligibility. The hexes to the left and right of the covering terrain are clear terrain hexes.

![Diagram showing overrun eligibility](image)

• A hex may be overrun more than once per Exploitation Phase. A unit or stack of units may also be overrun more than once per Exploitation Phase.
• A unit may overrun more than one hex but may not overrun the same units in the same hex more than once in an Exploitation Phase.

Overruns are resolved using the normal GA rules with the following exceptions:
• A medium capacity artillery FS mission can be conducted against the overrunning units, if the units being overrun are in an ET, Fort, or Fortified area.
• Neither side may use combat reserves.
• Advance after combat does not occur, instead a unit that successfully overrun a hex may continue moving (and overrunning) if it has MP remaining.
• All other adjustments to combat strength, column shifts, and DRMs apply.

**7.11.2 Overrun is Successful**

Total the mandatory and discretionary hits received by each side. If the attacker’s hits are less than the defender’s hits, the overrun succeeds.

**Note:** A successful overrun does not require clearing overrun enemy units from the hex.

• If an overrun succeeds, the units that conducted the overrun may ignore the overrun enemy units and their effects on movement for the remainder of the current Exploitation Phase. This is true even if the overrun units retreat to another hex. Overrunning units may not end their movement stacked with enemy units.
• A unit may keep moving after a successful overrun if it has MPs remaining.
• If successful without clearing the overrun hex of enemy units, the overrunning unit must continue to move ignoring the overrun unit(s). If it does not have the MPs to continue moving after the overrun, it must return to the hex from which it launched the overrun. No further MP may be expended. This may result in an overlap.

**7.11.3 Overrun is Unsuccessful**

An unsuccessful overrun requires the attacking unit to return to the hex from which it launched the overrun and undergo an immediate movement halt there.

**8.0 OBSERVATION & VISIBILITY**

Friendly units can observe enemy units in hexes into which they can trace a valid line of sight (LOS). Tracing a valid LOS depends on visibility, distance (range), and the terrain that the LOS traverses.

• If a valid LOS cannot be traced from a friendly unit into an enemy unit’s hex, the enemy unit is unobserved.
• Unobserved units receive a DRM on the Fire Support Results Table.

**Example:** A unit on a vantage point in a town or city hex cannot observe an enemy unit within LOS range and with no intervening blocking terrain can observe that unit.

**Note:** As described in 6.5.0, the concepts of "observation" and "Fog of War" are not the same. The Fog of War rules determine what knowledge a player may obtain concerning enemy units (i.e. what he can examine in a stack). Observation status determines the ability of a player to target units with fire support missions, and the ability of friendly units to affect the movement of enemy units.

**Example:** A unit on a vantage point in woods can see an enemy unit three hexes away in clear (open) terrain. The enemy unit will not be able to observe the unit in return due to it being in observation CT (woods) and also due to it being too far away.

**8.1.0 Line of Sight**

A valid Line of Sight (LOS) is the straight line drawn from the center of the observing unit’s hex to the center of the target hex that does not pass through any hex containing blocking terrain. The LOS range (8.1.3) and terrain (8.2.0) may affect the LOS.

**8.1.1 LOS & Blocking Terrain**

Towns, cities, and vantage points are blocking terrain. An LOS that runs directly along a hexside would block the LOS. A hex containing blocking terrain will block an LOS unless the observing unit is in a vantage point hex. Only a vantage point hex can block the LOS of another vantage point hex.

**Note:** Blocking terrain is not the same as observation CT (8.2.0).

**8.1.2 LOS Range**

The LOS range is the distance from the observer to the hex being observed (do not include the observer’s hex). If this range exceeds the maximum LOS range, the LOS is not valid. The maximum LOS range depends on the terrain in the observer’s hex, the terrain through which the LOS passes, and that in the target hex. LOS range is also affected by visibility.

• The basic LOS range is one hex, which means hexes adjacent to the observer only.
• Units in a town or city hex (not villages or locations) have an LOS range of two hexes.
• Units in a vantage point hex have an LOS range of three hexes.

**Exceptions:** 8.1.2b & 8.1.2c

**8.1.2a LOS & Rough Terrain**

A LOS traced through or into (but not from) any rough terrain hex has its range reduced by one hex (to a minimum of one).

**Example:** A unit on a vantage point cannot observe a unit in rough terrain if the LOS range is greater than two hexes; this is because the rough terrain reduces the max LOS range by one hex.

**8.1.2b LOS & Night GTs**

During Night GTs and ENA periods, LOS and observation capabilities are:
• LOS is reduced to one hex.
• Open terrain is considered Observation CT.
• Observation CT is considered Movement CT.

**Exception:** Neither of the above two applies if the hex is adjacent to an enemy ET, fortified area hex, or a Fort.

**Designer’s Note:** ETs, fortified areas and Forts imply that the units have developed observation posts out far enough to be able to “see” into adjacent hexes.

**8.1.2c LOS & Atmospheric Conditions**

Atmospheric conditions affect LOS range as follows:
• Overcast; maximum LOS is two hexes.
• Snow/storm; maximum LOS is one hex.

**8.1.2d High Vantage Point Hexes**

Some games have terrain features that are more prominent or had a significant impact on a campaign. High Vantage points are noted differently depending on the game.
Check the Terrain key for specific details for each game. High vantage points confer increased LOS range on clear or partial overcast GTs.

- In some games the LOS range for these hexes is printed in the double vantage point hex. If the LOS number is not printed on the map the LOS is four hexes.
- High VP hexes block all other LOS advantages except for another high vantage point.

8.2.0 Observation & Covering Terrain

There are two kinds of covering terrain (CT), movement (MCT) and observation (OCT). Terrain that is not CT for a particular activity is considered open terrain with regard to that activity. If a hex contains any amount of CT, the entire hex is considered CT.

**IMPORTANT:** Attack-designated units can always observe into any kind of terrain in adjacent hexes, and are always observed by adjacent enemy units regardless of terrain.

**Note:** Open terrain does not necessarily mean clear terrain only.

**Note:** A Strat movement marker negates the presence of any CT; a unit with such a marker can be observed by any unit with the LOS range.

8.2.1 Movement Covering Terrain

Movement CT affects movement by making it easier to move near adjacent enemy units. These effects are detailed in section 7.3.3. The following terrain types and features are all MCT: woods, forest, town, city, ET-3, Forts, and fortified area hexes.

8.2.2 Observation Covering Terrain

Observation CT (OCT) makes it harder to observe stationary enemy units.

- The following terrain types and features are OCT: all MCT and all hexes with a location, village, IP, ET-2 and/or destroyed fortified area hexes.
- A non-moving (i.e. stationary) unit in OCT can only be observed from an adjacent hex and then only if the observer or the unit being observed is attack designated.

**Designer’s Note:** The important distinction between different types of covering terrain is that Movement CT applies when units are moving and Observation CT applies when units are stationary, however if a stack of units are attack designated both the attack designated and any enemy units adjacent to those attack designated units are observed.

8.3.0 Air Observation

In some games one side or the other will have almost total air supremacy. When granted by scenario rules, the side with air supremacy will, under certain circumstances be able to utilize air observation of enemy units. Unless scenario instructions note otherwise, Commonwealth and US forces may always use Air Observation.

- During overcast (Ovr), storm, or snow atmospheric conditions; and during night/ENA turns air observation is not allowed.

Air observation may observe a target during clear conditions if the target is:

- A unit in non-observation covering terrain that is within six hexes of an in supply friendly ground unit.
- Any unit marked with a Strat Move marker.
- Any population feature. Units in the hex with population feature still qualify for the -4 unobserved DRM.

Air observation may observe a target during Povr conditions if the target is:

- A unit in non-observation covering terrain that is within three hexes of an in supply friendly ground unit.
- Any unit marked with a Strat Move marker that is in non-observation covering terrain.

9.0 COMMAND

Command represents the control hierarchy for each side’s forces, from armies all the way down to individual units. All units, sub-formations, formations, and corps must be in command to operate without penalty. The two things that are critical for determining command status are assignment and command boundaries. If the requirement for either of these is not met, a HQ and/or unit is considered out of command (OoC).

9.1.0 Assignment

The concept of assignment or subordination simulates the military chain of command. In general, smaller units are assigned to larger units.

- Units are assigned to sub-formations or formations and sometimes directly to a corps or army HQ.
- Sub-formations are assigned to formations or directly to a corps/army.
- Formations are assigned to corps/army.
- Corps are assigned to armies.

Assignments are initially established by scenario rules. Within certain limits, players may change assignments, or make new ones during the Command Phase. In most games, units that were assigned as corps or army asset units are noted with a corps or army name. These designations are for historical purposes only. Unless stated otherwise, players are free to assign these units to any available corps or army.
Note: When changing assignments, players should understand that, when large numbers of subordinate units are assigned to an HQ, that HQ becomes less efficient in providing logistics support to its units (9.5.0 and 15.4.0).

9.2.0 Command Boundaries

Units must be within the command boundaries of the HQ they are assigned. The area designated forms a zone of operations (ZOP) in which the units and formations of a corps, army or army group may operate. Units that operate within one hex of a command boundary are in command no matter which side of the boundary they are on. Any unit of that command operating out of the above ZOP is out of command (OoC).

- Units subordinate to a sub-formation or formation HQ must operate within their HQ’s assigned ZOP.
- Corps, army or army group command boundaries are designated by scenario setup.
- Boundaries may be modified by the owning player during the Command Phase. Use as straight a line as possible with no more than one dogleg.
- Boundaries can be designated to follow a river line or a line of road hexes from one identified hex to another following the road.
- Extend boundaries into enemy territory a minimum of ten hexes to some obvious geographic feature.
- If a unit enters enemy territory further than the ten hexes, it may ignore command boundaries until the next Command Phase, after which, the owning player must designate a corps or army boundary for the new frontline.

9.3.0 Command Definitions

9.3.1 Army HQ

An army HQ can command any number of corps HQ, however the more corps HQ assigned to an army HQ the less support that army HQ is able to provide to each corps (15.4.1). If an army HQ is for any reason eliminated, all subordinate corps HQ, formations and/or units are considered OoC until the next Command Phase when they can be reassigned.

Note: In some games army HQ may not be present, the corps HQ are still considered assigned to an army HQ.

Note: In some games army groups (AG) may be designated and command boundaries required. AG HQ are not used and do not affect GenS, ADV or any other supply function, other than to designate where its subordinate armies may operate.

9.3.2 Corps HQ

A corps HQ must be assigned to an army HQ. A corps HQ can command any number of formations, however the more formations assigned to a corps HQ the less support that corps HQ is able to provide to each formation (15.4.2). If a corps HQ is for any reason eliminated, all subordinate formations and/or units are considered OoC until the next Command Phase when they can be reassigned.

9.3.3 Formation HQ

A Formation or BG will always be assigned to an army and/or corps HQ. A formation HQ commands all units organic to that formation that are not detached, plus any attached units. Units that are subordinated to a formation/BG are in command as long their assigned HQ can trace GenS path to them, and that HQ itself is not OoC. If, a formation HQ is out of command (OoC), all units subordinated to it are also OoC.

9.3.3a Formation Type

- All Axis tank, panzer, panzer grenadier, motorized divisions and independent BGs of the type listed above are considered “Mech” formations.
- Axis divisions and BG not listed above are considered leg formations.
- All Allied divisions and BG are considered Mech formations (includes infantry and airborne divisions).

Exception: Scenario rules may modify the above formation types.

Designer’s note: The various HQ counters in the game represent more than just the physical presence of the command post (i.e. staff, communications, etc.). More importantly HQ represents the logistic support for the corps, formations, and units under the command of that HQ. The GenS, ammunition, fuel and command rules reflect this interaction of the command chain and the ability of the command structure to support combat units in the field.

9.3.4 Formations

A formation is a discrete set of units that share the same unique formation ID (usually a number) on the upper right corner of their unit counter and have an actual HQ as part of their formation. A patch of color behind this number helps to color code a formation’s units for easier identification. Some independent brigades have a formal organization with a HQ unit present and a varying number of units assigned.

9.3.4a Divisions

Most formations are divisions. A unit marked with the formation’s ID is organic to that formation. If the units are within GenS distance of their HQ and that HQ is in GenS, the units are considered in command and in supply.

9.3.4b Sub-formations

A sub-formation is a smaller subset of units that belong to a formation.

Regiments, brigades, combat commands, regimental combat teams, and kampfruppen are all examples of sub-formations. Sub-formations generally do not have a HQ unit.

9.3.4c Independent Sub-formations

For simplicity and consistent terminology, independent sub-formations are referred to as Battle Groups (BGs). A sub-formation that is organic to a formation may be detached as an independent BG. Choose any one unit to act as that BG’s HQ. The BG is in command as long as it operates within its assigned corps’ boundary. The BG HQ traces GenS from its superior corps HQ.

9.3.5 Army & Corps Asset units

Army or corps assets are units that have corps or army IDs/symbols printed on the upper right corner of their unit counters. In some games army or corps assets may not have the ID or symbol in the upper right hand corner; however, these units are considered army/corps assets. These units are not organic to any formation, but instead are assigned to armies and corps. A player does not have to explicitly record their assignment; instead, as long as they are operating within the boundaries of a corps or army that has not exceeded its command capacity, these units are in command.

Note: For supply purposes, their supply path may trace from any HQ assigned to the same corps or army command (15.2.3b).

Designer’s note: Both sides have units that start a game or enter as reinforcements that are designated as attached directly to either any army or corps. While a player does not have to assign them to a formation or sub-formation, normally with the exception of artillery units, it is wise to do so as soon as possible due to a number of reasons, including, ease of tracing GenS and more importantly rules pertaining to multi-divisional combats.

9.4.0 Command Procedures

Determine command status of all units during the Command Phase. Command changes (including attaching and detaching units) can only be done during the Command Phase. Units may be attached to a formation or sub-formation at the start of a friendly Movement Phase. In such cases the attachments are considered emergency attachments, and the units may not conduct any form of GA (i.e. they may defend only) nor may they spot for FS missions in the owning player’s immediately following Combat Phase. Beginning at the start of the opposing side’s turn, they operate normally.

9.5.0 Command Capacity

Army and corps command capacities are a function of the supply system and are
described fully in section 15.4.0. An HQ never commands enemy forces. Players may find it necessary to keep track of attachments using pencil and paper.

**Note:** Scenario rules may further enhance or restrict the ability of players to attach their forces.

### 9.6.0 Attachments & Detachments

Independent units and units assigned to a particular formation may be detached and then attached to other formations. Attached units function exactly like organic units of the formation or BG they are currently attached.

#### 9.6.1 Formation Attachment Limit

No more than six units may be attached to a formation. No more than four of these units may be larger than one Coy and no more than one may be an artillery unit. When attaching an entire sub-formation, all units attached to the sub-formation count toward the six-unit total.

**Exception:** If a single sub-formation consists of more than six organic units, that sub-formation may still be attached to a formation even if it exceeds the formation’s attachment limit. However, no other units may then be attached to that formation.

**Example:** The 1st US Infantry Division could attach CCA of the 2nd US Armored Division, consisting of the four hybrid units and one Recon Coy. The 1st Division could still attach one coy sized unit from another division or any corps/army asset.

**Designer’s note:** Typically, a regiment or brigade plus some of the division’s organic support units would be detached and then attached to another division for a specific purpose. This rule simulates that ability without allowing players to create huge divisions of more than four regiments or brigades.

#### 9.6.1a Special Assignments

If a formation’s units have been eliminated, other units of a like type may be assigned to the formation in their place. These units do not count against the formation’s attachment limit.

**Example:** The 176th VG Division during the Hurtgen battles, was assigned the 1218, 1219, and 1220 Inf Rgt (2 Bns each), plus the 176 Fus Bnt. All three organic Rgts and the Fus Bnt start the game in the eliminated unit’s box. The German player may assign up to seven infantry type Bns to the division to replace those eliminated Bns.

#### 9.6.1b US Tank & Tank Destroyers

It was common practice in the US army to attach a tank Bn and either a self-propelled or towed AT Bn semi-permanently to divisions. In some games these Bns are noted with the division ID that they were historically assigned. The historical designation for these Bns is for historical information only. In other games these Bns are marked with a white square where the division ID is found. Players may freely assign these Bns as noted below without regard for historical designations.

- Each US infantry division may attach one tank and one self-propelled (TD) or towed AT Bnt. These attachments do not count against the division’s maximum attachment (9.6.1) or fuel requirements.
- If more than one of each type Bnt is assigned and or attached, the additional Bns do count against that division’s attachment limit.

#### 9.6.2 Battle Group Attachment Limit

A BG may never have more than six units attached. No more than four of these units may be larger than one Coy and no more than one of those units may be an artillery unit.

**Exceptions:** 9.6.6, 9.6.7, & 9.6.8.

#### 9.6.3 Detachment Limit

No more than six organic units may be detached from a formation.

**Exception:** 9.6.8.

#### 9.6.4 German MUs & Leg Formations

Axis Mech units that are subordinate to Leg formations/BG (9.3.3a) must be stacked with or adjacent to a non-Mech unit organic to the division in order to be in command.

- During the Command Phase, if such a unit does not fulfill the above condition, it is immediately marked out of supply (skipping on-hand supply status).
- No more than three Axis Mech units may ever be attached to a leg formation. Each breakdown unit is counted as one unit for the purposes of this rule.

**Exception:** Some leg divisions will have more than three organic Mech units. In those cases, additional Mech units may not be attached until there are less than three organic Mech units remaining.

**Note:** Organic artillery does not count toward the three Mech units.

#### 9.6.5 German Rear Echelon Units

Scenario rules will identify what units (if any) are German Rear Echelon (RE) units. Also see the game’s UTC. When they enter play, they are treated like corps or army asset units. These units may not attack unless stacked with participating non-RE unit or a leader. They never fulfill combined arms requirements (13.5.1d).

#### 9.6.6 US Armored Cavalry Groups

Armored Cavalry Groups (CavGrp) are considered to be independent BGs. They may be attached to a larger or formation. A CavGrp may contain no more than three Bns.

#### 9.6.7 British Armored Brigades

British armored brigades are considered a BG. They may be attached to a formation. British armored brigades may not attach additional units.

#### 9.6.8 German Kampfgruppen

German Kampfgruppen (KG) may have more than six organic units. They are still considered a BG. KG of more than six units may not attach additional units. German divisions may detach a single KG, even if above the six-unit limit.

#### 9.6.9 Attachment & Detachment

Units must be in command to be detached and/or attached. When attaching units to a HQ, the units, being attached must be able to trace a GenS path to the attaching HQ. Units entering as reinforcements are automatically considered detached if they cannot trace a GenS path to their parent formation HQ. Units and/or BGs entering as reinforcements and whose formation HQ has yet to enter the game, must be either attached to another formation or declared an independent sub-formation.

#### 9.7.0 Command & OoC Penalties

A unit or formation that is out of command (OoC) is immediately marked with an “out of command” marker. The marker is not removed until it is placed back in command. OoC penalties are as follows:

- All HQs, formations, BG and/or units subordinate to an OoC HQ are also OoC.
- OoC units cannot be placed in PA mode or Exploit mode.
- OoC units may not act as observers for airstrikes, naval gunfire or barrages that have artillery units from other formations or artillery units assigned to corps or army participating in them.
- OoC artillery units may not participate in a FS mission if the observer is from any other formation (including corps/army).
- OoC units may not be activated during ENA periods.
- OoC units move at one half of their normal MA.
- OoC formations/BG may not attach or detach units.

**Note:** Units may be OoC even if their corresponding HQ is in command.

#### 9.8.0 Command & Strat Movement

A formation/BG must be in command to be able to initiate Strat road movement. Thereafter, the formation is automatically in command until it ceases Strat road movement. All formations and BGs that are marked with a Strat movement marker are automatically in command until the marker is removed (this includes units entering as reinforcements). They still require and use fuel points (16.4.0). They receive fuel points from the army HQ who’s ZOP it starts the Movement Phase.

**Designer’s Note:** The formation does not
require extensive command resources to execute a basic administrative road march.

10.0 COMBAT
Both sides use combat to inflict step losses, retreats, and fatigue on the opposing side’s units. All FS missions and ground assaults are forms of combat and occur during the combat phase. Air interdiction and overruns are the only forms of combat that occur outside of the combat phase (they occur during movement).

10.1.0 Combat Phase Sequence
The SoP for the combat phase (3.3.5e) lists the order of segments used during this phase.

10.2.0 Attack Designation
Units that are in PA mode are already attack designated by being in PA mode. During the attack designation segment, the active side designates units that he wishes to conduct a tactical assault (TA). He does so by placing a TA marker, or an ace of spade marker on top of the unit or stack of units.

Note: Attack designation (and therefore, attacking) is not mandatory. Units are only forced to conduct an attack if they are attack designated.

10.3.0 Fire Support (FS) Description
FS missions are resolved using the Fire Support Table during the FS segments of the combat phase.
- Airstrikes are FS missions that convert AP into FS points (20.2.0).
- Artillery barrages are FS missions that convert an artillery unit’s barrage factors into FS points (11.0).
- Naval gunfire is a FS mission that converts naval gunfire (NG) points into FS points (11.9.0).

All of these attacks use the rules outlined in 11.0.

10.4.0 Ground Assault Description
Ground assaults (GAs) are attacks by active non-artillery units against enemy units in adjacent hexes, and occurs during the GA segment (13.0). Overrun (7.11.0) is a form of GA that occurs during Exploitation Phases.

11.0 FIRE SUPPORT MISSIONS
Artillery units, AP, and naval units attack enemy target hexes by conducting FS missions, which are useful for “softening” them up prior to GA (destroying them, giving shifts against them in subsequent GA, or forcing them to retreat from the target hex). FS missions are normally conducting during the FS mission segment of the Combat Phase; however, units in Exploit mode may be subject to air and artillery missions during an Exploitation Phase. Each FS mission is an individual event and must be concluded before initiating a new FS mission.
- Players must declare all naval and airstrike missions for a specific target hex prior to conducting any artillery missions against that hex.
- Only one artillery mission per target hex per Combat Phase may be used, however that mission may consist of multiple volleys.
- The number of air and/or naval missions per target hex will vary with the mission capacity (light, medium, or heavy). Mission capacity depends on the size and mode of the unit observing for the mission (11.2.4).
- A player is never forced to conduct a FS mission.

Note: In the following rule sections, the term “mission” refers to “fire support mission”

11.1.0 FS Mission Sequence
A player initiates a mission by informing the opposing side an FS mission is being conducted against a specific target hex. There are three sub-segments within the FS segment. Sub-segments must be conducted in the order listed below. Each sub-segment is conducted for all target hexes prior to moving to the next sub-segment.

Note: Units moving during the Exploitation Phase may be subject to a ground support FS mission (20.2.2), and a medium artillery FS mission immediately upon declaring an overrun attempt.

Sub-Segment 1. Active side conducts air missions.

Sub-Segment 2. Inactive side conducts artillery and then naval or air missions.

Sub-Segment 3. Active side conducts artillery then naval missions.

There are four steps to resolving a mission; these steps must be completed prior to initiating another mission:
- Declare the FS mission
- Calculate volleys and DRMS
- Determine the result
- Implement the result

11.2.0 Declare the FS Mission
A player initiates a mission by designating the target hex and the spotting unit. He then declares the type of mission or missions (i.e. whether air, naval and/or artillery). In each sub-segment he must declare the number of air missions and the number and type of naval missions prior to conducting any Fire Support. These declarations are done on a target hex by target hex basis (i.e. he does not have to declare all missions he plans to conduct, just those against each target hex as it is designated). The attacking player is not allowed to examine possible target hexes (beyond what is allowed by the Fog of War rules, 6.5.0 and the observation rules, 8.0). The attacking player is informed of the applicable DRMs once the target hex is declared. He is not entitled to know exact composition or type of units.

11.2.1 Target Hex
A FS mission is always directed against a single enemy-occupied hex, which is called the target hex.

11.2.2 Spotting Unit
The player conducting a FS mission must designate one friendly unit to act as a spotter for all types of FS missions conducted against a single target hex.
- The spotter must be able to observe at least one enemy unit or a population feature in the target hex using the criteria described in the observation rules (8.0).
- When conducting a FS mission against an observed population feature, if no unit in the target hex can be observed, the mission is considered observed for capacity purposes; however, it is subject to unobserved FS mission DRMs.
- If the spotter cannot meet the above requirements, the mission is unobserved and can only be conducted if scenario rules allow.

11.2.2a Spotter Limits
The same spotter must always observe for all missions conducted against a single target hex.
- A Btn-sized unit may be designated a spotter for missions in two separate target hexes. A hybrid unit with two Coy is treated as a Btn for this purpose. The number of steps remaining does not affect the ability of a Btn-sized unit to observe into more than one target hex.
- Other than the hybrid unit mentioned above, all Coy-sized units (one or two step) may spot for missions into one target hex.
- Z-step units may not be designated as a spotter for FS missions.
- No more than two units may be selected as spotters from a single hex during a Combat Phase.
- A unit may not be designated as a spotter for a FS mission if that unit has advanced as a result of a previous mission during the same FS segment.
- If a unit is attached to a different formation/BG than it is assigned, that unit may only be designated as a spotter for the formation/BG it is attached.

11.2.2b Air Observation
See 8.3.0 for rules regarding using air observation.

11.2.3 Designate Mission Units
The player conducting the mission designates the number of air or naval units that will participate in the mission in that sub-segment. APs and naval units cannot be designated to conduct a FS mission in the same sub-segment; it must be one or the other.
A light FS mission may consist of:
- A Bn-sized unit.
- A Coy-sized unit in an ET/Fort/fortified area hex.
- A Coy-sized unit or larger in an ET/Fort/fortified area and is the subject of an overrun attempt. The mission is conducted immediately after the overrun is declared. Naval and Air point may not be used (artillery only).

A medium FS mission may consist of:
- One air mission.
- Up to, two DD.
- Three artillery units (Allied).
- Two artillery units (Axis).

11.2.4 Heavy Fire Support
To conduct a heavy FS mission, the target units or population feature must be observed. The spotter must be:
- A Bn-sized unit in PA mode.
- A Bn-sized unit in an ET/Fort/fortified area hex.

A heavy FS mission may consist of:
- Two air missions.
- One BB or one MN, or alternately;
- One CA and one CL, or alternately;
- One CA and one DD, or alternately;
- One CL and one DD or alternately;
- Two DD.
- Sixteen artillery units (US only).
- Twelve artillery units (other Allied).
- Eight Artillery units (Axis).

11.2.4d FS Capacity Modifications
The following units do not count towards capacity. Players may have an unlimited number of these units participate in any FS mission.
- Artillery units adjacent to the target hex.
- Hvy Flak and/or CW/US TD units.
- Forts with artillery capabilities.
- The number of artillery units that may participate in a FS mission is increased by one if the observing unit occupies a vantage point hex.

11.2.5 Formation Requirements
Artillery units must meet formation requirements to participate in a FS mission. To conduct a medium or Heavy FS mission, at least one participating artillery unit must be subordinate to the spotter’s formation. Participating artillery units must be:
- Assigned to the same formation as the spotter.
- Army asset unit assigned to the same army as the spotter’s formation.
- Corps asset unit assigned to the same corps as the spotter’s formation.
- A unit subordinate to any other formation assigned to the same corps as the spotter’s formation.

11.3 Range Requirements
An artillery or naval unit must be within range of a target hex. Range is the shortest distance (in number of hexes) from the firing unit to the target hex (including the target hex but excluding the hex in which the firing unit is located). If the distance in hexes exceeds the unit’s range, the firing unit may not participate in a FS mission against that target hex. Terrain has no effect on range.

11.3.1 Artillery Unit Range
The range of all artillery units and fortifications are printed on their counter (see the UTC). The range of all Hvy Flak units is four hexes.

Exception: An artillery unit’s range is reduced to one hex if there is an enemy unit in an adjacent hex that is attack designated or is not in observation CT.

11.3.2 Naval Unit Range
There are five types of naval units. They are: battleship (BB), monitor (MN), heavy cruiser (CA), light cruiser (CL), and destroyer (DD).

Naval units can fire from any full sea hex. Each naval unit has a specific range.
- Battleship (BB) 18
- Monitor (MN) 16
- Heavy Cruiser (CA) 14
- Light Cruiser (CL) 12
- Destroyer (DD) 7

11.3.3 Air Point Range
AP do not have specific ranges, however in some games AP are restricted to areas of operations and/or specific national groups or commands.

11.4.0 FS Mission Points
FS mission points are calculated differently for air, naval, and artillery.

11.4.1 Artillery FS Mission Points
An artillery unit must have barrage factors available. Each barrage factor printed on an artillery unit equals one FS mission point. Each barrage factor can only be used once per Combat Phase.

Note: Players should rotate or somehow mark units that have used all of their barrage factors to indicate that no more...
barrage factors are available. Some games have “fired” markers provided to aid in noting fired artillery.

11.4.1a Number of Volleys
For artillery missions, the number of volleys is equal to the total number of mission points divided by eight. If there are points remaining after dividing by eight, those points constitute an additional volley with that number of mission points. All other volleys have a point value of eight. Players may choose not use a volley of less than eight when resolving a mission.

Example: 36 barrage factors are participating in a mission. The FS mission is resolved as five volleys, four with a value of eight, and one with a value of four. The owning player may choose not to conduct the four strength volley.

11.4.1b 88mm Flak Units
German 88mm Flak units that have either a heavy unit bar in their unit type symbol or a red hexagon to the left of their unit symbol may function as artillery units. Flak units can only participate in a FS mission if there is at least one non-Flak unit participating in that mission. They have the following capabilities when functioning as artillery units:
• They have a range of four hexes.
• Each step possesses one barrage factor.
• They do not check for ammo depletion.
• They are always considered in-battery.
• They are exempt from formation requirements.

Note: Z-step Hvy Flak units do not possess this capability.

11.4.1c Allied TD Units
In any scenario beginning in or later than September 1st 1944 US TD units (M-10, M-18, & M-36) may participate in an artillery FS mission. Use the same rules listed for 88mm Flak units (11.4.1b).

11.4.1d Artillery Split Fire
Certain artillery units may split their fire so that part of their barrage factors are used in one mission, and another part is used in a second mission. Barrage factors may not be split so as to create a FS point of less than one (i.e. an artillery unit with a barrage factor of three could not support more than three missions). The same barrage factor can never be used in more than one mission.
• All Allied artillery units may split fire.
• Axis artillery units that are subordinate to a formation may split fire; however, they may only split their fire into a maximum of two missions.
• Axis corps and army artillery units may not split fire.
• An artillery unit always counts as one unit against the mission capacity of a FS mission, even if it did not use all of its barrage factors in a specific mission.
• If an artillery unit suffers AD before participating in a second mission, those barrage factors are lost and the unit cannot conduct another mission until replenished.

11.4.1e Ammon Depleted Artillery
Ammon depleted (AD) artillery units have a barrage strength of zero.

11.4.1f Surprise GTs
On the first three GTs of a surprise attack, all artillery FS mission points for the side that is surprised are halved (24.4.0).

11.4.1g Heavy Artillery
Heavy artillery units are denoted on the counter by having a large white circle shown behind their barrage factor.
• Heavy artillery units have one less barrage factor when participating in a defensive fire mission.
• Missions conducted against a fort or fortified area hex that do not have at least one heavy artillery unit participating, have all numerical hit results converted to AS results. Max of one AS still applies (11.6.1)
• Heavy artillery units used to preclude the above may not split fire.

11.4.1h Intensive Fire
Intensive fire may be used by both the defender and attacker. The following restrictions apply:
• Mission must be an artillery mission.
• Mission must consist of at least one volley with strength of eight points.
• Corps’ ADV must be one or more.
• Firing units must be in GenS (not extended).
• Expends one AmP for each added volley.
• No more than one volley can be added for each original eight-point volley.

Example: Six artillery Btms (total strength of 16) barrage a hex. The FS mission has two eight point volleys prior to modifications. Each eight-point volley could be doubled (i.e., giving four final eight point volleys). Two AmPs are expended and a +2 DRM would be added to the AD DR (+1 for each volley).

11.4.2 Naval FS Mission Points
Each type of naval unit has a specific number of FS mission points.

<table>
<thead>
<tr>
<th>Type of Ship</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battleship (BB)</td>
<td>8</td>
</tr>
<tr>
<td>Monitor (MN)</td>
<td>8</td>
</tr>
<tr>
<td>Heavy Cruiser (CA)</td>
<td>6</td>
</tr>
<tr>
<td>Light Cruiser (CL)</td>
<td>5</td>
</tr>
<tr>
<td>Destroyer (DD)</td>
<td>4</td>
</tr>
</tbody>
</table>

Do not total naval mission points, instead, fire each naval unit as separate volleys.

11.4.3 Air FS Mission Points
The maximum number of air points (AP) that may be assigned to a FS mission is determined by scenario rules. Each AP assigned equals two FS mission points. Each mission is considered one volley.

11.5.0 DRMs
After determining the strength of each volley, determine DRMs. DRMs are listed on the Fire Support DRM Table.
• All DRMs are applied to each volley.
• DRMs are cumulative unless otherwise noted.
• The maximum DRM that can be applied to a mission is plus or minus ten (+/-10).

Note: When determining DRMs the attacking player is only entitled to know the DRMs that affect the mission, not the specific information that generated those DRMs. The attacking player will be told what the density DRM is but does not receive the exact number or composition of the units that generated the DRM.

11.5.1 Terrain (Group A)
Terrain confers DRMs which are normally favorable to the defender.
• A target hex that contains a unit that is attack designated or marked with a Strat Move marker is not eligible for terrain DRMs.
• Only one terrain DRM may apply. The defending player may choose which terrain modifier he wishes to use. Population features are considered terrain for this purpose.
• See 11.5.3 for effects of AFV DRMs in conjunction with terrain DRMs.

11.5.2 Defensive Works (Group B)
The term Defensive Work is the generic term used to describe FW, Forts, and fortified area hexes.
• Target hexes in which units are in a defensive work receive DRMs in their favor.
• Only one DRM may apply.
• Attack designated units, units using Strat Move, and units in Exploit Mode are not eligible for the defensive work DRMs.
• Units in defensive works may also receive terrain DRMs.
• See 11.5.3 for effects of armor DRMs in conjunction with defensive works.

11.5.3 Armor (Group C)
The presence of armor in the target hex can award DRMs in favor of the defender.
• If all units in the target hex are pure AFVs, the DRM is -3.
• Target hexes eligible for the Pure armor DRM must use the Pure armor DRM, and no more than one DRM from Group A & B (owning player’s choice), Group D & E DRMs are not affected.
• If some but not all units in the target hex are pure AFVs, or if at least one unit is a mixed-AFV (see UTC), the DRM is -2.
• Target hexes eligible for the Mixed AFV, DRM, may receive a maximum of two DRM from Groups A, B, & C (owning player’s choice). Group D & E DRMs are not affected.

Note: Recon units showing an armored car
silhouette are not considered pure AFV units they are considered a mixed AFV.

11.5.4 Unit Density (Group D)
Count the total number of unit steps present in the target hex. DRMs may be positive or negative depending on the number of steps (see Fire Support Table).

Important: All steps in the hex are totaled, no matter the situation of units within the target hex.

Designer’s Tip: Unlike in most other games, sometimes more is not better, especially when facing large amounts of available artillery support.

11.5.5 Other Conditions (Group E)
The below DRMs may be favorable to either side, see the Fire Support Table for specifics.

- Vantage Point: Applied when the observing unit occupies a vantage point, and the target hex does not.

- Night/ENA GT: Applied to all missions conducted during night GTs/ENA periods.

- Unobserved Target: Applied to all unobserved missions.

- Target unit is using Strat Move: Applied if the target unit is unit using Strat Move. Units using Strat Movement are not eligible for DRMs from Group A or B.

- Nebelwerfer Units (NW): If at least one NW unit participates in a mission against a target hex that cannot generate any DRMs from Group A or B, then the first volley receives a +1 DRM.

- NW: If the mission is composed solely of NW units, and the conditions above exist, all volleys of that mission receive a +1 DRM.

- Battleship or Monitor: Applies if the FS mission is conducted by a BB or MN.

- Weather Conditions: Apply to naval units only.

11.6.0 Determine the Result
Consult the Fire Support Table to resolve a mission and conduct the below procedure for each volley.

- The attacking player rolls 1d10.
- Add the FS point strength of the volley to the DR.
- Add or subtract the total DRMs for the FS mission volley to the above total. The resulting number is the Fire Support Value (FSV) found on the left of the Table.
- Cross reference this number with result on the right. FSV of seven or less is always “no result” and FSV of 23 or greater is always a “4”.
- All volley results for each type of mission (artillery, air, or naval) are totaled and implemented prior to resolving the next type of mission. Once the result of the current mission is determined, the defending player must implement the total result. There are two types of results: Artillery Shifts (AS) representing the morale and shock effect of fire support missions, and numerical hits representing casualties inflicted by taking one step loss to one unit for each numerical hit.

Designer’s Note: The term “discretionary hits only applies to ground assault results. It does not apply to FS mission results.

Note: Players may be required to make an additional DR for each mission to determine ammo depletion (11.8.0).

Example: The US side is the active player and he is conducting a PA attack from two hexes each containing two infantry Btns against a German stack consisting of two leg infantry Btns and one Coy of MkIV tanks in a woods hex and the units are in an IP.
- The US player identifies the target hex, and then determines which of his units will act as an observer. Since all the US units are Btns he picks one of them to be the observer (units in PA mode always observe adjacent units).
- Consulting the Mission Capacity Table, the US player qualifies for Heavy Fire Support and may allocate up to 16 Bins of artillery, two air missions, and either (a) one BB or MN or (b) one CA and one CL or DD (11.2,4c).
- He allocates a total of eight AP in the first sub-segment. After resolution of air superiority, the US player has one mission with 4 AP and another with 3 (he lost 1 AP to German air superiority). Each mission is considered a volley, so he multiplies his remaining AP by two, resulting in one mission volley of eight and one of six (11.4.3).
- The US player then determines the applicable DRMs. The German player informs him that there is a mixed AFV (-2) woods (-1), and IP (-1), however since he may only use two of the above three DRMs the German player chooses the AFV and IP modifiers (total of -3). The German player also informs the US player that he has seven or more steps present in the target hex (+2), since no other DRMs apply there is a net -1 DRM for each volley.
- The US player then rolls 2d10 identifying which die applies to each volley. The 8-point volley DR is 7 (total 15) and the 6-point volley DR is S (total 11).
- The US player then applies the total DRMs to each volley resulting in a FSV of 14 and 10 for each volley.
- Cross referencing the FSV of each volley gives a result of 2 and a 1 with a total of 3 step losses to be applied to the target.

11.6.1 Artillery Shifts (AS) Results
Apply Artillery Shift (AS) results. A maximum of one AS marker may be on any one stack at any time. Ignore subsequent AS results. Markers are removed at the end of the Combat Phase. When a unit or stack is marked with an AS marker, it:
- Receives one unfavorable column shift when attacking or defending in a ground assault (13.7.2). Only one AS marker per side may be used to determine this shift.
- Example: Three stacks are conducting a ground assault and all three stacks have an AS marker on them. The attacker would still only incur one column shift.
- Reduces adjacent defending unit column shifts generated by that hex by one (13.7.2c).
- Cannot be used to cause a step loss when an enemy unit retreats into an adjacent hex (11.6.4e).
- Loses its Combat Reserve status (remove the CR marker).

If a unit or stack marked with an AS marker retreats or moves into a stack without an AS marker, all units in the stack suffer the AS penalties.

11.6.2 Resolve Numerical Hits
The units may remain in the target hex and take all numerical hits as step losses/fatigue hits, or may retreat one hex and take a reduced number of step losses (owning player’s choice). Fortified Areas are not affected by FS mission results (i.e. FS missions do not destroy them). Artillery FS missions against units in a Fort or Fortified Area, ignore numerical hits unless heavy artillery is part of the mission (11.4.1g).

First numerical hit as a step loss:
Units that are not attack designated must use this option if they are unable to retreat one hex due to terrain or enemy units. If units that are attack designated cannot retreat, they may choose either option if a defensive work exists in the hex.

Step 1: The first numerical hit inflicts one step loss.
- Non-attack designated units in an ET-3 may remove the ET-3 (do not replace with ET-2) to absorb the first step loss.
- Non-attack designated units in a Fort may reduce the Fort by one step to absorb the first step loss.
- If numerical hits remain proceed to step 2.

Step 2: Conduct a PR check using the defensive PR of the lowest rated unit in the hex. Non-attack designated units occupying an ET, Fort, or fortified hex, are not required to conduct a PR check, they automatically pass.

Pass: Units remain in the target hex. Attack designated units retain attack designation.
- Apply all numerical hits as step losses and/or fatigue hits. Maximum step loss does not apply. Fatigue hits (max of two)
may be assigned as desired by the owning player, each numerical hit converted to a fatigue hit, reduces the number of numerical hits by one.

- If the target units are not attack designated and are in a fort, they may reduce the number of step losses by one for each step loss taken by the fort. ET-3 may not absorb remaining step losses.

**Fail:**
- Attack designated units remove attack designation. Target units retreat one hex or, if attack designated, may withdraw into any defensive works in the target hex.
- The retreat or withdrawal does not reduce the number of numerical hits.
- If not marked with an AS marker, receive one AS hit.
- If there are attack designated and non-attack designated units in the hex, ignore the non-attack designated units.
- Apply all numerical hits as step losses and/or fatigue hits (Max step loss does not apply). Fatigue hits (max of two) may be assigned as desired by the owning player, each numerical hit converted to a fatigue hit, reduces the number of hits by one.
- An ET-3 may not be used to absorb additional step losses.
- If the target units are not attack designated and in a Fort, the Fort is treated as a combat unit for step losses.

**First numerical hit as a retreat:**
- Attack designated target units remove attack designation.
- If not marked with an AS marker, target units receive one AS hit.
- Attack designated target units may withdraw into any defensive works in the target hex or may retreat one hex. Treat the withdrawal as the one hex retreat. Non-attack designated units and defensive works are ignored.
- Non-attack designated target units must retreat one hex. Any Forts in the target hex are removed.
- Subtract one numerical hit for the one hex retreat or withdrawal.
- Divide remaining numerical hits by 2 (round up).
- Result is the number of numerical hits that must be applied. Hits are inflicted as step losses up to the Max step loss limit. If there are numerical hits remaining, convert a maximum of two hits into fatigue hits. Remaining numerical hits are ignored.

**11.6.3 Maximum Step Loss**
A single unit cannot suffer more than one step loss per combat result unless the rule states that maximum step loss does not apply. If Max step loss does not apply, no unit can suffer additional step losses, until all units in the stack have suffered an equal number of step losses.

**11.6.4 Retreats**
A retreat may occur due to overrun (7.11.0), units in Exploit mode adjacent to enemy unit in PA mode (5.3.4b), attacker status adjustment (12.0), GA (13.8.0), or due to FS mission results (11.6.2). The rules for conducting retreats are the same for all cases.

- The owning player always retreats his own units, choosing their retreat path (hexes entered and exited as a result of retreat) according to the retreat priorities listed in 11.6.4b.
- Units may not retreat into enemy occupied hexes.
- The hexes that a unit enters due to retreat are its retreat path; this is important for determining advance after GA.
- Units may not retreat into a specific hex more than once during a retreat.
- Each hex of retreat must, if possible, be at least one hex farther away from the original occupied hexes.
- Units may not cross or enter terrain that is prohibited to their movement class. If a unit could only move into a hex using some form of road movement, then it can only retreat into that hex if a road connects the two hexes.
- Units in a stack may not be retreated using different retreat paths.

**11.6.4a Max Retreat Distance**
Units that retreat as a result of a FS mission may only retreat one hex. Mark the unit(s) with an AS marker if they have not already suffered an AS. Units that retreat as a result of a GA or overrun may retreat a maximum of: Two hexes if a defending leg class unit.
- Four hexes if a defending Mech class unit.
- One hex if an attacking leg class unit.
- Two hexes if an attacking Mech class unit.
- Defending Mech units whose HQ is marked as “no fuel” can retreat a maximum of two hexes (16.4.5).
- Mech units must stop their retreat in the first hex entered that contains woods, forest, marsh, soft ground, swamp, boscage, hedgerow, or constricted terrain unless it entered that hex along a road.
- Leg class units may retreat across an unbridged river (not major or great rivers), however unless using a bridge or ford, the leg unit must stop in the first hex after crossing the riverhexside.
- Units may not be “dropped off” voluntarily before the stack has stopped retreating.

**11.6.4b Retreat & Other Units**
Units may retreat into a hex in violation of the stacking limits. Those units now count toward density modifiers in any subsequent FS missions against that hex.
- Units that retreat into a hex with other friendly units, that is subsequently attacked in the same segment contribute nothing to its defense and are subject to all FS mission, overrun, and GA results inflicted. Step losses taken prior to retreating do not count towards maximum step loss.
- Units that retreat into a vacant hex (no friendly units) may not be subjected to a second FS mission or GA in the same Combat Phase.
- Overstacked units that did not participate in a GA/overrun, or were the subject of an FS mission must retreat along with any affected units in the same hex.

**11.6.4d Retreat Priorities**
Retreating units must follow the below priorities when conducting a retreat, one being the highest and five being the lowest. Players must observe as many priorities as possible. A player may never violate a higher priority in order to satisfy a lower priority.

**One:** Into a hex not adjacent to an enemy unit.

**Two:** Toward friendly supply (closer in hexes).

**Three:** Into a hex with observation CT.

**Four:** Along any type of road.

**Five:** Not into an overstack.

**11.6.4e Enemy Units & No MCT**
A retreating force that enters a non-movement CT hex that is adjacent to an enemy unit must take a step loss from one unit in the retreating stack (owning player’s choice). Z-step units cannot fulfill the step loss requirement unless they are the only unit(s) retreating.
- Maximum step loss is ignored for the purposes of this rule.
- Friendly units do not negate this condition for units that retreat into their hex.
- The additional step loss does not fulfill any results obtained from the GA.

**11.6.4f Artillery Units**
Self-propelled artillery retreat like any other MU, even when in-battery. They may remain in-battery.
- Other in-battery (not horse-drawn) towed artillery units that are 75, 105H, 150/155H, or 25lb types may retreat up to one hex and remain in battery. If required to retreat more than one hex, they must go out-of-battery and continue to retreat.
- All other types of in-battery towed artillery and all in-battery horse drawn artillery may not retreat and if required to do so are eliminated. Steps lost, due to this rule count towards fulfilling
discretionary hits.

11.7.0 Advance after FS Mission
If all units in a target hex are eliminated or retreated, friendly units that are attack designated and in adjacent hexes may immediately advance. A unit may only advance after an FS mission once per Combat Phase. Units advancing may:
• Only advance one hex into the target hex.
• Not advance across or into prohibited terrain.
• Not observe for any additional FS missions that Combat Phase.

11.7.1 Advance & PA Mode
Units in PA mode that advance into a hex that has MCT may immediately revert to tactical mode. If the units revert to tactical mode, they cannot conduct a GA in the following GA segment.

11.7.2 Advance & Tactical Assault
Units that are marked with a tactical assault marker, remove their attack designation marker after advancing. They cannot conduct a GA in the following GA segment.

Example: Advance after barrage
German units A1, A2, and A3 are in PA mode. German unit G is in tactical assault mode. The German player conducts FS missions against both D1 and D2. Both units suffer an AS1 result. The Allied player chooses to retreat both units. Each retreats one hex as shown and each suffers an AS1 hit. A1, A2, and A3 may advance into D2’s original hex and retain their PA markers. Unit G advances into D1’s original hex but has its tactical assault marker removed at the end of the advance. It cannot attack in the GA segment.

11.8.0 Ammo Depletion (AD)
For each artillery mission (not volley), roll 1d10 DR to check for AD (16.3.1). The attacking player can make this roll at the same time as the first volley. Apply the following DRMs (they are cumulative):
• +1: Each additional volley beyond the first (this includes volleys gained by using intensive fire).
• +1: If all units participating in the FS are NW units.
• +2: If any part of the artillery’s GenS path is extended (15.2.4).
• If using intensive fire, one Art Bn is automatically depleted for each eight-point volley gained.

11.8.1 On Hand Supply & AD
Artillery units in on hand supply status (15.4.2) are automatically AD when they conduct a FS mission. If an artillery unit is subordinate to a HQ who is in OhS, the unit’s ADV is equal to the current on hand supply value of that HQ. See 16.3.5 for how to convert on hand supply to AmP.

11.9.0 Naval Unit Availability
During the naval unit assignment segment of the Weather Determination Phase, the side or sides with available naval points determine how many naval units (and their type) will be available for that GD. Each available naval unit can be used once in the AM and once in the PM GT. Scenario rules will detail which if any naval units are available and if there are any additional restrictions such as ammunition depletion etc.

12.0 ATTACKER ADJUSTMENT
During this segment, the active side may remove attack designation markers.
• If an attack designated unit is not adjacent to an enemy unit the attack designation is automatically removed.

12.1.0 Excessive Attack Designations
If there are more attack designated stacks adjacent to enemy units than could legally conduct ground assaults (13.3.1 & 15.4.2d) the number of attack designated stacks must be reduced at this time.
• If stacks marked PA and stacks marked TA are adjacent to a single enemy occupied hex, all stacks with a TA marker must remove their designation. Units that remove their designation may not retreat.
• If there is more than one stack marked for TA adjacent to a single defending hex the attacking player must remove all but one of the TA designations. Units that remove their designation may not retreat.
• If the attacking side has attack designated units placed in such a way that would require him to launch more ground assaults than allowed by ADV GA limits, the owning player must reduce the number of attack designated units to a point that meets the above requirements or, he must expend AmP to conduct the additional GAs. Units that remove their attack designation may not retreat.

12.2.0 Voluntary Removal
After all excessive designations are removed; the owning player may voluntarily remove attack designations. For each stack, not in MCT, conduct a PR check using the unit with the lowest attack PR in the stack.
• Pass: All units in the hex remove their attack designation and may retreat one hex or withdraw into any FW/fort/fortified area in the hex.
• Fail: All units retain their attack designation.

13.0 GROUND ASSAULT (GA)
The active player conducts GAs one at a time, resolving each GA completely before initiating a new GA. The active player is always the attacker and the inactive player is always the defender.

Note: The terms assault, attack, and attacker used in this rules section mean the same thing. The Ground Assault Table is referred to frequently and is often abbreviated as “GAT.”

13.1.0 GA Sequence of Play
The active player picks which GA to resolve in the order he wishes. Once he initiates a GA however, the steps listed below must occur in the order they are presented:
Step 1: The active player indicates the defending hex and locates its defender terrain line on the GAT.
Step 2: The active player indicates which units will conduct the GA. Both sides determine their lead unit.
Step 3: Required surrender checks are carried out. Both sides choose whether units will use standoff, on hand supply, or defend at full strength. The inactive player checks for bridge demolition/collapse (17.3.2b & c).
Step 4: The combat strengths of all involved units are calculated and compared. The ground assault value (GAV) is located on the GAT.
Step 5: Net column shifts (if any) are determined and the final assault value (FAV) is located on the GAT.
Step 6: Both players determine the DR bonus which will be applied to the DR.
Step 7: Each side rolls 2d10 and applies the DRM bonus calculated in Step 7.
• Each side’s modified DR is cross-indexed with the GA results column to locate what combat results are applied to the opposing player’s units (13.8.2).
• Combat results are applied to each side’s affected units, with the attacker doing so before the defender.
• The Attacker may advance after combat with any of his eligible units that participated in the GA (13.10.0). This sequence is repeated for each GA being conducted, until all desired GA have been conducted and resolved.

13.2.0 Step 1, Identify Defender’s Hex
The active player selects the defending hex for the GA. The attacker must have friendly units that are eligible to attack in hexes adjacent to that defending hex, and there must be enemy units in the defending hex.

Important: Players are not required to pre-designate assaults.

13.2.1 Defending Hex/Units
Each GA may only assault one defending
enemy occupied hex. A defending hex may only be attacked once per GA segment. Units that retreated into an unoccupied hex due to a previous GA may not be the target of another GA, however see 13.4.5 for rules regarding previously retreated units in a hex with other defending units. All units in the hex (up to the stacking limit) defend together against a GA conducted against that hex.

13.2.2 Defender Terrain Line
There are four defender terrain lines arranged across the top of the GAT. They are, from left to right:
- **Line 1**: Clear and Clear with Location
- **Line 2**: Rough, Woods, Village, and Marsh (Marsh also represents soft ground and swamp)
- **Line 3**: Forest, Town, and Wooded Rough.
- **Line 4**: City

The correct terrain line for a GA must be located by comparing the terrain in the defending hex with these four lines. If a hex contains multiple types of terrain, the defender chooses which to use.

13.3.0 Step 2, Identify Attacking Units
The attacking units must be attack designated (10.2.0) and adjacent to the defending hex. Stacked units are not required to attack the same hex. A unit that is attack designated at the start of a GA segment must attack some enemy unit. A unit may never attack more than one per GA segment.

13.3.1 Multi-hex Attacks
As long as terrain permits, a hex may be attacked from all six adjacent hexes. All attacking units must be in PA mode if the attack is made from more than one hex. Units that are not in PA mode may never combine with units from other hexes to attack the same defending hex.

13.3.2 Attack Ineligibility
Units may not participate as an attacker, if it is:
- Not attack designated.
- An artillery or HQ unit.
- Prohibited from entering the defender’s hex. If a unit could only enter a hex using a road, then it may only attack that hex through such a hexside.
- An MU attacking across a river, unless it is attacking across a ford or an undeestroyed. Dismounted MUs are considered leg units.
- A pure AFV attacking into or out of a marsh, swamp, or soft ground hex that is not connected by some form of a road. The AFV may use standoff, if eligible.

**Exception**: Ground conditions may allow units to attack swamp, marsh, or soft ground hexes (19.4.0).

**Exception**: AFVs may attack across rivers and/or into swamp, marsh, or soft ground hexes without the benefit of a road, bridge, or ford, but in this case they must use standoff (13.4.2) and are not eligible to contribute armor or AT bonuses, and may not advance after combat.

13.3.3 Constricted Terrain
No more than two units, only one of which may be a Btn, can attack into a constricted terrain hex from each adjacent hex. **Exception**: 6.1.2, 6.1.3, & 6.1.4.

**Example**: The German units A1, A2, A3, and A5, A6, A7, are in non-constricted terrain hexes, attacking the US units D1 and D2 in constricted terrain. All the German units are in PA mode so they may attack together. However, due to the constricted terrain in the defender’s hex only two German units from each hex will be able to attack, and only one of the attacking units from each hex can be a Btn-sized unit.

**Designer’s Note**: The uneven nature of some terrain and the steepness of slopes, gullies or ravines, make deployment and attack into such terrain very difficult, if not impossible.

13.3.4 Determine Lead P Unit
Both sides select one unit to be their lead unit. The lead unit can be any Coy or Btn-sized unit not in a standoff role. The PR of that unit will be used to determine Proficiency DRMs (13.8.6). If step losses are incurred by a side, the lead unit will suffer the first step loss.

13.4.0 Step 3, Unit Status
Players make determinations for the below items.

13.4.1 Surrender
Defending units that are isolated and OoS must check to see if they surrender when subject to a GA. Use the same procedure outlined in 15.7.2. DRMs that apply for AM GT surrender checks are applied (15.7.2a).

13.4.2 Standoff
Both players declare if they have units with an armor factor participating in the GA. Both sides may choose to have some or all of their participating units with an armor factor adopt a stand-off role.
- Standoff cannot be declared if the defender is using terrain line 1.
- A unit designated the lead unit cannot be in a stand-off role.
- Both sides must have at least one unit of any type involved in the GA that does not standoff.
- The attacker identifies stand-off units first.
- Stand-off units are ignored when determining armor/AT bonuses.
- Their combat strengths are halved.
- They cannot advance after combat.

13.4.3 Use of On Hand Supply
Both the attacker and defender must declare if units in an OhS status use their full combat strength. The attacker declares first (15.5.0).

13.4.4 ENA & Rest Turns
During ENA periods and rest turns the defender may choose to have his units defend at half strength (3.5.0).

13.4.5 Retreated Defenders
Units that retreated due to a FS Mission may be attacked if there are adjacent attack designated units. If due to a GA, a unit retreating into an occupied hex and that hex is subsequently attacked in the same phase, the retreated units do not contribute to the defense. The retreated units do suffer all results inflicted on that hex (13.10.4).

13.4.6 Bridges
The defender determines if a bridge is subject to hasty demolition (17.3.2b) or subject to collapse (17.3.2c). If the bridge is destroyed or collapses, MUs that were using the bridge to conduct the GA may not participate in the GA unless they possess an armor factor, at which point they may declare that they are standing off. AFV units that declared standoff in ‘Step three’ do not trigger bridge collapse.

13.5.0 Step 4, Determine GAV
Both the attacker and defender determine their ground assault value (GAV). Each side determines their separate GAV as follows:
- Determine each unit’s current combat strength as defined in 4.3.2 and as modified in 13.6.1. Do not round
fractional values.
• Add the current combat strength of all units participating in the GA into one total and then round any fraction up.
• The total is the GA strength for each side.
• The ground assault value (GAV) is then determined as described in 13.6.2.

13.5.1 Combat Strength Modifiers
Determine the modifiers to each unit’s current combat strength individually.

13.5.1a Attacking Units
Halve a unit’s current combat strength when:
• Leg unit attacks across a river (bridges and fords do not negate this effect).

Note: Leg units that are ferried across a river by engineers are not halved, unless attacking across a great or major river.
• Leg unit attacks into or out of a marsh hex.

Note: Leg units attacking from and into a marsh are only halved, not quartered.
• Pure AFV unit(s) do not meet the combined arms requirements (13.5.1d).
• Unit is marked OoS.
• Unit is marked OhS and does not wish to go OoS at the end of the GA.
• Unit is marked Fatigue-1.
• AFV unit is in standoff.

Quarter a unit’s current combat strength when:
• Unit meets two or more of the halving conditions.
• MU attacks into or out of a marsh hex.

Note: Pure AFV units may not attack unless using a road when attacking into or out of a marsh hex (13.3.2).

13.5.1b Defending Units
Halve a unit’s current combat strength when:
• Artillery unit is stacked with any other unit, including another artillery unit (the second artillery unit).
• Unit is defending in an ENA period and does not wish to suffer fatigue.
• Pure AFV unit that does not meet the combined arms requirements in 13.6.2d.
• Unit is marked OoS.
• Unit is marked OhS and does not wish to go OoS at the end of the GA.
• Unit is marked Fatigue-1.
• AFV unit in standoff (13.4.2).

Quarter a unit’s current combat strength when:
• Unit meets two or more of the halving conditions.
• Unit is marked Fatigue-2.
• MU is in a marsh hex

13.5.1c Ammo Depleted Artillery
AD artillery units have a defensive combat strength of one.

13.5.1d Combined Arms
Pure AFV units that attack into, or defend in MCT or marsh hexes must be stacked with infantry, engineer, or recon type unit to operate at full effectiveness.
• A Btn-sized unit (Btn may be reduced) of the above types provide combined arms for all pure AFV units in the hex.
• A Coy-sized unit (one or two steps) provides combined arms for one pure AFV unit.
• Hybrid units are a combined arms unit. A Btn-sized hybrid fulfills the combined arms requirement for the stack; a Coy-sized hybrid unit only provides combined arms for itself.

AFV units that do not meet this condition halve all combat strengths and has an armor and/or AT factor of zero.

Exception: The strength penalty does not apply if a pure AFV unit(s) are attacking or defending against pure AFV units and neither side meets the combined arms requirements.

13.5.2 Locating the GAV
GAV must be calculated and matched with the Defender Terrain Line determined in Step 1 (13.2.0).

13.5.2a Ground Assault Table
The Ground Assault Table (GAT) is used by the attacker and the defender to resolve all GAs. The GAT is composed of six major parts:
• Defender’s Terrain Line
• Ground Assault Values
• Attacker DR Columns
• Defender DR Columns
• Attacker Results
• Defender Results

13.5.2b GA Ratio Determination
The attacker and defender GA strengths (13.5.0) are compared to each other and the result is a ratio of the attack and defense strengths of the units participating in that GA.

13.5.2c Locating the GAV
On the defender terrain line find the highest GAV that is equal to, or less than the ratio that was calculated in 13.6.2b. This is the GAV for that attack.

13.6.0 Step 6, GAV Shifts
The GAV may be shifted to the right or left of its starting position. Shifts to the right benefit the attacker (attacker shifts), while those to the left benefit the defender (defender shifts). Some conditions can be favorable to either the attacker or defender.

13.6.1 Total GA Column Shifts
A condition may confer more than one column shift. Shifts are cumulative. Determine each type of shift for both the attacker and defender at the same time. Subtract the total defender shifts from the total attacker shifts. The result is the number of shifts made to the GAV. A negative value moves it to the left (favoring the defender), while a positive value moves it to the right (favoring the attacker). The column determined is called Final Assault Value (FAV).

13.6.2 Column Shift Limits
The GAV may never be shifted further than the right or left most GAV on the defender terrain line for that GA. Excess shifts are ignored. The number of shifts awarded for each item in 13.6.2a & b are listed on the GA Charts and Procedures Chart.

13.6.2a Attacker Column Shifts
Attacker shifts move the GAV to the right. Attacker shifts are awarded if:
• Attacking units are in PA mode (5.2.0).
• All attacking units are in MR bonus (5.4.6).
• Defending units are marked with an AS marker (13.6.2f).
• Defending units are in combat reserve (7.9.1).
• Defender is in standoff
• There is a defending unit with a Strat move marker (7.7.0).
• A leader bonus applies (23.0).
• The defending units are subordinate to more than one formation or independent BG (multi-formation).

Note: Attached units are considered subordinate to the formation they are attached to.

13.6.2b Defender Column Shifts
Defender shifts move the GAV to the left. Defender shifts are awarded if:
• The defender occupies a vantage point.
• Any attacking unit is marked with a AS marker (13.6.2f).
• Any attacking unit is using extended supply.
• Any attackers are over stacked (6.4.1).
• It is a night GT.
• The defender is in defensive works.
• A Leader Bonus applies (23.0).
• Any attacking stack contains units subordinate to more than one formation or independent BG (see note in 13.6.2a).
• Adjacent defending units are available.

13.6.2c Adherent Defenders
Defender shifts are awarded for each friendly occupied hex adjacent to any enemy attacking units participating in a GA. The friendly occupied hex is called the ‘supporting hex’. To generate shifts, each supporting hex must meet the following requirements:
• It must contain at least one step (not a Z-step unit) of non-HQ units. If the only unit in the hex is an artillery unit, the
artillery unit must be self-propelled or an in-battery towed artillery unit.
• The supporting hex must not have already defended against an GA in the current segment.

**Note:** This doesn’t mean they can’t be attacked later in the same phase; they just cannot provide the benefit if they have already been the target of a GA in the same phase.
• One defender shift is awarded for each qualifying supporting hex if the hex is adjacent to the defending hex and adjacent to a hex containing attacking units that are in MCT.
• One defender shift is awarded for each qualifying supporting hex if the hex is adjacent to a hex containing attacking units that are in non-movement covering terrain. In this case the supporting hex does not need to be adjacent to the defending hex.
• In either of the above cases, if the supporting hex contains a vantage point one additional defender shift is awarded.
• If the units in the supporting hex are marked with an AS marker, the number of shifts that hex may award is reduced by one.
• There is no limit on how many column shifts may be applied as long as the above requirements are fulfilled.
• A supporting hex may generate column shifts against one GA per GA segment.
• The shift may not be split (if greater than one shift) between two GAs.

To keep track of when a support hex has “used up” its shifts, the defending player can mark such a hex with a fired/moved or spade marker. Remove all such markers at the end of the GA segment.

### 13.6.2 Engineers

Engineer units may negate defender shifts generated by defensive works. They may also award attacker shifts when the defender occupies a Town or City hex.
• Each attacking stack that contains an engineer unit (of any size) and at least one non-engineer unit negates one defender shift due to defensive works. Engineers can never negate more shifts than awarded to the defender for the defensive work.
• If the defender is in a town or city hex; each attacking stack containing an Eng unit and at least one non-engineer unit generates one attacker shift. Attacking Eng units are required to negate defensive works shifts first. If all these shifts are negated and there is at least one Eng unit that was not required to negate them, then the attacker receives this shift. If, there is an Eng unit (of any size) in the defending stack, all attacker shifts awarded in this case are negated. The defending Eng unit is not required to be stacked with a non-engineer.

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**Example One:** There are two US engineer units conducting a GA against the unit in an ET-2. Each engineer unit negates one defender shift awarded for the ET-2.

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**Example Two:** Two US engineer units would normally award a total of two attacker shifts when attacking into a town or city; however, in this case, the presence of the defending engineer unit negates all of these attacker shifts.

### 13.6.2c Commandos

If a commando or ranger unit is the lead unit in a GA, that unit may be treated as an engineer unit when assaulting defensive works and town/City hexes. Unlike engineers, the commando/ranger unit does not have to be stacked with any other unit. The attacker can use engineers normally and in conjunction with Commando/rangers in the same hex.

### 13.6.2f AS Markers

A maximum of one shift per GA can be awarded to a side for the presence of AS markers on enemy units.

### 13.6.3 Final Assault Value

After all shifts have been applied the FAV is the column that will be used to determine the GA combat results. Both sides use the DR Columns located directly beneath that FAV.

### 13.7 Step 7, DR & DRM

After determining the DRM, if any, each side rolls 2d10 reading the results as a number from “0” to “99”. Players should use two different colored die. One of the colors is used to represent the tens value (0 to 90) while the other is used to represent the one’s value (0 to 9). The player making the DR specifies which color represents the tens value before rolling the dice.

### 13.7.1 Attacker/Defender DR Columns

Columns are split horizontally into two sections.
• The top section consists of attacker DR columns and defender result columns.
• The bottom section consists of defender DR columns and attacker result columns. There are ten rows of DR results in each column. Each row contains a numerical range of possible values that either the attacker’s or defender’s DR could fall within.

### 13.7.2 DRM Bonus

DRM bonuses are calculated as follows:
• Both players determine the bonus for each section in 13.7.3 through 13.7.6 by subtracting the defender’s point total for that bonus from that of the attacker’s point total for that bonus. Total will be either a positive or negative number.
• Keep a running total of the points awarded for all bonuses.
• If the total is positive, it will be added to both player’s DR (attacker’s advantage).
• If the total is negative, it will be subtracted from both player’s DR (defender’s advantage).

**Note:** The final DRM Bonus can never exceed plus or minus 60 pts.

### 13.7.3 Combat Reserve

Each unit with a combat reserve (CR) marker awards one CR bonus for that side.
• A maximum of three bonuses may be awarded to each side.
• Each bonus is equal to five DRM points.
• No more than three units in CR can be committed to one GA per side.
• CR bonus may not be used by either side during an overrun.
• Subtract the side with the lower total from the side with the higher total. The result is the number of CR bonuses received by the higher side. To be eligible to award a CR bonus, the unit must:
• Be within three hexes of the defending hex (this applies to both the attacker and the defender).
• The path of three hexes may not cross a Major or Great River. Bridges, fords, and engineers do not negate this restriction.
• Have some type of infantry symbol (Mech or leg) in its unit box.
• Be a Btn sized unit with at least two steps remaining.
• May not be a Rear Echelon unit (9.6.5).
• Be subordinate to the same formation/independent BG as at least one of the attacking or defending units.
• Not be OoS, OoC or Fatigue-1 or 2. Combat reserve units committed to a GA are unaffected by any results of that GA. Once the unit is committed, the CR marker is removed (the committed unit remains stationary).

### 13.7.4 Regimental Integrity (RIB)

Units of the same sub-formation are more effective when they operate near each other. Most of these sub-formations are regiments, hence the label “regimental
integrity bonus” (RIBs). A sub-formation could also be a brigade, KG, BG or combat command. The term regiment (Rgt) will be used in this section to mean any of those types.

- A unit can only count towards RIB once per GA, and only once per GA segment.
- The attacker may use up to two Rgt.
- The defender may use one Rgt.
- A Rgt can award a maximum of 3 and minimum of 2 RIBs.
- A maximum of six bonuses may be awarded to the attacker, and a maximum of three to the defender.
- A RIB bonus is equal to five DRM points.

13.7.4a How RIBs Are Awarded

- The attacker is awarded one RIB for each eligible participating unit.
- The defender is awarded one RIB for each eligible unit in the defending hex and/or in any hex adjacent to the defending hex.
- The defending hex and adjacent hex may not be separated by a Major or Great River hexside. Bridges, fords, or the presences of engineers do not negate this restriction.

Units in adjacent hexes must be:
- Btn sized of at least two steps.
- Organic to the same sub-formation as the units in the defending hex.
- The adjacent units may have already participated in a GA this segment.

13.7.4b Unit Eligibility

To be eligible to contribute RIBs, a unit must meet the following criteria:
- It must be in PA or tactical mode.
- It must be an Inf type unit (not Eng). In this case hybrid and armored recon units qualify as an Inf unit.

Note: German Eng units are eligible to contribute RIBs.
- It may be a German Eng, fusilier, or recon unit subordinate to the same formation. These units may be Coy-sized units and must be participating in the GA (not in an adjacent hex).
- May not be a breakdown Coy or Z-step unit.
- US Combat Commands are Rgts for this purpose.
- US Cavalry groups (2 Armored Recon Bts) are Rgts for this purpose.
- Commonwealth Arm Div have two Bdes, they are treated as Rgts for this purpose.
- The unit may not be OoS, OoC, or fatigued.
- If Btn-sized, it must have two-steps remaining.
- It may not be a rear echelon unit.

13.7.4c German Pz Regiments

Pz Rgt AFV Coys subordinate to the German Mech division/independent BG and that are stacked with an eligible unit can award one RIB.

- A defending AFV Coy must be in the defending hex.
- Only one AFV Coy may award a RIB in each hex.

Example One:

- The 1st, 2nd and 3rd Bn of the US 9th Rgt, 2nd Div are in PA mode and are assaulting the I/78 Bn of the 26th Volksgrenadier (VG) Div. Because all three units participating in this attack are assigned to the 9th Rgt, 2nd Div, and no unit reduced to its last step, all three may be counted for RIB bonus, total three RIBs awarded to the attacker.
- The German I/78 Bn is adjacent to the II/78 Bn and 1/26 Pioneer Coy from the 26th VG Div. However, since the pioneer unit is not a Btn sized unit and is not in the defending hex it may not contribute to the defender’s RIBs. Thus only the two Bn are eligible generating two RIBs for the German side.
- The players subtract the lower from the higher RIB total with a result of one RIB or 5 DRM points awarded to the Allied player.

Example Two:

- The three depicted German units of the 9th Pz Div are all attacking the US 1/9 Btn. Since the 2/9 Bn is adjacent to the 1/9 Bn and not reduced to its last step, the US side receives two RIBs.
- Since all depicted German units are assigned to the same formation, the German player may use the recon Bn and the PzGd Bn for two RIB. The 1/I Pz Coy of the 33rd Pz Rgt may also be used to generate a RIB since it is stacked with a MI Bn from the same division. The German player receives three RIB.
- The players subtract the lower from the higher RIB total with a result of on RIB or 5 DRM points awarded to the German player.

13.7.5 Armor/Anti-Tank (AT)

The effect of armor or lack of it, against opposing enemy forces is an important part of the game’s combat resolution process. The greatest DRM bonuses are usually awarded due to armor or AT bonuses. Each side checks to see what kind of armor or AT capability it has with its forces participating in that GA. The attacker’s capability is then compared to the defender’s which generates armor/AT bonuses for one side only.

13.7.5a Armor/AT Factors

A unit’s armor or AT capability is quantified by armor or AT factors printed on the unit’s counter. These factors appear as printed superscript numbers accompanying the attack and/or defense strengths of the unit (see UTC).
- Units that only have a superscript value with their defense strength, have an AT factor only.
- Units that have a superscript next to the unit’s attack strength, have an armor factor. If the unit is an artillery unit, that value is a range factor not an armor factor.
- Units that have a superscript next to both their attack and defense strength have an armor factor. Use the factor next to its attack strength when attacking and next to its defense strength when defending.

Note: It is important to remember that a unit with two factors has armor factors not AT factors.

13.7.5b Armor/AT Modifications

- Armor/AT factors of units in a stand-off role are ignored (13.4.2).
- Pure AFV units that do not meet the combined arms requirements have all armor factors reduced to zero (13.5.1d).
- Ammo depleted (AD) and out-of-battery artillery units have an AT factor of zero.
- OoO units have an armor and AT factor of zero.

13.7.5c Armor/AT Comparisons

The comparison of attacking and defending armor/AT factors determines how many Armor/AT bonuses are awarded to one side. There are four different cases that can occur when comparing armor and AT factors. Which case is used determines whether terrain and FW/fortifications affect the number of bonuses awarded. Terrain modifiers are listed on the GA Charts and Procedures Display. The first column lists the applicable terrain, the second the modifier, and the third the maximum number of bonuses that can be awarded in that type of terrain.

Note: Population features are considered terrain features.

Choose a lead unit: Both sides (if they have units with armor/AT factors) choose the unit they will use to determine the armor/AT bonus.

AT vs. AT Factors: If the only factors that can be applied by either side are AT factors, stop the process here. Neither side is awarded any bonuses.

Exception: If the defending hex contains a mounted armored infantry unit, the defender receives one armor bonus.

Armor vs. Armor Factors: The attacker
and defender both choose a lead unit with an armor factor.  

• If the attacker and defender armor factors are equal, stop here, no bonuses are awarded.  

• If they are not equal, subtract the smaller of the two factors from the larger.  

• If the attacker has any AFV unit in clear terrain (ignore the presence of locations and villages for this purpose) the defender may choose to use that terrain type in lieu of the terrain in the actual defending hex when calculating the effect of terrain on any armor bonuses.  

• If the attacker does not have an AFV in a clear terrain hex, or if the defender chooses not to take the above option, the defender selects one terrain feature in the defending hex, and applies the relevant modifier to the result (he cannot use any defensive works modifiers).  

**Note:** The terrain modifiers are applied to the result no matter which side had the higher armor factor.  

• The side that had the higher armor factor receives the number of bonus determined above. If due to terrain modifications the result is zero or less, neither side receives a bonus.  

**Note:** The bonus can never be greater than the Max listed for the terrain and/or night GTs.  

### Armor vs. AT Factors:  

The attacker chooses a lead unit with an armor factor and the defender chooses a unit with an AT factor.  

• If the attacker’s armor factor and the defender’s AT factor are equal, stop here, no bonuses will be awarded.  

• If the defending AT factor is greater than the attacking armor factor, do not apply terrain, population features, or defensive works modifiers. Subtract the attacking armor factor from the defending AT factor. The resulting value is the number of defender bonuses awarded.  

• If the defending AT factor is less than the attacking armor factor, subtract the defending AT factor from the attacking armor factor. The defender then determines the total terrain modifier by selecting either the defending hex terrain or defending hex population feature modifier (he cannot use both) and any applicable defensive works modifiers. Subtract the total modifiers from the attacker’s bonus.  

**Note:** The defender can only choose one terrain type and one defensive works modifier.  

• If the resulting value is positive, the value is the number of attacker bonuses awarded.  

• If the resulting value is equal to or less than zero no bonus is awarded.  

### AT vs. Armor Factors:  

The attacker does not have an eligible unit with an armor factor; however, the defender chooses a unit with an armor factor. The attacker may then choose a unit with a AT factor. In this case the defender must use his offensive armor factor.  

• If the attacker’s AT factor is equal to or greater than the defender’s armor bonus, stop here. No bonuses are awarded.  

• If the attacker’s AT factor is less than the defender’s armor bonus, subtract the attacker’s AT factor from the defender’s armor factor. The defender then determines the terrain modifier by selecting the defending hex terrain modifier (he cannot use the defensive works modifiers). Subtract the modifier from the defender’s bonus.  

• If the resulting value is positive, the value is the number of defender bonuses awarded.  

• If the resulting value is zero or negative, no bonus is awarded.  

#### 13.7.5d Armor/AT Limits  

The number of armor bonuses may be reduced by the type of terrain present in the defender’s hex. The maximum number of allowable bonuses during an AM or PM GT is five. During night GTs (or ENA periods) the maximum number of bonuses that can be awarded is two. Use the lower of any bonus limit.  

**Example:** The attacker receives three armor bonuses. However, the defender occupies a clear terrain hex during a night GT, so the attacker armor bonus is reduced to a maximum of two. If the same defender occupied a forest hex during a night GT, the attacker armor bonus would be reduced from three to one (one is the maximum bonus that can be awarded in a forest hex).  

#### 13.7.5e Armor/AT Bonus Value  

Each armor/AT bonus is normally worth 10 DRM points. If the attacking or defending armor (not AT) is in clear terrain with no MCT, and if either side has an armor or AT factor of five or greater each armor/AT bonus awarded to that side is worth 15 points.  

**Example:** The two German units 2./506 Mk VIb Pz.Coy and 1/10/Pz. PzGd Btn are attacking a hybrid unit of 7th Armor Div from a clear terrain hex. CCR1 occupies a hex containing woods and a village. The German attacking armor factor is seven vs. a US defending armor factor of 4. In armor vs. armor the smaller factor is subtracted from the larger factor. In this case, since the attacking force had the larger armor factor, this generates three armor bonuses for the attacker. The defender may then choose to use either the woods (-2) or the village (-1) modifier, but not both. Since the woods subtract two from the armor bonus, the defender chooses the woods. The German player receives a net of one armor bonus. Since the attacking armor is in clear terrain the one bonus generates 15 DRM points for the attacker.  

#### 13.7.6 Proficiency Bonus  

Each side chooses one of its participating units to be the lead proficiency (Lead-P) unit for that GA. A player may choose any unit that is not in a standoff role.  

• The attacker uses his attack PR, while the defender uses his defensive PR.  

• Units defending in an ET, Fort, or a fortified area hex increase their defensive PR by one (to a max of eight).  

• Subtract the higher PR from the lower.  

The side with the higher Lead-P rating is awarded a number of proficiency bonuses equal to the difference.  

• Each bonus is worth five DRM points.  

#### 13.7.7 Calculating the Final Die Rolls  

Once the overall DRM Bonus has been determined (13.7.2), each side applies the total DRM Bonus to their DR. If the DRM was an attacker bonus (positive number), it is added to both sides’ DR, and if the DRM was a defensive bonus (negative number), it is subtracted from both sides’ DR. The result of these operations is the final attacker and final defender GA DR Values.  

#### 13.7.8 Determining DR Result  

Each side consults the GAT and finds its correct DR result row under the appropriate GAV column.  

• The attacker uses the rows listed to the right of the column labeled “Attacker DR”.  

• The defender uses the rows listed to the right of the column labeled “Defender DR”.  

• Each row lists a range of possible DRs. Find the row that the modified DR is within the range of values (inclusive).  

• If the modified attacker DR is less than the lowest number in the GAV column, there is no result for the defender.  

• If the modified attacker DR is greater than the highest number in the GAV column the defender suffers the result listed on that row.  

• If the modified defender DR is less than the lowest number in the GAV column, the attacker suffers the result listed on that row.  

• If the modified defender DR is greater than the highest number in the GAV column, there is no result for the attacker.  

#### 13.8.0 GA Step 8, GA Results  

Each of the 10 rows of DR values that make up an attacker or defender DR
column is associated with a GA result.

### 13.8.1 GA Result Columns

Two rows of GA results are located on the GAT, one just to the right of DR column H, and a second to the right of DR column N. The GA results exist in two separate columns because the results in the right-most columns are more favorable to the attacker (to reflect higher odds), while the results in the left-most column are less favorable to the attacker (to reflect lower odds). Each side uses the first results column directly to the right of the GAV column and on the same row as the DR result located in 13.8.8.

**Note:** Players must remember that the attacker’s DR results are inflicted on the defender’s forces. Conversely, the defender’s DR results are inflicted on the attacker’s forces.

The following is a narrative of the GA procedure.

![GA Diagram](image)

**Step 1:** Identify the defending hex; The German defender is in occupying a town hex with an ET-2. The terrain line for this GA is line 3.

**Step 2:** Identify the Attacking Units; both adjacent Allied stacks are in PA mode, thus eligible to attack the defending hex.

**Step 3:** Unit Status; neither side has any special status units (OsS, OhS, etc.) nor does either player have any units eligible for standoff.

**Step 4:** Bridge Status; there are no bridges.

**Step 5:** Determine GAV; the GA strength for this GA is:

- **Attacker:** Two full strength Inf Bns, each with strength of seven, an Eng Bn (one step loss) with strength of two and one Inf Bn (two step losses) with strength of two and one-half. Total attack strength is \(7 + 7 + 2 + 2 \frac{1}{2} = 18 \frac{1}{2}\) rounded up to 19.
- **Defender:** One Inf Bn with strength of seven. Total defensive strength is 7.

**The GAV for this combat is:** \(19 \div 7 = 2.7\) to 1 which rounds down to a 2:1 ratio.

**Step 6:** Determine Column Shifts;

- The defender receives:
  - Two shifts left for the ET-2 marker.
  - One shift right for the presence of the Eng unit (can only negate defensive shifts awarded for the ET).
- The attacker receives:
  - One shift right, for the GA being a prepared assault (PA markers).
  - One shift right for the AS marker on the defending stack.

Total attacker shifts are three to the right.
Total defender shifts are two to the left; net shift of one right (3 − 2 = 1) FAV of 3:1.

**Step 7:** DRM & DR

- **Combat Reserve:** neither side has any eligible units in CR mode.
- **RIB:** The attacker is attacking with three Bns of the 9th Inf Rgt, 2nd Div, however one of the Bns has been reduced to its last step so does not contribute to the RIB calculation. Thus the attacker has two RIBs resulting in +10 DRM. The defender has a Bn defending with no units adjacent that could contribute RIB.
- **Lead-P Unit:** The attacker chooses the 2nd Bn of the 9th as his lead unit. It has an attack PR of eight. The defender has only one unit, II/78 of the 26th VG Division, so the defender must use the defensive PR of that unit which is seven. The defender’s PR is modified by +1 (due to the ET) and thus has a modified defensive PR of eight. Since both the attacker and defender’s PR are eight, no DRM bonuses are awarded to either side.
- **Armor/AT:** There is no armor involved on either side.
- **Final DRM:** Because the attacker has a DRM of +10 (from RIBs), both sides will add 10 to their 2d10 DRs.

**Note:** Use the diagram below (left side).

- **DR:** The attacker rolls a “67” and adds 10 for a DR result of “77”. This result falls on the “DD” line (DR 75 to 85) under the 3:1 GA column of Line 3, in the attacker DR columns section. The defender rolls a “22” and adds 10 for a DR result of “32”. This result falls on the “SS” line (DR 31 to 45) under the 3:1 GA column of Line 3 in the defender DR columns section.
  - Each side cross-indexes their modified DR with the results immediately to the right.
  - The attacker receives a result of 1(1) against the defender, while the defender got a result of *9(1) against the attacker.

**13.8.2 Reading the GA Result**

Pictured above are example result columns from the GAT. Each GA result row (in the GA result column) contains one or more GA results. The possible results are:

- “*” (asterisk) requires a PR check.
- “(#)” (parenthesized) value between 1 and 3 represents mandatory step losses.
- “*#” (un-parenthesized) value between 1 and 3 represents discretionary hits.

All three results may appear either separately or in combination with each other.

**13.9.0 Applying GA Results**

The attacker, then the defender, applies the GA results that were inflicted upon their units until the total number of results has been satisfied. The sequence for doing this follows the order below.

**13.9.1 Conduct Required PR Check**

The asterisked (“*”) result is a proficiency check (4.4.1) that the affected side is required to make using the Lead-P unit (13.7.6). If the unit fails its PR check, one discretionary hit is added to that side’s total GA result.

**13.9.2 Resolve Mandatory Hits**

The parenthesized result value equals the number of mandatory hits inflicted upon the affected side.

- Mandatory hits must be taken as step losses, following the priorities in 13.9.2a. Maximum step loss applies (11.6.3).
- Remaining mandatory hits are then converted to discretionary hits.
- If during a GA or overrun the attacking side is able to generate at least one unmodified attacking armor factor, and the defending side cannot generate at least one unmodified armor or anti-tank factor, and the defender is not in a hex
with any type of covering terrain; mandatory hits may not be converted to discretionary hits. All mandatory hits must be taken as step losses; maximum step loss does not apply.

- If units cannot retreat even one hex (due to terrain or enemy units) all discretionary hits must be taken as step losses and/or fatigue hits. Maximum step loss does not apply.

13.9.2a Step Loss Priorities

- The Lead-P unit (13.7.6) must be the first unit to take a step loss.
- If armor/AT factors were used, the next step loss comes from the lead armor/AT unit (13.7.5).
- The third step loss must come from any engineer unit that used its capabilities for combat.
- Additional steps are then taken from any non-HQ, non-artillery units.
- Artillery and HQ units cannot be assigned losses until all other units in the defending hex have suffered at least one step loss.
- If units are non-attack designated in a Fort and all units have taken a step loss; and there are still mandatory hits remaining, up to the total remaining mandatory hits must be inflicted on the Fort. If the fort is eliminated the units may still ignore all discretionary hits and are not required to pass a PR check to remain in the hex (13.9.3).
- One Zero-step unit in a hex is eliminated for each mandatory hit suffered as a step loss (4.3.1a). These step losses do not count towards satisfying mandatory or discretionary hits.

13.9.2b Reduction of Mandatory Hits

The owning player may choose to reduce the number of mandatory hits by converting them to discretionary hits using the following methods. These options are not cumulative.

- Recon and CDO units may convert one mandatory hit. These units may not be stacked with any other type of unit (6.1.2, 6.1.3, & 6.1.4 apply).
- Non-attack designated defenders in a hex with an ET-3, may remove the ET-3, and reduce the number of mandatory hits by one (the ET-3 is not replaced by an ET-2). If this option is selected, the units would be required to pass a PR check to convert discretionary hits (13.9.3).
- Scenario rules may give conversion options due to certain types of terrain.

13.9.3 Resolving Discretionary Hits

Discretionary hits are resolved by retreat, inflicting additional step losses and/or by inflicting fatigue hits. Retreats are conducted using the retreat procedures in 11.6.4.

Note: Fatigue hits due to combat results are inflicted on all the units in a stack, not to individual units within the stack.

- Forts and non-attack designated units in a Fort or fortified area hex ignore all discretionary hits. Max step loss applies. All remaining mandatory hits converted to discretionary hits are ignored.
- Defending units reduce the number of discretionary hits suffered by one for every hex of retreat conducted by the attacking side.
- Each hex of retreat reduces the number of discretionary hits by one.
- Attack designated units in a hex that contains defensive works may remove the attack designation and withdraw into the defensive works to satisfy the last discretionary hit (i.e. all other hits must have already been resolved). If the units had more than one discretionary hit, they would have to pass a PR check (13.9.3a) to resolve additional discretionary hits prior to withdrawing into the defensive works. If they fail the check, they may not withdraw into defensive works. The defensive works and any units in them are ignored (i.e. they remain in the hex and do not suffer any result).
- If all units are able to retreat at least one hex, but all units are unable to retreat enough hexes to fulfill all discretionary hits for any reason (including maximum retreat distance) remaining discretionary hits must be taken as follows.
  - Remaining discretionary hits are inflicted as step losses up to the maximum step loss limit (previous losses count).
  - If there are discretionary hits remaining, convert a maximum of two discretionary hits into fatigue hits.
  - Remaining discretionary hits are ignored.
- If part of a retreating force retreats enough hexes to fulfill all discretionary hits, and part cannot, the units that were unable to fulfill the total discretionary hits are handled as if they failed their PR check (13.9.3a). If they are eliminated, prior to resolving all discretionary hits, the units that retreated the required distance ignore all remaining hits.

13.9.3a Convert Discretionary Hits

To voluntarily convert discretionary hits, the affected side must pass a PR check using the unit with the lowest PR involved in the GA (attacker uses attack PR, defender uses defensive PR). Non-attack designated units occupying an ET, Fort, or fortified hex are not required to conduct a PR check, they automatically pass.

Important: If more than one stack is attacking, the lead unit for the GA conducts the PR check for all attacking stacks.

Pass: Mandatory hits are inflicted in accordance with 13.9.2. Discretionary hits can be fulfilled in any combination of step losses, fatigue hits, and/or hexes of retreat as the owning player desires as long as all discretionary hits are resolved.

- Attack designated units that do not retreat may retain their attack designation.

Example 1: A defending Btn receives a 2(2) result. The owning player must take one mandatory hit (Max step loss). The second mandatory hit is converted to a discretionary hit. The owning player could choose to not make a PR check, retreat two hexes (max retreat for leg unit) and inflict one fatigue on the Btn. He could choose to make a PR check and if he passes, he has options on how to resolve the three discretionary hits. The Btn could:
  - Retreat one hex and take two fatigue hits or one fatigue hit and one step loss.
  - Retreat two hexes and take a fatigue hit or a step loss.

Example 2: There are two full strength Bnns defending in a hex with an ET-3, they receive a 2(2) result. They each would each suffer one step loss (Max step loss) and then could:
  - Remain in the hex, each Btn could suffer one additional step loss or eliminate the ET-3 and suffer one step loss to one Btn.
  - Remain in the hex and suffer two fatigue hits or eliminate the ET-3 and suffer one fatigue hit.
  - Eliminate the ET-3, retreat one hex and suffer one step loss to one Btn, or suffer one fatigue hit.

Fail:

- The units must retreat. Attack designated units must remove the designation. Each discretionary hit, up to the maximum retreat distance, is taken as one hex of retreat. In this case attack designated units may only withdraw into defensive works if there is only one discretionary hit to be resolved.
- If all units are able to retreat at least one hex, but all units are unable to retreat enough hexes to fulfill all discretionary hits for any reason (including maximum retreat distance) remaining discretionary hits must be taken as follows.
  - First inflict step losses on all units, up to the maximum step loss limit (previous losses count).
  - If there are discretionary hits remaining, convert a maximum of two discretionary hits into fatigue hits (max of 2) on all units.
  - Remaining discretionary hits are then taken on all units as step losses (max step loss does not apply).
  - If part of a retreating force retreats enough hexes to fulfill all discretionary hits, and part cannot, the units that were unable to fulfill the total discretionary hits apply the above. If they are eliminated, prior to resolving all discretionary hits, ignore remaining hits.
**13.10.0 Advance after GA**
Advances allow the active player to advance friendly units into and sometimes beyond hexes vacated by the defending player.
- An advance is a combat displacement, not movement.
- Defending units may never advance.

**13.10.1 Advance Eligible Units**
Any unit that participated in a GA may advance into the defending hex if that hex is vacated as a result of the GA.
- As few or as many of the attacking units may advance as long as stacking rules are not violated.
- Advance is not mandatory.

**13.10.2 Advance Procedure**
Units are advanced individually. The path of retreat consists of all the hexes vacated or passed through by retreat ing units.
- The first hex of advance must be into the hex the defenders occupied at the time of the GA.
- If the defender was eliminated in the original defending hex (did not execute any retreat) the attacker is free to determine the path of advance.

**13.10.2a Advance Distance**
The player conducting an advance may always stop it at any point. Certain conditions will force an advancing unit to stop prior to reaching its maximum allowable advance distance. Count the defender’s hex as the first hex of the advance.
- Units in tactical mode may never advance more than one hex (i.e., into the defender’s hex).
- Leg units in PA mode may never advance more than two hexes.
- Mech units in PA mode may never advance more than four hexes.
- If all the defending units are eliminated prior to any retreat, advancing units may never advance more hexes than the total unfilled hits (both mandatory and discretionary).
- Movement halts (7.3.3) do not apply when entering the first hex of an advance. However, they do apply when attempting an advance into another hex.
- Mech recon units may advance one hex farther than the path of retreat allows if advancing into hexes solely along roads or clear terrain (i.e., Mech recon units may advance up to five hexes if the advance is solely along a road).

**13.10.2b Advance Path**
Advancing units normally follow the path of retreat chosen by the defending player. The following are exceptions to that rule:
- Mech units may deviate from the path of retreat if all hexes entered (including the first) is clear terrain or those hexes connected by any type of road.
- If the defender was eliminated after retreating at least one hex, the attacker must follow the path of retreat to the hex in which the defender was eliminated. At that point, if there are unfulfilled discretionary or mandatory hits remaining, the attacker is free to determine the path of advance.
- If an enemy force is unable to continue retreating or unresolved hits are converted into fatigue or additional step losses, the attacker is free to determine the path of advance for any remaining advance.

**13.10.2c Terrain**
An advancing unit can never enter terrain that would be prohibited to it during regular movement. It may do so along a road if that road would allow such a unit to move into the hex.
- Mech units cannot advance into more than one constricted, woods, forest, or marsh/swamp/soft ground hex unless the advance is along a road.
- Leg units that advance across a river must stop in the first hex after crossing the river unless an intact bridge exists over that hexside.

**13.10.2d ETs/Fortifications**
Advancing units must stop if they advance into a hex adjacent to an ET, Fort, or fortified area hex. Forts and fortified area hexes do not need to be occupied by enemy units.
*Note:* See 13.3.2 for restriction on pure AFV units attacking out of marsh/swamp/soft ground hexes.
- Leg units that advance across a river must stop in the first hex after crossing the river unless an intact bridge exists over that hexside.

**13.10.2f Night GAs**
Units may never advance more than one hex during mud conditions.

**13.10.2g Fuel**
- Mech units whose formation is in a “No Fuel” status may not advance.
- Mech units whose formation is in a “low fuel” status, and whose MA is at least 6 MP., but less than full may only advance one hex.

**13.11.0 Removal of AS Markers**
At the end of the GA segment all AS markers are removed.

**14.0 FATIGUE**
Fatigue represents two things: the physical limit of pushing soldiers and their military organizations beyond the limits of human and material endurance, and the disruptive nature of combat. In essence, fatigue functions as a form of disruption.

**14.1 How Units Are Fatigued**
There are several ways for a unit to become fatigued:
- Failure to fully resolve a retreat or satisfy step losses.
- Air interdiction results.
- Conducting ENA activity or certain activities during rest turns (3.5.0).
- Defending at full strength during an ENA turn.

**14.1.1 Fatigue & Unresolved Hits**
A unit may suffer fatigue due to a FS mission or GA if maximum step loss applies (11.6.3). Each hit taken as fatigue equals one level of fatigue (fatigue hit) that is inflicted on each unit of the stack.

**14.1.2 Fatigue & ENA**
Units that conduct activity during an ENA period will suffer fatigue unless they are in a maneuver reserve bonus period (5.4.6) or they elect to defend against a GA at one-half of their current combat strength.

**14.1.2a Unit ENA & Fatigue**
Actions taken by both sides may inflict fatigue hits during an ENA period. All fatigue hits for both sides are inflicted at the end of each player’s ENA period. Units suffer fatigue hits during ENA as follows:
- A unit suffers one fatigue hit if it spends any MP.
- A unit suffers one fatigue hit if it conducts a GA or an offensive FS mission.
- A unit suffers one fatigue hit if it defends at full strength, or conducts a defensive FS mission.

**Exception:** Units that are in a MR bonus period are not subject to fatigue during ENA.

**Example:** Two German units are activated for ENA, both units move using MP and then conduct a tactical assault. Both sides commit two artillery units to the combat and the defender decides to defend at full strength. At the end of the German player’s ENA turn, the two German units that moved and attacked would suffer two fatigue hits and the two German artillery units would receive one fatigue hit. The Allied defending unit and the two artillery units would all receive one fatigue hit.

**14.2.0 Recording Fatigue**
When a unit suffers fatigue, it is marked with a fatigue marker (Fatigue 1 or Fatigue 2). A unit can suffer a maximum of two fatigue hits.

**14.3.0 Effects of Fatigue**
Fatigued units operate at less than full efficiency. A fatigued unit cannot generate RIBs or CR bonuses. It may not conduct construction or demolition of any kind. Fatigued engineers lose all of their combat engineer capabilities.

**14.3.1 Effects of Fatigue-1**
Units with a Fatigue-1 marker suffer a 50% reduction in MA and combat
14.3.2 Effects of Fatigue-2
Units with a Fatigue-2 marker cannot attack. Their MA and defense strengths are quartered.

14.4.0 Recovery from Fatigue
Units may recover a maximum of one fatigue hit during the fatigue recovery segment of a friendly Administration Phase. A unit may recover one fatigue hit if it did not move or participate in a ground assault in the immediately preceding friendly Movement and Combat Phases and if it:
- Is a Mech unit, not adjacent to an enemy unit and who cannot be observed by an enemy ground unit.
- Is a Leg unit, that cannot be observed by an enemy ground unit (dismounted units qualify as leg units in this case, under 7.8.1b).

During a lull (24.0), all units on both sides recover from all fatigue at the start of the GT that the lull ends, unless units of their formation participated in a GA during the previous GT.

15.0 SUPPLY

Overview: Both side’s HQs and units require supply to function at full effectiveness. There are two kinds of supply used in the game:
- General supply (GenS), requires tracing a supply path from a primary supply source (PSS), through HQs in the command echelon (9.0) and finally to the individual units.
- Ammunition and fuel logistic system. HQs have their GenS status checked during the command segment of the Command Phase (3.3.3). Non-HQ units have their GenS status checked during the supply determination segment of the friendly Administrative Phase (3.3.5g).

The ammunition/fuel logistics system is a point-based system requiring the use of truck points to deliver ammunition (needed mainly for artillery use) and fuel points (required to move MUs) and is detailed in 16.0. Any degradation of HQ or unit supply status is recorded directly on the unit or HQ through the use of markers.

Note: The term formation HQ, is used in the following rules to describe any HQ, especially in the case of a corps HQ, which in turn traces to a formation HQ, and finally from the formation HQ to the unit. GenS does not require the use of points if the supply path is traced from a valid PSS. The existence of a valid supply path traced to a unit places the unit in GenS until the next required check.

Being out of supply (OoS) will affect a HQ’s ability to provide supply to subordinate HQs and units. It will also reduce the movement and combat strengths of affected units. A unit that is OoS operates at reduced effectiveness and is in danger of surrendering if it is isolated.

Designer’s note: While this process may seem long and tiresome, in reality, in most cases players will find that most turn’s supply determinations can be made at a glance.

15.1.1 When GenS is Determined
GenS is determined by tracing supply paths during the phases listed below.

15.1.1a GenS & HQ
HQ units determine their supply status during the command segment of the Command Phase.

15.1.1b Gen S & Units
Non-HQ units, determine their GenS status during the supply determination segment of the friendly Administrative Phase.

15.1.2 Supply Status
A valid supply path is defined as a supply path traced in accordance with 15.2.0. A unit or HQ is always in one of five supply states:

In GenS: A unit or HQ is in GenS if it has a valid supply path from its PSS (15.2.0).
In GenS, not supported: The HQ is in GenS, the owning player does not or cannot provide the required logistical support to sustain offensive operations (15.4.0).

On hand supply (OhS): A unit/HQ does not have a valid supply path, but the unit/HQ has enough supply to continue normal operations (15.5.0). The unit/HQ is marked with an on hand supply (OhS) marker. A unit/HQ can be in OhS and isolated. Mark the unit/HQ with an OhS marker.

Out of supply (OoS): A unit or HQ is unable to trace a valid supply path from its PSS and has consumed it’s on hand supply. Mark the unit/HQ with an OoS marker.

Out of Supply & Isolated: A unit or HQ does not have a supply path, of any length, traced to it from the next level of supply, and has consumed its available on hand supply. Units/HQs that are isolated and OoS may surrender (15.7.2). Mark the unit/HQ with an “Isolated” marker.

15.2.0 Supply Paths
A supply path is a series of contiguous hexes (a “path”) that is traced in the following order:
- PSS to army HQ
- Army HQ to corps HQ
- Corps HQ to formation HQ
- Formation HQ to unit
- An army HQ may not trace a supply path to its corps or formations thru another army’s ZOP.
- A corps HQ may not trace a supply path to its formation HQ thru another corps ZOP.

Note: In some games one or more of the above HQ may not be present and thus not a required part of the full supply path.

15.2.1 Supply Paths & Enemy Units
A supply path may:
- Not be traced into an enemy occupied hex.
- Be traced into, but not through, an unoccupied hex that would generate a movement halt against friendly units moving into the hex (7.3.3).
- Not be traced into more than two hexes that are adjacent to enemy units (they do not have to be the same enemy unit).

15.2.2 Supply Path Movement Class
- The movement class of a supply path that is traced from a PSS to army, corps, and finally formation HQ must be mechanized.
- The movement class of the supply path from a formation HQ to its subordinate units depends on the type of formation HQ being traced from (9.3.3a).
- When counting MP do not add in cost of moving adjacent to enemy units. When tracing supply during a Night GT, do not use night turn MP costs.

15.2.2a Mech Class Supply Paths
Mech class supply paths cannot be traced through terrain that is prohibited to MUs unless a road is being used. This supply path is measured using the MP cost listed under the Mech Move columns on the TEC. Mech class supply paths can only be traced over a river if a bridge or ford exists on the hexside being crossed.

15.2.2b Leg Class Supply Paths
Leg class supply paths can only be traced through terrain that leg units could enter using regular movement. This supply path is measured using the MP cost listed under the Leg Move columns on the TEC. Leg class supply paths may only cross an un-bridged, un-forded major river if an engineer unit (of any size) is present and adjacent to the hexside to be crossed at the time supply is determined. A supply path crossing a major river in this way costs three MP. The engineer unit may not be in the process of construction when used as a supply ferry.

15.2.3 Supply Path Length
The length of a supply path is measured using movement points in the same manner as when moving a unit. Enemy units can also prevent the tracing of a valid supply path (15.2.1). The MP cost for a primary road hex is one-third, and for a secondary road hex, one-half, when tracing Mech class supply paths.
15.2.3a HQ to HQ Supply Path
Supply paths from a PSS to a HQ or from a HQ to a subordinate HQ is considered an HQ supply path and can only be traced through clear terrain or along secondary or primary roads (not trails). HQ supply path length is limited as follows:

• It cannot exceed 18 Mech class MP.
• HQs may increase their supply path length but that supply path is then considered extended and suffers the affects listed in 15.2.4.

15.2.3b HQ to Unit Supply Path
When tracing from a HQ to a unit, the length of that path is limited as follows:

• Leg formation supply paths cannot exceed 12 Leg class MP.
• Axis Mech formation supply paths cannot exceed 12 Mech class MP.
• Allied Mech formation supply paths cannot exceed 18 Mech class MP.
• Mech formation HQs can choose to trace a supply path using Mech class or Leg class movement costs. This decision must be made prior to tracing a supply path to each individual unit. Each path may only utilize one movement class rate during the current phase.
• If a Truck Point from the army truck point total is assigned to a leg formation HQ, all units of that formation can use the Mech class supply path MP.
• If a unit is in GenS (not extended) all adjacent friendly units who are subordinate to the original unit’s superior HQ is also in GenS. The hexside between the two hexes cannot prohibit tactical movement or consist of an un-bridged river hexside.

**Exception:** Engineer units may allow tracing a supply path over a river (15.2.2b).

15.2.4 Extended Supply Paths
Supply paths can be lengthened by one third (example 18 to 24). That supply path is then considered to be extended.

• If a PSS to army HQ’s supply path is extended, all logistic delivery DRs for that army suffers a -2 DRM (16.2.0).
• If any part of an HQ’s supply path is extended, that HQ suffers a -2 DRM to its Fuel value DR (16.4.4).
• If any portion of a unit’s supply path is extended and that unit participates in a ground assault, the ground assault incurs an un-favorable shift.
• If any portion of an artillery unit’s supply path is extended, all ammo depletion (AD) and replenishment DRs suffer a +2 DRM (16.3.4).

15.2.4a Additional Trucks
Corps, formation, and independent BG may dismount Mech Infantry to provide additional trucks to keep units operating at normal levels when using extended supply. Trucks used for this purpose may not come from the army’s available truck points. An army HQ may not use this procedure to extend its supply path.

• In the Logistics and Transport Phase, a player may dismount three Btms, to garner one Truck point. An Allied infantry division may use its inherent truck point (players should note which division(s) have detached their inherent truck point.
• The player then places one truck point counter on the HQ of the formation or corps that he wishes to support for extended supply.
• When determining GenS for a HQ with truck point support, the HQ may use the extended supply path to its subordinate HQ and or units without incurring the penalties outlined in 15.2.4.
• During any following Logistics and Transport Phase these truck points may be returned to their parent organization. Btms dismounted for this purpose are automatically mounted during this phase.
• Leg formation HQ using army TP (15.2.3b) require a second truck point to extend their supply path.

Example: During the Logistics and Transport Phase of the June 20 GD, the US 2nd Infantry Division is noted as detaching its inherent transport (1 TP). A US Motorization marker is placed on the division HQ. The 2nd Infantry Division now use extended supply paths when determining GenS for all subordinate units. The TP could have been used to support the V Corps (the superior HQ for the 2nd). In this case the V Corps could use extended supply path to all its subordinate formations, however each formation would require a TP to extend its supply path to subordinate units.

15.2.4b On Hand Supply Paths
An HQ in on hand supply (OhS) can only trace a supply path that is one-half its normal supply path distance.

15.2.4c Supply Paths & Weather
Certain ground conditions reduce supply path length.

• Mud: all supply paths are reduced by 3 MP unless the path is traced exclusively along primary or secondary road.
• Snow: all supply paths are reduced by 1 MP unless the path is traced exclusively along primary or secondary roads.

15.3.0 Primary Supply Source
The first step in determining GenS is for a player to locate his side’s PSS(s). Scenario rules will provide each side with the location of their applicable primary supply sources. In some scenarios one side or the other may be restricted to a specific PSS for each army. In other scenarios army HQs may be located off map. Corps and/or formation HQs may be required to trace directly to a PSS.

15.3.1 PSS to Army HQ
After locating a PSS, players determine if a valid supply path can be traced from the PSS to the army HQ. If a path can be traced, that army HQ is in GenS.

15.3.2 Army HQ to Corps HQ
Next, players determine if their corps HQs are in GenS by determining if a valid supply path can be traced from the army HQ to its subordinate corps HQs. If a path can be traced, that corps HQ is in GenS.

15.3.3 Corps HQ to Formation HQ
Players must then trace a valid supply path from the corps HQ to its subordinate formation HQs. If a path can be traced, that formation HQ is in GenS.

Note: While conducting Strat movement, or due to special rules, formation HQ may be subordinate directly to an army HQ (9.0), in which case they trace from that HQ rather than a corps HQ.

15.3.4 Formation HQ to Units
Finally, players must trace a valid supply path from each formation HQ to each subordinate unit. Supply paths for corps and army asset units are traced from any formation HQ that is subordinate the same corps or army.

Example: The German unit’s HQ is off the east side of the pictured map, within one Leg MP of hexes, 2606 and 2607. The II/78 and I/27 Inf Btns are well within their supply path distance and are in GenS. The I/78 Btm does not have OhS and is thus OoS, but is not isolated due to being within 2 hexes of a supplied friendly unit. II/27 Btm is OoS and isolated due to it not being able to trace a valid supply line and being more than two hexes from a supplied friendly unit.

15.4.0 Supply Capacity Limits
There is no limit to the number of corps or formation HQ that can trace GenS from a single HQ. The ability of an army/corps to support corps and formations is limited by that HQ’s ADV. Formations that are in army reserve, MR mode, or are using Strat movement do not require HQ support, and
thus;
- Are not counted when determining ADV adjustments.
- Are not counted when determining the number of supported formations.
- Are still considered assigned to a corps or army HQ.
- If an HQ cannot trace a valid supply path from its superior HQ, it is also not counted when adjusting ADV.

**Note:** Trying to support an excessive number of HQs with a superior HQ will reduce the ADV of the HQ to a point where it is unable to support all corps and/or formations.

### 15.4.1 Army HQ Support

An army HQ can provide GenS and support for any number of corps HQ. It may also provide GenS for up to 12 army asset units (those units attached directly to an army HQ). Units above the 12-unit limit are OoS. An army HQ may only provide support for up to three corps HQ without affecting its ADV.

- If an army supports more than three corps, reduce that army’s ADV by one for every corps more than three that it supports. A player may choose not to support a corps, and thus not suffer the modification to the army’s ADV.
- If an army supports less than three corps, that army’s ADV is increased by one.
- The owning player always determines which corps are supported and which are not.

**Example 1:** An army’s ADV is three and four corps are assigned to that army. If a player decides to support all four corps, the army’s ADV is reduced to two.

**Example 2:** An army’s ADV is six. There are five corps assigned to the army and the player wishes to support all five corps, therefore, the army’s ADV is modified to four.

**Example 3:** An army’s ADV is three. Only two corps are assigned to the army, therefore that army’s ADV is increased to four. (If there was only one corps assigned, the army’s ADV would still be only modified to four).

### 15.4.2 Corps HQ Support

A corps HQ can provide GenS and support for any number of formation HQ. It may also provide GenS for up to 24 corps asset units. Units above the 24-unit limit are considered OoS.

#### 15.4.2a Formation Value

Each type of formation or BG is counted (for support/ADV purposes) as follows:

- All Allied divisions and all Axis tank, Pz, PzGd, or Mot divisions count as one formation.
- Axis non Pz, PzGd, or Mot divisions or independent BG and all Allied independent BG and cavalry groups count as one-half a formation.
- Always round a fractional number of divisions down to the nearest whole number.

**Note:** Attachments to a division count as part of the division, do not count attached BG separately.

#### 15.4.2b Corps Support

- If a corps provides support for more than three formations (counted as specified in 15.4.2a), reduce that corps’ ADV by one for every formation more than three that it supports. Non-supported corps are not counted towards the total formations supported.
- If less than three formations are supported by a corps, that corps’ ADV is increased by one.
- Rules 15.4.1 and 15.4.2 can simultaneously affect an army HQ and the corps HQs tracing GenS to it in such a way that the number of formations able to trace GenS can vary in different ways.

**Example:** A German army HQ has an ADV of four and supports four corps. Therefore, the army ADV is reduced to three, so each corps has an ADV of three. Two of the German corps support three formations each, so their ADV of three remains unchanged. The fourth corps supports only two formations, so that corps’ ADV is increased to four.

**Note:** Players may track which HQs are supported and which are not in any manner they wish. To keep opponents from knowing exactly which HQs are not supported, it is recommended that players note which HQ are not supported on a separate piece of paper.

#### 15.4.2c Not Supported Effects

Corps or formation HQs that have GenS traced to them, but which are not supported (15.4.0), are unable to operate at full operational capacity. Units subordinate to an unsupported corps or formation HQ are affected as follows:

- Subordinate artillery units have an ADV of zero.
- Subordinate units may not be attack designated unless AmP are expended from the army stockpile. Each AmP expended allows the unsupported HQ to attack designate one unit or stack PA or two units or stacks to be designated with a tactical assault marker.
- Unsupported defending units receive unfavorable column shifts.
- Ammo Depleted artillery cannot be replenished by DR; AmP must be expended.

#### 15.4.2d ADV & GA Limits

Each formation assigned to a corps may conduct one PA or two tactical assaults per point of corps ADV.
- A player may conduct any combination of the above as long as the limit is not exceeded.

- For every army AmP expended for a formation or BG, one additional PA or two additional tactical assaults are allowed for that formation or BG.

**Note:** Players may not place units in PA/TA mode where such placement would force the player to conduct more GAs than are allowed by this rule.

**Example:** (Continuing the example from 15.4.2b.) In the first two corps, since their final ADV is three, each formation assigned to those corps would be allowed three PA assaults or two PA and two tactical (or some other combination not to exceed the equivalent of three PA per GT). The third corps ADV is four, thus each formation could conduct a maximum of four PA or some combination of tactical and PA GAs that would not exceed the total of four.

**Designer’s note:** These rules simulate the fact that in many cases, while an HQ may have been able to receive supplies their superior HQ may not have been able to provide the amount of ammunition and other required items to sustain any kind of offensive action that would show up at this level of play. Players now have to make choices to determine which formations and/or corps receives the support required to conduct offensive actions.

### 15.5.0 On Hand Supply

A unit with an OoS marker continues in that supply status until it has expended it’s on hand supply, or a valid supply path can be traced to the unit during any friendly supply determination segment. OoS will allow a unit to function as though it is still in GenS (with exception of supply path distances 15.2.3). If a unit conducts activity that would use its on hand supply, the unit goes OoS. HQs using OoS may operate normally and provide GenS to subordinate units until they go OoS. HQs that do not have a valid supply path traced to them, or which are “pocketed” by enemy units, can continue to supply the pocket in this fashion.

**Note:** The term pocket is intentionally not defined; players should use common sense here.

### 15.5.1 HQs & On Hand Supply

During the Command Phase if a valid supply path cannot be traced to an HQ; that HQ goes into an OoS status. The owning side must immediately determine the number of OoS supply is available to that HQ unit. Roll 1d10 and apply the following DRMs:

- -4 if it is a formation HQ.
- -3 if it is a corps HQ.
- -1 if a supply path of any length cannot be traced to the HQ.
- +1 if the HQ is in a town or city hex.
- +2 if it is a US HQ.

The above DRMs are all cumulative. If the modified DR is:
15.5.2 Units & OhS Usage
Non-HQ units with an OhS marker go OoS immediately after:
• Using more than one-half of their printed MA.
• Conducting an offensive GA.
• Defending against a GA using more than one-half their defensive combat strength.
• Using more than three MPs if in Exploit mode. A unit in Exploit mode may conduct an overrun and not go out of supply if it uses no more than three MPs and participates in the GA using only one-half of its attack combat strength.
• An artillery unit participates in a FS mission.

Important: Units that are supplied by an OhS HQ are not considered OhS, they are considered in GenS until the first friendly Administrative Phase after their superior HQ was found to be OoS.

15.6.0 OoS Effects
Units that are found to be OoS suffer limitations as listed below.

15.6.1 Unit Modes
Units that are OoS may not be placed into PA or Exploit mode.

15.6.2 Engineer Units
OoS engineer units lose all special combat engineer abilities. An OoS unit may construct IPs, but may not engage in any other type of construction or demolition.

15.6.3 Unit Movement
The MA of all units that are OoS is halved (round fractions up.) Units in Exploit mode must immediately revert to tactical mode. An OoS unit may not use Strat movement and may not be marked with a CR marker.

15.6.4 Combat
OoS units have their current combat strengths (attack and defense) reduced by one-half (round fractions up). OoS artillery units are considered to be ammo depleted. The armor/AT values of units that are OoS are not affected.

15.6.5 HQs
All OoS HQ units may not provide GenS to subordinate units. An OoS HQ cannot count any of its subordinate units as the nearest unit air observer for Allied air observation (8.3.0).

15.7.0 Isolation
A unit that cannot trace a supply path of any distance, is isolated if there are no friendly units in GenS within three (two intervening) hexes of the unit.

15.7.1 Isolation Effects
Isolated units that are OoS are susceptible to surrender and may not be designated as a spotter for FS missions. During the Command Phase, each side checks to see if any of its isolated OoS units surrender.

Isolated OoS units may also surrender prior to defending in GA.

15.7.2 Surrender
Determine if units surrender by conducting a defensive PR check for each stack. Roll 1d10 for each stack and individually check pass/fail for each unit. If a unit fails the PR check, surrender occurs and that unit is removed from play.

Important: Units that surrender or are eliminated in any manner while isolated do not garner replacement points, and should be kept separate from other eliminated units as these units cost additional ReP when resurrecting them.

15.7.2a Surrender DRMs
The following DRMs apply to surrender checks:
• +2 DRM for each AM GT (after the first) that a unit remains OoS. Players can use a bridge bottleneck marker to keep track of this by placing it under the unit’s supply condition marker.
• +1 DRM if any other unit within two hexes (one intervening hex) has already surrendered during that GT.

15.8.0 Depots
Due to the distances involved in tracing GenS paths, the concept of depots has been introduced to serve as extensions of the standard GOSS GenS path from an army’s PSS to the army HQ. Scenario rules will outline if depots can be used and the procedures for activation.

15.8.1 Depot Supply Paths
Depots extend the distance from a PSS to an army HQ. An army HQ may trace GenS from its PSS as follows:
• From the PSS to a depot, then to the army HQ.
• From the PSS to a depot, and then to another depot and so on until it reaches the army HQ.
• Each leg of the supply path can be no longer than 18 Mech MP.

15.8.2 Relocating Depots
An army may relocate a depot. Relocation procedures are conducted during the Transport and Logistics Phase. It takes two GDs to relocate a depot. An army may not activate additional depots during this two GD process.
• Subtract one-half of the TP assigned to the depots’ superior army HQ. They may be used for no other purpose until the depot is placed at its new location.
• Remove the depot from the map and place it two GDs ahead on the GTRT. The depot may be placed on the map on that GD or on any later GD.
• On the GD the depot is placed on the map, expend six fuel points.
• The depot must be placed in the same hex as the army HQ and that hex must be a city or town hex.
• The army HQ may not be using extended GenS path.

**Example:** 1st Army wishes to move its depot from Isigny to the location of the 1st Army HQ (St Lo) on the July 1 GD. During the Transport and Logistics Phase, after determining fuel and AmP delivery, the US player removes the depot from the map and places it on the GTRT on the July 3 GD. He immediately expends six FP from the army stockpile. The number of TP assigned to the 1st Army is six thus the Allied player reduces the number of TP available for the army by three. These TP become available after the depot is placed. The depot is relocated to St Lo on July 3 after determining fuel and AmP deliver. The withdrawn TP are available the next GD.

**Note:** Moving a depot requires that the depot being moved be de-activated. While this affects GenS path length, it does not affect the ability of an army to operate under the GOSS Logistics Rules.

### 16.0 LOGISTICS & TRUCKS

Ammunition/fuel Logistics rules model an army’s supply of artillery ammunition and fuel delivery system. Each side controls the flow of ammunition points (AmPs) and fuel points (FPs) by adjusting a number of truck points (TPs) it assigns to haul each. Scenario rules will list the number of TPs available to each side, along with any other special rules that pertain to ammunition or fuel usage.

**Note:** Some games in the system may require the use of some, or even none of the rules listed in this section.

**Amp & Artillery Overview**

A player can only conduct FS missions with artillery units that are not ammunition depleted (AD). Each FS mission requires an ammunition depletion check DR. If the DR exceeds the army/corps HQ ammunition depletion value (ADV) a number of participating artillery units equal to the difference are marked AD. AD artillery units can be replenished by expending AmPs or by passing a replenishment DR.

**FP & Mech Movement Overview**

Mech formations and all army/corps HQs require FP to allow their subordinate MUs to move in a normal fashion. If sufficient FPs are not allocated to HQs, subordinate MUs will have a low or no fuel status, both will severely affect their movement.

**TP & Logistic Table Overview**

TPs assigned to armies allow players to adjust the mixture of ammunition, fuel, and motorization of leg units for that army for the entire GD. Each TP is tasked to carry ammunition or fuel, or to motorize units. The TPs assigned to ammunition or fuel is used in conjunction with the Logistics Table to determine how much ammunition or fuel is received by each army.

### 16.1 Truck Points (TPs)

TPs are an abstract design mechanic used to represent a stressed logistical transport system operating at less than optimal efficiency. When a side historically operated without severe logistical transport constraints, the use of TPs and the Logistic Table is suspended.

#### 16.1.1 Truck Availability

Each side is assigned a number of TPs by scenario instructions. Sometimes they are assigned directly to an army, and sometimes their assignment is left to the player’s choice. TP must always be assigned to one army. Do this by noting the TP assignment on an army’s Logistic record track and by moving the TP marker up or down one box for each TP gained or lost.

#### 16.1.2 TP Assignment

During the Transport and Logistic Phase, players must assign each available TP to one task. There are three possible tasks:

- Transport ammunition.
- Transport fuel.
- Motorize units.

**16.1.2a TP & Ammunition**

TPs assigned to carry ammunition affect how many AmP are delivered (i.e. the more TP assigned the higher the number of AmP). TPs carrying ammunition are recorded by adjusting the ammunition TP marker on the army track.

- Allied armies must assign at least one TP to transport ammunition for every corps supported by that army. If there are not enough TP available to provide the minimum number of TPs to carry ammunition, then the number of supported corps must be reduced.
- Axis armies must assign at least one TP per army to transport ammunition.

**16.1.2b TP & Fuel**

TPs may be assigned to transport fuel. More TPs carrying fuel means that more FPs arrive in that army’s fuel stockpile. TPs carrying fuel are recorded by adjusting the Fuel TP marker.

**16.1.2c TP & Unit Motorization**

TPs that are used to motorize units are recorded using the army TP motor marker. Each TP used this way will allow a player to motorize three units in that army (7.8.3). TPs assigned to motorization can also increase leg class supply paths (15.2.3b) or transfer AmP from one army to another (16.3.3b).

### 16.2 TP & Logistics Table

After TPs have been assigned to an army and allocated tasks, the owning player determines what has actually been delivered. The owning player must make delivery DRs for each task.

#### 16.2.1 Ammunition & Fuel Delivery

Roll a 1d10 for each task (ammunition and fuel). Cross-index the number of TPs (along the left column) assigned to that task with the DR (along the top row). The middle of the Logistics Table is composed of columns that represent Ammunition delivery (left side of the slash) and Fuel delivery (on the right side of the slash).

**16.2.1a Logistic Table Results**

Rows zero through seven, counting from the bottom up, contain a result consisting of the two delivery values described in 16.2.1.

- The results in row eight fuel delivery only.
- The maximum number of TPs that can deliver ammunition is seven (additional TPs can be assigned to carry ammunition, but they are only used to absorb losses caused by strategic interdiction missions).
- Fuel delivery is the number of fuel points delivered to that army’s stockpile.
- Ammunition delivery is the total AmP delivered to that army’s stockpile.

**16.2.1b TP Delivery DRMs**

A -2 DRM applies to both delivery DRs if the PSS to army HQ supply path is extended (15.2.4).

**16.3.0 Artillery Ammunition**

The supply of ammunition for each side’s artillery units is handled by using the ADV and stockpiled AmPs as recorded on each side’s army record tracks.

**16.3.1 Ammunition Depletion (AD)**

When an artillery FS mission is conducted, the firing player makes an AD check by rolling a 1d10. If the DR result exceeds the corps’ ADV, a number of artillery units equal to the difference between the DR and the ADV (subtract AD from the modified DR) are ammo depleted (AD). Which artillery units that are depleted is up to the owning player. The artillery units must have participated in that mission. Ammunition depletion DRMs are listed in 11.8.0 and on the FS mission Charts.

**16.3.2 Ammunition Delivery**

Each Army and corps ADV is tracked on that army’s Record Track. Use the army ADV marker by placing it in the numbered box equal to the current ADV of that army. Scenario rules will list the ADV of all armies in play. If a new army arrives, players will be given its ADV by the scenario rules. In some games, a side’s ADV will remain constant. In other games, ADV will vary due to strategic conditions outside of player control. Naval unit ADVs (if any) are provided in the scenario rules.

**Note:** Beginning with AW, corps ADV markers are provided. Players should feel free to use those markers or make their own.
own to aid in tracking corps ADV in other GOSS games.

16.3.2a Adjusting ADV

Follow the below steps to determine army and corps’ ADV.

**Important:** At no time may an army or corps have an ADV greater than eight or less than zero.

**Step 1:** Place the army ADV marker in the appropriate numbered block corresponding to its ADV, as set by the scenario.

**Step 2:** The army may expend ADV to create AmP. Each ADV expended creates two AmP.

**Step 3:** Adjust the army’s ADV as determined by the number of corps supported (15.4.1). An army cannot support a number of corps that would require its ADV to be adjusted to less than zero. If a corps is not supported, that corps has an ADV of zero and no further adjustments to that corps’ ADV can be made.

**Step 4:** Determine the number of AmP delivered (16.2.1).
- If the result is a negative number, a number of AmP from the army’s stockpile equal to the result must be removed. If insufficient AmPs are in the stockpile, reduce the army’s ADV by one for every two points of the result. The negative result must be covered by first removing all AmP in the stockpile, and then reducing the army ADV by one for every two points remaining (round up).
- If the result is a positive number, add the result to the army’s AmP stockpile.

**Step 5:** Assign each supported subordinate corps an ADV equal to the adjusted superior army’s ADV.

**Step 6:** Adjust supported corps’ ADV determined by the number of supported formations (15.4.2). A corps may not support a number of formations that would require its ADV to be adjusted to less than zero. If a corps is not supported no adjustment is made and all of the subordinate formations/units suffer the non-supported penalties.

**Step 7:** Expends AmP to increase army and/or supported corps ADV. For every two AmP expended, the army or one corps ADV may be raised by one.

**Note:** Expending two AmP increases one corps ADV by one. It does not increase all supported corps. Increasing an army’s ADV in step 7, by expending AmP does not affect subordinate corps ADV.

**Example:** The Allied 1st Army has an ADV of 3 (as assigned by the current scenario) and he has 4 AmP in stockpile.
- **Step 1:** He places the army’s ADV marker on the Logistic Track in the three block.
- **Step 2:** He decides to create 2 AmP and thus lowering his army ADV to 2 and increasing his AmP in stockpile to 6.

**Step 3:** He has four corps (V, VII, XII, and XIX) assigned to the 1st Army. He chooses to support only two (V and VII). The XIX and CII are assigned an ADV of zero. Their ADV cannot be adjusted in any manner. Since 1st Army is supporting two corps, the army’s ADV is increased to 3.

**Step 4:** The 1st Army has 3 trucks assigned to ammunition. He rolls 1d10 and consults the three line. The DR is 5 and there are no DRMs in effect. He then consults the Logistics Chart, cross referencing the 3 line with the 5 column with a result of +4. He adds the 4 AmP to his stockpile giving him 10 AmP in stockpile.

**Step 5:** The V and VII Corps ADV are now set equal to the 1st Army’s ADV of 3.

**Step 6:** The V Corps has a total of 4 formations assigned and he decides to support all 4. He adjusts the V corps’ ADV to 2. The VII Corps has 3 formations and once again he decides to support all 3. The VII Corps ADV remains at 3.

**Step 7:** Since he intends on launching a major offensive with the V Corps, he expends 6 AmP to increase V Corps’ ADV from 2 to 5. The effective ADV of the 1st Army and subordinate corps are as follows:
- 1st Army: 3
- XII and XIX Corps: 0
- V Corps: 5
- VII Corps: 3
- 1st Army stockpile: 4 AmP

16.3.3 Ammo Points (AmPs)

AmP are received as a function of the Logistics DR and by converting ADV to AmP during the Transport and Logistics Phase as described above in 16.3.2a or by specific scenario instructions. Move the AmP marker on the track to the right or left as AmP are accumulated or expended.
- A maximum of ten AmP can be created per Transport and Logistics Phase.
- A maximum of twenty AmP can be in an army’s stockpile at the beginning of a Transport and Logistics Phase.
- A maximum of forty AmP can be in an army’s stockpile, if the army has at least one active depot.

16.3.3a AmPs & Replenishment

AmP may be used to replenish AD artillery units during any friendly or enemy replenishment segment (16.3.4).

If a corps’ ADV is zero, artillery units may only replenish if using AmP (they may not attempt to roll for replenishment).

16.3.3b Transfer of AmPs

AmP can be transferred between armies during the Transport and Logistics Phase.

For every TP that an army commits to this task, two AmP may be transferred. The TPs used for this task are drawn from the total TPs available for unit motorization, and are not available for other tasks for the entire day. Adjust the AmP markers of both armies to reflect the increase and decrease between the two army stockpiles. Transferred AmP are available for immediate use.

16.3.3c AmPs & Supporting GA

If a formation is not supported by its corps HQ, units subordinate to that formation may not conduct a GA unless an AmP is expended by the army HQ. For each AmP expended, units assigned to that corps may conduct one PA or two tactical GA.

**Note:** If a corps HQ is not supported by its army HQ, all of the formations assigned to that corps are also not supported.

16.3.4 Artillery Unit Replenishment

Replenishing artillery units by DR may occur only during a friendly replenishment segment. Roll 1d10 for each unit attempting to replenish. If the attempt fails, the unit may not be replenished using AmP in the same segment.

**DR replenishment succeeds if the DR is equal to or less than the ADV of the superior HQ. Artillery units subordinate to a corps, use that corps’ ADV. Artillery units subordinate directly to an army, use that army’s ADV. The AD marker is removed from the unit.**

**Note:** If the attempt is unsuccessful, the AD marker stays on the unit. Only one such attempt may be made in the same phase.

16.3.4b Replenishment by AmPs

Replenishment by AmP may occur during any replenishment segment. A player may replenish up to three AD artillery units per AmP that is expended from the army stockpile. If less than three units are replenished, the remaining fraction of AmP are lost. A unit may not attempt replenishment by DR and then replenish using AmP in the same segment.

16.3.5 Ammunition Depletion & OhS

- If an OhS HQ is used to provide GenS to an artillery unit, the ADV of that artillery unit is equal to the current OhS points available to the HQ.
- An OhS HQ may convert OhS points to AmP. The size of the HQ affects the number of AmP received for each point converted.
- One army OhS point yields two AmP.
- One corps OhS point yields one AmP.
• Formation HQs (division or smaller) may not convert OH5 points into AmP.

16.3.6 Low ADV & GA
Corps and formation with an ADV of zero receive penalty column shifts.

16.4.0 Fuel
Armies need fuel; the game handles this through the use of FP. Rule sections 16.2.1a explains how fuel is received.

Scenario rules list starting stockpiles of FPs and any special rules concerning FP usage.

16.4.1 Fuel Record Track
All FPs that an army receives are added to its FP stockpile represented by a marker on the logistics track. Adjust the FP marker as needed to reflect the current FP totals in the stockpile. An army may only expend FPs from its fuel stockpile.

• A maximum of twenty FP can be in an army’s stockpile at the beginning of a Transport and Logistics Phase.
• A maximum of forty FP can be in an army’s stockpile, if the army has at least one active depot.

16.4.2 Allocating Fuel Points
At the end of the Transport & Logistics Phase, players must allocate FPs to their Mech formations and army/corps HQs as needed. If an HQ unit is in GenS, FPs may be expended from the army’s fuel stockpile. Adjust the fuel marker as needed when FPs are expended.

16.4.3 Fuel Status
The fuel status of the HQ that a unit is directly subordinated to determines if the unit is affected by a fuel shortage. Every HQ is in one of three states: “Normal”, “Low”, and “No” Fuel. A player either allocates FPs to an HQ, or he does not. An HQ is marked “No Fuel” or “Low Fuel,” at the end of the Transport & Logistics Phase. An unmarked HQ is assumed to have a normal fuel status.

16.4.4 Fuel Requirements
In general, Axis Mech formations and most Allied formations, plus corps/army HQs on both sides require fuel. Leg units do not need, and are never affected by fuel requirements, unless they are mounted. This is true even if they are subordinate to a Mech formation. Allocating zero fuel points to any of the below automatically sets the formation in a No Fuel status.

Players may not fuel part of a formation it is all or nothing (this includes any and all attachments).

<table>
<thead>
<tr>
<th>Type Formation</th>
<th>Normal</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mech Divisions</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mech BG</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Allied Corps HQ</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Axis Corps HQ</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Army HQ</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Early US armored divisions (1st, 2nd, &amp; 3rd)</td>
<td>require an additional one-half (0.5) FP prior to any attachments.</td>
<td></td>
</tr>
</tbody>
</table>
| If a three or more Mech units (of any size) are attached to a division, that division must add the Mech BG fuel cost to each fuel status. Do not count the Tk and/or AT/AT units assigned as per 9.6.1b. Example: An Allied infantry division has 2 tank Bns and one AT Coy attached (in excess of those allowed by 9.6.1b). That formation would require 3 FP to be Normal fuel and 1.5 FP to be Low fuel.

16.4.4a Formations & Fuel
A formation’s fuel status applies to all subordinate Mech units. Unless they are mounted, leg units are unaffected by fuel issues.

• All Allied formations or BG are considered Mech (including infantry and airborne divisions) for fuel purposes.
• All Axis tank, panzer, panzergrenadier, and motorized formations/BG are considered Mech for fuel purposes.
• Axis formations/BG not listed above do not require fuel. Mech units assigned to those formations have the same fuel status of their superior corps HQ.

16.4.4b Army & Corps Mech Assets
Corps and army asset units that are mechanized also require fuel.

• Army/corps HQs can provide fuel up to the number of such units which can be legally assigned to it (15.4.0).
• The units themselves only have to be in GenS and may trace to any HQ subordinate to their corps or army.
• The unit does not use the fuel status of the formation; it uses the fuel status of its superior army/corps HQ.

16.4.4c Reduced Formation & FP
When only part of a formation is on the map, or the formation’s strength has been reduced below a certain level, the fuel requirements for that formation are reduced. If seven or fewer units are currently subordinate to a division formation HQ, that formation only requires one-half of its normal FP.

16.4.5 Fuel Value & MA
After a player has determined an HQ’s fuel status, the effect, if any, this has on all subordinate MU movement must be determined. The fuel status is used to determine the fuel value, which is the actual numerical effect on a MU’s MA.

16.4.5a When to Determine Fuel Value
A player determines an HQ’s fuel value for all of its MUs using the Fuel Level Table during the Mode Determination Phase.

Note: Players may choose to determine the fuel value for a formation at any time prior to moving any unit of that formation.

16.4.5b Determine Fuel Value
Formations with normal fuel status do not roll on the Fuel Level Table.

• Determine fuel value of each HQ in a “No fuel” or “Low Fuel” status by rolling 1d10 and locating the result across the top of the Fuel Level Table. This result is cross-indexed with the fuel status of the HQ.

• The resulting number is the HQ’s fuel value.

• A -2 DRM is incurred if any link in the supply path traced to the HQ from its PSS is extended.

16.4.5c Fuel Value & Unit MA
A player can choose to use the fuel value of a HQ in one of two ways:

• He can restrict the entire assigned MU to a MA equal to the fuel value. Example: The result of the fuel value determination is four. All MUs attached to that HQ may move up to four MP.

• He can choose to move a number of MUs equal to the fuel value up to their full MA. All other MU subordinate to that HQ may not move. They may not take advantage of 7.1.2b (Minimum Move). When using this option, if the number of Mech units assigned to an HQ is ten or fewer, the fuel value is halved (round up).

Designer’s Note: The limitation of ten or fewer MU was invoked to preclude players from always using the second option for small BG or reduced strength formations (thus almost always moving at full MA).

Example: The result of the fuel value determination is four. Four MU attached to the HQ, could move up their full movement allowance, all other MU cannot move.

16.5.0 Fuel & PA Mode
See 5.2.4 for the effects of low or no fuel.

Important: Remember Leg movement class units are not affected by fuel status in any way, including restrictions regarding entering PA.

17.0 ENGINEERS
Engineers (sometimes referred to as pioneers) are a special category of units. Any type of combat engineer (armored, motorized, airborne/parachute, or leg) is an engineer for the purposes of these rules. There are other types of engineers (construction and general service) with more limited abilities; those units are covered in the scenario rules.

17.1.0 Ground Assaults
Engineer units and their effects on combat are covered in rules section 13.6.2d.

17.2.0 Water Obstacles
Engineers can assist leg units that are moving or attacking across stream and river hexes by ferrying them.
Requirements are that the engineer unit:
• Cannot be OoS or fatigued
• Must be in PA or tactical mode
• May not be performing any type of construction activity.
• Is adjacent to the hexside being crossed.

17.2.1 Streams & Minor Rivers
A leg unit being ferried by engineers may ignore any stream MP costs, and a minor river costs only one additional MP.
• One engineer step may ferry one leg unit (of any size) across any stream or river hexside adjacent to that engineer step. The engineer step must start the Movement Phase next to the hexside being used to ferry, and it may not move during that phase. Leg units making a tactical assault across a river may not be ferried. The engineer unit may use its combat engineer abilities (13.6.2d).
• An engineer step that is in PA mode may participate in the GA while ferrying a leg unit in PA mode. When doing so they negate the combat strength modifiers for crossing a river for itself and the unit that is being ferried. PA engineers that ferry units in PA are not eligible to provide combat shifts (13.6.2d).

17.2.2 Major Rivers
Engineers may ferry leg units across a major river. An engineer unit (of any size) may ferry a maximum of one unit (of any size) per Movement Phase (including units in PA mode).
• The unit being ferried must start the movement phase in a hex adjacent to the major river.
• The engineer unit must begin and end the movement phase in either the hex the unit crossing begins or ends its movement.
• The unit crossing expends its entire MA to perform this operation.
• An engineer step in PA mode may ferry one leg unit in PA mode across a major river. This ferrying simply allows the leg unit in PA mode to attack across the major river; the engineer does not negate the strength modifier for attacking across the major river, and the engineer unit may not participate in the GA. The engineer step may not move itself during that phase.

17.2.3 Great Rivers
Units may not cross Great Rivers unless using an intact bridge.

17.3 Construction and Demolition
An engineer unit in tactical mode that is in GenS or OhS and not fatigued may conduct one construction activity per GT.
• All units (both engineers and other units) performing construction may not perform any other activity while conducting construction of any type.
• Construction may never be initiated during an ENA period nor do ENA periods count as a GT toward construction.
• Construction continues normally during rest GTs.

17.3.1 Bridges
An engineer unit may start construction of a bridge over a major river in two GTs. The engineer unit must be adjacent to the hexside that is being bridged, and no enemy units can be adjacent to the engineer. Once a bridge is built or repaired it, is neutral and both sides may use it.

17.3.1a Bridge Construction & Repair
To begin bridge construction, a bridge construction marker is placed on top of any engineer unit(s) involved in that construction. One hit marker is placed under the construction marker for each GT beyond the first that is required to finish the bridge. As each GT elapses, one hit marker is removed from the construction marker. If no hit markers remain, the construction is complete. Flip the marker to the completed bridge side, or remove the demolished bridge marker if the bridge was repaired.

17.3.1b GTs to Complete a Bridge
The number of GTs required to complete a bridge depends on the number of engineer steps involved and what type of water feature the bridge will cross. Engineer steps do not have to be from the same unit (break down CoyS may construct bridges).
• A stream always requires one GT.
• One engineer step requires three GTs to bridge a minor river. A single engineer step cannot build a bridge over a major or great river.
• Two engineer steps can complete a bridge over a minor river in two GTs and over a major river in three GTs. Two engineer steps cannot build a bridge over a great river.
• Three engineer steps can complete a bridge over a minor river in one GT, over a major river in two GTs, over a great river in four GTs.
• Additional engineer steps above those noted above do not reduce the GTs required.
• If any of the engineer steps that started construction leave the hex, become fatigued, OoS, or if an enemy unit moves adjacent to the engineer unit before construction is complete, the construction marker is removed and the process must be started over.

17.3.1c Heavy Bridges
Heavy bridge counters are considered Mech Units. They have a MA of nine and must adhere to all movement restrictions imposed on Mech units. An un-deployed heavy bridge counts as one Bn for stacking.
• A deployed heavy bridge (i.e., one under construction or completed) is a bridge and is not considered to be a unit for movement or stacking purposes.
• Heavy bridges are constructed in the same manner as normal bridges with the following exceptions.
• A minimum of three steps of engineers are required to construct a heavy bridge. GTs required are the same as in 17.3.1b.
• A heavy bridge may be dismantled and moved to be used elsewhere. Simply reverse the construction process using the same number of GTs it took to complete the bridge.
• Once the dismantling process has begun, the bridge is not usable until it goes through the construction process.

17.3.1d Bridges & Roads
When roads (trails are included in this) are cut by rivers, if a bridge is built or repaired, the bridge is considered to connect any roads in the hexes sharing the bridged hexside.

17.3.2 Bridge Collapse/Demolition
Engineer units can demolish a bridge over any type of river (but not stream) in the Demolition Segment of the Construction Phase or after enemy units are committed to an overrun or GA using the bridge. The engineer must be adjacent to the bridge hexside at the time of its attempted demolition. If the engineer unit meets all other requirements, it may attempt to demolish as many bridges as are eligible to be demolished.

17.3.2a Prepared Bridge Demolition
Prepared demolitions can only occur during the Demolition Segment of the Construction Phase.
• Engineer units attempting the demolition may not move during the following Movement Phase.
• An enemy unit must be within eight hexes of the bridge being destroyed.
• Only one demolition attempt for each bridge is allowed per phase.
• An engineer unit may attempt to demolish all eligible bridges (see below diagram).

The engineer may attempt to demolish a bridge of type Bn in the Construction Phase. A deployed bridge (i.e., under construction or completed) is a bridge and is not considered a unit for movement or stacking purposes.

+1 DRM applies if an enemy unit is adjacent to the bridge.
+1 DRM applies if the demolition is being attempted during a night GT.
17.3.2b Hasty Bridge Demolition
A hasty demolition attempt may be made whenever the enemy attacks across a bridge hexside over any type of river. There must be at least one Eng step, friendly to the defending side, adjacent to the bridge. The defending side rolls 1d10 and consults the Hasty Demolition Chart. A +1 DRM applies during a Night GT or ENA period. If the attempt succeeds the bridge is destroyed prior to the resolution of the GA or overrun.

17.3.2c Bridge Collapse
The owning player of an AFV listed on the UTC as a heavy (H) or very heavy (VH) must check for bridge collapse the first time a heavy or very heavy AFV attempts to cross any type of river (not stream) using a trail bridge or bridge marker. Movement, exploit, ground assault, and advance after combat all count as attempting to cross the bridge. The owning player rolls 1d10 and consults the Bridge Collapse table. If the bridge collapses implement the result, if any, prior to the AFV crossing the bridge. The bridge is considered destroyed. If the bridge does not collapse, the bridge will never require another check.

Exception: Heavy Bridge units are not susceptible to collapse.

17.3.2d Bridge Bottlenecks
Some games will call for bridge bottlenecks. Whenever Mech units in tactical mode use road movement to cross a bridge, the owning player must place a Bridge Bottleneck (BB) marker with the highest value pointing to the hexside the bridge crosses. As more Mech units are moved over the bridge, adjust the BB marker to show the number of units remaining that may cross.

17.3.3 Fieldworks (FWs)
Engineer units, and in some cases other units, may construct Fieldworks (FWs) to improve the defensive capabilities in a hex. Improved positions (IPs) and entrenchments (ETs) are collectively referred to as Fieldworks (FWs).

Note: All field works are printed with a symbol and a number. The number denotes the number of column shifts (GA) and the number of DRMs (FS missions) applied for that specific FW (i.e., IP 1, ET-2, and ET-3). Entrenchments are referred to as either an ET-2 or ET-3.

• All restrictions listed in 17.3.0 apply.

Note: Non-engineer units may construct IP if not in GenS or OhS.

• FWs may never be built in hexes already containing a Fort or intact fortified area.

• Engineer and/or unit steps do not have to be from the same unit in order to cooperate, except as noted. Break down Coys may construct FWs. Construction is initiated by placing a FW marker with its build side (shown with picks and shovels) face up, on top of the units involved. When the FW is complete, the FW marker is flipped to its finished side (the side without the shovels and picks).

Note: FW markers are color-coded for each side.

17.3.3a Improved Positions
Construction begins in the Construction Phase. The time required to construct an IP depends on the units being used.

• Two or more steps of any non-HQ/non-artillery type units, or one one-step engineer unit, completes an IP in the next friendly Construction Phase.

• One step of engineers and one non-HQ/non-artillery type unit completes an IP at the end of the immediately following Movement Phase in the Quick Construction Segment.

• Two or more engineer steps complete an IP at the end of the immediately following Movement Phase in the Quick Construction Segment.

17.3.3b ET-2 Construction
Construction of an ET-2 is similar to that of an IP, however there are additional requirements.

• The units initiating construction of an ET-2 may not be observable by enemy units. This requirement does not apply to continuing construction or completion of an ET-2.

Example: Construction of an ET-2 could be initiated during a night GT (when the unit may not be observable) and finished during the AM GT when it is observable. Construction time varies depending on the level of Eng support.

• One Eng step and one non-HQ, non-artillery step may construct an ET-2 in a hex with an IP in one GT. The ET is completed in the next friendly Construction Phase.

• Two or more Eng steps can begin construction of an ET-2 in a hex with an IP during the player’s friendly Construction Phase, and complete it in the Quick Construction Segment of the immediately following Movement Phase.

• If the hex contains a village, town, or city feature in the hex, no IP is required.

17.3.3c ET-3 Construction
An ET-3 is a special type of ET that can be built or placed only according to scenario rules.

17.3.3d Halting FW Construction
The construction of a FW must stop if the hex is ground assaulted, the constructing units retreat due to a FS mission, or if the constructing units become OoS. All prior work is lost. The construction process may be restarted in the next friendly player turn.

Note: Units could be the target of an FS mission, and unless they are forced to retreat, may continue with the construction even after the FS mission.

Examples of FW Construction
Example 1: A one step Inf unit and a one-step AFV unit are present in the hex at the beginning of the Construction Phase. There are no fortifications or FW present in the hex. A player may place an IP counter (construction side up) in the hex. At the beginning of the next friendly Construction Phase, if the units still meet the construction requirements, the player may turn the IP marker over to its completed side.

Example 2: Using the same hex as in Example 1. If a one-step engineer unit entered the hex during the same GT that the IP was under construction, the player could, in the next Construction Phase (the one in which the IP was completed) place a ET-2 marker (construction side up). The ET-2 would be completed the next GT during the Construction Phase.

Example 3: At the beginning of the friendly construction phase there are two engineer steps present in a hex that contains a completed IP marker. The player could place an ET-2 marker (construction side up) in the hex. Then during the Quick Construction Segment of the immediately following Movement Phase, flip it to its completed side and remove the IP.

17.4.0 Defensive Works
The term defensive works describes all man-made obstacles and defensive positions in the game. Defensive works include Fieldworks, Forts, and Fortified Areas.

• Forts exist as explained in the scenario rules.

• Forts may have a printed defensive strength when defending against GA.

• Forts may not be constructed during the course of a game, and once destroyed, they cannot be rebuilt.

17.4.1 Benefits of Defensive Works
All units in hex with defensive works benefit from the defensive works except units that are:

• In Exploit mode.

• Marked with a Strat movement marker.

• Attack designated.

Each type of defensive work provides defensive bonuses, either shifts (ground assault) or DRMs (FS missions). See 11.0 & 13.0 for specific benefits.

17.4.1a PR Increase
Units in an ET/Fort/fortified area hex have their defensive PR increased by one (maximum of eight).
17.4.1b Movement Halts

- A movement halt occurs whenever a unit moves next to an enemy unit in an ET, Fort, or fortified area hex. Terrain, type of units, and the number of steps have no effect on this.
- ET-3, Forts, and fortified area hexes prohibit the movement of enemy units from a hex adjacent to the ET-3/Fort/fortified area directly into another hex adjacent to the same ET-3/Fort/fortified area hex.

17.4.1c Recon Units

Recon units can examine the top enemy unit under any FW during the Movement Phase. They may not examine units under a Fort or intact fortified area hex (6.5.1).

17.4.1d FS Missions

FS mission details are covered in 11.0.
- Units observing from an ET/Fort/fortified area increase their FS mission capacity.
- Units in defensive works which are subject to a FS mission receive DRMs in their favor.
- Attack designated units may retreat into defensive works.

17.4.1e GAS/Overruns

Defensive works have the following effects when resolving GA:
- Units defending against GA receive column shifts in their favor and receive modifications to enemy armor bonuses.
- Attacking units must stop advancing when they move adjacent to enemy units in any ET/Fort/fortified area (13.10.2d).
- Units in any ET/Fort/fortified area do not make a PR check to convert discretionary hits (13.9.3a).

Note: Engineer units have special abilities when conducting ground assaults against defensive works (13.6.2d).

17.4.1f Defensive Work Destruction

- FWs are removed if left unoccupied at the end of any phase or if all units in a FW retreat or are eliminated.
- Forts can only be removed as a result of combat, or by scenario rules.
- Fortified hexes are destroyed if entered by an enemy unit advancing after a GA (not FS). An engineer unit of at least one step may destroy a Fortified area hex by spending one full GT in the hex. Simply place a IP under construction marker on the unit at the beginning of a friendly Construction Phase, in the next friendly Construction Phase, the IP unit is complete and the printed fortified area hex is ignored for all purposes. The engineer may not perform any other function during that GT. Additional steps of engineers or units does not decrease the time required.
- ET-3 and Forts may be used to absorb step losses and or destroyed as a result of an FS mission (11.6.1).

17.5.0 Fortified Area Hexes

Fortified hexes are a printed terrain feature depicting some type of permanent entrenchments, pill boxes and hardened positions. Most (including Westwall) fortified hexes have the following characteristics.
- Fortified areas are considered a defensive work, not a terrain feature when determining FS mission DRMs.
- All units in a Fortified area hex receive combat benefits.
- Fortified area hexes are considered to have one level.
- Fortified area hexes function exactly as a Fort for movement halts and adjacent enemy movement. They also impose special movement restrictions (7.3.5).
- An enemy unit that enters a fortified area hex does not destroy a fortified area, nor does any type of FS mission (17.4.1f).
- Destroyed fortified area hexes are treated as if there was a permanent IP in the hex. The IP may be used by either side, and can never be destroyed.

Designer’s Note: Players should note which WW hexes have been destroyed by using either blank markers, or noting the hexes down on a piece of paper.

17.6.0 Forts

Forts are specific counters at the beginning of a scenario and may not be constructed in the context of a game. They are permanently removed from the game if destroyed.
- Forts are considered to represent not only the defensive works associated with the position, but also the garrison assigned to occupy the position and thus may have intrinsic defense strength. This may include artillery emplaced within the fort. They are considered occupied at all times and do not require other combat units to maintain this status. Scenario rules will detail proficiency levels and other special rules pertaining to a fort.
- A Fort may never participate in an offensive GA; it has an offensive PR of zero.
- Forts may consist of more than one step or level. Unless stated otherwise in scenario rules, forts retain their abilities no matter how many steps remain.
- Forts may be damaged or destroyed due to FS missions (11.6.0) or ground assault (13.9.0)
- Forts may have emplaced artillery as part of their weaponry. If so, a barrage factor, range and defensive factor are printed on the fort counter. Treat this inherent artillery capability as a normal army/corps level artillery asset. It is not capable of split fire. Scenario rules will detail AD procedures for emplaced artillery.
- Forts may have a fire arc (represented by the arrows on the counter) that restricts artillery fire only through hexes the arrows point thru. If there are no arrows, fire is unrestricted and the fort may fire in any direction.

18.0 UNIT BREAKDOWN

Players have the ability to form Coy-sized units from larger units using generic breakdown Coys. In some cases, Coys may be broken down into separate zero-step (Z-step) units. When this occurs, the unit that a breakdown was generated from is called the parent unit. The term breakdown is used for the breakdown Coy (or Z-step unit) that was formed, and should not infer a change of command. This breakdown process can occur in reverse to allow a breakdown unit to recombine with its parent unit. Both units must be in tactical mode and not fatigued to breakdown or recombine.

18.1.0 When Breakdown Occurs

A player may only conduct breakdown or recombination activity during a friendly Movement Phase. This type of activity, while similar to consolidation (22.5.0) is not the same, and does not occur during a replacement segment.

18.2.0 Units Allowed to Breakdown

All units, except for HQs, one-step artillery units, and those marked with a red triangle may breakdown or recombine. If players run out of needed breakdown counters, they may feel free to use any extras from other games in the series, or make their own.

Note: Some Btms are restricted as to the type of breakdown Coys that can be formed from that Btm (Unit Breakdown Chart).

18.3.0 How Unit Breakdown Occurs

During a Movement Phase, a player chooses a parent unit and reduces it a number of steps equal to the number of breakdowns being formed.
- Breakdown units may be placed in, or adjacent to the hex the parent unit occupies.
- Breakdown units may not be placed in a hex the parent unit could not have moved into.
- All units involved are considered to have expended one-half of their current MA. The parent and breakdown units may continue moving.

Note: Some parent units are allowed to breakdown completely into breakdown units.

Note: A unit may dismount or mount, and breakdown in the same phase, there is no extra MP cost to do so. A player could dismount and breakdown at a total cost of one-half its MA.
18.4.0 Breakdown Unit Status
Breakdown units are still subordinate to the same HQ that the parent unit was subordinate. Players can either remember this, or write it down. Breakdowns are supplied normally by their superior HQ. A breakdown unit may not be used to generate RBs. Breakdown Coys are assigned generic PRs. Scenario rules will list the PR for breakdown Coys.

Note: Optionally players may track which units’ breakdown and which breakdown Coys were created by those units. If this is done, breakdowns retain the PR ratings of their parent units. In this case, breakdown Coys can only be reformed back into their parent units.

18.4.1 Breakdown Unit Reverse Sides
Most breakdown units are back printed with another type of breakdown unit on the reverse side. This was done to add more breakdown Coys to the counter mix. These are not reduced or alternate strength sides of the unit printed on the front. The only case where the reverse side represents the same breakdown printed on the front side is where Z-step units (18.7.0) exist. These Z-steps are further breakdowns of the units which are on the front of the counter.

18.4.2 Breakdown Coy Strength
The type of breakdown Coys used for different eligible units are depicted on the Unit Breakdown Chart.

- Axis leg Inf Btns breakdown into either 1-2-6 leg Inf Coys, or 2-2-6 leg Inf Coys as follows:
  - Leg Inf Btns with defense strength of seven or more break down as follows:
    - If the attack strength is six or more: each step may form a Coy of 2-2-6.
    - If the attack strength is five, the first breakdown step forms a 2-2-6, the second and third steps form 1-2-6. If the parent unit has a previous step loss, the breakdown is always 1-2-6.
  - If the attack strength is four or less, all steps form 1-2-6
  - Inf Btns with defense strength of six or less may only break down into 1-2-6 Coys.
  - Btns marked with a red triangle next to their unit symbol may not break down.
  - Btns marked with a red square next to their unit symbol may only detach one Coy.

Note: Some games will start with Btns broken down in violation of the above. These Btns may be reformed, but once reformed must comply with the above rules.

18.5.0 Hybrid Units Breakdowns
A hybrid unit composed of AFV Coys and Mech Inf may break down if it is not already at reduced strength. See the Unit Breakdown Chart for specific breakdown information.

18.6.0 Breakdowns & Recombination
To recombine breakdown units back into the parent unit, all breakdown units must be in the same or adjacent hex and not separated by hexside terrain that prohibits that type of unit from crossing the hexside. The units may move prior to the recombination, but one-half of their MA must still remain to conduct the rebuild. A parent unit may not continue moving after recombination is complete. The parent unit retains any fatigue and the most severe supply status of any breakdown unit that was recombined.

18.7.0 Z-Step Detachments
Some Coys may breakdown into two Z-step units. These parent units are usually AT Coys, panzer/tank Coys, and Flak Coys. If the unit has a Z-step unit printed on its back, it may breakdown into this type of unit. If the Coy is not back printed with a Z-step, it may still breakdown into if Z-step units of the same type exist in the counter mix. Z-step units that do not have an attack or defensive PR rating are treated the same as a breakdown Coy.

Example: The 6/I/135Pz unit above has a reduced side (shown by the color band behind the unit’s combat and movement values) it is a zero-step unit.

18.7.1 Z-Step Unit Characteristics
Z-step units behave like any other breakdown except as noted below.

- Z-step units may never be the lead PR or armor unit when conducting an offensive GA. They may be the lead unit for either or both when defending against a GA, if they are the only size unit in the hex.

Exception: Any Pz V, Pz VI or Pz VIb Z-step unit may be selected as the lead PR or armor unit. This applies when attacking or defending.

- Z-step units may only participate in an offensive GA if stacked with a unit of at least Coy size and that unit is participating in the same GA.

- Z-step units may not observe for FS missions.

- Each step loss due to a GA result eliminates one Z-step unit in the same hex without counting toward step loss obligations (4.3.1a). If all the larger units in a hex are eliminated, then all Z-step units in that hex are also eliminated.

- Any Z-step unit that is not stacked with a unit of at least Coy size is eliminated if it is subject to any combat result (FS or GA) which requires that any type of step loss be applied to the defending hex.

- No more than two Z-step units may ever occupy the same hex at one time; this limit is reduced to one if the hex contains constriction terrain.

18.8.0 Breakdowns & Step Losses
When breakdowns recombine with the parent unit, the parent unit can only gain back a number of steps equal to those being absorbed. Two Z-step units are equal to one Coy sized step. When a breakdown is eliminated, it is placed in the Eliminated Units Box on the owning player’s Army Chart. A player may resurrect breakdowns, and may either place them in or adjacent to a HQ or the parent unit. The HQ or parent unit must be in GenS.

18.9.0 Generic TO&E Battalions
Some games provide generic Btn-sized units that allow players to breakdown hybrid units and reform them into their regular separate armor or mechanized infantry Btns. All normal rules for breakdown and buildup apply.

19.0 WEATHER
Weather has a pronounced effect on many game activities. Players may choose to use historical weather, or generate their own variable weather conditions randomly by using the Weather Table. Weather depends on two main factors: the ground condition and the atmospheric condition.

19.1.0 When Weather Is Determined
Before starting a game, players decide if they are using historical weather or variable weather. If they use historical weather the GD or GT Record Track is referenced during the weather determination phase of each GT. If the variable weather option is chosen, players use the Weather Table during the Weather Determination Phase of each GT.

Note: Some scenarios will only have either historical or variable weather and in some cases will have special rules with historical weather for certain GTs and only variable weather on others. Check scenario instructions for specifics.

19.2.0 How Weather Is Determined
The details for historical weather and variable weather determination are listed below. Some GTRTs list the AM and PM weather in the same GD Box, while other GTRTs may list each GT’s weather in its own box on the track.

19.2.1 Historical Weather
Some games depict historical weather on the GTRT and other provide a separate chart showing the weather conditions (both atmospheric and ground) by GD or by GT. Consult the scenario rules for determining historical weather conditions.

19.2.2 Variable Weather Determination
Variable weather requires the use of the scenario’s Weather Table. Each game will detail the use of its Weather table, including, number of die required, DRMs, and any special conditions that would
modify a given result. Previous GT weather, both atmospheric and ground may modify a current GT weather DR. Players will normally roll one set of die for atmospheric conditions first and then one set of die for ground conditions. Current atmospheric conditions will normally affect the current ground conditions. In all cases note the current weather conditions in the appropriate display boxes.

Note: Even though the atmospheric conditions at night have little or no effect on night game turn play, those conditions will normally still be determined as the result may affect the AM GT weather conditions.

19.3.0 Atmospheric Conditions
There are four atmospheric conditions: Clear, Partial Overcast, Overcast, and Storm. These conditions affect LOS (8.0) and AP availability (20.0).

19.3.1 Clear
There are no adverse effects. Maximum LOS is in effect.

19.3.2 Partial Overcast (POvr)
• LOS is not affected.
• Each available AP counts as one-half of one AP (two AP equal one mission AP).
• Air Observation is reduced to three hexes.

19.3.3 Overcast (Ovr)
• Maximum LOS for ground units is two hexes.
• Each available AP counts as one-quarter of one AP (four AP equal one mission AP).
• Air Observation cannot be used.

19.3.4 Storm
How storm conditions are generated is detailed in scenario rules. Unless modified by scenario rules, storm conditions have the following effects:
• LOS is the same as a night GT.
• APs are not available.
• Air observation cannot be used.

19.4.0 Ground Conditions
There are five possible ground conditions in the game: Dry, Wet, Mud, Snow, and Frozen. Not all ground conditions will be used in each game. Scenario rules will detail which ground conditions are in effect. Adjustments to unit MAs, due to ground conditions, are always made after considering the effect of any other adjustment such as supply, fatigue and the halving of unit’s MAs during Exploitation Phases. Ground conditions may increase the terrain cost of supply paths or reduce the supply ranges of HQs. In some games there are separate weather zones. When moving from one weather zone to another always calculate a unit’s MA using the ground condition of the zone the unit began movement in.

Example: If a unit starts in a zone with dry conditions, the unit retains its printed MA even if it moves into a zone with mud condition.

19.4.1 Dry
Dry ground condition has no adverse effect.

Note: “Dry” ground conditions may be referred to as “normal”

19.4.2 Wet
All Mech units subtract two from their MA unless using road movement on a primary or secondary road.

19.4.3 Mud
The worst ground condition is mud. Mud conditions have the following effects:
• Movement allowance for all units is halved (round up) unless the unit is using road movement on a primary or secondary road (leg units also receive this benefit along primary and secondary roads).
• A unit may still move one hex regardless of MP costs as long as it meets all of the restrictions outlined in 7.1.2b.
• Heavy or super heavy AFV units may not use trails to enter a constricted terrain hex.
• A MU’s PA movement is one hex, unless the unit moves entirely along a primary or secondary road. Leg units are not affected.
• All units advance after combat as if they are leg units.
• Supply path distances are reduced.

19.4.4 Frozen
Mech units using any type of road movement subtract 1 MP from their MA. Consult scenario rules for the effect of frozen ground on marsh, soft ground, or swamp.

19.4.5 Snow
Any unit using non-road movement subtracts one-third of its MA. Leg units that move along primary or secondary roads retain their full MA. Supply path distances are reduced.

19.5.0 Precipitation
Some games include the concept of precipitation. In most cases precipitation is determined by a separate DR. Consult scenario rules to determine precipitation.

19.5.1 Precipitation Effects
Visibility and AP availability are based on current atmospheric conditions. Air Observation is not allowed. Precipitation will affect ground conditions. Consult scenario rules.

20.0 AIRPOWER
Airpower represents the application and effect of each side’s air resources on the battlefield. Players receive air points (APs) and use them on air missions as they see fit, subject to the limitations given below. Adverse weather and enemy anti-aircraft can reduce the effect of airpower to varying degrees. APs are used in distinct packets called air missions.

20.1.0 Air Point Availability
In the Air Allocation Phase of the AM GT, both sides consult the GD or GT Record Track to determine how many AP they will have available for use that GD. Consult scenario rules to determine rules pertaining to AP availability.

20.1.1 Assignment of Air Points
Each AM GT, available AP must be assigned to a specific mission. Those assignments remain in effect until the next GD. The total number of assigned APs cannot exceed the total number of APs available.

20.1.2 Using Air Points
As each side flies air missions, it must allocate AP to participate in that mission. The AP must be available for use on the AP Track of the sector the mission is being flown. Deduct the number of AP from the total AP assigned to that specific mission type. When this AP total reaches zero, no more air missions may be flown. Each AP can only fly one air mission per GD. No air missions are flown during a night GT or ENA period unless scenario rules allow.

Exception: In some games, specific types of missions allow APs to be used in both the AM and PM GTs.

20.1.3 Air Points & Mission Types
APs can be assigned to four different types of missions. These missions are: ground support, ground interdiction, supply interdiction, and air superiority.

Note: Air Transport Points are tracked separately.

20.2.0 Ground Support (GS)
Enemy units and/or population features may have GS missions flown against them during a FS mission segment or during an enemy Exploitation Phase.

20.2.1 Conducting GS Missions
To conduct a GS mission:
• Declare the target hex and identify the observing unit, or if the target is air observed.
• State the number of missions and number of AP in each mission. The number of Escort AP for each mission is also declared at this time. The number of APs per mission and number of missions allowed are detailed in 11.4.3.
• The opposing player states if and how many AP will conduct air superiority.
• Resolve air superiority (20.6.0).
• Resolve mission errors (20.2.3).
• Resolve the mission (11.0).

20.2.2 GS versus Exploiting Units
Units executing exploitation movement
may be subject to GS attacks while conducting movement.

- Any unit marked with an Exploit marker that moves into a clear terrain hex (ignore villages and locations) may be subject to a GS attack.
- The moving units must be observed by a ground unit or air observation.
- They may be attacked by one mission in each clear hex they move into.
- They may not be attacked if moving into a clear hex to conduct an overrun attack.
- Each attack is conducted using the normal procedures for GS.

**20.2.3 GS Mission Errors**

Due to the inherent problems of spotting targets and then coordinating with mission aircraft, there is a chance that a GS mission will be miss-identify a target, fail to identify any target, or be driven off by Flak. A mission may even hit friendly units. Resolve mission errors after air superiority but before mission resolution. The mission player rolls 1d10. Apply all applicable DRMs. List the result.

- If the modified DR result is:
  - 9 or greater: Abort the mission, it is not conducted, and the APs are expended.
  - 8: Scatter, the mission is conducted; however, it did not hit the intended hex. Roll 1d10 to determine the actual target hex.
  - DR of 0; the hex immediately north of the intended target hex is hit. Succeeding numbers move one hex clockwise around the original target hex. If a 6-9 is rolled, reroll until a result of 0-5 is obtained.
  - The mission is resolved against the hex it landed in, no matter which side occupies the hex.
  - If the new target hex is occupied by at least one point of enemy Flak, the mission is considered an abort. Friendly Flak points do not count for this purpose.
  - If the hex is unoccupied the mission is considered an abort.
  - 7 or less: The mission is resolved against the intended target hex.

**20.3.0 Ground Interdiction (GI)**

At the start of each GD, during the Air Point Allocation Phase, each side may assign AP to GI missions. Scenario rules will list limits to the number of AP that may be assigned to each sector and/or the number of AP that may be assigned to GI.

**20.3.1 GI Procedures**

GI attacks against moving units are conducted by the unit’s owning player during any Movement Phase (including Exploitation Movement).

- Units are not subject to GI attacks as long as all MP are expended within six hexes of an enemy unit.
- If a unit starts its movement within the six hex limit, begin counting MP in the first hex outside the six limit.
- If a unit starts its movement outside the six hex limit and moves within six hexes of an enemy unit, all MP expended within the limit are ignored. Except for those units noted above as soon as a unit belonging to the phasing player exceeds a sector’s interdiction value for that movement class, the unit’s owning player must conduct a GI attack against that unit.

**20.3.1a Interdiction Values**

Players determine the interdiction value for each air sector on the map, each GT. Conduct the following procedure for each air sector.

- Determine the number of AP assigned to GI in that sector.
- Adjust the number of available AP based on atmospheric conditions (19.3.0).
- Adjust the number of assigned AP based on Air Superiority attacks.
- Consult the Air Interdiction Table and locate the adjusted total AP in the top row. If the exact modified number of AP falls between the numbers on two of the columns, select the lower column.
- The number of AP may be reduced by weather and suffer DRMs due to weather conditions.
- Roll 1d10, apply applicable weather DRMs.
- Cross index the modified DR with the number of AP. A dash indicates no effect. A pair of numbers separated by a slash represents the interdiction value.
- The value to the left of the slash is the interdiction value for leg class units. The value to the right is the interdiction value for Mech class units.

**Example:** The Allied side has 20 AP assigned to the sector being determined and the current atmospheric condition for that sector is partial overcast. The number of AP assigned is halved (19.3.2). The number of modified AP now falls between column 8 and 12, thus the Allied player uses the 8 column.

**20.3.1b Conducting GI Attacks**

GI attacks are conducted in the hex that caused the unit to expend a number of MP that exceeds that hex’s interdiction value.

**Example:** The interdiction value for Mech Units is six. A unit is moving along a secondary road and enters a hex that causes the unit to expend its seventh MP. The unit would be subject to a GI attack in that hex.

**20.3.1c Resolving GI Attacks**

Roll 1d10 and consult the Ground Interdiction Attack Table. Apply all applicable DRMs (listed near the table) and implement the result.

- A unit must end its movement in the hex, if it suffers any result other than no effect. Units moving as a single unit (6.1.2, 6.1.3, & 6.1.4) are treated as single unit.
- GI attacks only affect the unit(s) that triggered the attack, all other units are ignored.

**20.3.1d Multiple GI Attacks**

A unit triggers a GI attack each time it exceeds a multiple of its interdiction value. The same unit could be attacked several times in one movement phase. If the unit is not forced to stop, it may continue its movement suffering additional GI every time it exceeds the interdiction value again.

**Example:** The interdiction value is 4/3. A Mech unit with a MA of 12 would be required to conduct a GI attack when the unit expended 4 MP, 7 MP and 10MP. If any of the attacks resulted in a fatigue hit, the unit would be required to stop movement at that point and no further GI attacks would be conducted against that unit.

**20.4.0 Supply Interdiction (SI)**

A player may attack the enemy logistic infrastructure by conducting supply interdiction (SI) missions during the Transport & Logistics Phase. If the mission is successful, the number of TPs available is reduced by one, and the consumed TP cannot be assigned to another role that GD. TPs lost due to these missions are available the next GD. The weather condition on the map is used as the current weather condition for SI missions.

**20.4.1 Conducting Supply Interdiction**

A minimum of two AP and maximum of three AP can be assigned to each SI mission (19.3.2 applies). AP may be assigned to each mission as escorts.

- AP can be from any sector.
- If more than one enemy army exists, the SI mission player must declare which missions are attacking each enemy army.
- Conduct ASup and Flak attacks for each mission separately.
- If three AP survive ASup and Flak, apply a +1 DRM to the SI resolution DR.
- If only one AP survives ASup and Flak, apply a +1 DRM to the SI resolution DR.
- Prior to any logistic DRs determine which TP will be affected, roll 1d10, result of 0-4 the attack is against TP transporting fuel, 5-9 the attack is against TP transporting AmP. If no TP remain for that logistic DR, the mission is aborted.
- Roll 1d10 for each mission. A modified DR of two or less is mission success.
- For each mission success, reduce the number of TP used for that logistic DR by one. The TP is not available until the
next GD.
• Some games may restrict the number of SI missions each side is allowed to conduct each game turn.

20.5.0 Air Supply
Air supply can be conducted to replenish OhS HQs and remove OoS markers from ground units.
• Air supply is conducted during the Air Resupply Segment of the Administrative Phase.
• Air supply uses air transport points (ATPs). Scenario rules will list the number of ATP available.
• Air supply can only be conducted in AM or PM GT.
• The atmospheric condition must be clear or POvr.

20.5.1 Conducting Air Transport
The owning player conducts an air supply mission using the below steps:
• Declare the number of ATP conducting the mission and the number of escorting AP.
• Declare the location of the drop zone hex (DZ).
• Conduct air superiority.
• Resolve the drop.

20.5.2 The Drop Zone Hex
The DZ hex must:
• Be clear or rough terrain. It may contain a location or village.
• Not be enemy occupied, or adjacent to an enemy unit.

20.5.3 Resolving the Drop
The mission player rolls 1d10 for each ATP. If the modified DR is eight or less, one air supply point has been delivered. An unmodified DR of zero always succeeds. DRMs are listed on the Air Supply Chart.

20.6.0 Air Superiority (ASup)
ASup missions can be conducted to either intercept or escort air missions. AP assigned to ASup can conduct one ASup per GD. Players can use AP assigned to ASup to:
• Conduct intercept missions against missions conducted by the active side.
• Escort a mission in an attempt to protect the mission from intercept AP. APs assigned to escort a mission are in addition to the maximum number of APs allowed on each mission.

20.6.1 When to Conduct ASup Missions
When a player initiates a GS, Air Supply, or SI mission, he must declare how many APs, if any, are escorting the mission. The opposing side may then allocate APs to intercept the mission. APs that are designated as an escort must come from the same sector as the mission APs.

20.6.1A ASup versus GI Missions
• ASup missions intercepting GI missions are flown immediately after all AP are assigned to missions during the AM GT, prior to determining the Interdiction Value.
• GI mission cannot be assigned escort ASup. Simply reduce the number of AP assigned to GI by the number of enemy ASup AP intercepting the mission.

20.6.2 Conducting Air Superiority
Each escorting AP aborts one intercepting AP, and vice versa. If all escorting APs are aborted, each remaining intercept AP aborts one mission AP. Aborted APs do not conduct their assigned mission and are considered expended for that GD.

20.7.0 Anti-Aircraft (Flak)
With the exception of Air Superiority, all air missions may be affected by Flak. Each mission type is handled slightly differently. In most cases Flak points are used to provide unfavorable DRMs to mission success DRs. Consult the specific mission rules for how to affect a mission using Flak points.

20.7.1 Flak Points
Some units and terrain features have Flak points. Each hex containing any one of the following units or terrain features has one Flak point. Flak points may be used in the hex they occupy and in most cases in any adjacent hex. No single hex can contribute more than one Flak point regardless of the number of actual points in the hex.
• HQ units.
• All German city hexes (city must have been German controlled since the beginning of the scenario).
• Other terrain features, fortifications, and units as outlined in scenario rules.
• Allied artillery Btns in any scenario after 1942.
• Flak units.
• German and US Armored Infantry Btns, Armored Recon Btns, Tank Btns and hybrid units.
• Commonwealth Armored Infantry and Armored Recon Btns in any scenario after 1942.

Exception: All Armored infantry Btns, Armored Recon Btns, Tank Btns and Hybrid units only provide Flak points in the hex they occupy.

Designer’s Note: The non-Flak units listed above represent the assorted flak units that were attached to these units but not present in the game.

20.7.2 Flak & SI Missions
Players may voluntarily remove units from the map to provide Flak support against SI missions.
• Flak points are counted as outlined in 20.7.1. Treat any unit as if they are occupying the target hex.
• Players track Flak points garnered by using one of the withdrawn units on their AP Track.
• Each escort APs not aborted by an enemy ASup mission may suppress one point of Flak. Flak points are suppressed for that mission only.
• For every 4 points of non-suppressed Flak apply a +1 DRM to the SI mission DR.
• Scenario rules will detail if there is Flak capabilities present to protect the logistic system.

21.0 REINFORCEMENTS
Reinforcements are new formations and units that appear for each side during the course of play. Some reinforcements are conditional and are only received if certain events are triggered or conditions arise. Some units or formations may be required to withdraw. These reinforcements and withdrawals will be listed on the GTRT, the exclusive rules, or both.

21.1.0 Arrival of Reinforcements
Reinforcements enter play during the friendly Movement Phase on the GT of arrival. Scenario rules will explain where the units enter on the map, and any other conditions of their arrival. Unless scenario rules state otherwise, all reinforcements arrive in GenS and are considered fully fueled for the entire GD they arrive.

Note: Reinforcements require fuel on the first Transport and Logistics Phase after arrival.

21.1.1 Reinforcements & Entry Mode
Reinforcements enter the map in any mode a player wishes unless scenario rules state otherwise.

21.1.2 Division Slice and Entry
Division “slice” represents the equal apportionment of a division’s support assets among the various sub-formations of that division. When any sub-formation of a division enters the map as reinforcement, the engineers, recon, AT, and AFV assets of that formation may be broken down so that one Coy of each asset arrives with a sub-formation. If division slices are not able to be divided evenly into the number of Rgts or Bdes, they may be split unevenly, as long as no more than one division asset arrives with any one Rgt or Bde. One Bttn of artillery from the formation may also be brought on with the slice, if it is available.

Note: Players should carefully check the reinforcement lists to ensure that divisional assets and artillery units are not listed separately, arriving earlier or later.

21.2.0 Map Entry on Roads
When reinforcements enter a map edge using any form of road movement, each arriving unit must expend MPs equal to the number of MPs expended by the previous unit using road movement to enter the
22.1.1 How RePs Are Received
Each side may receive RePs in several ways. The most common way is by the use of the Replacement Table to determine how many, and what type of RePs are received. German formations may also receive RePs by being placed in reif. Units already in play may also be used to generate RePs for other units. Scenario rules will detail how RePs are received.

22.1.2 When RePs Are Received
RePs are received during the Transport & Logistics Phase (3.3.4). This includes RePs received due to recycling.

22.1.3 Recycling Step Losses
If allowed by scenario rules to use step loss recycling, players must keep track of their step losses by type (armor or infantry). In the Transport and Logistics Phase, both players cull losses. The number of step losses for each type is divided by that side’s cull number and the result is the number of RePs of that type received. Remaining losses after culling are carried over to the next AM GT. RePs garnered are immediately available.

22.1.3a Returnees & Armor Repair
Both sides receive infantry RePs and armor RePs based upon losses in both categories.

22.1.3b Recording Step Losses
When a non-HQ unit that is not isolated takes a step loss, that loss is recorded using the “Inf” marker, or “Arm loss” marker on the army track. Units that are isolated are not eligible to have their step losses recorded. The type of loss that is recorded is based upon the recycle step value shown on the Unit Replacement Table. It takes two Z-step units to generate the equivalent of one step loss.

Important Note: If a specific unit type is not shown on the table it does not garner points nor can it receive RePs or be resurrected.

Note: Losses are tracked by nationality and side only. Players are not required to track losses by army or army group.

Example 1: A German Recon step is lost; the unit is not isolated. Refer to the Unit Replacement Table under the heading Axis Replacement Costs Column, and cross reference the recon symbol with the Recycle Step Column. A German Recon step loss counts as one-half an armor step. Record a one-half armor step loss on the army track using the “armor loss” marker.

Example 2: A US armored engineer step is lost; the unit is not isolated. Using the same procedure as above, except using the Allied replacement list, you will find that one step loss of Allied armored engineer counts as one infantry step.

22.1.3c Converting Step Losses
Conversion occurs during the Transport and Logistic Phase. Divide the number of step losses recorded during the preceding GD by the factors listed in 22.1.3d & 22.1.3e (or in the scenario rules) and add the result to the number of infantry and/or armor RePs received for that GD. Unused fractions of losses are carried over to the next GD. All other recorded step losses are zeroed out. The RePs generated from this process are recorded on the army track. Once these steps are recorded on the army track, they function exactly like RePs.

22.1.3d Culling Infantry Losses
Each side culls its current Inf step loss total (22.1.3c) and receives Inf RePs based on the following formulas (cull numbers may be modified by scenario rules):

Axis: For every four Inf step losses, the Axis side receives one Inf ReP.
Allied: For every five Inf step losses, the Allied side receives one Inf ReP.

Designer’s Note: Lower Allied return rate reflects the higher incidence of battle fatigue and shell shock among Allied soldiers and a system that was not as effective as the Germans.

22.1.3e Culling Armor Losses
Each side culls its current armor step loss total (22.1.3c) and receives armor RePs based on the following formulas (cull numbers may be modified by scenario rules).

Axis: For every four armor step losses, the Axis side receives one armor ReP.
Allied: For every three armor step losses, the Allied side receives one armor ReP.

22.1.4 Replacement Table
During the Transport and Logistics Phase, both sides refer to the Replacement Table and procedures provided in each game to determine the number and type of RePs received.

22.2.0 Replacing Step Losses
During the Replacement Segment of a friendly Combat Phase (3.3.5e), RePs are used to replace step losses by removing step loss markers or flipping reduced units back over to their full-strength side. When a unit receives the correct number and type of RePs (as indicated on the Unit Replacement Table) it may regain one step of strength. A unit may not replace more than one step per GT.

22.2.1 Units Eligible to Receive RePs
To be eligible to receive RePs a unit must:
• Be in tactical mode (can be in combat reserve).
• Be in GenS (not OoS).
• Not be attack designated.
• Not be fatigued.
• Not be adjacent to an enemy unit unless it is a leg unit in observation CT.
• Mech units may not be adjacent to an enemy unit and cannot be observed.
• Must be listed on the Unit Replacement...
22.3.0 Resurrecting Eliminated Units

Units in the Eliminated Units Box can be brought back into play by the use of RePs; this is called resurrecting the unit.

22.3.1 How to Resurrect a Unit

A player selects an eliminated unit:
- Units that were isolated (15.7.0) at the time of elimination require one extra Inf ReP when the first step is rebuilt (this Inf ReP is in addition to the requirements listed below). Players must keep track of units that were eliminated while isolated by placing them in a separate dead pile.
- Leg class units expend one-half an Inf ReP.
- Mech class units expend one-half an armor ReP.
- One step units do not require the expenditure of the one-half ReP. However, if isolated when eliminated they do require the one extra Inf ReP.
- The player must then expend enough RePs to replace one of the unit’s steps.
- A resurrected unit never enters play with more than one step, although it can subsequently be built back up to full strength.

22.3.2 Resurrected Unit Placement

Resurrected units re-enter play by being placed in or adjacent to their superior HQ. The HQ must be in GenS. The unit is in GenS when it arrives.

22.3.3 HQ Resurrection

An eliminated HQ unit must remain in the Eliminated box for three full GTs before it can be resurrected. When it is resurrected, it is placed in a hex with or adjacent to any of its subordinate units, or if none exists, it is placed adjacent to its superior HQ unit.

22.3.4 Resurrecting with RE Units

German rear echelon (RE) Btns (see UTC) may be used to resurrect eliminated Btns.
- Only one RE Btn may be eliminated every two GDs to resurrect other units.
- The RE Btn is eliminated and may not be resurrected.
- It requires two steps of an RE Btn to resurrect one step of an Inf.
- Engineer and Recon units may not be resurrected using RE Btns.
- This process may not be used for any type of unit requiring armor RePs.
- Using this process, the extra one-half of a ReP is not required to resurrect the unit.

22.3.5 Z-step Units

Z-step units cannot be resurrected or receive replacements, nor are they counted as losses.
- Coy units that are back printed with a z-step of the same type as the front of the counter are counted as losses when the Z-step is eliminated, not when reduced from Coy to z-step.
- If a Coy breaks down into two z-step units, the owning player only counts the unit as a loss when both z-step units have been eliminated.

Note: Players may track z-step breakdowns individually (i.e. which z-steps represent which exact Coy, or they may simply show the Coy as a breakdown and once two z-step units of the same type as the Coy are eliminated, move the Coy to the eliminated box.

22.4.0 Hybrid Steps

The first rebuilt step loss of a hybrid unit is equal to the ReP cost of the most expensive AFV type it contains plus the cost to resurrect the unit. The second step is equal to the cost of the infantry component. If a third step exists, as in the case of some of the US hybrid units, it is equal to the cost of the cheaper AFV.

22.5.0 Unit Consolidation

Players may transfer steps between units. These transfers always occur during a friendly replacement segment. The units transferring steps must meet the following requirements:
- The transferring and receiving units must be in the Eli.
- The transferring unit must be in GenS when it arrives.
- Neither unit may be in observation CT.
- Mechanized or Armored units receiving a transfer may not be in CR mode.
- The transferring unit does not have to be from the same formation or unit class.
- Units from different formations may not be transferred or observe by an enemy unit.
- Supply status of the two units is ignored.
- Units from the same formation may always transfer steps between each other as long as they are of the same type.

Note: Attached units are not considered part of a formation.
- Units from different formations may not transfer steps if the difference between their offensive PR is greater than one.
- An HQ unit may transfer one step to any infantry unit in its formation.
- Excluding the procedures in 22.5.1 and 22.5.2 no unit can receive and/or transfer more than one step per GT.
- Two Z-step units of the exact same type unit may consolidate into one Coy-sized unit. If either of the PR values are different use the Coy-sized unit with the lower value(s).

Example: An Inf Btn could transfer one step to one other eligible Inf Btn. The transferring Btn could not also receive a step loss, nor could it transfer a second step to another or the same Inf Btn. A receiving Btn could not receive a second step from any other unit.

22.5.1 German RE Battalions

RE Btns may transfer steps directly into infantry units of any formation, ignoring proficiency ratings. However, it takes two RE steps to replace one step in an infantry unit with a PR rating of six or better. If the unit is a PzGd or motorized unit, the normal, additional one-half armor ReP must also be spent to replace such a step loss (see the Unit Replacement Table). Engineer or Recon units may not receive RePs from RE Btns.

22.5.2 German Ersatz Units

German ersatz units may conduct unit consolidation the same as other infantry units. They are not restricted to one step in or out; ersatz units may transfer a total of two steps in or out (any combination of adding steps to the ersatz unit, and transferring steps from the ersatz unit to another unit, with a maximum of two steps transferred). Ersatz units may also transfer their last step. Ersatz units may only transfer steps to units subordinate to the same HQ as the Ersatz unit.

22.6.0 German Divisional Refit

German formations may be taken out of combat and refit. A division in refit receives RePs that are separate from those generated by the Replacement Table.
Note: Divisions in refit may still use RePs received by other means. There is no limit on how many divisions may be in refit at any one time, but note the requirements for voluntarily releasing a division from refit.

22.6.1 Refit Eligibility

The units of the formation, except for any two artillery units, which can be treated as corps/army asset units, must all be at least 20 hexes away from the nearest enemy unit. They must be in GenS.

22.6.2 Transfer of Steps

Once the division has been declared entering refit, but before it receives any ReP, it may transfer unit steps to other formations. The receiving formations may also be in refit.
- The transferring formation HQ and the receiving formation HQ must be within three Mech MP of each other and both must be in GenS.
- The receiving unit may not be adjacent to an enemy unit or it be observed by an enemy unit (air observation does not apply).
- The receiving unit must be in GenS.
- Receiving units do not have to be from the same formation as long as the restrictions noted above are met.
- Each non-HQ or non-artillery Btn-sized unit of the formation, that has not been eliminated, may transfer all but its last step to other formations.
23.0 LEADERS

Leaders have special abilities that enhance the performance of the units under their command. Some of these abilities are listed below, while more specific leader rules are given in scenario rules. A leader must be activated each AM Command Phase. Inactive leaders confer no benefits and must remain stacked with their HQ for the entire GD. Each leader has a command designation printed on their counter (i.e., the US leader, Robertson has “2nd Division” printed on his counter).

23.1.0 Activating Leaders

All leaders de-activate at the end of the night GT or at the end of any ENA activity. At that time all un-isolated leaders are automatically moved to their designated HQ. (Simply pick them up and place them on their designated HQs with their inactive side up.) During the Leader Activation Segment of the Command Phase, each side makes an activation check for all leaders on the map. Roll 1d10 and compare the result to the leader’s activation value.

- If the DR is less than the value, the leader is activated for the entire GD. The leader may then be immediately placed with any HQ or unit subordinate to that leader. Leaders activated and placed in this manner are considered starting the GT or GD at that location.

- Activated leaders can move normally, during either the friendly Movement or Exploitation Phase, using either Mech or Leg movement (they may switch from one to the other in the same movement phase, paying the least MP cost for each hex or hexside). Leaders have a MA of twelve.

- If the DR is equal to or greater than the activation value, the leader remains stacked with his designated HQ, inactive side up.

**Exception:** If a leader is cut off (i.e. isolated from his HQ) that leader is left with the units he is currently stacked with until no longer isolated. The leader still activates and de-activates normally. Additionally, a leader may not be placed with units that are isolated unless the leader is already within the “pocket”.

23.2.0 Activated Leader Benefits

Leaders, unless specifically stated otherwise in scenario rules, confer the below benefits.

- **Leadership Bonus:** The leader is treated as a formation leader, unless specifically stated otherwise in scenario rules. If the leader is within a hex alone when the hex is attacked, he may increase his initiative rating instead of their own initiative ratings (3.4.2).

- **Formations benefit:** Each activated leader confers aLeadership Bonus to formations that they are assigned to or placed with. The bonus applies to all units in the formation. The bonus is calculated as follows:

23.2.1 Formation Leader Benefits

Formation leaders generate the benefits listed in 23.2.1a, b, c, & d for their subordinate units.

- **Leader Movement Bonus:** An activated formation leader:
  - If stacked with the formation HQ, increases the MA of all units subordinate to that HQ by one MP.
  - If stacked with or adjacent to subordinate units, he may increase the MA of those units (only) by one MP.
  - Unless scenario rules state otherwise, no more than one leader movement bonus can apply to any given unit.

- **Some German leaders are listed as “Kampfgruppe” leaders. Consult scenario rules for specific restrictions or benefits for those leaders. If none are given, consider them a formation leader.**

23.2.1b Leader Combat Bonus

A leader in or adjacent to a hex with at least one subordinate unit that is attacking or defending in a GA confers a favorable, one-column shift bonus to the GA.

- A leader may only confer his bonus to one GA per player turn.

- Only one bonus can be awarded per side per GA unless scenario rules allow multiple benefits.

23.2.1c Leaders & ENA Activation

Units attempting to activate for extended night activity may use an activated leader’s initiative rating instead of their own proficiency ratings (3.4.2).

23.2.3 Leaders & Multi-formations

A leader that is stacked with units participating in a GA negates the multi-formation penalty for that stack.

23.2.4 Leaders & PR Checks

Leaders provide a -1 DRM to all PR checks made in the leader’s current hex.

23.3.0 Leader Casualties

Leaders may be killed (removed from play) if any of the following occur:

- If stacked with units that participate in a GA or are subject to a FS mission and any unit in that stack suffers a step loss. Roll 2d10; if the result is five (05) or less the leader is eliminated.

- If a leader is in a hex alone when the hex is entered by an enemy combat unit. Roll 2d10; if the result is greater than five (05), the leader is displaced to the closest friendly unit.

24.0 LULLS

Armies cannot attack all the time; at some point rest and regrouping is necessary.

24.1.0 When a Lull Occurs

A lull occurs at the end of the Weather Determination Phase if requested by one side and the opposing side grants the lull. A lull may also be required by scenario rules. The side requesting the lull is Side One, and the side that grants it is Side Two.

24.1.1 Mandated Lulls

Scenario rules may require lulls to occur at specific points in the game. In such cases the scenario rules will state who Side One is and who Side Two is.

24.1.2 Voluntary Lulls

In the Lull segment of the Weather Determination Phase, each side must inform the opposing side if they wish to request a lull.

- The Allied side requests first.
• If a lull is already in place, Side Two must inform Side One if they will attempt to break the lull by launching a counter-offensive.

24.1.2a Request for Lull Granted
A lull goes into effect immediately if a side requests a lull and the other side grants it. A voluntary lull must last for a minimum of twenty-one GTs unless broken sooner by Side Two (24.3.0).

24.2.0 Lull Effects
During a lull the following restrictions are in place:
• Side One may choose up to one formation from each army to remain active. That formation may have up to three attached units and up to six corps/army units may support each formation.
• Side Two may choose up to two formations plus ten other units (attached and/or corps/army assets), to remain active with one important limitation: Side Two’s active formations may only be used to conduct combat and FS missions against Side One’s active units.
• Side Two’s units may not enter hexes adjacent to any other enemy units unless they are in observation CT. They may never attack Side One’s units that are not active.
• Side Two may choose, during any succeeding Command Phase, one other formation to replace one of its two original active formations, but this formation must either come from refit or army reserve.
• Side Two units not declared active will become active the next GT after they have been attacked by a GA (including overrun). They de-activate two GTs later if not attacked during the previous GT. Side Two artillery units may always conduct defensive FS missions.

24.2.1 Movement
During lulls, inactive units may only move during the AM GT, but their MA is doubled. Inactive units may not move adjacent to an enemy unit if a friendly unit is not already adjacent to that same enemy unit. Active units may move normally, except as specified in 24.2.0.

24.2.2 Combat
During a lull only active units may conduct activity during the PM and night GTs. The rest of each side’s units may not initiate any GAs, nor observe for or conduct FS missions during any turn except the AM GT.

24.2.3 Air Activity & Lulls
Air activity other than supply interdiction is confined to only the formations that are active. No more than eight APs may fly GS missions for either side during a lull. There is no ground interdiction during lulls active in the preceding GT are still active. Roll 1d10 for each army on the map, the result of the DR is the number of additional units he may activate in each army.
• Any of Side One’s units that were ground assaulted or adjacent to any unit ground assaulted by Side Two in the first two GTs are also active.
• The benefits in 24.4.0 are received by the side launching the counter offensive.

25.0 ARMY RESERVE
Each side may create an army reserve. Only formations that are currently in army reserve may be used to launch counter offensives (24.3.0, 24.5.0).
• Each army may designate up to four formations as a reserve.
• Independent BG count as one-half a formation for the purposes of this rule.
• All units in the reserve must be at least seven hexes from the nearest enemy unit.
• While in reserve a formation may receive RePs and rebuild units using the normal replacement rules.

25.1.0 Entering Reserve
Once a formation has entered reserve, the owning player writes down its location.
• Each army may have up to two locations designated for its reserve formations.
• All four formations must be located within four hexes of a single location, or two pairs of formations may be located in two separate locations.
• Once the locations are designated the owning player may remove all non-isolated units of the formations from the map board.
• During the Command Phase, a player may re-locate his reserves by designating a new location. The new location must be within four hexes of the previous location, and all units of each formation must be able to be placed on the map within four hexes of the new location while remaining at least seven hexes from an enemy unit. Players do not place them on the map; they just need to ensure that all units could be placed a minimum of seven hexes from an enemy unit.

25.2.0 Leaving Reserve
• If a formation remains in reserve for a minimum of nine consecutive GTs, it is considered to have been in MR, and receives all the benefits of the MR bonus period.
• A formation in reserve is involuntarily released and placed on the map if an enemy unit moves within two hexes of the noted location of the formation HQ.
• When a formation is released, all its units are placed on the map. They must be placed within seven hexes of their designated HQ position, not adjacent to

24.2.4 Replacements & Reinforcements
Supply and ReP activity continues in a normal fashion with any PM or night reinforcements being brought in during the following AM GT and are allowed to move up to double their MA. Formations may be placed in maneuver reserve during a lull.

24.2.5 Construction & Demolition
During a lull, each side may place one ET-2 marker per inactive engineer unit (with at least two steps) per GD in any hex that is not adjacent to an enemy unit. Four engineer steps will allow the placement of an ET-2 even in a hex adjacent to enemy units. All fortified area hexes in enemy controlled hexes are destroyed.

24.3.0 How a Lull Ends
To end a lull:
• At the time Side One requests a lull, he must secretly write down the GT that the lull will be terminated.
• If the lull has not been broken before this GT, it must be terminated on that GT. The lull is no longer in effect at the beginning of the next GT.
• If the weather is not clear or if the ground condition is mud, Side One may postpone the end of the lull until the next GT. He may do this up to five times.
• Side Two may end the lull at any time after 15 GTs have elapsed. When Side Two ends the lull in this manner, it is called a counter offensive.
• Non-isolated units of both sides are automatically in GenS for one full GD starting with the GT the lull ends.

24.4.0 Effects of Ending a Lull
The side ending a lull is awarded bonuses beginning the GT the lull is ended.
• On first GT, the side ending the lull may conduct unobserved artillery FS missions. All unobserved missions may have up to three artillery units participate.
• On the first GT, all of the opposing side’s (the side that did not end the lull), artillery barrage factors are halved (but never below 1).
• On first two GTs, all GA initiated by the ending side receive a one-column surprise shift (one shift to the right).

24.5.0 Counter Offensive
If Side Two ends a lull by declaring a counter offensive the effects are as follows:
• On the first GT of the counter offensive, Side One must activate units that were not active prior to the end of the lull. Roll 1d10 for each army on the map and one-half of the DR result is the number of units he may activate during his friendly Movement Phase.
• On the second GT of the counter offensive, all Side One units that were
enemy units.

**Note:** Only a formation in reserve may be used to replace one of Side Two’s active formations during a lull. The formation being replaced must be placed into reserve as soon as possible.

### 26.0 OPTIONAL RULES

This section provides a number of rules players wanting more detail may agree to us.

#### 26.1.0 Multi-Formation Penalty

If a unit moves into a hex containing a friendly unit from a different formation, one extra MP must be expended by the moving unit to enter that hex. Units moving in PA mode pay no extra cost.

#### 26.2.0 Artillery Group Holding Boxes

Instead of placing artillery units directly on the map, a player may use the Artillery Group Holding Boxes to relieve unit congestion. The artillery units are placed in the hex on the holding boxes that corresponds to their actual location in relation to the Artillery Group Hold Box counter that is on the map. The opposing player may not examine his opponent’s Holding Boxes, unless he moves a unit to a location that is within two hexes of a holding box counter.

**Note:** This is only a player aid, and all normal rules are in effect, even while the artillery unit is off map.

#### 26.3.0 Tank Riders

Infantry units with an attack PR rating of “7” or more may “ride” on AFV units when both units are in PA mode. In this case, both units may move as Mech units (the infantry must accompany the AFV unit it is riding.) Each step of AFV units may “carry” one step of infantry. If such a unit is subject to a FS mission, an additional +1 DRM is applied to each volley of that mission.

**Note:** Using this rule allows leg Inf units to advance two hexes while in PA mode.

#### 26.4.0 Strat Move & Assembly Areas

Each formation, sub-formation, or independent unit conducting Strat movement must be assigned an “Assembly Area” immediately after being marked with a Strat Move marker.

**Note:** Formations can be broken down into sub-formations (divisional assets can be divided however the owning player desires) with each sub-formation being assigned a different assembly area.

- The owning player secretly writes down the hex number of an assembly area, noting the identity of the units assigned to that assembly area.
- Units must move as directly as possible to their assigned assembly area.
- Each unit cannot remove its Strat move marker until it begins a friendly Movement Phase within three hexes of its assembly area hex.

- An assembly area may be changed at the start of a friendly Movement Phase if the assembly area if there are enemy units within three hexes of the assembly area hex or if the assembly area is unreachable by those units. Use common sense and be fair to your opponent.

- An assembly area may also be re-designated during the AM Command Phase at the owning player’s option.

- If an assembly area is moved, the new assembly area must be within 10 hexes of the previous one.
3.0 THE GAME TURN

3.3.1 Air Allocation Phase (AM)
• Both sides determine the number of APs they have available for the entire GD.
• Both sides assign available AP to specific missions. These points can then be used throughout the AM and PM GT of that GD. Adjust the AP markers to reflect the number of APs that have been assigned to each mission.

3.3.2 Weather Determination Phase
Weather Segment: Determine the atmospheric condition, ground condition, and precipitation for the current GT (19.0).
Ground Interdiction Value Segment: Allied air interdiction values are determined (20.3.0).
Naval Unit Assignment Segment: Players determine the number of available naval units (11.9.0).
Lull Determination Segment: Lull declarations are made (24.0).

3.3.3 Command Phase (AM)
Command Segment:
• Both sides designate rest GTs (3.5.0).
• Both sides change or create new command assignments and boundaries (9.0).
• Both sides determine the supply status of all HQ (15.0).
Leader Activation Segment: Both sides attempt to activate leaders (23.1.0).
Surrender Segment: Both sides determine if isolated units’ surrender (15.7.0).

3.3.4 Transport & Logistics Phase (AM)
Both sides perform the following segments with each of their armies.

Truck Point Assignment Segment:
Determine the total number of TP available to each army and allocate these points to one of the three tasks (16.1.0): ammunition, fuel, and/or motorization.

Ammo Delivery Segment: Determine the ADV for each army.

Fuel Delivery Segment: Refer to the Logistics Table to obtain the number of fuel points received by each army (16.2.0). Assign FP to HQ as desired (16.4.0).

Depot Placement Segment: Move or place new depots (15.8.0).

Replacement Point Segment: Both sides cull infantry and armor losses. Both sides receive RePs (22.0).

3.3.5 Allied Player Turn
The Allied side is the active player; the Axis side is the inactive player.

3.3.5a Allied Mode Determination Phase
• Roll 1d10 for each HQ marked “low” or “no fuel.” Consult the Fuel Level Table to determine the effect (16.4.5).
• Determine the mode each unit will be in for this GT (5.0).
• Artillery units are placed in-battery or out-of-battery (5.6.0).

3.3.5b Allied Construction Phase
The Allied side conducts construction of fieldworks and bridges (17.3.0).
• All FW and bridge markers eligible to be finished are flipped to their “completed” sides.
• Advance the construction of bridges.
• Start construction of bridges and FWs.

3.3.5c Allied Movement Phase
The Allied side moves units.

3.3.5e Allied Combat Phase
The Allied side conducts construction of fieldworks and bridges (17.3.0).

3.3.5f Allied Exploitation Phase
The Allied side conducts construction of fieldworks and bridges (17.3.0).

3.3.6 The Axis Player Turn
The Axis player turn is identical to the Allied player turn, with all roles being reversed. Once this player turn is over, the current GT is complete.

3.4 ENA Sequence of Play

3.4.3a ENA First Player Turn
• First Player Movement Phase
• Second Player Exploitation Phase (full MA)
• First Player Combat Phase
• First Player Exploitation Phase (full MA)

3.4.3b ENA Second Player turn
• Second Player Movement Phase
• First Player Exploitation Phase (full MA) if the first player did not use his Exploitation Phase in the First player turn, he may conduct this segment.
• Second Player Combat Phase
• Second Player Exploitation Phase (full MA) if the second player did not use his Exploitation Phase in the First player turn, he may conduct this segment.

3.4.4 ENA Mutual Fatigue Phase
Each unit activated during the ENA period has a fatigue marker placed upon it during the Mutual Fatigue Phase (14.1.2).
**Observation & LOS (8.0)**

Determine Max AP allowed per mission (see scenario)

<table>
<thead>
<tr>
<th>Location, Village, Town and City</th>
<th>Woods and Hedgerow</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET-3, Fortified Area, Fort</td>
<td>Forest and Bocage</td>
</tr>
</tbody>
</table>

Strat move unit can be observed by units in LOS, OCT is negated.

Attack-designated units observe into terrain in adj hexes.

**LOS Ranges (8.1.2)**

- High Vantage Point: See scenario for LOS. Not blocked by any other type terrain (1) (3)
- Village, Town, City: Blocked by VP only (2)
- Overcast: 2

- US Air Observation: 6/3 AM & PM GT (4)
- Hedgrowing not MCT 1/2 LOS Range
- Hedgrowing not MCT 1 hex out
- Except other High Vantage Point
- Air Observation, Clear: Within 6 hexes of in GenS friendly unit, target not in OCT. In any hex, if using Strat Movement.
- Air Observation, PoVr: Within 3 hexes of in GenS friendly unit, target not in OCT. Hex not OCT & target is using Strat Movement.

**Spotters (11.2.2)**

- Btn-sized unit may spot for missions in two separate target hexes.
- Coy-sized units may spot for missions in one target hex.
- Z-step units may not be spotters
- Max of 2 units may be selected as spotters from a single hex.
- A unit may not spot for missions if that unit has advanced.
- A unit may only spot for formation it is subordinate.

**Designate Mission Units (11.2.3)**

Designate number of air or naval units that will participate.

**Formation Requirements (11.2.5)**

Participating artillery units must be assigned to:

- The same formation as the spotter.
- 1 unit from each formation assigned to same corps as the spotter.
- The same corps & army as the spotter’s formation.

**Artillery FS Mission Points (11.4.1)**

Art: Each barrage factor equals one FS mission point.

**Artillery Split Fire (11.4.1d)**

- All CW & US artillery units.
- Axis Div Art: May only split their fire into a Max of 2 missions.
- Unit that split fires, still counts as 1 unit for mission capacity.

**Ground Support (11.4.3 & 20.2.0)**

**DRMs**

<table>
<thead>
<tr>
<th>Type</th>
<th>DR Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woods, Hedgerow or Town</td>
<td>0-7 Success</td>
</tr>
<tr>
<td>Forest, Bocage, or City</td>
<td>8 Scatter</td>
</tr>
<tr>
<td>Partial Overcast</td>
<td>9 Abort</td>
</tr>
<tr>
<td>Overcast</td>
<td></td>
</tr>
<tr>
<td>Per Flak Pt in or adj to target</td>
<td></td>
</tr>
<tr>
<td>Target unit is using Strat Movement</td>
<td></td>
</tr>
<tr>
<td>US or CW mission starting Sept 1944</td>
<td></td>
</tr>
</tbody>
</table>

**Proficiency Ratings (4.4.0)**

<table>
<thead>
<tr>
<th>Type</th>
<th>Offensive PR</th>
<th>Defensive PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>German Mech Coy</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>German 1-2-6 Inf Coy</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>All other Coys</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>WN</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>STP</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>

+1 to Defensive PR if in ET, Fort, Fortified Area (max 8)
Grand Operational Simulations Series (GOSS)

Naval FS Mission Points (11.4.2)

<table>
<thead>
<tr>
<th>Type</th>
<th>Str</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battleship</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>Monitor</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Heavy Cruiser</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>Light Cruiser</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Destroyer</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

Each naval unit's fire is a separate volley. Count range from 1st all sea hex.

FS Mission DRMs (11.5.0)

Are cumulative unless otherwise noted.

<table>
<thead>
<tr>
<th>DRMs (Max DRM of +/-10)</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRM Mod DR Result</td>
<td></td>
</tr>
<tr>
<td>Group A, Terrain (11.5.1)</td>
<td>&lt;=7 0 0</td>
</tr>
<tr>
<td>Rough, Woods, Forest, Hedgerow &amp; Location</td>
<td>-1</td>
</tr>
<tr>
<td>Marsh, Soft Ground, &amp; Swamp</td>
<td>-1</td>
</tr>
<tr>
<td>Bocage, Village, &amp; Wooded Rough</td>
<td>-2</td>
</tr>
<tr>
<td>Town</td>
<td>-3 10 1</td>
</tr>
<tr>
<td>City</td>
<td>-4 11 1</td>
</tr>
<tr>
<td>Group B Defensive Works (11.5.2)</td>
<td>12 AS1</td>
</tr>
<tr>
<td>IP, Destroyed Fortified Area</td>
<td>-1 13 AS1</td>
</tr>
<tr>
<td>ET-2, WN</td>
<td>-2 14 2</td>
</tr>
<tr>
<td>ET-3</td>
<td>-3 15 2</td>
</tr>
<tr>
<td>Fort, StP, Fortified Area</td>
<td>-7 16 2</td>
</tr>
<tr>
<td>Group C Armor (11.5.3)</td>
<td>17 AS2</td>
</tr>
<tr>
<td>AFV Mixed (1)</td>
<td>-2 18 AS2</td>
</tr>
<tr>
<td>AFV Pure (2)</td>
<td>-3 19 AS2</td>
</tr>
<tr>
<td>Group D Unit Density (11.5.4)</td>
<td>20 3</td>
</tr>
<tr>
<td>z-step to 2 steps</td>
<td>-1 21 3</td>
</tr>
<tr>
<td>5-6 steps</td>
<td>+1 22 AS3</td>
</tr>
<tr>
<td>7 or more steps</td>
<td>+2 &gt;=23 4</td>
</tr>
<tr>
<td>Group E Other Conditions (11.5.5)</td>
<td></td>
</tr>
<tr>
<td>Observing unit on a vantage point (3)</td>
<td>+1</td>
</tr>
<tr>
<td>Night or ENA GT</td>
<td>-1</td>
</tr>
<tr>
<td>Unobserved</td>
<td>-4</td>
</tr>
<tr>
<td>Target hex contains Strat Marker (4)</td>
<td>+4</td>
</tr>
<tr>
<td>NW vs target with leg units only (5)</td>
<td>+1</td>
</tr>
<tr>
<td>BB or MN Naval Unit is firing</td>
<td>+1</td>
</tr>
<tr>
<td>Naval in Ovr with rain</td>
<td>-2</td>
</tr>
<tr>
<td>Naval in PoVr with rain or Ovr without rain</td>
<td>-1</td>
</tr>
</tbody>
</table>

Fire Support DRMs Notes

0 No more than 1 DRM from each of A, B or C
1 Only 2 total DRM from A, B, or C can apply
2 Only C and 1 DRM from A or B can apply
3 Negated if target hex contains vantage point
4 Units using Strat move not eligible for Group B
5 First volley only, Target hex must be clear terrain only
  If all units are NW units, +1 DRM applies to all volleys

Ammo Depletion (11.8.0)

AD DR greater than ADV depletes 1 Btn for each point over
+1 DRM for each additional volley after first, add additional volleys garnered for intensive fire
+1 DRM for each volley if all mission units are NW
+2 DRM if supply path is extended
All of the above DRM are cumulative
Intensive fire automatically AD one Btn + DR
Hvy Flak & TD units are not effected by AD

Fire Mission Determine the Result (11.6.0)

| Artillery Shifts (AS) Results (11.6.1) | Apply AS results. A max of 1 to any stack or unit
| Inflict 1 AS if stack or unit retreats (still max of 1 AS allowed) |

Resolve Numerical Hits (11.6.2)

Unless Hvy Art participates in Art mission against units in Fort/Fortified Area, all step losses convert to 1 AS (11.4.1f).

First numerical hit taken as step loss

Units that are not attack designated must use this option if they are unable to retreat one hex due to terrain or enemy units. If units that are attack designated cannot retreat, they may choose either option if a defensive work exists in the hex.

Non-attack designated units in an ET-3 may remove the ET-3

Non-attack designated units in Fort may reduce Fort by 1 step.

If numerical hits remain:

Conduct a PR check. If non-attack designated unit in ET/Fort/fortified area, no PR check required

Pass; Remain in the hex (Max step loss doesn't apply)

Attack designated units retain designation.

Apply all hits as step losses/fatigue hits.

If target units not attack designated and in a fort, they may reduce the number of step losses by one for each step loss taken by the fort. ET-3 may not absorb remaining step losses.

Fail: Inflict AS hit and retreat (Max step loss doesn't apply)

Attack designated remove designation. Target units retreat 1 hex or, if attack designated, may withdraw into defensive works.

Retreat or withdrawal does not reduce the number of hits.

Apply all hits as step losses/fatigue hits.

ET-3 may not be used to absorb additional step losses.

If target units not attack designated & in a Fort, Fort is treated as combat unit for step losses.

First numerical hit as a retreat: Inflict AS hit

Attack designated target units remove designation, they may withdraw into defensive works or retreat 1 hex.

Non-attack designated target units must retreat 1 hex. Remove any Forts in the target hex.

Subtract 1 hit for retreat and divide remaining hits by 2

Result is the number of numerical hits that must be applied.

Numerical hits are inflicted as step losses up to the maximum step loss limit. If there are numerical hits remaining, convert a maximum of two numerical hits into fatigue hits. Remaining numerical hits are ignored.

If units retreat into hex without MCT adjacent to enemy add 1 numerical hit. (Max step loss does not apply)
### ADV GA Limits (15.3.2.d)

1 PA or 2 TA GA per point of Corps ADV

Unsupported Corp or formation 0 PA/TA

1 AmP expended allows 1 PA or 2 TA for unsupported formation

### Unit status (13.4.0)

Isolated defenders check for surrender.

Both sides determine stand off armor

Both sides determine use of OhS

During Rest GT or ENA, defender determines if will defend at 1/2

### Hasty Demolition

1 Eng Step 0-3 Very Heavy Tank (VH) 0-7

2 or more Eng Steps 0-5 Heavy Tank (H) 0-6

+1 DRM during Night GTs to Hasty Demolition DR

### Determining Ground Assault Value (13.5.0)

**Combat Strength Modifiers (retain fractions)**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Att</th>
<th>Arm</th>
<th>AT</th>
<th>Def</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatigue 1 (14.3.1)</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>Fatigue 2 (14.3.2)</td>
<td>0</td>
<td>1/4</td>
<td>1/4</td>
<td>1/4</td>
</tr>
<tr>
<td>Out of Supply (15.6.0)</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>Def OhS does not go OoO (15.5.0)</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>Standoff Armor (13.4.2)</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>No combined arms in MCT (13.5.1d)</td>
<td>1/2</td>
<td>0</td>
<td>0</td>
<td>1/2</td>
</tr>
<tr>
<td>Leg attack into/out of marsh (13.5.1a)</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>MU attack into/out of marsh (13.5.1a)</td>
<td>1/4</td>
<td>1/4</td>
<td>1/4</td>
<td>1/4</td>
</tr>
<tr>
<td>MU defending in Marsh (13.5.1b)</td>
<td>--</td>
<td>1/4</td>
<td>1/4</td>
<td>1/4</td>
</tr>
<tr>
<td>Leg attack over river (no Eng) (13.5.1a)</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>MU/Leg across ford/bridge (13.5.1a)</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>Leg across Maj River with Eng (17.2.0)</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>Def in ENA, doesn’t fatigue (14.1.2)</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>Art stacked with other unit (13.5.1b)</td>
<td>1/4</td>
<td>1/4</td>
<td>1/4</td>
<td>1/4</td>
</tr>
<tr>
<td>Any two halving reasons (13.5.1a &amp; b)</td>
<td>1/4</td>
<td>1/4</td>
<td>1/4</td>
<td>1/4</td>
</tr>
<tr>
<td>AD Artillery (13.5.1c)</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

### DRMs (13.7.0)

**Maximum of +/-60**

<table>
<thead>
<tr>
<th>Type DR</th>
<th>Att</th>
<th>Att Max</th>
<th>Def</th>
<th>Def Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combat Reserve (13.7.3)</td>
<td>+5</td>
<td>3</td>
<td>-5</td>
<td>3</td>
</tr>
<tr>
<td>RIBs (13.7.4)</td>
<td>+5</td>
<td>6</td>
<td>-5</td>
<td>3</td>
</tr>
<tr>
<td>Proficiency (13.7.6)</td>
<td>+5</td>
<td>No Max</td>
<td>-5</td>
<td>No Max</td>
</tr>
<tr>
<td>Armor/Antitank (13.7.5)</td>
<td>+10*</td>
<td>See below</td>
<td>-10*</td>
<td>See below</td>
</tr>
</tbody>
</table>

* If a side has a printed AF/AT value of 5 or greater and if other side has Arm in hex with no CT; Each bonus is worth 15 DRM

### Proficiency Ratings (4.4.0 & 13.8.6)

<table>
<thead>
<tr>
<th>Type</th>
<th>Offensive PR</th>
<th>Defensive PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>German Mech Coy</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>German 1-2-6 Inf Coy</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>All other Coys</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>WN</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>STP</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>

+1 to Defensive PR if in ET, Fort, Fortified Area (max 8)

### GA Resolution (13.9.0)

Attacker then defender resolves GA (13.9.0)

Conduct required PR checks (13.9.1)

Mandatory hits must be taken as step losses (13.9.2)

Remaining mandatory are converted to discretionary hits. (13.9.2)

There are exceptions to Max Step loss (13.9.0)

Mandatory hits may be reduced (13.9.2b)

Step Losses must be taken in order of priority (13.9.2a)

1 Z-step is eliminated for each hit taken as step loss. (13.9.2a)

Resolve Discretionary Hits (13.9.3)

Convert Discretionary Hits (13.9.3a)

Retreat procedures (11.6.4)

Attacker Advance after GA (13.10.0)

### Ground Assault Charts and Procedures

#### Column Shifts (13.6.0)

**Defender:**

- Marked AS
- In Vantage point hex
- In IP
- In ET-2 or WN
- In ET-3, Fort, Fortified Area, or STP
- Commits Leader (Check leader)
- Any unit is Green 2
- Any unit is Green 1
- Marked Strat Movement
- Has ADV of Zero (not supported)
- In Combat Reserve
- In Exploit Mode
- Overstacked
- Is Multi Formation
- Any unit in extended supply
- Each Adj hex with friendly unit, if Att in CT, must be adj to Att & Def, AS on support unit cancels 1 shift
- Each Adj hex from above in Vantage Pt.

**Attacker:**

- Is in PA Mode
- Has a AS marker
- Any unit is Green 2
- Any unit is Green 1
- Commits Leader (Check leader)
- If any stack is Multi Formation
- Overstacked in any hex
- Attacking in Night GT or ENA Period
- Has any unit in extended supply
- All units in MR Bonus period
- Attacking Def Works. Each stack with 1 Eng unit with at least 1 other unit (only cancels Def works shifts)
- Attacking Town or City. Each stack with 1 Eng unit with at least 1 other unit. Only applies if no Def Eng.

#### Armor AT Effects (13.7.5)

If result of below is 0 or less, no bonus is awarded

**Attacking Armor versus Defending Armor**

If Att & Def AF equal stop, (no bonus)

If not equal, Subtract the smaller number from the larger

If Att armor in clear, Def may use clear terrain

If Att armor not in clear, or Def doesn’t choose option

Modify result by Terrain Modifiers do not use FW/Fort

**Attacking Armor versus Defending AT**

If Att AF & Def AT equal stop, (no bonus)

If not equal, Subtract the smaller number from the larger

If Def AT is the larger do not modify result for terrain

If Att AF is larger, Modify result by Terrain Modifiers

Modify result by Terrain Modifiers below, do not use FW/Fort

**Attacking AT versus Defending Armor**

If Att AT is greater than or equal to Def AF stop (no bonus)

If Att AT is less than Def AF, subtract Att AT from Def AF

### Maximum Armor/AT bonus

- Clear Terrain AM or PM GT (5)
- Clear Terrain Night/ENA (2)

### Terrain Modifiers to AT/Arm

<table>
<thead>
<tr>
<th>Terrain</th>
<th>Mod</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rough</td>
<td>-1</td>
<td>4</td>
</tr>
<tr>
<td>Woods</td>
<td>-2</td>
<td>2</td>
</tr>
<tr>
<td>Hedgrow</td>
<td>-2</td>
<td>2</td>
</tr>
<tr>
<td>Forest</td>
<td>-2</td>
<td>1</td>
</tr>
<tr>
<td>Bocage</td>
<td>-2</td>
<td>1</td>
</tr>
<tr>
<td>Stream</td>
<td>-1</td>
<td>--</td>
</tr>
<tr>
<td>Marsh</td>
<td>-3</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Terrain</th>
<th>Mod</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village</td>
<td>-1</td>
<td>4</td>
</tr>
<tr>
<td>Town</td>
<td>-2</td>
<td>2</td>
</tr>
<tr>
<td>City</td>
<td>-3</td>
<td>1</td>
</tr>
<tr>
<td>IP</td>
<td>-1</td>
<td>--</td>
</tr>
<tr>
<td>ET-2</td>
<td>-2</td>
<td>--</td>
</tr>
<tr>
<td>ET-3</td>
<td>-3</td>
<td>--</td>
</tr>
<tr>
<td>Fortified Area/Fort</td>
<td>-4</td>
<td>--</td>
</tr>
</tbody>
</table>
**Ground Assault Charts and Procedures**

**Applying GA Results (13.9.0)**
The attacker, then the defender, applies the GA results.

**Conduct Required PR Check (13.9.1)**

**Resolve Mandatory Hits (13.9.2)**
Mandatory hits must be taken as step losses. Max step loss applies. Remaining mandatory hits are converted to discretionary hits.

**Exception:** Max step loss does not apply if the defender is in clear terrain and during a GA or overrun the attacker is able to generate at least 1 unmodified AF and defender cannot generate at least 1 unmodified AF or AT factor. Mandatory hits may not be converted to discretionary or fatigue hits.

**Step Loss Priorities (13.9.2a)**
1. Lead-P unit (13.7.6)
2. If armor/AT factors were used, lead armor/AT unit (13.7.5).
3. Any engineer unit that used its capabilities for combat.

Steps are then taken from any non-HQ, non-artillery units. Art/HQs cannot take losses until all others have taken 1 step loss.

If Non-attack designated units are in Fort & all units have taken a step loss; and there are still mandatory hits remaining, up to the total remaining mandatory hits must be inflicted on the Fort. If the Fort is eliminated the units may still ignore all discretionary hits and are not required to pass a PR check to remain in the hex.

1 Zero-step unit is eliminated for each mandatory hit suffered as a step loss (4.3.1a). These step losses do not count towards satisfying mandatory or discretionary hits.

**Reduction of Mandatory Hits (13.9.2b)**
Recon & CDO units may convert one mandatory hit.

Non-attack designated in a hex with ET-3, may remove the ET-3, & reduce the number of mandatory hits by 1. If this option is selected, the units would be required to pass a PR check to convert discretionary hits (13.9.3).

**Resolve Discretionary Hits (13.9.3)**
Resolved by retreat, inflicting step losses and/or by inflicting fatigue hits. Use the retreat procedures in 11.6.4.

Forts & non-attack designated units in a Fort or fortified area hex ignore all discretionary hits. Max step loss applies. All remaining mandatory hits converted to discretionary hits are ignored.

Defending units reduce discretionary hits by 1 for every hex of retreat by the attacking side.

Attack designated units in a hex with defensive works may remove the designation & withdraw into the defensive works to satisfy the last discretionary hit. If the units had more than one discretionary hit, they would have to pass a PR check (13.9.3a) to resolve additional discretionary hits prior to withdrawing into the defensive works. If they fail the check, they may not withdraw into defensive works. The defensive works and any units in them are ignored.

If all units are able to retreat at least 1 hex
Remaining discretionary hits are inflicted as step losses up to the maximum step loss limit (previous losses count).
If there are hits remaining, convert a Max of 2 hits into fatigue hits. Remaining discretionary hits are ignored.

If part of a force retreats enough hexes to fulfill all hits, and part cannot, the units that were unable to fulfill the total hits are handled as if they failed their PR check (13.9.3a). If they are eliminated, prior to resolving all hits, ignore remaining hits.

**Convert Discretionary Hits (13.9.3a)**
To voluntarily convert discretionary hits, the affected side must pass a PR check using the unit with the lowest PR involved in the GA (attacker uses attack PR, defender uses defensive PR). Non-attack designated units occupying an ET, Fort, or fortified hex are not required to conduct a PR check, they automatically pass.

**Advance Distance (13.10.2a)**
Units in tactical mode may never advance more than one hex. Leg units in PA may never advance more than 2 hexes. Mech units in PA may never advance more than 4 hexes.

If all the defenders are eliminated prior to any retreat, advancing units may never advance more hexes than the total unfilled hits (both mandatory and discretionary).

Movement halts do not apply entering the first hex. They do apply when advancing into another hex.

Mech recon units may advance one hex farther than the path of retreat allows if advancing into hexes solely along roads or clear terrain (i.e., Mech recon units may advance up to five hexes if the advance is solely along a road).
## Ground Assault Table

<table>
<thead>
<tr>
<th>Line 1</th>
<th>Line 2</th>
<th>Line 3</th>
<th>Line 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear</td>
<td>Rough, Woods, Marsh, Hedgerow Village</td>
<td>Wooded-Rough, Forest, Bocage, Town</td>
<td>City</td>
</tr>
<tr>
<td>DRM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>00</td>
<td>+05</td>
<td>+10</td>
<td>+20</td>
</tr>
<tr>
<td>-25</td>
<td>-30</td>
<td>-35</td>
<td>-40</td>
</tr>
<tr>
<td>-45</td>
<td>-50</td>
<td>-55</td>
<td>-60</td>
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</tbody>
</table>

### Attackers DR, Defender’s Results

<table>
<thead>
<tr>
<th>Attackers DR, Defender’s Results</th>
<th>Attacker’s Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Line 2: 1:3 1:2 2:3 1:1 1:25:1 3:2 2:1</td>
</tr>
<tr>
<td></td>
<td>Line 3: 1:4 1:3 1:2 2:3 1:1 1:25:1 3:2 2:1</td>
</tr>
</tbody>
</table>

### Defender DR, Attacker’s Results

<table>
<thead>
<tr>
<th>Defender DR, Attacker’s Results</th>
<th>Defender’s Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Line 2: 1:3 1:2 2:3 1:1 1:25:1 3:2 2:1</td>
</tr>
<tr>
<td></td>
<td>Line 3: 1:4 1:3 1:2 2:3 1:1 1:25:1 3:2 2:1</td>
</tr>
</tbody>
</table>

---

### Results

- **Proficiency Check** ($*$): Indicates a successful proficiency check.
- **Mandatory Hits** ($\#$): Indicates a mandatory hit.
- **Discretionary Hits** ($\#\#$): Indicates a discretionary hit.
Assignment of Air Points (20.1.0)

Air Allocation Phase, Determine available AP & ATP.
Assignments in effect until the next GD.
When conducting a mission, the number of AP adjusted for Weather
Clear, 1 AP = 1 AP; PoVr, 2 AP = 1 AP; Ovr, 4 AP = 1 AP

Ground Support (See FS Mission Charts and Procedures)

Air Superiority (20.6.0)

Flown against any mission except air superiority
1 interceptor vs escort: abort 1 interceptor and 1 escort
If all escort aborted and interceptor remain, abort 1 mission AP for each interceptor.

FLAK (20.7.0)

Except Air Superiority, all missions may be affected by Flak.
Consult each mission rules for Flak effects
A hex can contribute no more than 1 Flak Pt
Each hex containing the below has 1 Flak Pt.
The below may be used in the same hex and any adjacent hex.
* HQ unit.
* German city hex (Must be German controlled since start).
* 1 Coy of Flak.
The below may be used in the hex they occupy only.
* Allied artillery Btns in any scenario after 1942.
* German and US:
  Arm Inf Btns, Arm Recon Btns, Tank Btns and Hybrid units.
  • Commonwealth (1943 or later)
  Armored Inf and Armored Recon Btns

Supply Interdiction (20.4.0)

Clear & PoVr conditions only
Minimum of 2 AP & Maximum of 3 AP per mission
May assign Air Superiority AP as Escort to each mission
Conduct Air Superiority against each mission
Flak Pts counted as in 20.7.1. All are if in target hex.
Escort APs not aborted by ASup may suppress 1 Pt of Flak.
4 Pts of non-suppressed Flak apply a +1 DRM to the SI DR.
Roll 1d10 to determine TP affected. Result 0-4 (fuel) 5-9 (Amph)
If 3 mission AP survive, apply -1 DRM
If only 1 mission AP survives, apply +1 DRM
Roll 1d10, modified DR of 0-2 reduces TP by 1.

Air Supply (20.5.0)

Conducted during Administrative Phase.
Only can be conducted in AM or PM GT.
The atmospheric condition must be clear or POvr
DZ must be clear or rough hex, ignore location or village,
DZ may not have enemy unit, in or adjacent.
Declare number of ATP & number of AP escorting
Conduct Air Superiority against each mission
Roll 1d10 for each surviving ATP
DR of 8 or less = 1 air supply point delivered. Unmodified DR of “0” always succeeds
+1 For every 4 enemy units in or adjacent to DZ, Flak capable units count as 2 units
+1 If weather is POvr
See Logistic Charts & Procedures for delivery results.

Air Mission Charts and Procedures

Ground Interdiction (20.3.0)

Determine the number of AP assigned in sector.
Adjust the number of AP based on atmospheric conditions.
ASup conducted prior to Interdiction DR.
Use column with value less than or equal to number of AP
Roll 1d10, apply DRMs.
The value left of slash is for leg class. To right is for Mech class units.

DRMs to Interdiction Value

<table>
<thead>
<tr>
<th>PoVr</th>
<th>OVR</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1</td>
<td>-2</td>
</tr>
<tr>
<td>-2</td>
<td>-3</td>
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Interdiction Value Table

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<tr>
<th>DR</th>
<th>2</th>
<th>8</th>
<th>12</th>
<th>16</th>
<th>20</th>
<th>24</th>
<th>28</th>
<th>32</th>
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<tr>
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<td>-</td>
<td>-</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
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<td>-</td>
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<td>-2</td>
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<tr>
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<td>-</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-2</td>
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<tr>
<td>4</td>
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<td>-</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-2</td>
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<td>5</td>
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<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-2</td>
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</tr>
<tr>
<td>6</td>
<td>-</td>
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<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-2</td>
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<td>-1</td>
<td>-1</td>
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<td>-</td>
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<td>-1</td>
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<td>-2</td>
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<tr>
<td>9</td>
<td>-</td>
<td>-</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-2</td>
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<tr>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-2</td>
<td></td>
</tr>
</tbody>
</table>

Conducted by owning player during Movement Phase.
No attacks if all MP expended within 6 hexes of enemy.
If unit starts movement within 6 hex limit, begin counting MP in the first hex outside the six limit.
If unit starts movement outside the 6 hex limit and moves within 6 hexes of an enemy unit, all MP expended within the limit are ignored.
When a unit expended MP exceed a sector’s interdiction value, the owning player conducts an attack against the unit.
Attack is conducted in hex unit expended MP that exceeds the value.
Roll 1d10. Apply all DRMs and implement the result.

Ground Interdiction DRMs

-1 Target is pure armor
-1 Per Flak Pt in range of target hex
-1若 atmospheric condition not clear
+1 Unit is using road movement
+2 Unit is using Strat movement

<table>
<thead>
<tr>
<th>DR</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
<td>No Effect</td>
</tr>
<tr>
<td>4-5</td>
<td>Fatigue 1</td>
</tr>
<tr>
<td>6-7</td>
<td>Fatigue 2</td>
</tr>
<tr>
<td>8-9</td>
<td>Fatigue 2 + 1 step loss</td>
</tr>
</tbody>
</table>

No Result, unit may continue to move, suffering a GI every time it exceeds the value.
If a unit suffers any result other than no effect, it must immediately cease movement. Units moving as a single unit (6.1.2, 6.1.3, & 6.1.4) are treated as single unit.
Attack affects units that triggered attack, ignore all other units.
**Mode Determination Phase (5.0)**
Determine MP available due to "low" or "no fuel" for this GT
Determine the mode units will be in for this GT.
Place artillery units in-battery or out-of-battery (7.10.0).

**Construction Phase (17.3.0)**
FWs & bridges due to be finished are flipped to “completed” side.
Advance the construction of bridges.
Start construction of FWs & Bridges

**Demolition Segment:** Eng may attempt to destroy bridges (17.3.2).

**Construction Table**

<table>
<thead>
<tr>
<th>Required Units</th>
<th>Stream</th>
<th>River</th>
<th>Major River</th>
<th>Great River</th>
<th>IP</th>
<th>ET-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Steps of Eng (1)</td>
<td>1 GT</td>
<td>1 GT</td>
<td>2 GT</td>
<td>4 GT</td>
<td>0 GT</td>
<td>0 GT</td>
</tr>
<tr>
<td>2 Steps of Eng (1)</td>
<td>1 GT</td>
<td>2 GT</td>
<td>3 GT</td>
<td>N/A</td>
<td>0 GT</td>
<td>0 GT</td>
</tr>
<tr>
<td>1 Eng Step &amp; 1 Non-HQ/Art Step (1)</td>
<td>1 GT</td>
<td>3 GT</td>
<td>N/A</td>
<td>N/A</td>
<td>0 GT</td>
<td>1 GT</td>
</tr>
<tr>
<td>1 Eng Step</td>
<td>1 GT</td>
<td>3 GT</td>
<td>N/A</td>
<td>N/A</td>
<td>1 GT</td>
<td>N/A</td>
</tr>
<tr>
<td>2 Non-HQ/Art Steps (2)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>1 GT</td>
<td>N/A</td>
</tr>
</tbody>
</table>

0 GT: Start in Const. Phase, complete Quick Const. Segment.
(1) Construction of an ET-2 in a Village, Town, or City hex does not require an IP to begin construction.
(2) 2 steps of non-Art/non-HQ or 1 step of Eng may place an IP in Bocage at the beginning of Movement Phase.

**Movement Phase (7.0)**

**CR Designation Segment:** Place CR markers. Units in CR may not move.

**Movement Segment:** Units are moved in strict order (7.2.2).
Strategic road movement (7.7.0)
Tactical road movement (7.6.0)
Tactical non-road movement (7.4.0)
PA mode (7.5.0)

**Quick Construction Segment:** Finish FWs eligible to complete.

**Movement Terrain Effects Table**

<table>
<thead>
<tr>
<th>Terrain</th>
<th>Leg</th>
<th>Mech</th>
<th>Road</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear</td>
<td>1</td>
<td>1</td>
<td></td>
<td>MH, Red hex Art &amp; adj to =&gt;2 steps of non Art/HQ or GE AT/AA with red hex</td>
</tr>
<tr>
<td>Rough</td>
<td>1</td>
<td>2</td>
<td>1.5</td>
<td>MH, Red hex Art &amp; adj to =&gt;2 steps of non Art/HQ or GE AT/AA with red hex</td>
</tr>
<tr>
<td>Soft Ground</td>
<td>2</td>
<td>4</td>
<td></td>
<td>MH, same as clear</td>
</tr>
<tr>
<td>Marsh/Swamp</td>
<td>3</td>
<td>5</td>
<td></td>
<td>MH, same as clear</td>
</tr>
<tr>
<td>Woods &amp; Hedgerow</td>
<td>1.5</td>
<td>3</td>
<td>MCT &amp; OCT</td>
<td></td>
</tr>
<tr>
<td>Forest &amp; Bocage</td>
<td>2</td>
<td>4</td>
<td>MCT &amp; OCT</td>
<td></td>
</tr>
<tr>
<td>Location &amp; Village</td>
<td>OT</td>
<td>OT</td>
<td></td>
<td>OCT, MH, Red hex Art &amp; adj to =&gt;2 steps of non Art/HQ or GE AT/AA with red hex</td>
</tr>
<tr>
<td>Town</td>
<td>1</td>
<td>2</td>
<td></td>
<td>MCT &amp; OCT, Movement cost applies only if not using road movement</td>
</tr>
<tr>
<td>City</td>
<td>2</td>
<td>3</td>
<td></td>
<td>MCT &amp; OCT, Movement cost applies only if not using road movement</td>
</tr>
<tr>
<td>Trail or Railroad</td>
<td>1</td>
<td>1</td>
<td>1*</td>
<td>Hvy AFV may not use in constricted terrain. *1.5 in non-clear terrain.</td>
</tr>
<tr>
<td>Secondary Road</td>
<td>1</td>
<td>1</td>
<td>Mech supply path cost 1/2</td>
<td></td>
</tr>
<tr>
<td>Primary Road</td>
<td>1</td>
<td>1</td>
<td>Mech supply path cost 1/3</td>
<td></td>
</tr>
<tr>
<td>Stream</td>
<td>+1</td>
<td>+3</td>
<td>1/2</td>
<td>Towed Art (P), Leg AT use full MA, Eng assisted leg unit crossing ignore MP Cost</td>
</tr>
<tr>
<td>River</td>
<td>+3</td>
<td>P</td>
<td></td>
<td>+1 for leg unit ferried by engineer</td>
</tr>
<tr>
<td>Major River</td>
<td>P</td>
<td>P</td>
<td></td>
<td>Leg may cross and stop if 1 Eng ferries (eng may not move)</td>
</tr>
<tr>
<td>Great River</td>
<td>P</td>
<td>P</td>
<td></td>
<td>Leg may cross and stop if 1 Eng ferries (eng may not move)</td>
</tr>
<tr>
<td>Ford</td>
<td>+1</td>
<td>+3</td>
<td></td>
<td>MÜ treat bridge as ford when using tactical non-road movement</td>
</tr>
<tr>
<td>Constricted/RR Embank</td>
<td>+1</td>
<td>All</td>
<td></td>
<td>Cost to enter &amp; exit, if not using road move or not moving along contour</td>
</tr>
<tr>
<td>Move Adv to enemy unit</td>
<td>+1</td>
<td>+2</td>
<td></td>
<td>Ignore entering MCT during exploit or if hex is MCT &amp; adj unit is AFV with no road</td>
</tr>
<tr>
<td>Night Movement</td>
<td>+1</td>
<td>+1</td>
<td></td>
<td>Only if not entering hex thru road hexside (road movement not required)</td>
</tr>
<tr>
<td>Overrun</td>
<td>+1</td>
<td>+1</td>
<td></td>
<td>May not overrun from open terrain, unless only adj unit is overrun unit</td>
</tr>
<tr>
<td>Improved Position</td>
<td></td>
<td></td>
<td></td>
<td>OCT</td>
</tr>
<tr>
<td>Entrenchment 2</td>
<td></td>
<td></td>
<td></td>
<td>OCT, MH required</td>
</tr>
<tr>
<td>Entrenchment 3</td>
<td></td>
<td></td>
<td></td>
<td>MCT &amp; OCT, MH, no move from hex adj to ET-3 to hex adj to same ET-3</td>
</tr>
<tr>
<td>Fortified Area or Fort (1)</td>
<td></td>
<td></td>
<td></td>
<td>MCT &amp; OCT, MH, no move from hex adj to Fort/Fort Area to hex adj to same hex</td>
</tr>
</tbody>
</table>

(1) Fortified Area: Owning side pays 2 MP unless using road movement, non-owning units treat as constricted terrain, roads do not negate
### Allied Replacements

<table>
<thead>
<tr>
<th>Type</th>
<th>Recycle Steps</th>
<th>Repl Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inf</td>
<td>1 Inf</td>
<td>1 Inf</td>
</tr>
<tr>
<td>Para or Glider</td>
<td>1 Inf</td>
<td>1.5 Inf</td>
</tr>
<tr>
<td>Rgr/Cdo</td>
<td>0.5 Inf</td>
<td>2 Inf</td>
</tr>
<tr>
<td>Mech Inf</td>
<td>1 Inf</td>
<td>0.5 Inf + 0.5 Arm or 2 Inf</td>
</tr>
<tr>
<td>ArmCav</td>
<td>0.5 Arm</td>
<td>0.5 Inf + 1 Arm</td>
</tr>
<tr>
<td>Arm Eng</td>
<td>1 Inf</td>
<td>1 Inf + 0.5 Arm</td>
</tr>
<tr>
<td>Eng</td>
<td>1 Inf</td>
<td>2 Inf</td>
</tr>
<tr>
<td>AT</td>
<td>0.5 Inf</td>
<td>1 Inf</td>
</tr>
<tr>
<td>SPA</td>
<td>1 Arm</td>
<td>1 Inf + 1 Arm</td>
</tr>
<tr>
<td>105, 155, 25lb</td>
<td>0.5 Arm</td>
<td>2 Inf</td>
</tr>
<tr>
<td>All Others</td>
<td>0.5 Arm</td>
<td>2 Inf + 0.5 Arm</td>
</tr>
<tr>
<td>M5 Stuart</td>
<td>0.5 Arm</td>
<td>0.5 Arm</td>
</tr>
<tr>
<td>M10</td>
<td>0.5 Arm</td>
<td>1 Arm</td>
</tr>
<tr>
<td>M18 Hellcat</td>
<td>0.5 Arm</td>
<td>1 Arm</td>
</tr>
<tr>
<td>M36</td>
<td>0.5 Arm</td>
<td>1 Arm</td>
</tr>
<tr>
<td>M4 Sherman</td>
<td>1 Arm</td>
<td>1 Arm</td>
</tr>
<tr>
<td>M8 Grayhound</td>
<td>0</td>
<td>0.5 Arm</td>
</tr>
<tr>
<td>Achilles</td>
<td>0.5 Arm</td>
<td>1 Arm</td>
</tr>
<tr>
<td>Archer</td>
<td>0.5 Arm</td>
<td>1 Arm</td>
</tr>
<tr>
<td>Daimler, Humbar</td>
<td>0</td>
<td>0.5 Arm</td>
</tr>
<tr>
<td>M4 Firefly</td>
<td>1 Arm</td>
<td>1.5 Arm</td>
</tr>
<tr>
<td>Churchill</td>
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<td>1 Arm</td>
</tr>
<tr>
<td>Cromwell</td>
<td>1 Arm</td>
<td>1 Arm</td>
</tr>
<tr>
<td>Crocodile</td>
<td>1 Arm</td>
<td>2 Arm</td>
</tr>
<tr>
<td>AVRE</td>
<td>1 Arm</td>
<td>2 Arm</td>
</tr>
<tr>
<td>Flail</td>
<td>1 Arm</td>
<td>2 Arm</td>
</tr>
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### German Replacements

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<tr>
<th>Type</th>
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<th>Repl Steps</th>
</tr>
</thead>
<tbody>
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<td>Inf*</td>
<td>1 Inf</td>
<td>1 Inf</td>
</tr>
<tr>
<td>Para</td>
<td>1 Inf</td>
<td>1.5 Inf</td>
</tr>
<tr>
<td>Mot Inf</td>
<td>1 Inf</td>
<td>2 Inf</td>
</tr>
<tr>
<td>Mech Inf</td>
<td>1 Inf</td>
<td>0.5 Inf + 0.5 Arm</td>
</tr>
<tr>
<td>Recon</td>
<td>0.5 Arm</td>
<td>0.5 Inf + 0.5 Arm</td>
</tr>
<tr>
<td>Arm Eng</td>
<td>1 Inf</td>
<td>1 Inf + 0.5 Arm or 2 Inf</td>
</tr>
<tr>
<td>Leg or Mot Eng</td>
<td>1 Inf</td>
<td>2 Inf</td>
</tr>
<tr>
<td>AT</td>
<td>0.5 Inf</td>
<td>1 Inf</td>
</tr>
<tr>
<td>Heavy AT</td>
<td>0.5 Arm</td>
<td>1 Inf + 1 Arm</td>
</tr>
<tr>
<td>All Flak</td>
<td>0.5 Arm</td>
<td>1 Inf + 1 Arm</td>
</tr>
<tr>
<td>SPA</td>
<td>1 Arm</td>
<td>2 Inf + 1.5 Arm</td>
</tr>
<tr>
<td>105, 150</td>
<td>0.5 Arm</td>
<td>2 Inf + 1 Arm</td>
</tr>
<tr>
<td>All Others</td>
<td>0.5 Arm</td>
<td>2 Inf + 2 Arm</td>
</tr>
<tr>
<td>Nebelwerfer</td>
<td>1 Inf</td>
<td>2 Inf</td>
</tr>
<tr>
<td>StGIII/IV</td>
<td>0.5 Arm</td>
<td>1 Arm</td>
</tr>
<tr>
<td>JagdpzIV/L70</td>
<td>0.5 Arm</td>
<td>1 Arm</td>
</tr>
<tr>
<td>Jagdpz V</td>
<td>0.5 Arm</td>
<td>3 Arm</td>
</tr>
<tr>
<td>Jagdpz VI</td>
<td>0.5 Arm</td>
<td>3 Arm</td>
</tr>
<tr>
<td>Hetzer</td>
<td>0.5 Arm</td>
<td>1 Arm</td>
</tr>
<tr>
<td>Brunbar &amp; StrmPz</td>
<td>0.5 Arm</td>
<td>3 Arm</td>
</tr>
<tr>
<td>MkIV</td>
<td>1 Arm</td>
<td>1.5 Arm</td>
</tr>
<tr>
<td>MkV Panther</td>
<td>1 Arm</td>
<td>1.5 Arm</td>
</tr>
<tr>
<td>MkVI Tiger</td>
<td>1 Arm</td>
<td>2.5 Arm</td>
</tr>
<tr>
<td>MkVIb Tiger</td>
<td>1 Arm</td>
<td>3 Arm</td>
</tr>
</tbody>
</table>

* Includes all varitions of this type (i.e. Bicycle)

Eliminated units may be resurrected, but this requires the expenditure of additional replacement steps (above cost to replace step).

Leg Class units require 0.5 Inf.

Mech Class units require 0.5 Arm

If unit was isolated when eliminated, one Inf ReP must be expended. This is in addition to the resurrection and normal replacement requirements.

Unit types not depicted on the above charts do not garner recycle steps nor can they be replaced.

HQ do not garner recycle steps and require 1 Inf + 1 Arm to replace 1 step.
Logistics Charts and Procedures

Determining army/corps ADV (16.3.2a)

1. Place army marker in appropriate numbered block.
2. Army may expend ADV to create AmP.
3. Adjust the army ADV for supported corps.
4. Determine the number of AmP delivered.
   - If negative, reduce army AmP, then if required reduce army ADV.
   - If positive, add the result to the army’s AmP stockpile.
5. Assign supported corps an ADV equal to army’s ADV.
6. Adjust corps’ ADV by the # of supported formations.
7. Expend AmP to increase support corps’ ADV. (1)
   - (1) Army may be increased but does not affect corps.

Fuel Requirements Table (16.4.4)

<table>
<thead>
<tr>
<th>Formation Size</th>
<th>Normal</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allied Div (1) (2)</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Axis Mech Div (2)</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Independent Mech BG (2)</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Allied Corps HQ</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Axis Corp HQ, All army HQ</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>(1) If US 1st, 2nd, or 3rd Arm Div</td>
<td>+0.5</td>
<td>+0.5</td>
</tr>
<tr>
<td>(2) If 3 or more Mech unit attached</td>
<td>+1</td>
<td>+0.5</td>
</tr>
</tbody>
</table>

Ammo Replenishment (16.3.4)

DR less than or equal to ADV (not used in enemy Admin)
1 AmP replenishes 3 Btns.
ADV of zero required AmP to replenish
+2 DRM if supply path is extended

On Hand Supply Table (15.5.0)

<table>
<thead>
<tr>
<th>DR</th>
<th>OhS Pts</th>
<th>Formation HQ</th>
<th>Corps HQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
<td>2</td>
<td>-3 Corps HQ</td>
<td></td>
</tr>
<tr>
<td>4-6</td>
<td>4</td>
<td>-1 Isolated HQ</td>
<td></td>
</tr>
<tr>
<td>7+</td>
<td>6</td>
<td>-1 If HQ in town/city</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>+2 US HQ</td>
<td></td>
</tr>
</tbody>
</table>

OhS & Replenishment 15.4.1b

Each successful ATP mission delivers:
One-half an OhS point for an army HQ.
One OhS point for a corps HQ.
Two OhS points for a formation/BG HQ.
If HQ not present, 1 successful ATP mission removes 10 OoS markers from units (except HQs) within 3 hexes of drop zone.

OoS Effects (15.6.0)

May not be placed into PA or Exploit mode.
Engineers lose all special combat engineer abilities.
Non-engineer units may construct an IP.
MA of units is halved (round fractions up.)
Units in Exploit mode revert to tactical mode.
May not use Strat movement
May not be marked with a CR marker.
Current combat strengths (attack and defense) are halved.
The armor/AT values of units are not affected.
Artillery units are ammo depleted.
HQ units may not provide GenS to subordinate units.
Cannot count units as nearest unit for air observation.

Logistics Table (16.2.0)

<table>
<thead>
<tr>
<th># TP</th>
<th>DR</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

Result is # of AmP/# of FP added to stockpile:

Fuel level Table (16.4.5)

<table>
<thead>
<tr>
<th>Fuel</th>
<th>DR</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td></td>
</tr>
</tbody>
</table>

Result is # of MP Mech may expend or # of units that move full

GenS Path Length (15.2.0)

PSS to HQ or HQ to HQ (1) (2) (4) 18 Mech MP
All Leg Formation HQ to units (3) (4) 12 Leg MP
Allied HQ to units (4) 18 Mech MP
Axis Mech HQ to units (4) 12 Mech MP
Mud (not along primary/secondary road) -3 MP
Snow (not along primary/secondary road) -1 MP

(1) Must be along primary or secondary road or clear hex
(2) Extended GenS +1/3 of normal

Supply Capacity Limits (15.4.0)

Army HQ

Army HQ can provide GenS & support for any number of corps HQ.
It may also provide GenS for up to 12 army asset units.
Asset units may trace to any formation HQ.

Army ADV Adjustments

-1 For every corps over 3 supported by Army
-1 For every 2 AmP created
+1 If Army supports less than 3 corps
+1 For every 2 AmP expended

Corps HQ

Corps HQ can provide GenS & support for any number of formation HQ.
It may also provide GenS for up to 24 corps asset units.
Asset units may trace to any formation HQ.

Corps ADV Adjustments

-1 For every formation over 3 supported by Corps
+1 If corps supports less than 3 formations.
+1 For every 2 AmP army expended
Mech formations count as 1. Independent BG and Leg formations count as 1/2 (round total down to nearest whole number)
Each Pt of Corps ADV allows 1 PA or 2 TAC assaults per formation.