

The Great War Ground Rules

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Rule 1 — Introduction

These are the standard rules used in all games of *The Great War* series. For convenience, the rules are separated into four booklets: one each covering the ground rules, air rules, naval rules, and special rules common to all games in the series. (Each game also has a game-specific rules booklet covering that game's scope, components, set up instructions, special game rules, scenario information, and victory conditions.)

Each rule is either a basic, advanced, or optional rule. Advanced and optional rules are annotated as such; all other rules are basic rules. The basic rules should be used in every game. Advanced rules are those that can be disregarded by players gaining experience with the game system, but which should be used by experienced players. In particular, the detailed advanced air, naval, and production rules (Rules A17-25, 27-35, and 38) should be set aside in favor of the basic air, naval, and production mechanics (Rules B17, 26, and 16) until the core ground rules are mastered. Optional rules cover game mechanics that are historically valid, but which affect very few units, or occur infrequently; they should be ignored by new players, but veteran players can use them by mutual agreement.

Designers' Notes are sprinkled throughout the rules. These explain the historical rationale for various game mechanics that may seem strange to players who are more familiar with WW II than WW I.

Rule 2 — Game Components

Each game-specific rules booklet in *The Great War* series lists the components for that game.

Rule 3 — Basic Game Concepts

A. Units.

The term *units*, when used by itself hereafter in the rules and when used in the orders of battle, refers to ground units only and does not include air or naval units. The term *forces* refers to ground, air, and naval units collectively. Note that the term "units" does not include markers (for which see Rule 3D).

Units are rated based on their size, type, and capabilities. Typically, a unit has a unit size, a unit type, a combat strength (or separate attack and defense strengths), a movement rating, and a unit identification. The Unit Identification Chart (UIC) displays the layout of these symbols and ratings, as well as all specialized symbols and ratings used in the game.

Some unit symbols have multiple names associated with them on the UIC. When the rules refer to a particular unit type this includes all other unit types which share the same unit symbol. *For example, when the rules refer to light rifle units, this includes chasseur à pied, bersaglieri, and jager units, as these unit types share the same unit symbol.*

Some overall definitions apply to units.

1. Size. Units are divided into three general categories, based on their size:

- **Higher Headquarters.** Any unit with the army or corps symbol.
- **Divisional Unit.** Any unit with the division or divisional

grouping symbol.

- **Non-divisional Unit.** Any unit smaller than a divisional unit: brigades, brigade groupings, regiments, regimental groupings, battalions, battalion groupings, cadres, and remnants.

2. Class. Units are divided into three general classes, based on their types:

- **Non-Motorized.** All unit types listed as non-motorized on the UIC. *For example, a rifle unit is non-motorized.*
- **Artillery.** All unit types listed as artillery on the UIC. *For example, a siege mortar unit is artillery.* Note that for game purposes aerial bombardment, antiaircraft, and antitank units are not artillery.
- **Combat/Motorized (C/M).** All unit types listed as c/m on the UIC. *For example a tank unit is c/m.*

Note that some unit types are listed as both artillery and c/m on the UIC. *For example, a motorized field artillery unit is both an artillery unit and a c/m unit.*

3. Regimental Equivalents. A regimental equivalent (RE) measures the size of the unit or any other item that needs its size specified. RE sizes are as follows:

- **1/4 RE:** Each general supply point (GSP).
- **1/2 RE:** Each battalion/battalion grouping, remnant, equipment or manpower point (Equ Pt or Man Pt).
- **1 RE:** Each Corps HQs, Art XX HQs, regiment/regimental grouping, non-American cadre, capital marker, or mine point.
- **2 REs:** Each brigade/brigade grouping or American cadre.
- **3 REs:** Each Army HQs, Ottoman divisional unit, or resource point (Res Pt).
- **Variable (Basic Rule):** When using the basic rule, non-American/Ottoman divisional units have an RE size based on their support status: **3 REs:** Each such unit with the unsupported indicator. **4 REs:** Each such unit with the self-supported indicator. **5 REs:** Each such unit that is fully supported (that is, the counter has neither the unsupported indicator nor the self-supported indicator).
- **Variable (Advanced Rule):** When using this advanced rule, the RE size of a non-American/Ottoman division is not based on its support status; instead its RE size is determined by its nationality, unit type, and printed strength as listed in the appropriate section of Rule 41. *For example, a German rifle or mountain rifle divisional unit with a printed attack strength of 14 or more is 5 REs in size (as listed in Rule 41T3).*
- **6 REs:** Each American divisional unit.

C/m units, and artillery units with heavy equipment (per Rule 3A4), count double their RE size for transport purposes: rail or river movement (Rules 7A and 7C), cartage by transport units (Rule 14O), and naval transport (Basic Rule 26B or Advanced Rule 31). *For example, a field artillery regiment (1 RE) that moves by rail, river, or sea counts as 2 REs for transport purposes.*

Designers' Note: World War I brigades averaged 6-8 battalions vice the World War II norm of 3-4. Similarly, World War I divisions had 12-16 battalions vice the World War II norm of 9. Some countries (e.g. Germany) also started World

War I with 2 regiments (vice the normal 1) of artillery in most of their divisions.

The advanced rule shows how various countries adapted during the war to losses: as it became impossible to sustain the larger divisions they moved to the World War II standard of 9 battalions. Note that the Ottoman Empire converted to the 9 battalion standard following the 1912-13 Balkan wars in order to keep the same number of divisions on active service after the loss of most of its European territory stripped it of nearly a quarter of its traditional recruiting base. A few countries (notably Austria-Hungary) converted to 9 battalions later in the war, but simultaneously significantly increased the artillery in their divisions (the Austrians went from one to three regiments), thus their RE size does not change. American divisions averaged 25,000 men, effectively double the strength of most other countries' end-war divisions.

Cavalry units on the other hand were smaller in World War I than in World War II; with, for example, a World War I regiment being close in size to a World War II battalion.

4. Heavy Equipment (HE). Some rules make a distinction as to whether or not a unit has HE. The UIC lists the unit types that have HE. *For example, a heavy artillery unit has heavy equipment, but a field artillery unit does not.* In addition, all fully-supported divisional units have HE. (A fully supported divisional unit is any divisional unit that does not have an unsupported or self-supported indicator.)

5. Disruption. Various rules make use of the concept of disrupted units. Units become disrupted (or badly disrupted) as described in the appropriate rules (e.g. reserve commitment movement (Rule 6C), contested hexes (Rule 9J), bombardment (Rule 12C), and airborne landings (Advanced Rule 24)). In general (unless otherwise specified in the rules), a unit that becomes disrupted (or badly disrupted) remains so until the start of its next friendly initial phase. *For example, an Entente unit disrupted during the Entente player-turn would remain disrupted throughout the remainder of the Entente player-turn and throughout the entire following Central Powers player-turn.* (Place a disruption hit/double disruption hit marker on a unit when it is disrupted/badly disrupted to show the disruption. Remove disruption hits from eligible friendly units at the start of each friendly initial phase.) Disruption effects are:

- **Disrupted.** While disrupted, a unit has its attack strength, defense strength, RE size for purposes of special combat effects capabilities (Rule 10), AA strength (if any, see Basic Rule B17C or Advanced Rule 22), naval gunnery strength (if any, see Advanced Rule 33B), and movement rating halved. The unit loses its ZOC (Rule 5), and cannot provide support (Rule 12A) to other units. A disrupted Army HQs is further affected as described in Rule 14M2.
- **Badly Disrupted.** While badly disrupted, a unit is affected as a disrupted unit (per above), except that its attack strength and naval gunnery strength is reduced to zero, its defense strength is quartered, it cannot be used in any attempts to use special combat effects capabilities, and it is not counted for purposes of GS, DAS, or NGS support limits (Advanced Rules 20G2b, 20G2c, and 33A).

B. Nations/Sides.

The game is organized for play by two players (or by two teams of players), each controlling the forces of one of the coalitions in the war.

Each side consists of one or more nations.

1. Central Powers. The Central Powers side controls all German and Austro-Hungarian forces and all forces of neutrals which join the Central Powers.

2. Entente. The Entente side controls all British, French, Russian, and Serbian forces and all forces of neutrals which join the Entente.

3. Neutrals. Nations which have not joined the Central Powers or the Entente are neutral and are controlled by neither player. *Note:* The nations which historically have joined one side or the other (and those nations still remaining neutral) at the start of a scenario are listed in the deployment instructions for that scenario (Rule 42B). If a neutral nation is attacked by one side, it automatically joins the other side. Neutral nations may also join one side or the other as described later in the States of War and Nations rules (Rules 39 and 41).

4. Powers. Britain, France, and Germany are "Great Powers". Britain, France, Germany, the United States, Russia, Austria-Hungary, Italy, the Ottoman Empire, and Japan are "Major Powers". All other nations are "Minor Powers". *Exception:* When the home district of a great power or major power is conquered (per Rule 41), that nation immediately becomes a minor power.

5. Nationalities/Contingents. Each nation has forces from one or more contingents under its command; these contingents constitute a single nationality for purposes of the rules. The contingents under each nation's command are listed in that nation's section of Rule 41. *For example, the Austro-Hungarian nationality includes the Austro-Hungarian Common Army/Navy, Austrian, Hungarian, and Foreign Volunteer contingents.*

Note that the counters of each contingent have their own particular color code as listed on the Unit Colors Summary/Identification Chart (on the last page of each Game-Specific Rules Booklet).

C. Game Mechanics.

1. Fractions. Unless stated otherwise, always retain fractions. *For example, half of 7 is 3 1/2.*

2. Cumulative Effects. Unless stated otherwise, all effects to units' strengths and all modifications to die rolls are cumulative. *For example, a unit halved in strength twice is quartered in strength.*

3. Tables and Die Rolls. Players use the various tables on the charts to resolve a variety of activities. *For example, players resolve ground combat through use of the Ground Combat Results Tables.*

In general (unless otherwise specified in a rule), a player uses a table as follows:

- Determine all appropriate conditions for the use of a table, as specified in the rules or on the table. *For example, various types of terrain can modify the attack strengths of units, and players must take these into account when resolving ground combat.*
- Roll one or two dice as appropriate. All tables requiring

the roll of two dice are identified as such in the rules. All other tables require the roll of only one die. *For example, the Ground Combat Results Tables require the roll of one die while the Antiaircraft Fire Table requires the roll of two dice.*

- Modify the roll by all appropriate modifiers as given in the rules or on the table. *For example, various types of terrain can modify the ground combat resolution die roll. Note that the Ground Success Table has many different modifiers for the various activities that use this table.*

On any table, die rolls modified above the highest number or below the lowest number are treated as the highest or lowest number, respectively. *For example, a modified roll of 7 on the Aerial Bombing Table is treated as a 6.*

- Use the modified die roll to find the result on the table. Implement the result as specified in the rules.

4. Accumulation. Each player receives various abilities on a turn-by-turn basis. A player may not accumulate these abilities from turn to turn unless specifically allowed by the rules. *For example, a player may move 15 REs of units by rail per turn (per Rule 7A) on a specific rail net. The player may not accumulate this ability from turn to turn. If the player does not move any units by rail in a turn, he cannot move 30 REs in the following turn.*

D. Markers.

Some counters in the game are markers. (The various marker types are illustrated on the Unit Identification Chart.) *For example, a resource point counter is a marker.* Markers are not units, of any type. Markers are used to assist in the play of the game. Players may manufacture additional markers as needed. *Note:* Not all markers referred to in the rules may be present in an individual game (unique markers for every game function which requires a marker will be provided when the games of *The Great War* series are taken as a whole, but some of these markers may not make it into an individual game). When the rules call for a marker's use, but no marker of that type is in the game, use any mutually agreed upon marker.

E. Geography.

The Great War series uses maps with two different scales: 16-miles-to-the-hex and 64-miles-to-the-hex. (*Note:* For convenience, the rules refer to these as the "European Maps" and "Non-European Maps", respectively.) Maps covering the main areas of conflict in Europe and the Middle East are at 16-miles to the hex and are identified by number (*for example, The Great War Map 2*). Maps covering secondary areas of conflict in Africa, the Americas, and Asia are at 64-miles to the hex and are identified by letter (*for example, The Great War Map WS*). Additionally, if Optional Rule 44 is used, various maps from GR/D's *Europa* game series may be used to expand the playing area. (*Note* that all *Europa* maps are 16-miles to the hex.) In general (unless otherwise specified in the rules), the same rules apply to both map scales.

The hexes on the maps are numbered. When specific hexes are referred to in the rules, charts, and orders of battle they are identified by map and hex number (in the format "map # (or

letter): hex #"); further, if the cited hex also contains a city, fortress, resource center, oasis, or island name, that name is listed as an aid in locating the hex. *Examples:* A) *St. Niklaas (GW2:0619)* refers to hex number 0619 (which contains the town of *St. Niklaas*) on *The Great War Map #2*. B) *E26:3012* refers to hex number 3012 on *Europa Map #26*. C) *WS:0773* refers to hex number 0773 on *The Great War Map WS*.

The Great War maps show the international borders as they existed at the start of World War I (28 July 1914).

The term "game map" (or just "map") refers to the maps in play according to the set-up instructions for the scenario being played (Rule 42B).

1. Terrain. The map represents the topography of the playing area; it is referred to as *terrain* in the game. Each hex has a type of terrain which affects the movement and combat of all forces in the game. The various terrain types are illustrated on *The Great War Master Terrain Key Chart*; and their effects on movement and combat are listed on the *Terrain Effects Chart (TEC)*.

2. Cities. The term *cities* includes all cities (point cities, partial hex cities, and full hex cities), plus all fortresses and resource centers.

- **A multi-hex city** is any combination of adjacent partial and full city hexes. *For example, Paris (circa GW2:1229) is a multi-hex city consisting of one full and three partial city hexes.* Note that, for game purposes, a multi-hex city may consist of a cluster of several adjacent cities. *For example, the Ruhr area of Germany (circa GW2:1113) is a single multi-hex city in the game, even though it is actually made up of several separate cities.*
- **A major city** is any partial, full, or multi-hex city.
- **A major city hex** is any hex of a major city.

3. Districts. The land area of the map is divided into districts. Countries with a small on-map area, such as Belgium, consist of a single district: the country itself. Larger countries consist of several districts as listed in the appropriate section of Rule 41 (Nations). The concept of districts is used in various rules (most importantly, for the placement of reinforcements (Rule 16) and activation of garrisons (Rule 37F)).

4. Islands. The map depicts several islands, which belong to various nations. Unless indicated otherwise, any island that is connected by narrow straits to a nation, or to an island owned by a nation, belongs to that nation. Further, an island connected in this manner is part of the internal district to which it is connected (unless the presence of a border indicates otherwise). *For example, the island of Veglia (GW2:5006 and 5106) is part of Austria-Hungary and is in the Austria district.* All other islands either have the names of their owning nations next to their names (or the presence of an international border clearly delineates the nation to which they belong) and are part of the district to which they are closest.

5. Adjacent. Some rules depend upon whether or not units are adjacent to an item (like a unit). In these cases, the unit is adjacent if the hexside between the two hexes is not prohibited terrain.

6. Weather Zones. The map is divided into several weather zones (Rule 36A1 covers weather zones in detail). Weather zone

A is also called the Arctic. Weather zones F and G collectively are also called the Desert. (The Arctic and the Desert are covered in Rules 37C and 37D.)

F. Theaters and Commands.

The territory on the maps and the orders of battle (OBs) are divided into theaters and commands. The theaters and their command subdivisions are:

- **West Theater:** British Isles/North Sea, France/West Germany, Italy/West Austria, and Iberian Peninsula commands.
- **East Theater:** East Germany/West Russia, East Austria/South Russia, Romania, Scandinavia/North Russia, and Central Russia commands.
- **South Theater:** Balkans, West Turkey/Aegean, Middle East, Caucasus, Near East, and Arabia commands.
- **Africa Theater:** NW Africa, West Africa, Central Africa, South Africa, and East Africa commands.
- **Asia Theater:** Persia/Turkestan/India, Siberia, Japan, China, and Southeast Asia commands.
- **North America Theater:** Canada, USA, Central America, and Caribbean commands.
- **South America Theater:** Brazil, Southern South America, Western South America, and Northern South America commands.
- **Pacific Theater:** NW Pacific, NE Pacific, Australia, and South Pacific commands.

Various rules apply to certain theaters only. *For example, as shown on the Intrinsic AA Summary (on the Air Combat Charts and Tables Chart), there is more intrinsic AA in the West theater than in other theaters.*

Throughout the rules and the OBs a command is referred to using the convention "theater name (command name)". *For example, when the OB cites "WEST (FRANCE/WEST GERMANY)" it refers to the France/West Germany command of the West theater.*

The territory which comprises each command (on-map land and sea hexes and off-map holding boxes) is listed in the appropriate game-specific rules booklet. The scenarios in each game-specific rules booklet (under Rule 42B) list which commands the players control.

A player treats all commands *under his control* as a unified command. He uses his forces there as he wishes, without regard to their historical command assignments. The OBs divided forces by command for historical interest and to facilitate scenario play. When the OBs denote that forces transfer between commands under the player's control, the player simply ignores these transfers.

A player must, however, transfer forces to or from commands he does not control, as specified by the OBs. *For example, if the Central Powers player controls only the West (France/West Germany) command and the OB requires forces to transfer from that command to the East (East Germany/West Russia) command, the Central Powers player must transfer those forces there.*

A player's forces may not voluntarily enter or attack any hex outside the commands that player controls. A unit forced to enter such a hex (such as due to retreat after combat) is eliminated from play instead.

G. Isolation.

A unit or hex is isolated if the owning player cannot trace an overland supply line (Rule 11B) of any length from the item to any of his regular sources of general supply (Rule 11C2a). Players determine the isolation status of all units and relevant hexes three times per player turn, at the start of each initial phase, combat phase, and reaction combat phase. Once judged isolated, an item remains isolated until isolation status is checked again.

Rule 4 — Sequence of Play

The game is played in a series of game turns, each representing one half of a month (approximately two weeks). Each game turn consists of an Entente turn, followed by a Central Powers turn.

A. Player Turn Sequence.

Each player turn consists of the following phases.

1. Initial Phase. Both players determine the general supply and isolation status of their units and hexes. The phasing player flips over his inactive Army HQs so their active sides are face up, receives reinforcements, and performs replacement, repair, and other activities. The non-phasing player may rebuild units. Both players may fly air missions.

2. Movement Phase. The phasing player moves his naval units, and the other player may move naval units in reaction. The phasing player moves his ground units. Both players may fly air missions.

3. Combat Phase. Both players determine the isolation status of their units and hexes. Both players may fly air missions and allocate naval gunfire support. The attacker (phasing player) expends combat supply and resolves bombardments made by his forces. The defender (non-phasing player) expends combat supply, resolves counter-bombardments made by his forces, and attempts to commit reserves. The attacker resolves attacks made by his units.

4. Reaction Movement Phase. The reacting (non-phasing) player moves his naval units, and the other player may move naval units in reaction. The reacting player picks one of his Army HQs and checks to see if it remains active. If it fails this check he flips over the Army HQs so its inactive side is face up. If the Army HQs remains active, the reacting player moves his ground units (using reaction movement) which are within the zone of influence (ZOI) of that HQs. The reacting player repeats this process until he has checked all of his Army HQs and moved all eligible units. (Army HQs and ZOIs are covered in Rule 14M.) Both players may fly air missions.

5. Reaction Combat Phase. This is the same as the combat phase except that: 1) the attacker and defender are reversed (the reacting (non-phasing) player is now the attacker and the phasing player is now the defender), 2) bombardments (and counter-bombardments) can not be made, and 3) only units within the ZOI of an active friendly Army HQs may attack.

6. Exploitation Phase. The phasing player moves his naval units, and the other player may move naval units in reaction. The phasing player moves his c/m, water-only, cavalry, light, mountain, and infantry units using exploitation movement. Both players may fly air missions.

Note: The introductions to the Advanced Air and Naval Rules (Rules A17 and 27), cover the sequencing of air and naval activities in detail. The Master Sequence of Play Summary Chart shows the sequence of play in detail for all activities and references the appropriate rules section for each activity.

B. Phasing.

During the Entente player turn, the Entente player is the phasing player and the Central Powers player is the non-phasing player. During the Central Powers' player turn, these roles are reversed.

C. Restrictions.

Unless noted otherwise, activities may not be conducted outside this sequence. The activities mentioned above are explained in the following rules.

Rule 5—Zones of Control & Ownership

A. Zones of Control (ZOCs).

The zone of control (ZOC) of a unit represents the control a unit exerts over nearby terrain. ZOCs affect many activities in the game, as covered in the appropriate rules. *For example, ZOCs affect the movement and retreat of enemy units (Rules 6A and 9F2).*

Most units exert a ZOC in the hex they occupy. Some units also exert a ZOC through the six hexsides of the hex the unit occupies into the six surrounding, adjacent hexes. A unit prohibited from entering a specific terrain type or crossing a specific type of hexside does not exert a ZOC into that hex or through that hexside. *For example, a unit prohibited from crossing a high mountain hexside does not exert a ZOC through any high mountain hexside.* (Rule 6 covers prohibited terrain in detail.)

The following units never have a ZOC, not even in the hex they occupy:

- Army HQs, Corps HQs, and Art XX HQs.

All other units have a ZOC in the hex they occupy. A non-artillery unit which has a ZOC in the hex it occupies and has a printed combat strength greater than 0, also has a ZOC in adjacent hexes if it is:

- A divisional unit (excepting those divisional units with the unsupported indicator).
- A divisional unit with the unsupported indicator; or a brigade, brigade grouping, regiment, regimental grouping, or cadre (regardless of support status); but only in hexes in weather zones A, F, and G (that is, in the Arctic or Desert—Rules 37C and 37D). *For example, a rifle brigade in a hex on the boundary between weather zones A and B has a ZOC in adjacent hexes in weather zone A (as weather zone A is in the Arctic), but does not have a ZOC in adjacent hexes in weather zone B (as weather zone B is in neither the Arctic nor the Desert).*

Note that battalions, battalion groupings, remnants, units with a printed combat strength of 0 (regardless of size), and artillery units (regardless of strength or size) never have ZOCs outside the hex they occupy.

Under certain conditions, units with a ZOC may have reduced ZOCs. *For example, a unit with a ZOC which is unsupported*

(Rule 12A), or whose nation is shaken (Rule 40B), has a reduced ZOC. Reduced ZOCs are the same as standard ZOCs, except for their effects on the movement of enemy units (Rule 6A).

A unit with a ZOC may temporarily lose its ZOC, depending upon certain activities. *For example, a unit with a ZOC which is disrupted (Rule 3A5); which uses accelerated movement (Rule 6B), rail or river movement (Rules 7A and 7C), air transport (Advanced Rule 20H), or naval transport (Basic Rule 26B or Advanced Rule 31); or whose nation is in collapse (Rule 40C); loses its ZOC. When a unit under-takes such an activity, it loses its ZOC as specified in the appropriate rule. A unit which loses its ZOC does not have a ZOC for any game purpose until it regains its ZOC.*

B. Ownership.

Players own land hexes at the start of the game and can gain and lose ownership of land hexes during play. A player can gain ownership of a hex in either of two ways:

- If at least one his units with a ZOC both occupies and exerts a ZOC in the hex, regardless of the presence of enemy ZOCs exerted into the hex from adjacent hexes.
- If at least one of his units exerts an uncontested ZOC into the hex. A unit with a ZOC exerts an uncontested ZOC in a hex if no unit of the opposing side exerts a ZOC in the hex.

Special:

- To gain ownership of a hex containing an enemy-owned city (Rule 3E2), a friendly unit with a ZOC must occupy the hex.

In general, unless otherwise specified in a rule, when a player gains ownership of a hex, he immediately owns the hex for all game purposes. *For example, if an Entente unit entered an enemy-owned hex containing a port and gained ownership of that hex, the port there is now Entente-owned, and Entente forces may use it from that point on.*

Rule 6—Movement

All phasing units may move during the movement and exploitation phases. Certain non-phasing units may attempt to move during the reserve commitment portion of the combat sequence of the combat phase or reaction combat phase. Non-phasing (reacting) units within the zone of influence of an activated Army HQs may move in the reaction movement phase. The owning player may move any or all of his units in the appropriate phases, but he is never required to move any unit.

A unit's movement rating is the number of movement points (MPs) the unit may normally spend in each phase. A unit may move up to the limit of its movement rating, as modified by the type of movement (as covered later subsections of this rule), disruption (Rule 3A5), terrain (per the Terrain Effects Chart (TEC)), ZOCs (Rule 6A), and general supply status (Rule 11F). A unit spends MPs as it moves from hex to hex. For each hex entered, the unit spends a varying amount of MPs, depending upon the current weather and the type of terrain in the hex being entered. The TEC lists the movement effects of hexes during each type of weather: c/m and artillery units use one set of costs; other units use a second set of costs; and exceptions are shown in a third set of costs. *Example: Units entering a mountain hex*

during clear weather would spend: 6 MPs for a c/m or artillery unit, 2 MPs for a mountain unit, and 3 MPs for all other units.

A unit must spend MPs to cross hexsides that have MP costs listed on the TEC. The MP cost to cross a hexside is in addition to the cost to enter the hex, as shown by the plus sign (+) in front of the cost. *For example, it costs a unit 2 MPs to cross a unfrozen river or canal hexside, in addition to the cost of the hex it is entering.*

A unit may not enter a prohibited hex or cross a prohibited hexside. *Prohibited terrain*—any terrain that is prohibited for a unit to enter—is listed as such on the TEC. *For example, no unit may enter a glacier hex.*

In general, a unit may not enter an **enemy-occupied/ owned** hex. This is a hex that is both owned by the enemy and is also occupied by an enemy unit. *Exceptions:* Units may enter enemy-occupied/owned hexes if they overrun the enemy units there (Rule 6F), or if the enemy units in the hex are under siege (Advanced Rule 15G), or if they are making an airborne or amphibious landing in the hex (Advanced Rules 24 and 32). Note that a unit can enter a hex that is enemy-owned, but not enemy-occupied. Also note that a unit can enter an enemy-occupied hex if it is not enemy-owned. (This situation in which the enemy occupies but does not own a hex can occasionally occur, such as a unit becoming disrupted when it makes an airborne or amphibious landing.)

A unit may always move a single hex (except into or across prohibited terrain) in a movement, reaction movement, or exploitation phase in which it may move. (Note that this single-hex movement ability does not apply to reserve commitment movement during the combat or reaction combat phase.) To do so, the unit spends all of its MPs and enters an adjacent hex, even if the cost to do so exceeds the number of MPs the unit has available that phase. It may move through enemy ZOCs, or into enemy-harassed hexes (Advanced Rule 20G2d), when using this one-hex movement ability. A unit may not spend MPs for any other purpose when using this ability.

A unit with a movement rating of 0 cannot move from the hex it occupies.

Weather affects movement, per Rule 36 and the TEC.

Units may also move by special forms of movement such as rail or river movement (Rule 7), air transport (Advanced Rule 20H), and naval transport (Basic Rule 26B or Advanced Rule 31), as covered in the separate rules.

A. Effect of ZOCs on Movement.

When a unit exits a hex that is in an enemy ZOC, it must spend a number of MPs to leave the hex, in addition to the terrain costs of movement. The ZOC costs are given on the ZOC Movement Costs Table (on the Ground Combat Charts and Tables Chart).

B. Accelerated Movement.

During the movement phase (only), a unit may use accelerated (accel) movement. Accel movement allows a unit to move faster than regular movement, but imposes restrictions on the unit.

1. Good Road Areas. In areas with good roads (i.e. everywhere in Germany, Austria-Hungary, Russian Poland, Romania, Denmark, The Netherlands, Belgium, Luxembourg, France, Switzerland, Italy, Great Britain, Ireland, and the USA),

a unit may use accel movement in the following types of terrain:

- **Roads:** When moving on a road, any type of terrain. (Road movement is covered in Rule 7B.)
- **Hexes:** When not moving on a road, any type of terrain except mountain, forest, unfrozen swamp, wooded swamp, ravines, or prohibited.
- **Hexsides:** When not moving on a road, any type of terrain except unfrozen/unfordable major river, unfrozen great river, mountain, high mountain/high mountain pass (regardless of weather condition), unfrozen narrow straits, or prohibited.

2. Poor Road Areas. Areas with poor roads (i.e. everywhere that does not have good roads), a unit may use accel movement in the following types of terrain:

- **Roads:** When moving on a road, any type of terrain.
- **Hexes:** When not moving on a road, only in clear terrain, intermittent lake/salt lake, canal intensive, bocage, and stony desert.
- **Hexsides:** When not moving on a road, only wadi, minor canal/river/canal/seasonal river (frozen or not), frozen major river/great river/all lake/narrow straits, or escarpment.

Exception: Cavalry, light, mountain, and irregular units (Rules 14D, 14E, 14F, and 14L) may use accel movement in poor road areas in the same types of terrain they may use accel movement in good road areas.

Designers' Note: WWI units were not as road-dependent as their WWII counterparts. In the case of cavalry, light, mountain, and irregular units numerous examples can be found of long force marches through bad terrain followed an attack on enemy forces that can only be recreated in the game by allowing them use of accel movement.

3. Effect and Restrictions. A unit using accel movement has its printed movement rating doubled. *For example, a unit with a printed movement rating of 5 would have its movement rating doubled to 10 when using accel movement.* A unit using accel movement is restricted:

- It may spend MPs only for accel movement, operational rail movement (Rule 7A2), river movement (Rule 7C), or naval transport (Basic Rule 26B or Advanced Rule 31).
- All MP costs for operational rail movement, river movement, and naval transport are doubled.
- If it has a ZOC, it loses its ZOC for the entire movement phase.

4. Fatigue. If a unit using accel movement starts, or ends, its movement adjacent (Rule 3E5) to an enemy unit with a ZOC; or moves adjacent to an enemy unit with a ZOC at any point during its movement; or enters an enemy-owned hex at any point during its movement; it will receive fatigue hits. (ZOCs are covered in Rule 5.) At the end of the unit's accel movement, place one fatigue hit on the unit for every 2 MPs (or fraction thereof) over its printed movement rating that it moved. *Exception:* If the unit is artillery, cavalry, or an Army HQs (per Rules 12B, 14D, and 14M), place one fatigue hit on the unit for every 1 MP over its printed movement rating that it moved. Fatigue hits affect combat and overruns as described below:

- **Attacking:** When an attacking force includes units with

fatigue hits, or traces combat supply through an Army HQs (Rule 11D) with fatigue hits, shift the combat odds ratio down one level (*for example, from 5:1 to 4:1*) for every two fatigue hits (or fraction thereof) on the unit or Army HQs with the most fatigue hits.

- **Defending:** When a defending force includes units with fatigue hits, or traces combat supply through an Army HQs (Rule 11D) with fatigue hits, shift the combat odds ratio up one level (*for example, from 3:2 to 2:1*) for every two fatigue hits (or fraction thereof) on the unit or Army HQs with the most fatigue hits.
- **Overrunning:** When a force containing units with fatigue hits executes an overrun (Rule 6F), shift the overrun odds ratio down one level for each fatigue hit on the unit with the most fatigue hits.
- **Being Overrun:** When a force containing units with fatigue hits is overrun (Rule 6F), shift the overrun odds ratio up one level for each fatigue hit on the unit with the most fatigue hits.

Remove fatigue hits by spending MPs to rest. For every 1 MP a unit spends resting (doing nothing) during a movement, reaction, or exploitation phase, remove 1 fatigue hit from the unit. *Exception:* If the unit is artillery, cavalry, or an Army HQs (per Rules 12B, 14D, and 14M), for every 2 MPs a unit spends resting, remove 1 fatigue hit from the unit. Note that a unit which spends MPs in a phase to rest may not use accel movement during that phase.

Example #1: *A 1-2-5 rifle brigade in the rear (not adjacent to an enemy unit with a ZOC) uses accel movement to move to the front. It spends a total of 8 MPs and ends its movement adjacent to an enemy unit with a ZOC. (Note that since its printed movement rating of 5 is doubled to 10 for accel movement, it could have spent up to 2 MPs more.) Since it moved adjacent to an enemy unit with a ZOC and exceeded its printed movement rating of 5 by 3 MPs, it receives 2 fatigue hits. (Note that if the unit had been artillery, cavalry, or an army headquarters it would have received 3 fatigue hits. Further note that if the unit had not moved adjacent to an enemy unit with a ZOC, or entered an enemy-owned hex, it would not have received any fatigue hits at all.)*

Example #2: *A player declares an attack in which he has three attacking units. One of these units has 1 fatigue hit and two have no fatigue hits. The defender has two defending units, one with 1 fatigue hit and one 3 fatigue hits. The combat odds ratio is determined to be 8:1 (per Rule 9A). This is then modified upward 2 levels because the defending force includes a unit with 3 fatigue hits, and modified downward 1 level because the attacking force includes a unit with 1 fatigue hit. The net effect of fatigue is therefore to modify the combat odds ratio upward 1 level to 9:1.*

Example #3: *This is the same situation as example #2 except that the attacker is now tracing combat supply to an Army HQs with 3 fatigue hits. The 8:1 attack would still be modified upward 2 levels as the defender's situation has not changed; but it would now be modified downward 2 levels due to the 3 fatigue hits on the attacker's Army HQs. Attacker and defender fatigue is thus cancel each other out, and the combat odds ratio remains 8:1.*

C. Reserve Commitment Movement.

During the combat and reaction combat phases, the defending player may attempt to commit (move) reserves to reinforce hexes under attack. This reserve commitment movement may only be attempted if the combat is resolved on the Positional Ground CRT. Note that reserve commitment movement may not be used to reinforce a hex if the combat is resolved on the Mobile Ground CRT.

Use the following procedure to resolve reserve commitment attempts:

- After the attacker announces the attack, determines the CRT which will be used, and totals his attack strength, the defender announces if he will attempt to commit reserves to the combat. The defender may attempt to commit units from any one stack of his units which are within 2 hexes of the hex under attack, so long as these units are not themselves in an enemy ZOC.
- For each unit in the designated stack, the defender rolls a die and consults the Ground Success Table (on the Ground Combat Charts and Tables Chart). Note that a +2 die roll modifier applies to this die roll if the unit is adjacent to the attacked hex. If the attempt succeeds, the unit may move as explained below; if the attempt fails, the unit may not move.

Units using reserve commitment movement have their movement ratings modified (round fractions down):

- **C/M and Water-Only Units:** Normal.
- **Cavalry Units:** Half normal.
- **Light, Mountain, Infantry, Irregular:** One third normal.
- **All Other Units:** One fifth normal.

(C/m, water-only, cavalry, light, mountain, infantry, and irregular units are defined in Rules 3A2, 14B2, 14D, 14E, 14F, 14H, and 14L.) Note that a unit whose modified re-serve movement rating rounds down to zero cannot move.

A unit using reserve commitment movement may spend MPs only for regular movement and only to move to the attacked hex it was designated to reinforce. If it does not have sufficient MPs to enter the attacked hex, it may not move. Note that it cannot use accelerated movement (Rule 6B), overrun (Rule 6F), rail/river movement (Rules 7A and 7C), or naval transport (Basic Rule 26B or Advanced Rule 31), or spend MPs for construction, demolition, repair, or railroad engineering (Rules 13A1, 13A2, 13A3, and 13B3).

A unit which uses reserve commitment movement is immediately disrupted (per Rule 3A5) upon completion of that movement.

All reserve commitment movement associated with one combat must be completed (and the combat resolved) before beginning any reserve commitment movement associated with another combat.

Designers' Note: Reserve commitment is allowed for positional combat as fortifications usually slowed the pace of the attack sufficiently that the armies of the day could commit operational reserves in time to make a difference. The more fluid nature of mobile combat, ensured that the only reserves that realistically could affect the combat's outcome were tactical (in-hex) ones.

D. Reaction Movement.

Reacting (non-phasing) units within the zone of influence (ZOI) of an active Army HQs may move in the reaction movement phase. (Army HQs and ZOIs are covered in rule 14M.) Note that Army HQs themselves cannot move during reaction movement.

All reaction movement associated with one Army HQs must be completed before beginning any reaction movement associated with another Army HQs. *Suggestion:* As this occasionally may result in some confusion regarding which units have already moved; designate units which have moved in the phase (and thus cannot move again) with any convenient marker if you find this helpful.

A unit using reaction movement may spend MPs only for regular movement (including for overruns per Rule 6F below). Note that it cannot use accelerated movement (Rule 6B), rail/river movement (Rules 7A and 7C), or naval transport (Basic Rule 26B or Advanced Rule 31), or spend MPs for construction, demolition, repair, or railroad engineering (Rules 13A1, 13A2, 13A3, and 13B3).

E. Exploitation Movement.

All phasing units may move during the exploitation phase, but have their movement ratings modified for exploitation movement in the same manner as for reserve commitment movement (Rule 6C).

A unit using exploitation movement may spend MPs only for regular movement (including for overruns per Rule 6F below) and for naval transport (Basic Rule 26B or Advanced Rule 31). Note that it cannot use accelerated movement (Rule 6B) or rail/river movement (Rules 7A and 7C), or spend MPs for construction, demolition, repair, or railroad engineering (Rules 13A1, 13A2, 13A3, and 13B3).

F. Overruns.

1. General. During the movement, reaction movement, and exploitation phases, units eligible to move in a phase may overrun enemy units in that phase. (Note that when Advanced Rule 8C2 (Overstacking) is used, that overstacked units may not overrun enemy units.) The moving player performs an overrun by moving units into a single hex adjacent to the enemy units to be overrun; the overrunning units may not exceed the stacking limit of the hex being overrun. (Stacking limits are covered in Rule 8.) All overrunning units must be able to enter the hex being overrun. The overrunning units must have a total attack strength sufficient to achieve at least 10:1 odds against the enemy units. Compute the overrun odds as follows:

- 1) Total the modified attack strengths of all units overrunning the hex. Disruption (Rule 3A5), terrain (per the Terrain Effects Chart), fortifications (per the Fortifications Effects Chart), general supply status (Rule 11F), and support (Rule 12A) can modify the attack strengths of units. Artillery units and heavy cavalry units can have their attack strengths further modified as described in Rules 12B and 14D1.
- 2) Total the modified defense strengths of all units in the hex being overrun. (*Note:* If using Advanced Rule 8C2 (Overstacking), ignore overstacked units when determining the defense strength of the hex.) Disruption,

terrain and fortifications, general supply status, and support can modify the defense strengths of units.

- 3) Calculate the overrun odds ratio. Compare the total attack strength to the total defense strength in the form overrunning units/units being overrun. Round this ratio down to a whole number in favor of the units being overrun. *For example, an attack strength of 116 overrunning a defense strength of 8 is 116:8, which rounds down to 14:1.* Modify the odds ratio up or down by the net effect of any odds ratio shifts required by fatigue (Rule 6B4). Note that the final, modified odds ratio must be 10:1 or greater for the overrun to occur. *Example: An overrun is calculated at 14:1. Defender fatigue shifts the odds ratio up one level, while attacker fatigue shifts the ratio down five levels. The net effect is thus to shift the odds ratio down four levels to 10:1, still enough to overrun the hex. Had the odds ratio been shifted to 9:1 or less, the overrun could not occur.*

Units being overrun lose their ZOCs at the instant of overrun. Each overrunning unit must then spend MPs sufficient to enter the hex being overrun, paying all terrain, ZOC, and overrun MP costs. (Note that ZOC costs are not paid due to units in the hex being overrun, but are paid due to enemy units in the adjacent hexes.) Each unit participating in an overrun must pay overrun MP costs, as given on the Overrun Movement Costs Table (on the Ground Com-bat Charts and Tables Chart). A unit with insufficient MPs to pay the full MP costs for an overrun may not participate in the overrun, even if it has not moved at all in the phase.

Overrunning units may use the road movement rate when executing an overrun if all other considerations for road movement are met. (Roads and road movement are covered in Rule 7B.)

The units in the hex being overrun are completely eliminated and removed from play (even if they have cadres or remnants), and the overrunning units may advance into the hex. (Note that this includes all units in any overstock in the hex.) This advance is optional, but each overrunning unit must spend the required MPs to enter the hex even if it does not advance. After executing an overrun, the units may continue moving if they have sufficient MPs remaining.

A unit with a defense strength of 0 may be overrun at 12:1 odds by any unit with an attack strength greater than zero.

2. Retreat before Overrun. A unit that may attempt to retreat before combat (Rule 9I) may use this ability when enemy units overrun the hex it occupies. When the overrun is announced, these units may immediately attempt to retreat (per Rule 9F2), using the retreat before combat rule, at the owning player's option. The overrun odds are then recalculated (if necessary), and the overrun resolved. If all units in a hex being overrun successfully retreat before combat, then the overrunning units do not pay the overrun MP cost for the overrun attempt.

3. Same-Hex Overruns. Under various conditions (as described in later rules), units from both sides may end up in the same hex. (*This can occur as the result of certain reinforcement activities per Rule 16 and the OB (for example, if the Irish Rebellion occurs, Central Powers-controlled Irish Rebel units may appear in Entente-occupied hexes in Ireland); but more*

usually occurs as a result of a siege (Advanced Rule 15G) or due to units making an airborne or amphibious landing in an enemy-occupied hex (Advanced Rules 24 and 32). In the movement, reaction movement, or exploitation phase, when units from both sides are in the same hex, the units eligible to move in that phase that are in the hex (up to the stacking limit for the hex) may overrun the enemy units there, if the units achieve overrun conditions (per above, ignoring overrun MP costs). As with all other overruns, other friendly units in other hexes may not join in this overrun.

Rule 7 — Transportation Lines

There are three types of transportation lines: railroads, roads, and navigable inland waterways. A unit may use a railroad or road only when moving in hexes directly connected to one another by the railroad or road.

The scenario start-up instructions (Rule 42B) may specify that some railroads or roads may not exist beyond a certain point (the roadhead or railhead, as appropriate) at the start of the game. Use roadhead and railhead markers to show this. A railroad or road may be used up to the roadhead/railhead hex (inclusive), but not beyond it.

A. Railroads.

Units may move by rail on rail lines. There are two types of rail lines: high-volume and low-volume. For rail movement, the only difference between the lines is their effect on rail capacity. *Note:* All adjacent hexes of a multi-hex city (Rule 3E2) are connected by high-volume rail lines.

Units of the phasing player may use rail movement only in the movement phase. A unit moving by rail moves at a faster rate, ignoring regular terrain costs. To use rail movement, a unit must be on a rail line.

When using rail movement, a unit is under the following restrictions:

- It may not enter or leave a hex in an enemy ZOC. However, an enemy ZOC (including its MP costs) in a hex is negated for rail movement purposes (only) if a friendly unit with a defense strength greater than zero occupies the hex throughout the movement phase. This unit must start in the hex and may not leave the hex during the movement phase.
- It may move by rail only in friendly-owned rail hexes, and only if a line of friendly-owned rail hexes can be traced from the unit to a friendly-owned rail marshaling yard (see below).
- If it has a ZOC, it loses its ZOC from the instant it starts to move by rail to the end of its rail movement.

1. Rail Marshaling Yards. On the European maps, each hex containing at least one major city, fortress, resource center, major port, or great port, and each hex on the islands of Corsica and Sardinia containing a minor port, is a rail marshaling yard if the port, resource center, fortress, or city is on a rail line. On the non-European maps, rail marshaling yards are marked as such (as illustrated on The Great War Master Terrain Key Addendum.) Rail marshaling yards are used for the purposes of rail nets (Rule 7A5) and bombing (Advanced Rule 20G1a).

Some rules require two rail marshaling yards, cities, or items

to be connected to one another. They are connected if a rail line of any length can be traced between them; this line is traced in the same manner as the rail sub-element of a supply line (per Rule 11B3a).

2. Operational Rail Movement. A unit may use operational rail movement, moving several hexes for each MP spent, as given on the Rail Movement Rates Table (on the Ground Combat Charts and Tables Chart). The unit may mix both rail movement and regular movement in a movement phase. *For example, a unit could move overland to a rail line, move by rail, and then continue moving overland.*

3. Strategic Rail Movement. A unit may use strategic rail movement, moving up to 200 hexes by rail. The unit must start and end its movement on a rail line and may not otherwise move in the movement phase. During the player turn it uses strategic rail movement, it may not attack during the combat phase and may not move during the exploitation phase. (*Note:* If you find it helpful, use a marker of your choice to indicate which units have used strategic rail movement in a player turn.)

4. Capacity. For each rail net (see Rule 7A5 below), each player has a rail capacity, measured in REs. This is the maximum number of REs of capacity the player may use on that net in a turn to maintain supply depots and to move units. Each supply depot the player maintains (i.e. has present) on a rail net in a turn use 2 REs of that rail net's capacity for that turn. (Supply depots are covered in Rule 11C1.) Each unit a player moves by rail on a net in a turn uses capacity equal to the unit's RE size (Rule 3A3) from that rail net's capacity for the turn. Note that artillery and c/m units count double their RE size against rail capacity. *For example, a rifle regiment moving by rail counts as 1 RE, while a tank regiment counts as 2 REs.*

If a unit uses a low-volume rail line at any time during its rail movement, it counts double its RE size against rail capacity that turn. Note that the size of artillery and c/m units is doubled twice, once for being artillery or c/m and once for using a low-volume rail line.

On each rail net, a unit only counts against rail capacity once per turn, even if it makes separate rail moves during its turn. *Example: A rifle brigade (2 REs) moves by rail, then moves overland to another rail line, and then moves by rail again. It uses high-volume lines only, and thus counts as 2 REs against the player's capacity for that net.*

5. Rail Nets. The rail lines on the maps are divided into different rail nets, as shown on the rail net portion of the initial forces section of each order of battle (OB). The OBs list the following information:

- **Rail Net:** A rail net consists of all rail hexes within the listed territory (as displayed on the map and defined under Rule 3F (Theaters and Commands) in the appropriate Game-Specific Rules Booklet.)
- **Capacity:** This lists the indicated player's starting capacity on the net, in REs, on the specified date.

A player's capacity on a net may change as detailed in sections 7A5a through 7A5g below. Keep track of rail capacities and any gains and losses on paper.

A unit using rail movement on a net counts against the owning player's capacity for that net. If a unit uses rail movement on more than one net in a turn, it counts against the player's

capacity of each net used. *Example: A rifle brigade (2 REs) moves from France to a destination in Spain. Thus, the brigade uses 2 REs on the NW Europe Standard Gauge Net and 2 REs on the Iberian Gauge Net.*

a. Temporary Capacity Increase. A player may spend Res Pts (Rule 11G) to temporarily increase his rail capacity on a rail net. To do so, he must own at least two connected, unisolated rail marshaling yards on the net, with the Res Pts to be spent at any of these yards.

The player spends Res Pts as he moves units during his movement phase to increase his capacity on a rail net that player turn (only). He may increase the capacity for a net by up to a maximum of half the net's capacity at the start of the player turn.

For each Res Pt spent, the net's capacity is increased by 10 REs (or fraction thereof) that player turn.

Example: The Entente player has a capacity of 30 REs on the SW Europe Standard Gauge rail net. He may increase its capacity by up to 15 REs, and he does so, spending 2 Res Pts.

b. Permanent Capacity Building. A player may spend Res Pts (Rule 11G) to permanently build up his rail capacity on a rail net. To do so, he must own at least two connected, unisolated rail marshaling yards on the net, with the Res Pts to be spent at any of these yards.

The player spends the Res Pts in his initial phase. For each connected, unisolated rail marshaling yard on a net, the player may spend 3 Res Pts and the capacity on the net is permanently increased by 1 RE. *Exceptions:*

- If Lille (GW2:0623) is not Entente-owned, or is isolated, it costs the Entente player 4 (vice 3) Res Pts for each 1 RE capacity increase built on the NW Europe Standard Gauge rail net.
- If Warszawa (GW4:2611) is not Entente-owned, or is isolated, it costs the Entente player 4 (vice 3) Res Pts for each 1 RE capacity increase built on the NE or SE Europe Standard Gauge or West Russia Broad Gauge rail nets.
- If the USA has joined the Entente side, it costs the Entente player 2 (vice 3) Res Pts for each 1 RE capacity increase built on any Entente rail net (regardless of the status of Lille or Warszawa).

Designers' Note: Northeastern France (Lille area) and Western Poland (Warszawa area) were the centers of the French and Russian railroad industries, respectively. With their loss (Lille in 1914 and Warszawa in 1915) locomotive production almost ceased, rail car production plummeted, and even production of basic steel rails dropped by nearly half in those countries. USA entry into the war gave the Entente access to the huge American railroad industry (larger than the rest of the world combined), and by 1918 this had mostly eliminated the problems associated with the loss of Lille. Historically, US entry had little effect on Russia's rail industry problems (this was mostly due to lack of effort on the Entente's part rather than lack of ability).

c. Permanent Capacity Increase via the OBs. The orders of battle occasionally will specify that rail capacity increases are received on certain rail nets. The player must own at least two connected, unisolated rail marshaling yards on the net, or he forfeits the increase.

d. Capacity Transfer. Players have a limited ability to transfer rail capacity between rail nets they control. Transfers may be made as follows:

- No transfers may be made that would result in the capacity of the transferring net being reduced below its voluntary minimum capacity. (Each rail net's voluntary minimum capacity is listed in rail net portion of the appropriate section of Rule 41 (Nations).) *For example, the voluntary minimum capacity of the Great Britain Standard Gauge rail net is 90 REs (as listed in Rule 41K4).*
- The rail nets must be the same gauge (Rule 7A8).
- The rail nets must be connected, or it must be possible to trace a naval element of a supply line (see Rule 11B3b) from a rail marshaling yard on one net to a rail marshaling yard on the other net.
- A maximum of 3 REs of capacity may be transferred from one rail net to another per turn.
- 1 Res Pt (Rule 11G) must be spent for every 3 REs (or fraction thereof) of capacity transferred. This Res Pt may be spent in any unisolated, connected rail marshaling yard in either the transferring or receiving rail net.

If the above conditions are met, simply deduct the rail capacity from the transferring rail net and add it to the receiving rail net. The turn that rail capacity is transferred, however, it cannot be used on either the transferring or receiving rail net.

e. Capacity Reduction due to Supply Depot Activation.

Each time a player activates a supply depot in a rail hex of a rail net (per Rule 11C1), his rail capacity on that net is permanently reduced by 1 RE. (This capacity reduction represents the inherent inefficiency of military-run railroads (which the supply depots represent).)

f. Capacity Loss and Gain due to Rail Marshaling Yard or Supply Depot Capture. Capacity on a rail net may be gained or lost through the capture of rail marshaling yards and supply depots. (Supply depots are covered in Rule 11C1.) A rail marshaling yard or supply depot is captured when the enemy player gains ownership of its hex. When the enemy player captures (or recaptures) a rail marshaling yard or supply depot, the (previously) owning player loses 2 REs of rail capacity from his rail net and the capturing player gains 1 RE of capacity for his net. *Exception:* If there is less than 2 REs of capacity on a net, the owning player loses all capacity on that net, and the capturing player gains no capacity.

When a rail marshaling yard or supply depot is captured, the capacity that the capturing player gains cannot be used that turn; it may be used in following turns.

If a player has lost ownership of all rail marshaling yards on a rail net, his remaining rail capacity on that net immediately goes to zero. Further, any active supply depots the player has in rail hexes of that net are immediately deactivated and the rail capacity assigned to those depots eliminated. Note that in these instances the enemy player gains no capacity.

g. Capacity Loss due to Rail Net Deterioration. Capacity on a rail net may be lost through the general deterioration of the net caused by wartime operating conditions.

Each production cycle (as shown on the Game Calendar and defined in Rule 16) each rail net with a capacity of 21 REs or

more that has enemy units present on it must be checked for deterioration. Note that rail nets with capacities of 20 REs or less are not checked, nor are rail nets with no enemy units present. Roll a die for each net, modifying the die roll by +1 for every 2 REs of railroad engineer units present in any rail hexes of the net and by -1 for every 2 friendly supply depots present in any rail hexes of the net); results are:

- **1 through 6: Deterioration:** Immediately deduct 1 RE from the current capacity of the net.
- **7 or more: No Deterioration:** The rail net's capacity is unaffected.

Special:

- When the Entente player checks the NW Europe Standard Gauge rail net (only) for deterioration, if Lille (GW2:0623) is not Entente-owned, or is isolated, increase the loss due to deterioration by 1 RE.
- When the Entente player checks the NE or SE Europe Standard Gauge or West Russia Broad Gauge rail nets (only), if Warszawa (GW4:2611) is not Entente-owned, or is isolated, increase the loss due to deterioration for that rail net by 1 RE.

Example: It is the Feb 15 production cycle and the Entente player must check his NW Europe Standard Gauge rail net for deterioration. He rolls a 6; modifies the roll by +3 as he has 7 REs of railroad engineer units present in hexes of the NW Europe Standard Gauge rail net; further modifies the roll by -5 as he has 11 supply depots present in hexes of the net; yielding a final, modified die roll of 4. This causes a loss of 1 RE of capacity from the rail net. Note that had Lille not been Entente-owned, or been isolated, his RE loss due to deterioration would have increased to 2 REs.

Also check for rail net deterioration during the first initial phase following each use of temporary capacity increase (Rule 7A5a above). Check a rail net for deterioration once for each Res Pt spent to temporarily increase the capacity of the net during the previous player turn. Results are as per above.

Designers' Note: Wartime demands on all the combatants' rail systems meant that normal maintenance and repair work was delayed, deferred, and often outright ignored more and more as the war went on. The greatly increased rail traffic, often using lines not engineered for such weight or volume, stressed the rail infrastructure greatly; and by 1917 the rail systems of France, Italy, Russia, and Austria-Hungary had either collapsed or were threatening to do so. In particular, the emergency marshaling of assets that section 7A5a above represents, almost always resulted in severe wastage of rolling stock. To give just one example, the historical shifting of Central Powers forces to the Romanian theater in 1916 resulted in over 150 locomotives and nearly 2,000 rail cars either known wrecked, burned out, or just disappeared from inventory.

6. Rail Breaks. A unit may break a rail line in a hex by spending 2 MPs in the hex. *Exception:* A railroad engineer unit may break a rail line by spending 1 MP in the hex. Bombing and naval bombardment (Advanced Rules 20G1a and 33C1d) may also break a rail line. A unit may not use rail movement to enter or leave a hex in which the rail line is broken. Breaks may be repaired (Rules 13A3 and 13B2), and a rail line may be used in the turn it is repaired.

Use a rail line hit marker to mark a broken rail line in a hex. Use line cut markers to mark a broken stretch of rail line. *For example, if the rail line in a stretch of 8 hexes is broken, place a line cut marker at each end of the stretch of broken rails with the arrowheads on the markers positioned so they point at each other.*

7. Obstructed Rail Lines. Rail lines in hexes captured (or recaptured) from the enemy are obstructed (use hit markers to show this), and must be cleared by engineer units (see Rules 13A3 and 13B2) before a player may use rail movement to enter or leave those hexes. A cleared rail hex may be used in the same turn it is cleared.

Designers' Note: A rail break represents physical destruction of the rails the trains run on. Even if a rail line is captured with no physical damage, however, the engineers have a lot of work to do to return the line to service: switches must be reset, water towers refilled, coal yards replenished, and, most importantly, the personnel who will operate this infrastructure repositioned. Clearing a rail line represents all of this.

8. Gauge. The railroads in play on the maps use many different rail gauges: standard, broad, meter, narrow, and Iberian. Most rail lines are standard gauge; the exceptions are listed in Rule 41 under the nation who controls them at the start of World War I.

A unit which uses two or more different gauge rail lines as part of its rail movement must pay a trans-shipment cost when it crosses from one gauge to another: 1 MP for operational rail movement, and 20 hexes of its 200 for strategic rail movement.

Railroad engineer units may convert a rail hex from one gauge to another per Rule 13B3a.

9. Isolated Sections of a Rail Net (Optional Rule). *Note:* Isolated sections of a rail net often occur during play. This usually results in one large section of the net and one (or more) very small (and short-lived) sections of the net, the game effects which can be safely ignored. Occasion-ally, a rail net may be separated in a way which is not easy to overlook, however. *For example, if the Entente player makes an amphibious landing along the German North Sea coast and this results in a long-lived enclave separated from the main front in France, it would be distorting if he were able to use the entire capacity of his NW Europe Standard Gauge rail net (most of which would actually be in France) in the enclave.*

Players must maintain separate capacities for sections of their rail nets which become divided from each other by hexes that are not friendly-owned. When a rail net is separated into two or more sections isolated from each other, calculate the rail capacity of each resulting section using the following procedure:

- 1) Determine the number of friendly-owned rail marshaling yards in each section of the net. The section with the most rail marshaling yards is the "home" portion of the net; all other sections are "orphans".
- 2) Determine the RE capacity of each orphan section of the net. For each orphan section multiply the number of rail marshaling yards in that section by 2 REs; to this add 2 REs for each supply depot in a rail hex in the orphan section of the net; the resulting total is the rail capacity for the orphan section of the rail net. *For example, an orphan section of a rail net which contains 4 rail*

marshaling yards (2 REs each) and 1 supply depot (2 REs) would have a rail capacity of 10 REs.

- 3) Determine the RE capacity of the home section of the net. From the pre-isolated rail capacity of the net subtract the calculated capacities of all now orphaned sections; the result is the rail capacity of the home section of the net. *Example: A rail net with a capacity of 70 REs is separated into three sections isolated from each other. The two orphan sections are calculated to have capacities of 9 and 10 REs; the home section of the rail net thus now has a rail capacity of 51 REs (70 - 19 (9 + 10)).*

If a rail net is divided into two or more sections isolated from each other, treat each section as a separate rail net when spending Res Pts to temporarily increase capacity (Rule 7A5a).

When using this rule, players must specify which section of a net at which each RE of permanent capacity is built, added per the OB, or transferred to or from another eligible net (Rules 7A5b, 7A5c, and 7A5d).

Treat the home and orphan sections of a rail net as a single rail net when rolling for rail net deterioration (Rule 7A5g). However, apply any rail capacity losses due to rail net deterioration to the home section of the net. *Exception:* If the deterioration was the result of spending a Res Pt to increase rail capacity, apply any rail capacity loss to the orphan section of the rail net where the Res Pt was spent.

B. Roads.

A unit moving along a road pays the MP cost for clear terrain for each hex it enters; the actual terrain costs for hexes entered and hexsides crossed are ignored.

Road movement has the same limitations as regular movement. *For example, a unit moving along a road must spend additional MPs to exit a hex in an enemy ZOC.*

A unit may always use a road. Roads may be used in any phase in which a unit may move.

In addition to roads printed on the map, each rail line is also a road. Even when a unit is prohibited from using a railroad in a hex, it may still use the rail line there as a road.

Note: Roads may not be broken and do not have to be cleared.

C. Navigable Inland Waterways.

Note: This is a basic rule when playing a scenario set which uses the non-European maps, but should be treated as an optional rule when playing other scenarios.

Units may move by river movement along navigable inland waterways.

1. Definition. All river (including major and great river), canal (including minor canal), and lake hexsides are inland waterways. Lake hexsides are navigable unless frozen. On the European maps, river and canal hexsides (all types) are navigable unless they are frozen or are adjacent to a mountain hex (in which case the hexside is presumed to have rapids). On the non-European maps, river/canal hexsides which are navigable when not frozen are marked as such (as illustrated on The Great War Master Terrain Key Addendum). Note that no inland waterway hexside is navigable when frozen. (Freezing is covered in Rule 36E.)

2. Procedure. Units of the phasing player may use river movement only in the movement phase. A unit moving by river movement moves at an accelerated rate (ignoring regular terrain costs), moving several navigable inland waterway hexsides for each MP spent as given on the River Movement Rates Table (on the Ground Combat Charts and Tables Chart). To use river movement, a unit must be in a hex adjacent to a navigable inland waterway hexside. It begins its river movement by entering this hex-side, and then moves along a line of connected navigable inland waterway hexsides to its destination hexside. On arrival at its destination hexside, the player places the unit in an adjacent land hex. Note that the movement from destination hexside to adjacent hex uses no MPs.

Example: A 1-2-5 rifle regiment at Pavia (GW2:4121) begins river movement by entering the adjacent 4121/4221 hexside (note that it could have entered the 4121/4122 hexside instead). It then moves down the Po river, connected hexside to connected hexside, until it reaches the 4516/4615 hexside, ending its movement in the adjacent hex 4615 (note that it could have entered hex 4516 instead). It has entered 16 inland waterway hexsides and thus has spent 2 MPs.

3. Restrictions. When using river movement, a unit is restricted:

- It may not enter a navigable inland waterway hex-side that is *blocked*. A hexside is blocked to river movement if: 1) it is adjacent to a hex containing enemy coast defenses (per the Coast Defenses Summary (on the Naval Combat Charts and Tables Chart)) or 2) it is in the naval combat zone of an enemy naval group (Advanced Rule 28B).
- It may move by river movement only if a line of unblocked navigable inland waterway hexsides can be traced from the unit to a friendly-owned river transport marshaling yard (see below).
- It may not end its movement in an enemy-occupied/owned hex.
- If it has a ZOC, it loses its ZOC from the instant it starts to move by river movement to the end of its movement by river movement.

4. River Transport Marshaling Yards. On the European maps, each major city hex that is adjacent to a navigable inland waterway hexside is a river transport marshaling yard. On the non-European maps, river transport marshaling yards are marked as such (as illustrated on The Great War Master Terrain Key Addendum.)

Each river transport marshaling yard has a river movement capacity (see 7C5 below) of 1 RE.

5. Capacity. For each inland waterways net (see 7C6 below), each player has a river movement capacity, measured in REs, which is the maximum number of REs that he may move on that net in a turn. Each unit a player moves by river movement on a net in a turn uses capacity equal to the unit's RE size (Rule 3A3) from that net's capacity for the turn. Note that artillery and c/m units count double their RE size against river movement capacity.

On each inland waterways net, a unit only counts against river movement capacity once per turn, even if it makes separate river moves during its turn.

6. Inland Waterway Net. Each group of connected navigable inland waterway hexsides constitutes a separate inland waterway net. The river movement capacity a player has on a specific net is the sum of the capacities of the river transport marshaling yards he owns on that net. *For example, the navigable inland waterway hexsides along the Po, Mincio, Adda, Ticino, Dora Baltea, and Tanaro rivers (circa GW2:4615, 4416, 4119, 4121, 3924, and 4224, respectively) and lakes Garda and Maggiore (GW2:4216 and 3820) constitute a separate inland waterway net; and this net has a river movement capacity of 1 RE (due to the river transport marshaling yard at Torino (GW2:3926)).*

A unit using river movement on a net counts against the owning player's capacity for that net. If a unit uses river movement on more than one net in a turn, it counts against the player's capacity of each net used.

Note: Unlike rail capacity on a rail net, a player cannot spend Res Pts to temporarily or permanently increase his river movement capacity; nor may he transfer river movement capacity between inland waterway nets; nor do his inland waterway nets suffer deterioration.

Designers' Note: River movement is crucial to some of the historical campaigns in Africa and Mesopotamia as due to the bad terrain and dearth of railroads/roads in those areas it is almost the only way to move a force there with any speed. River movement is probably almost as important in Europe, but mostly for supply and production, as barge traffic moves a large fraction of the bulk raw materials for the factories and a considerable amount of general war supplies (background activities the players have little or no control over in *The Great War*). The rules, therefore, give players direct control of about 10% of the available waterlift in Europe and about 75% outside of Europe. That no capacity is lost (it merely changes hands) when river transport marshaling yards are captured, reflects two concerns: in Europe, there is a huge amount of waterlift remaining even if the 10% under player control is lost, while outside Europe, very little loss of watercraft historically occurred (mostly because native populations were extremely loath to destroy assets absolutely essential to the well-being of the local economies).

Rule 8 — Stacking

Only a limited number of units may stack in a hex. Note that an unlimited number of markers may stack in a hex.

A. Stacking Limit.

Note: This is summarized on the Stacking Summary (on the Ground Combat Charts and Tables Chart).

1. Regular. The maximum regular stacking limit for a hex is:

- 6 units of any unit size and unit type, plus
- 6 REs of non-divisional units of any unit type, plus
- 4 REs of artillery units, or 1 artillery division and 2 REs of artillery units, or 2 artillery divisions, plus
- 1 fortress unit of any unit size.

Examples: Each of the following combinations could stack in a hex: a) 6 divisions, 6 regiments, 4 artillery regiments, and 1 fortress brigade; b) 5 divisions, 3 brigades, 1 artillery division, 4 artillery regiments, and 1 fortress regiment; c) 4 cadres, 2 brigades, 2 regiments, 4 remnants, 4 battalions, 2 artillery

divisions, and 1 fortress division.

2. Mountain. The maximum stacking limit for a mountain hex (except in the Arctic/Desert) is:

- 4 units of any unit size and unit type, plus
- 4 REs of non-divisional units of any unit type, plus
- 2 REs of artillery units, or 1 artillery division, plus
- 1 fortress unit of any unit size.

3. Arctic/Desert. The maximum stacking limit for any hex in the Arctic or Desert (per Rules 37C and 37D) is:

- 2 units of any unit size and unit type, plus
- 2 REs of non-divisional units of any unit type, plus
- 1 RE of artillery units, plus
- 1 fortress unit of any unit size.

4. Exceptions. Certain units never count against stacking limits. These are:

- Restricted movement units (Rule 14B).
- Army HQs (Rule 14M).
- Corps HQs (Rule 14N).
- Transport units (Rule 14O).
- Leaders (Rule 14P).
- Elite brigade units (Rule 14Q).

Designers' Note: Regular stacking is based on the fact that divisional frontages in World War I averaged about 3 miles in the defense and about 1 mile in the attack; this averages to about 8 divisions per hex. Numerous examples of stacking exceeding this can be pointed out. For example, during the Battle of the Somme in 1916, the British packed up to 42 divisions into a single hex; but only about a third of these were attacking at any one time, the remainder were in reserve waiting to be fed into the line. In game terms these situations are accounted for by the reserve commitment and overstack rules (Rules 6C/8C2).

B. Effects.

The stacking limit is in force at the end of each movement, combat, reaction movement, reaction combat, and exploitation phase; and at the end of the reserve commitment portion of each combat sequence. A player may not move his units so that they violate the stacking limit in any hex at the end of these phases or sequence. If, as a result of combat, a unit must retreat in violation of stacking, it must continue to retreat until the stacking limit is no longer violated. If it cannot do so, it is eliminated instead.

The stacking limit is also the limit on the number of units that may overrun, attack, or bombard (Rules 6F, 9, and 12C) that hex from an adjacent hex. *Examples:* 1) Units in two clear terrain hexes attack enemy units in a mountain hex outside the Arctic/Desert. Since the hex under attack is a mountain hex, only units up to the mountain stacking limit may attack the hex from each of the two hexes, even though more units may be stacked in these hexes. 2) Units in a mountain hex outside the Arctic/Desert attack units in a clear hex in the Desert. Since the hex under attack is in the Desert, only units up to the Arctic/Desert stacking limit may attack the hex from the hexes outside of the Desert.

Note that the stacking limit is not in force in the initial phase, when reinforcements and replacements enter play. Reinforcements and replacements may enter play in violation of the stacking limit during the initial phase, but only if the stacking limit will not be violated at the end of the following

movement phase.

C. Corps HQs and Stacking.

1. Basic Rules. Players may use Corps HQs to help with stacking in congested portions of the map. (Corps HQs are covered in detail in Rule 14N.) To use a Corps HQs, move a Corps HQs counter to the hex in question, then place the units there in a box on a copy of the *The Great War* Corps Marker Display, and write the identification of the Corps HQs on the box. Treat all units in a Corps HQs box as being in the hex occupied by the HQs. Units assigned to a Corps HQs box may be removed from the box and placed back on the map in the Corps HQs hex at any time.

Note: Since the Corps Marker Display will be written on when used, consider making multiple copies for use when playing the game. Save the original without writing on it.

2. Overstacking (Advanced Rule). A player may establish an overstacked condition (an overstack) in any hex that contains his units and one or more of his Corps HQs. (Note that a player may create an overstack at any time, including during initial deployment, garrison activation, reinforcement placement, etc.) The player must establish an overstack when he has units in excess of normal stacking limits in such a hex, placing all units over these limits in the overstack portion of one or more of his Corps HQs in the hex. He may establish an overstack in a hex even if normal stacking limits are not violated. Note that units may create an overstack when advancing after combat.

When a player establishes an overstack in a hex, he places the units comprising the overstack in the overstack section of the appropriate Corps HQs box on the corps marker display. (The Corps HQs box may also contain normally stacked units in the other section of the box.) *Note:* If you have a lot of units in an overstack, consider moving a second Corps HQs counter into the hex. You can then place this Corps HQs counter in the overstack section of the first Corps HQs counter's box on the corps marker display, and place the overstack units in the second Corps HQs counter's box on the corps marker display.

At the moment the overstack is established, the player chooses which units are overstacked in the hex. There-after, other units in the hex can *voluntarily* enter the over-stack at any time during phases in which the owning player can move or attack. Units in the overstack, however, must spend 1 MP to leave the overstack itself. *Exception:* Units present in an overstack from which they or any other unit attacked in the previous combat (or reaction combat) phase, must spend 2 MPs (vice the normal 1) to leave the overstack during the next phase in which they may move. *Special:* Units that are exempt from stacking (per Rule 8A4) can leave an overstack without MP cost. When a unit leaves the overstack, remove it from the display and place it with the normally-stacked units in the hex.

Units that retreat into a hex containing a friendly Corps HQs in violation of the normal stacking limit are overstacked in that hex. Establish an overstack per above, or add the units to an overstack already present in the hex.

Units in an overstack operate differently than other units:

- They may not overrun enemy units (Rule 6F).
- They are ignored when determining the defense strength of a hex for purposes of overrun or combat (Rules 6F and 9A).

- To attack out of an overstack, they must have spent the entire preceding movement or reaction movement phase (as appropriate) in the overstack.
- The number of units that may attack (Rule 9) or bombard (Rule 12C) from an overstack is limited to the stacking limit (Rule 8A) for the hex containing the overstack. Note that this is a separate limit from the other non-overstacked units in the hex.
- Their attack strengths are modified (in addition to any other modifications) when attacking or bombarding (Rules 9A and 12C): The attack strengths of artillery units are halved; the attack strengths of non-artillery units are quartered.
- Their defense strengths are ignored when determining losses (Rule 9D); but note that they are affected by whatever combat result is achieved in the attack. Further, the overstacked units in a hex may not be eliminated to satisfy any loss requirement until after all normally-stacked units in the hex have been eliminated. Finally, if they are included in an attack resolved on the Positional Ground CRT, and the combat result is AX, BX, BXM, DX, or DXM, the attacker (only) must lose one and half times the strength normally required by those results.
- If they attack and are forced to retreat (Rule 9F2), they are eliminated instead (any cadres/remnants resulting from this elimination must then retreat).
- They may not advance after combat (Rule 9F3).
- They may not use any special combat effects capabilities (Rule 10).
- They are counted at twice their normal RE size (Rule 3A3) for purposes of combat supply (Rule 11D).
- They are not counted for purposes of artillery support (Rule 12A).
- They may not perform any construction, repair, demolition, or railroad engineering (Rules 13A1, 13A2, 13A3, and 13B3).
- They may not fire AA (Basic Rule B17C or Advanced Rule 22) against air units flying the GS, DAS, or aerial bombardment missions (Basic Rules B17B3, B17B4, and B17B5 or Advanced Rules 20G2b, 20G2c, and 20G2j). Note that their ability to fire AA at air units flying other types of missions is not affected.
- When using the advanced air rules, they are not counted for purposes of ground support or defensive air support bombing (Rules 20G2b/20G2c).
- They are not counted for purposes of naval gunfire support (Advanced Rule 33A).

Designers' Note: Attacking out of the overstack was a common occurrence in World War I—especially on the Western Front, where the generals of the day were convinced that the trench deadlock could be broken if only they could bring more divisions and guns (especially guns) to bear on the enemy. The overstack rules allow you to attempt this, but increased command, control, and congestion problems make it harder to exploit any success you might achieve. Attacker casualties will almost always be higher as well (due to the more packed nature of the attacking force).

Rule 9 — Combat

During the combat phase, the phasing player's units may attack enemy units. In this phase, the phasing player is the attacker and the non-phasing player is the defender.

During the reaction combat phase, the reacting player's units within the zone of influence (ZOI) of an active army headquarters (HQs) may attack enemy units. (Army HQs and ZOIs are covered in Rule 14M.) In this phase, the reacting player is the attacker and the non-reacting player is the defender.

A. Procedure.

An attack consists of one or more phasing units attacking a hex that contains enemy units. In a combat or reaction combat phase, the attacking player may make a series of attacks, one after another, in any order. Attacking is voluntary; units are not required to attack. The attacker does not have to announce all of his attacks before resolving any attack.

For each attack, follow this procedure:

- 1) Determine which of the two ground combat results tables (CRTs) (on the Ground Combat Charts and Tables Chart) the attack will be resolved on. If the attacked hex contains mountain terrain, a major city, or a fortification of any type (except fieldworks), use the Positional Ground CRT; in all other cases use the Mobile Ground CRT. *Exceptions:* A) If the attacker is infantry-capable (per Rule 14H), always use the Mobile Ground CRT. B) If the combat's hex is mountain terrain and contains no fortification (excepting fieldworks), and one side (attacker or defender), but not both, is mountain/infantry-capable (per Rule 14H), the side which is mountain/infantry-capable may choose which CRT is used (this is an exception to "A").
- 2) Total the modified attack strengths of all units attacking an adjacent enemy-occupied hex. Disruption (Rule 3A5), attacking from an overstack (Advanced Rule 8C2), terrain and fortifications (per section 9H below), general and combat supply status (Rule 11F), and support (Rule 12A) can modify the attack strengths of units. Artillery units and heavy cavalry units can have their attack strengths further modified as described in Rules 12B and 14D1. To this total, add the strength of any ground support bombing (Basic Rule B17B5 or Advanced Rule 20G2b) and offensive naval gunfire support (Basic Rule 26C or Advanced Rule 33A) in the hex.
- 3) If the combat will use the Positional Ground CRT, resolve any attempt by the defender to commit reserves to the combat (as described in Rule 6C).
- 4) Total the modified defense strengths of all units in the attacked hex. (*Note:* If using Advanced Rule 8C2 (Overstacking), ignore overstacked units when determining the defense strength of the hex.) Disruption, terrain and fortifications, general and combat supply status, and support can modify the defense strengths of units. To this total, add the strength of any defensive air support bombing (Basic Rule B17B4 or Advanced Rule 20G2c) and defensive naval gunfire support (Basic Rule 26C or Advanced Rule 33A) in the hex.
- 5) Resolve any attempts by the attacker and by the defender

by their units to use special combat effects capabilities (as described in Rule 10).

- 6) Calculate the combat odds ratio. Compare the total attack strength to the total defense strength in the form *attacker : defender*. Round this ratio down in favor of the defender to correspond to a combat odds ratio on the ground CRT being used. *For example, an attack strength of 34 attacking a defense strength of 9 is 34:9, which rounds down to 3:1.* Modify the odds ratio up or down (to the left or right on the CRT) by the net effect of any odds ratio shifts required by fatigue (Rule 6B4) and successful attempts to use special combat effects. *Example: An attack is calculated at 3:1. Defender fatigue shifts the odds ratio up three levels, while a spectacularly successful attempt by the defender to use gas effects capability shifts the ratio down one level. The net effect is thus to shift the odds ratio up (to the right on the CRT) two levels to 5:1.*
- 7) Determine the combat results. Roll one die, and modify the number rolled as required by the terrain, fortifications, and weather (per section 9H below), successful attempts to use special combat effects (Rule 10), attempts to use leaders to influence combat (Rule 14P), and any other special effects (the most common of these being adverse terrain expertise (Rule 15C), morale (Rule 15D), cooperation (Rule 15E), and tactical reconnaissance (Basic Rule B17B2 or Advanced Rule 20F2). Cross-index the adjusted die roll with the odds column to get the combat result. The combat result affects the units involved in the combat; implement it immediately.

Designers' Note: The Mobile Ground CRT simulates maneuver combat, while the Positional Ground CRT simulates trench warfare. Both CRTs have an overall -1 built into them to account for the general lack of artillery spotting aircraft which existed during the first half of the war. (The tactical recon air mission simulates dedicating aircraft to this function, among other things.) The higher odds columns on the Mobile Ground CRT are unusable except by infantry, as until the modern infiltration (stosstruppen) tactics came into general use, it was extremely difficult to totally annihilate an opposing force.

Combat in the mountains defaults to the positional table as the ruggedness of the terrain channelizes and breaks up attacking forces such that very small defending forces often held off much larger forces for extended periods. Mountain units are trained to counteract part of these effects, however (even before widespread adoption of infantry tactics) thus the exception for shifting the combat to the mobile CRT if half or more of one side is mountain-capable, but the other side is not.

The Positional Ground CRT is extremely bloody, and the general lack of retreats will usually be maddeningly frustrating. If you concentrate your forces, pound one or two hexes of your opponents line over and over, use your special combat effects capable units (Rule 10) effectively, and have a bit of luck, you CAN break through!

B. General Restrictions.

The following general restrictions apply to combat:

- No unit may attack or be attacked more than once per

combat phase or reaction combat phase.

- No unit may attack into a prohibited terrain hex or across a prohibited terrain hexside.
- All units defending in a hex must be attacked collectively, with their defense strengths combined. Units in a hex may not be attacked individually.
- Each attack must be against the units occupying a single hex. Two or more hexes may not be attacked in a single attack. Units in the same hex may attack into different hexes, but even in this case each attacked hex requires a separate attack.
- A unit may not split its attack strength, such as to attack more than one hex.
- The stacking limit of the attacked hex limits the number of units that may attack the hex from adjacent hexes (see Rule 8B).
- Any attack at odds higher than those allowed on a particular ground CRT is resolved at the highest odds column that can be used on that CRT. *For example, an attack at 9:1 odds on the Mobile Ground CRT would be resolved on the 6:1 column unless the attacking units were half or more infantry, in which case the attack would be resolved on the 9:1 column.* Any attack at odds less than 1:4 is an automatic AE: Attacker Eliminated (Mobile Ground CRT) or AD: Attacker Destroyed (Positional Ground CRT) result, as appropriate.

C. Combat Results.

Combat results may affect the attacking units, the defending units, both sides, or neither. When a combat result occurs, the owning players immediately apply it to their affected units. Note that the two ground CRTs have different combat results.

1. Mobile Ground CRT Combat Results. The possible results are:

- **AE: Attacker Eliminated/DE: Defender Eliminated.** Eliminate all affected units: reduce any unit with a cadre (or remnant) to its cadre/remnant strength; remove from play all other units. Retreat all surviving affected units.
- **AH: Attacker Half Eliminated/DH: Defender Half Eliminated.** Eliminate units so that at least half the total strength (attack strength for the attacker, defense strength for the defender) of the affected units is eliminated. Retreat all surviving affected units.
- **AR: Attacker Retreats/DR: Defender Retreats.** Retreat all affected units.
- **AQ: Attacker Quarter Eliminated:** Eliminate units so that at least one quarter of the total attack strength of the attacker is eliminated. Note that the surviving attacking units do not retreat.

Exception: If the attacker is infantry-capable (per Rule 14H), this result becomes AS (per below) instead.
- **AS: Attacker Stopped.** The attack is inconclusive; neither side takes losses or retreats.

Designers' Note: Infantry units can change an AP result to an AS result as their emphasis on small unit tactics meant that when an attack went sour, it was usually recognized earlier and called off sooner than in the old days of massed rifle attacks controlled at the army-level.

- **HX: Half Exchange.** Eliminate the side with the lower

printed combat strength (or the defender if both sides are equal in strength). Retreat all surviving units of this side. From the other side, eliminate units so that the total strength loss equals at least half the total strength loss of the eliminated side. *Example: An attack of 6 attacking strength points (SPs) against 12 defending SPs results in an HX. The attacker, being the weaker side, eliminates his 6 SPs, and must retreat any surviving units. The defender must eliminate at least 3 SPs.*

- **EX: Exchange.** Eliminate the side with the lower printed combat strength (or the defender if both sides are equal in strength). Retreat all surviving units of this side. From the other side, eliminate units so that the total strength loss at least equals the total strength loss of the eliminated side. *Example: An attack of 15 attacking strength points (SPs) against 6 defending SPs results in an EX. The defender, being the weaker side, eliminates his 6 SPs, and must retreat any surviving units. The attacker must eliminate at least 6 SPs.*

2. Positional Ground CRT Combat Results. The possible results are listed below. *Note:* When a result requires one side to lose half its total strength, that side must eliminate units totaling half or more of its total strength.

- **AD: Attacker Destroyed/DD: Defender Destroyed.** Eliminate all affected units: reduce any unit with a cadre (or remnant) to its cadre/remnant strength; remove from play all other units. Retreat all surviving affected units.
- **AL: Attacker Loss/DL: Defender Loss.** Eliminate units so that half the total strength (attack strength for the attacker, defense strength for the defender) of the affected units is eliminated. Retreat all surviving affected units. From the other side, eliminate units so that the total strength loss equals at least one quarter the total strength loss mandated for the first side. For both sides: When eliminating units, eliminate all non-artillery units before eliminating any artillery unit. *Example: An attack of 120 (80 artillery, 40 non-artillery) strength points (SPs) against 50 (30 artillery, 20 non-artillery) SPs results in an AL. The attacker must eliminate at least 60 (half of 120) SPs, including all 40 non-artillery and at least 20 artillery, and retreat. The defender must eliminate at least 15 (one quarter of 60) SPs, all of which must be non-artillery.*
- **AX: Attacker Exchange/DX Defender Exchange.** Eliminate units so that half the total strength of the affected units is eliminated. From the other side, eliminate units so that the total strength loss equals at least one half the total strength loss mandated for the first side. Neither side is required to retreat, but the side which suffered the larger strength point loss may do so at that player's option. For both sides: When eliminating units, eliminate all non-artillery units before eliminating any artillery unit. *Example: An attack of 120 (80 artillery, 40 non-artillery) strength points (SPs) against 50 (30 artillery, 20 non-artillery) SPs results in an AX. The attacker must eliminate at least 60 (half of 120) SPs, including all 40 non-artillery and at least 20 artillery. The defender must eliminate at least 30 (half of 60) SPs,*

including all 20 non-artillery and at least 10 artillery. The attacker, having suffered the larger strength point loss, may retreat at his option.

Exception: If the attacker is rifle assault-capable (per Rule 14R), a result of DX becomes DXM (per below) instead.

- **DXM: Defender Exchange Modified.** This is the same as DX (per above) except that: #1) the defender must retreat, and #2) the attacker must eliminate units so that his total strength loss equals at least equals the strength loss mandated for the defender. *Example:* An attack of 120 (80 artillery, 40 non-artillery) strength points (SPs) against 50 (30 artillery, 20 non-artillery) SPs results in a DX, but this is modified to DXM as the attacker is rifle-assault capable. The defender must eliminate at least 25 (half of 50) SPs, including all 20 non-artillery and at least 5 artillery, and retreat all surviving defending units. The attacker must eliminate at least 25 SPs, all non-artillery.

Designers' Note: Rifle assault units use their high-morale and lavish suite of supporting arms to push the attack more aggressively than regular rifle units. This usually results in higher attacker casualties, but often results in the taking of more ground as well.

- **BX: Both Exchange.** Eliminate units so that half the total strength of the side with the lower printed combat strength (or the defender if both sides are equal in strength) is eliminated. From the other side, eliminate units so that the total strength loss at least equals the total strength loss mandated for first side. Both attacker and defender may retreat at their option (the defender retreats first). Note that neither side is required to retreat, however. For both sides: When eliminating units, eliminate all non-artillery units before eliminating any artillery unit. *Example:* An attack of 120 (80 artillery, 40 non-artillery) strength points (SPs) against 50 (30 artillery, 20 non-artillery) SPs results in a BX. The defender, being the weaker side, must eliminate at least 25 (half of 50) SPs, including all 20 non-artillery and at least 5 artillery. The attacker must eliminate at least 25 non-artillery strength SPs. Both sides may retreat at their option, but the defender must retreat first.

Exception: If the defender is infantry-capable (per Rule 14H), this result becomes BXM (per below) instead.

- **BXM: Both Exchange Modified.** This is the same as BX (per above) except that: #1) only the defender may retreat, and #2) the defender's losses are halved if he does retreat. Note that attacker losses are still calculated as if the defender had taken losses per the BX result. *Example:* An attack of 120 (80 artillery, 40 non-artillery) strength points (SPs) against 50 (30 artillery, 20 non-artillery) SPs results in a BX result, but the result is modified to BXM as the defender is infantry-capable. The defender must either: #1) eliminate at least 25 (half of 50) SPs, including all 20 non-artillery and at least 5 artillery—in which case he may not retreat, or #2) eliminate at least 12.5 non-artillery SPs—in which case

he must retreat. Regardless of the course of action taken by the defender, the attacker must eliminate at least 25 non-artillery SPs, and may not retreat.

Designers' Note: Infantry/stosstruppen units can use their training in mobile tactics to lessen casualties by giving up ground. By the WWII period defensive tactics developed to the point that an infantry defender can shift the combat from the positional table to the mobile table if desired. However, during the WWI period, the emphasis on attack meant that mobile defensive tactics were only partly developed and imperfectly implemented.

D. Losses.

Calculate all combat losses using the printed strengths of the involved units. Disruption (Rule 3A5), attacking from an overstack (Advanced Rule 8C2), terrain and fortifications (per section 9H below), supply status (Rule 11F), and support (Rule 12A) may modify strengths for combat resolution, but these factors are not considered for losses. When determining losses, always use the attacker's attack strengths and the defender's defense strengths.

Air units and naval gunfire may aid units in combat (Basic Rules B17B4, B17B5, and 26C or Advanced Rules 20G2b, 20G2c, and 33A). However, the bombing strengths of air units and the gunnery strengths of naval units are not included when determining losses. Air and naval units are never eliminated due to ground combat resolution.

Ignore Army HQs units and Corps HQs units (Rules 14M and 14N) when eliminating units to satisfy mandated losses. Instead, Army and Corps HQs in a combat are eliminated if there are no other friendly units in their hex upon completion of ground combat resolution (that is after all losses have been taken and after all movement after combat (per section 9F below) has been completed).

Which of his units a player eliminates to satisfy a combat result are at his discretion. However, if the combat result is AL, AX, BX, BXM, DX, DXM, or DL, a player must eliminate all his non-artillery units before eliminating any of his artillery units. Note that the cadres/remnants resulting from the elimination of non-artillery units in a combat (per Rule 9E) do not themselves have to be eliminated before artillery units may be eliminated. *Exception (Optional):* For purposes of losses (only) treat field artillery units (Rule 12B1) as non-artillery units.

Designers' Note: Losses of heavy artillery (the dominant type of artillery in the game) and siege artillery in positional combat were usually low (many more of these guns were lost to bombardment). However, fairly large numbers of field artillery and mortars could be lost during such a battle.

Special: When using Advanced Rule 8C2 (Overstacking) modify the loss rules as follows: 1) Ignore the defense strengths of overstacked units when determining losses (but note that they are affected by whatever combat result is achieved in the attack), 2) The overstacked units in a hex may not be eliminated to satisfy any loss requirement until after all normally-stacked units in the hex have been eliminated, and 3) If overstacked units are included in an attack resolved on the Positional Ground CRT, and the combat result is AX, BX, BXM, DX, or DXM, the attacker (only) must lose one and half times the strength

normally required by those results.

E. Cadres and Remnants.

Various units can take losses in combat and remain in play at reduced strengths. These units have **cadre** or **rem** printed on the back of their counters. When such a unit is eliminated in combat, it is reduced (flipped over) to its cadre or remnant instead of being removed from play. When calculating the total strength loss in a combat, the strength of a unit reduced to cadre/remnant is counted fully. *For example, an attacking 9-12-5 rifle division reduced to a 4-5-5 cadre is counted as a strength loss of 9 (attack strength), not 5 (the difference between its full and cadre attack strengths).*

Note that the only difference between cadres and remnants is RE size (see Rule 3A3). When a rule applies to cadres it also applies to remnants, even if not explicitly stated.

F. Movement After Combat.

1. Declarations. If a combat result mandates that a player retreat his units from a hex, and retreating these units (per Rule 9F2 below) would leave the hex vacant of units from his side, the opposing player must state (truthfully) if he will advance at least one of his units that participated in the combat into the hex (per Rule 9F3 below). If the player declines to advance, then the mandated retreat is canceled.

Example #1: A combat result mandates that the defender must retreat from a hex. (Note that implementing a defender retreat result will always result in a hex vacant of units of the defending side.) The attacker must declare his intent regarding advance after combat into the hex. If he elects not to advance, the requirement for the defending units to retreat is canceled.

Example #2: A combat result mandates that the attacker must retreat. The attacking units are divided between two hexes: Y and Z. Hex Y contains nothing but attacking units, while the hex Z contains both units that attacked and units that did not attack. A retreat from hex Y would leave the hex vacant of units of the attacking side. A retreat from hex Z would not leave the hex vacant (as the units which not attack do not have to retreat). The units which attacked from hex Z must retreat. The defender must declare his intent regarding advance after combat into hex Y. If he elects not to advance, the requirement for the attacking units in hex Y to retreat is canceled.

2. Retreats. When a unit must retreat, the owning player moves it one hex away from the hex it occupied during combat, in accordance with the following priorities:

- 1) To a hex not in any enemy ZOC and not in violation of stacking. (ZOCs and stacking are covered in Rules 5 and 8, respectively.)
- 2) To a hex not in an enemy ZOC but in violation of stacking.
- 3) To a hex in an enemy ZOC (regardless of stacking). A unit that retreats to a hex in an enemy ZOC is reduced to cadre/remnant if it has a cadre/remnant. If it does not have a cadre/remnant (or is already a cadre or remnant) it is eliminated.

If there are multiple hexes with the same retreat priority that a unit could retreat to, the unit must retreat to the hex closest to a friendly supply depot. Further if there are two or more supply depots equidistant, the retreat must be towards an operational

supply depot in preference to a non-operational supply depot. (Supply depots are covered in Rule 11C1.)

When a retreating unit violates the stacking limit, it must continue to retreat, per the above priorities, until it reaches a hex where it does not violate the stacking limit. If it cannot do this, it is eliminated. *Exception:* When using the advanced rule on overstacking (Rule 8C2), a unit may end its retreat in a hex in violation of stacking if it can be added to an overstack in that hex.

A unit with no retreat route except into or across prohibited terrain or into enemy-occupied/owned hexes is totally eliminated, even if it has a cadre or remnant.

Defending units retreating to a friendly-occupied hex that is subsequently attacked in the same combat phase contribute nothing to the defense of the hex: Their defense (combat) strengths are ignored during the attack and for all exchange purposes, and they are ignored for special combat effects capabilities (Rule 10), support (Rule 12A), AA (Basic Rule B17C or Advanced Rule 22), or anything else called into play during the attack. These units do, however, suffer all adverse effects of the subsequent attack.

Some units may ignore enemy ZOCs when retreating if they retreat to a friendly-occupied/owned hex. These units are:

- All non-artillery units with a printed attack strength of 8 or greater. A unit's strength is determined after implementing any losses, but before any retreats. *For example, an 8-11-5 rifle division may retreat in this fashion, but the same division reduced to its 3-5-5 cadre cannot.*
- All units with a printed movement rating of 6, 7, or 8 (regardless of their attack strength).

Note: Only units in the above categories have this special retreat ability. All other units, included units stacked with units with this special retreat ability, do not have this ability.

Special: When using Advanced Rule 8C2 (Overstacking), units which attack from an overstack and are forced to retreat are eliminated instead (any cadres/remnants resulting from this elimination must then retreat).

3. Advances. Attacking units may advance after combat into the attacked hex, up to the stacking limit, if the combat clears the hex of enemy units. Defending units may advance after combat into adjacent hexes, up to the stacking limit, if the combat clears all enemy units from the hex advanced into. *Example: An attack made from three hexes fails disastrously (an AE is rolled). After implementing the combat result, only one of the hexes still contains units belonging to the attacking side (these units did not attack and therefore were not affected by the combat result). The defender may advance units from the attacked hex into either or both of the two hexes now completely cleared of enemy units.*

Advance after combat is voluntary. The units must advance immediately upon resolution of the attack into the vacated hex (or hexes), before any other attack is resolved.

Special: When using Advanced Rule 8C2 (Overstacking), units advancing after combat are not limited to the stacking limit; they may advance into a hex in excess of the stacking limit if the excess units can be placed in an overstack in the hex. Also, units in an overstack may not advance after combat.

4. Multiple-Hex Retreats/Advances. In the West Theater prior to Feb I 15, and in all other Theaters prior to Feb I 16, if the combat result is an AE, AH, DH, or DE, the affected units must retreat 2 hexes and the other side's units are eligible to advance up to 2 hexes.

A multiple-hex retreat/advance is carried out as follows (the normal rules governing retreat and advance after combat apply unless otherwise stated):

- 1) All units that must retreat are retreated one hex.
- 2) Units eligible to advance after combat may then advance into any hexes vacated due to the total elimination of the units in the combat or by retreat per step 1 above.
- 3) All units that must retreat are retreated a 2nd hex.
- 4) Units that advanced after combat in step 2 above may then advance a 2nd time into any hexes not containing enemy units.

Designers' Note: During the early war period of open maneuver, the armies on both sides appeared to be completely paranoid about enemy forces getting astride their lines of communication. When things went badly, and a force had to retreat, it often did so pell-mell. This panic was a major contributing factor in the Russian defeats at Tannenberg and in central Poland in 1914-15, in the German retreat from the Marne in 1914, and the 1915 Serbian campaign.

5. Movement after Combat and Overruns. A unit or stack required to retreat due to combat, may retreat into an enemy-occupied hex if able to overrun (Rule 6F) the units in the hex. Implement the effects of enemy ZOCs on retreats (per section 9F2 above) before the overrun odds are calculated. Calculate the overrun odds as normal, but ignore movement point costs.

A unit or stack making its second advance in a multiple hex advance after combat may enter a hex containing enemy units if able to overrun the units in the hex. Implement this overrun in the same manner as an overrun in conjunction with a retreat.

G. Zero-Strength Units and Marginal Units.

1. Zero-Strength Units. A unit with an attack strength of 0 may not attack by itself. It may participate in an attack made by other units, whereupon it is affected by the results of the attack (including advance after combat).

A unit with a defense strength of 0 is automatically eliminated when attacked, unless it is stacked with at least one unit with a defense strength greater than 0.

A unit with a combat strength of 0 is subject to all limitations of this rule.

2. Marginal Units (Optional Rule). A unit with a printed attack strength of 0 has a marginal attack capability: Treat such units as having a printed attack strength of 0.5.

A unit with a printed defense strength of 0 has a marginal defense capability: Treat such units as having a printed defense strength of 0.5.

Example: A 0-2-X unit would have an attack strength of 0.5; and a 1-0-X unit would have a defense strength of 0.5; but a 0-X unit would still have a combat strength of zero.

H. Terrain, Fortification, and Weather Effects.

The terrain and fortifications in the defender's hex, the terrain of the hexsides across which the attack is made, and the current weather affect combat resolution. The combat effects columns

on the Terrain Effects Chart (TEC) and Fortifications Effects Chart summarizes these effects. Note that weather effects are also summarized on the TEC. (Weather is covered in detail in Rule 36.) AEC refers to armor effects, as explained in Rule 10A. In general, terrain and fortifications may affect combat by halving or quartering some or all of the attacking units; further, terrain, fortifications, and weather may affect combat by applying modifications (such as -1) to the die roll used to resolve the attack. Note that all terrain, fortification, and weather effects are cumulative.

I. Retreat Before Combat.

Combat/motorized and cavalry units (Rules 3A2 and 14D) with a printed movement rating of 7 or 8, and irregular units (Rule 14L) may attempt to retreat before combat. *Special:* Over-snow units (Rule 14G) with a printed movement rating of 7 or 8 may attempt to retreat before combat during snow weather (only).

When resolving an attack against a hex containing any defending units that may attempt to retreat before combat, the attacking player must indicate all forces that are attacking the hex. The defending player chooses which, if any, of his units that can attempt to retreat before combat will attempt to do so. The defending player then determines the success of each attempt as follows: He rolls a die for each unit attempting to retreat and consults the Ground Success Table (on the Ground Combat Charts and Tables Chart); note that there are no modifiers to this die roll. If the attempt succeeds, the unit retreats; if the attempt fails, it does not retreat. Follow the regular rules of retreat (Rule 9F2) for retreat before combat.

Once allocated to an attack, the attacking forces may not be reallocated to a different attack or withheld from attacking, even if all defending units in the attacked hex retreat before combat. If any defending units remain in the hex, the attack is resolved normally. If all defending units in the hex retreat before combat, the attacking units may advance into the hex, the same as for advance after combat (Rule 9F3).

J. Contested Hexes.

If upon resolution of a combat using the Positional Ground CRT, at least one surviving attacking unit both occupies and exerts a ZOC in the attacked hex *and* at least one surviving defending unit both occupies and exerts a ZOC in any adjacent hex, the attacked hex does not change ownership per Rule 5B; instead, ownership of the hex is *contested*. (Place a contested hex marker in the hex to show this.)

A contested hex has the following effects:

- Non-infantry units which enter a contested hex (either as a result of the advance after combat which established the contested hex or by any means subsequent to this) may become disrupted. Note that infantry units (Rule 14H) are never disrupted when entering a contested hex. For each non-infantry unit that enters a contested hex, roll a die and consult the Ground Success Table (note that there are no modifiers to this die roll); results are: *Success:* the unit is not disrupted, or *Failure:* the unit is disrupted. (Disruption effects are covered in Rule 3A5). Disrupted units in a contested hex cannot recover from disruption while in such a hex (this is an exception to the

normal rule that disrupted units recover from disruption during each friendly initial phase).

- A contested hex is owned by neither side. Note that this means that the facilities (cities, transportation lines, airbases, ports, factories, resource centers, etc.) in the hex cannot be used by either side.
- In general, a unit may not enter (or retreat into) an **enemy-occupied/contested** hex. This is a hex that is both contested and is also occupied by an enemy unit. *Exceptions:* Units may enter enemy-occupied/contested hexes if they overrun the enemy units there (Rule 6F), or if the enemy units in the hex are under siege (Advanced Rule 15G), or if they are making an airborne or amphibious landing in the hex (Advanced Rules 24 and 32).
- Fortifications in a contested hex are ignored for all purposes (just treat the hex as if it had no fortifications). Note that the fortifications in a contested hex are not reduced (Rule 15B) upon hex capture; instead, they are reduced when a player gains uncontested ownership of the hex (per below).
- Construction, demolition, repair, and railroad engineering (Rules 13A1, 13A2, 13A3, and 13B3) cannot be undertaken in a contested hex.
- Attacks into contested hexes are resolved using the Mobile Ground CRT, and have a -1 applied to the combat resolution die roll (in addition to any other modifiers).

A player gains uncontested (i.e. normal) ownership of a contested hex when either of the following occur (remove the contested hex marker when either condition occurs):

- One or more of his units with a ZOC remains in continuous occupation of the hex for one complete game turn. *Example: The Central Powers player occupies a contested hex with a unit with a ZOC in the reaction combat phase of the Entente half of the Jun I 15 game turn. If he succeeds in continuously holding the hex with at least one unit with a ZOC until the end of the reaction combat phase of the Entente half of the Jun II 15 game turn, he will gain ownership of the hex at that time.*
- The other player ceases to contest the hex. A player immediately ceases to contest a hex when he no longer has at least one unit with a ZOC in the contested hex or in any adjacent hex.

Designers' Note: One of the little-known secrets of WW I is that almost every trench attack made during the war succeeded. Succeeded, that is, in taking the enemy front-line trenches. Where each attack failed was in retaining ownership of those trenches through the inevitable enemy counterattack. In some cases, such as at the Somme in 1916, the cycle of attack and counterattack went on for months. (*Note:* The contested hex situation at the Somme is best visualized in game terms as beginning when the German player voluntarily retreats after suffering a BX combat result (as he is hoping to maximize his counter-attack position against any advancing (and thus likely disrupted) enemy units).)

K. Same-Hex Combat.

Under various conditions (as described in later rules), units from both sides may end up in the same hex. (*This can occur as the result of certain reinforcement activities per Rule 16 and the OB (for example, if the Irish Rebellion occurs, Central Powers-controlled Irish Rebel units may appear in Entente-occupied hexes in Ireland); but more usually occurs as a result of a siege (Advanced Rule 15G) or due to units making an airborne or amphibious landing in an enemy-occupied hex (Advanced Rules 24 and 32).* In the combat or reaction combat phase, when units from both sides are in the same hex, all attacker units (i.e. all phasing units in the combat phase and all non-phasing units in the reaction combat phase) in the hex (up to the stacking limit for the hex) *must* attack the enemy units in the hex. (They cannot attack another hex, nor may they not attack at all.) If such an attack is mandated during the reaction combat phase, the attack may be made even if the attacking units are not in the zone of influence of a friendly Army HQs. Friendly units in other hexes may also join in the attack, per the above combat rules. *Exception:* If *all* enemy units in the hex are under siege (per Advanced Rule 15G), friendly units in the hex (up to the stacking limit for the hex) *may* (but are not required to) attack the enemy units in the hex. Resolve any same-hex combat as follows.

1. Same-Hex Non-Siege Combat. Use the standard combat rules with the following modifications:

- Units with an attack strength of zero are required to attack in this case. (they are "included in the attack" per Rule 9G.) If there is no ground unit in the attack with an attack strength greater than zero, the attacking units are automatically eliminated. (Note that this occurs even if there is ground support or naval gunfire support available for the attacking units). *Example: A 6-8-4 parachute machinegun brigade air drops in a hex occupied by an enemy unit. The parachute machinegun brigade becomes badly disrupted in the drop and thus has a combat strength of 0 (per rule 3A5). No other friendly unit attacks the hex, so the parachute machinegun brigade is eliminated, since it attacked at zero strength.*
- On an AQ, AS, or AX result, the attacking units in the enemy-occupied hex must also retreat. All other units treat the result normally.
- Retreating units are subject to the effects of all ZOCs they enter, including the ZOCs of enemy units in the hex from which the retreat is conducted. *Example: A marine rifle regiment makes an amphibious landing in a hex occupied by an enemy supported rifle division. During the combat phase, the marine rifle unit must attack, and the combat result requires it to retreat. Since any hex it can enter is in the ZOC of the rifle division in the landing hex, the marine rifle unit is eliminated.*
- If both sides have units remaining in a hex after combat resolution (as may occur, for example, if combat takes place on the Positional Ground CRT and neither side is required to retreat), the attacking units which remain in the hex are under siege (per Rule 15G) upon conclusion of the combat.

2. Same-Hex Siege Combat. Note that this can only occur when using Advanced Rule 15G (Siege). Use the standard combat rules with the following modification:

- Besieged units may attack sieging enemy units in their hex (only); they may not attack enemy units in adjacent hexes. Note that sieging units are under no such restriction; they may attack enemy units in both the sieged hex and adjacent hexes. The sieging player may attack besieged units with his units in the besieged hex and in adjacent hexes.

L. Incremental Odds (Optional Rule).

Note: Use of this option requires a 10-sided die.

If the odds ratio is 2:1 or greater, the attacker may use incremental odds. When calculating the combat ratio (Rule 9A), round to the nearest tenth of a point. To use incremental odds, roll a 10-sided die. If the die roll is equal to or less than the decimal fraction, then round the combat ratio up to the next whole number; if the die roll is more than the decimal fraction, then round the combat ratio down to the next whole number.

Example: An attack strength of 48 attacking a defense strength of 20 would result in a ratio of 2.4:1. As this exceeds 2:1, incremental odds may be used. A 4 is rolled on a 10-sided die. The combat ratio is thus rounded up to 3:1 and the combat is resolved on the 3:1 column of the CRT. If a 5, 6, 7, 8, 9, or 0 had been rolled, the combat ratio would have been rounded down to 2:1, and the combat resolved on the 2:1 column of the CRT instead.

Designers' Note: Most of the historical offensives on the western front work out as being somewhere between 2:1 and 4:1 attacks. Use of this rule went a long ways to encouraging playtesters to make attacks at the lower end of this scale (as they were always hoping the incremental odds die roll would go in their favor).

Rule 10 — Special Combat Effects

Various unit types have special combat effects capabilities that may be used to attempt to modify a combat's outcome, as described below. These capabilities are summarized on the Special Combat Effects Capabilities Summary (on the Ground Combat Charts and Tables Chart).

Immediately after the combat odds ratio for an attack is calculated, both sides announce all attempts they will make to use special combat effects capabilities in that combat. The attacker announces all attempts he will make and designates the attacking units which will make each attempt. The defender then announces all attempts he will make and designates the defending units which will make each attempt. Note that two or more units may combine to make a specific attempt.

For each attempt to use a special combat effects capability, the player making the attempt rolls a die and consults the Ground Success Table. Note that each special combat effects capability has its own list of applicable die roll modifiers.

If the attempt succeeds, modify the combat resolution die roll by +1 if the attacker made the attempt, or by -1 if the defender made the attempt. If the attempt also results in a column shift, shift the combat odds ratio for the attack one column to the right if the attacker made the attempt, or one column to the left if the

defender made the attempt. Note that multiple attempts to use some types of special combat effects capabilities are allowed and that the combat resolution die roll can therefore be modified by +1 for each such attempt which succeeds. *For example, up to two attempts to use EEC can be made by the attacker in a combat, and if both attempts succeeded, the combat resolution die roll for that combat would be modified by +2.*

If the attempt fails, the attempting units may be eliminated (as described on the Ground Success Table). *Note:* The elimination of a unit in this manner does not require the combat odds to be recalculated.

Example: An attack in 1916 on a defending force of German units in a full city hex containing a fort is calculated at 3:1, -3. The attacker announces he will use the three combat engineer regiments and one siege engineer brigade he has in his attacking force to make two attempts to use EEC (with the first attempt using two combat engineer regiments and the other using one combat engineer regiment), and one attempt to use SEC (using the siege engineer brigade). The defender then announces he will make one attempt to use GEC using the gas engineer regiment (1 RE of GEC) he has in the defending force.

The attacker resolves his attempts using the Ground Success Table. He rolls a 5 for the first EEC attempt, and modifies the die roll to 6 as the attempting force is equal to a brigade in size, which means the attempt succeeds and the combat resolution die roll will be modified by +1. For the second EEC attempt, the player rolls a 2, which means the attempt fails disastrously with the combat engineer regiment which made the attempt being eliminated. For the SEC attempt, the player rolls a 5, modifies this to a 6 as the attempting units equal one X, which means the attempt succeeds and the combat resolution die roll will be modified by an additional +1. As the SEC attempt was an asterisked success, he rolls again to see if the attempt also results in a column shift; he rolls a 5, which means it does, and the combat odds ratio will be shifted one column to the right (higher). The attacker has succeeded in changing the attack to a 4:1, -1.

The defender next resolves his GEC attempt using the Ground Success Table. He rolls a 6, an asterisked success, and rolls again, another 6. This results in the combat resolution die roll being modified by a -1 and the final odds ratio being shifted one column to the left (lower). The final odds ratio for the combat is, therefore, 3:1, -2.

If a side succeeds in using a specific special combats effects capability (excepting GEC) to modify the combat resolution die roll, the first RE from that side eliminated to satisfy required combat losses must be taken from units capable of using that special combat effects capability. *Example:* The attacker succeeds in using AECA to modify the combat resolution die roll. The combat result is EX. The first RE the attacker eliminates to satisfy the exchange requirement must be from units capable of using AECA. Unfortunately, he has only two AECA capable units in the attacking force, a battalion (1/2 RE) and a brigade (2 REs). As the battalion cannot satisfy the required loss alone, the player must eliminate the brigade instead.

A. Armor/Antitank Effects Capability.

Various units have armor and antitank capabilities as shown

on the Unit Identification Chart (UIC). There are three categories of these effects:

- **AECA: Armor Effects Capability in the Attack.** AECA expresses the ability of an attacking unit to use armor effects.
- **AECD: Armor Effects Capability in the Defense.** AECD expresses the ability of a defending unit to use armor effects.
- **A TEC: Antitank Effects Capability.** ATEC expresses the ability of a defending unit to use antitank effects when the attacker has units capable of using AECA in the attack.

A unit can be either fully capable (full) or one half capable (1/2) in any of these categories as shown on the UIC. When calculating the RE size of a force making an attempt to use one of these capabilities, count a fully capable unit at its printed RE size, and count a one half capable unit at half its printed RE size. *Example: A player attempts to use AECA. He commits the following units to the attempt: one tank regiment ("full" and thus 1 RE of AECA) and two engineer tank regiments ("1/2" and thus 1/2 RE of AECA each). The total RE size of his force for the purpose of the AECA attempt is thus 2 REs (one brigade equivalent).*

Weather affects AEC (both AECA and AECD), but not ATEC, as listed on the Terrain Effects Chart. There is no AEC at all in mud weather. AEC is reduced in winter and snow weather. (Weather is covered in detail in Rule 36.) During times of reduced AEC, halve the RE size of all units attempting to use AEC. *Continuing with the example from the previous paragraph, if the force of one tank regiment and two engineer tank regiments were to make the AECA attempt during winter or snow weather, the total RE size of the force for purposes of making the AECA attempt would be halved to 1 RE (one regiment equivalent).*

The attacker may make a maximum of 2 attempts to use AECA per combat. The defender may make a maximum of 1 attempt to use AECD per combat.

ATEC may only be used if the attacker has AECA capable units present in the attack. Note that the attacker need not make any attempt to use AECA in order for the defender to attempt to use ATEC. Further, a defender may not attempt to use both AECD and ATEC in the same combat. The number of ATEC attempts the defender may make is equal to the number of REs of units with AECA capability the attacker has participating in the attack plus one, up to a maximum of 3 attempts. *Again continuing with the example from the previous paragraphs, if the attacking force includes one tank regiment and two engineer tank regiments (a total of 3 REs of AECA capable units), the defender may make up to 3 attempts to use ATEC (assuming he has at least 3 ATEC capable units present). If he makes even one attempt to use ATEC, however, he may not attempt to use AECD (even if he has AECD capable units present).*

The Terrain Effects Chart lists several terrain types as "no AEC". This means that AECA may not be used by a unit attacking into such a hex or across such a hexside; and AECD may not be used by a unit when defending in such a hex. ATEC is unaffected and may be used in such a hex if the attacking force includes one or more units capable of AECA, even though

AECA may not be used due to the terrain.

Designers' Note: Armor effects in WW I are limited (as compared to WW II) as tank technology is new and in many respects still unreliable, and the doctrine to effectively use the tank en masse is either missing or in embryonic form. The shock of this new weapon, however, sometimes had an effect all out of proportion to its actual numbers. Thus in the game a single tank battalion added to a multi-corps attack can sometimes yield a +1.

B. Cavalry Effects Capability (CEC).

CEC represents the ability of attacking heavy cavalry units (Rule 14D1) to charge enemy units. When heavy cavalry units are included in an attack resolved on the Mobile Ground CRT, the attacker may attempt to use CEC. A maximum of 1 attempt may be made per combat.

Designers' Note: Cavalry charges still worked on occasion in WW I, especially in the more open eastern and southern theaters. The tactic was still considered of such importance in 1918, that when several British cavalry units in Palestine converted back from rifles to sabers/lances it was viewed as increasing their combat ability! Note that CEC attempts against defenders in a hex where no AEC is allowed (whether due to the terrain type, weather, or presence of fortifications) are virtual suicide unless all de-fending units are unsupported and non-machinegun units.

C. Engineer Effects Capability (EEC).

EEC represents the ability of attacking combat engineer units, assault engineer units, flamethrower units, engineer tank units, and assault engineer tank units (Rules 13D, 13E, 13F, and 14C3) to use their engineer abilities to overcome enemy fortifications. When units of these types are included in an attack on a major city or any fortification (except fieldworks), the attacker may attempt to use EEC. A maximum of 2 attempts may be made per combat.

Assault engineer units, flamethrower units, and assault engineer tank units have their RE size doubled for purposes of EEC. *For example, an assault engineer regiment would count as 2 REs for EEC.*

D. Gas Effects Capability (GEC).

GEC represents the ability of gas heavy mortar units, gas heavy artillery units, and gas engineer units (Rules 12B8 and 13H) to release chemical gases to disorganize enemy defenses. When units of these types are included in an attack, or are defending in a hex, the owning player may attempt to use GEC. Each side may make a maximum of 1 attempt per combat.

Note that gas units are never eliminated as a result of a failed attempt to use GEC.

Designers' Note: Playtesters have asked why there is no bonus for first time use of gas. While it is true that the first use of gas en masse in the West at Ypres was wildly successful, the magnitude of success was also totally unexpected; and the Germans failed to exploit it properly.

The bonus given for making gas attacks against Russian, Italian, and minor power units reflects the fact that these countries had gas masks of inferior quality for much of the war. For example, a British technical team in 1917 reported that nearly 70% of all Italian gas masks were effectively useless; although this was an improvement over the 90% reported a year

earlier. The uselessness of Italian gas masks was also a major factor in the success of the Central Powers 1917 Caporetto offensive, during which the short opening gas attack achieved almost 100% neutralization of the Italian artillery.

E. Siege Effects Capability (SEC).

SEC represents the ability of siege engineer units (rule 13G) to use their mining and tunneling abilities to breach enemy fortifications. When siege engineer units are included in an attack on a major city or any fortification (except fieldworks), the attacker may attempt to use SEC. *Special:* A siege engineer unit may not make an SEC attempt during the same turn in which it moves. A maximum of 1 attempt may be made per combat.

To reflect the large amount of construction material and high explosive a SEC attempt requires, the units making an SEC attempt must trace an overland supply line (Rule 11B1) to a friendly-owned Res Pt (Rule 11G) and spend the Res Pt for the attempt.

Designers' Note: Siege engineers are subterranean mining units. They use specialized equipment to build tunnels (saps) under enemy lines and fortifications and then set off explosives in the tunnels to destroy the enemy emplacements above. When properly done, as for example by the British at Messines on the western front in 1917, it can devastate the defender.

Rule 11 — Supply

Supply affects the abilities of units in movement and combat. For most game functions, units operate to their full extent if they are in general supply; they operate less effectively if they are out of general supply. Furthermore, units must be in combat supply in order to bombard (Rule 12C), attack (Rule 9A), or defend at full strength.

A. Supply Lines.

The supply conditions of units depend upon the tracing of supply lines. A supply line may not be traced into an enemy-occupied/owned hex, into a hex in an enemy ZOC, unless the hex is occupied by a friendly unit, into a prohibited terrain hex, or across a prohibited terrain hexside.

B. Tracing Supply.

Units may be either in or out of general supply. Both sides check the general supply status of their units during the initial phase of each player turn. Units out of general supply at this time are out of general supply throughout the entire player turn.

During the combat and reaction combat phases, units may be either in or out of combat supply. Both sides determine the combat supply status of their units participating in a combat at the start of that combat. The bombarding player (only) checks the combat supply status of his units participating in a bombardment at the start of that bombardment. Units out of combat supply at this time are out of combat supply throughout the resolution of the combat or bombardment. (Note that units have their combat supply status determined at the start of each attack or bombardment, and not at the start of the combat/reaction combat phase. It is possible that the results of earlier combats or bombardments in a phase, such as through the elimination or retreat of units, may affect the combat supply determination of later combats/bombardments in the phase.)

A unit is in general supply or combat supply if a supply line can be traced from the unit to a supply source:

- When determining general supply, a supply line may have up to three elements: overland, road, and railroad/naval; and they must be traced in that order.
- When determining combat supply, a supply line may only have one element: overland.

The Supply Line Summary (on the Ground Combat Charts and Tables Chart) lists the maximum length, in hexes, of the different elements. (*Note:* The maximum length of the overland and road elements can be extended by transport units, as described in Rule 14O.)

1. Overland. The overland element of a supply line must be traced to an Army HQs (Rule 14M) or to a supply source. An overland supply line may be traced through both friendly and enemy-owned hexes.

Each wooded rough, mountain, forest, unfrozen swamp, wooded swamp, ravines, sand, and permafrost tundra hex counts as 2 hexes when tracing overland supply lines. When tracing an overland supply line across an unfrozen major river, fordable great river, high mountain in clear weather, karst, and high mountain pass in non-clear weather, salt desert, unfrozen narrow straits, or impassable escarpment hexside, this hexside itself counts as 1 hex against the length of the supply line. These penalties do not apply if the overland supply line is traced along a road or across a ferry. (Ferries are covered in Advanced Rule 34I).

2. Road. The road element of a supply line must be traced from an Army HQs to a friendly operational supply depot or to a supply source. (Supply depots are covered in Rule 11C1.) No more than one Army HQs may trace to the same supply depot. A road element of a supply line may only be traced along roads through friendly-owned hexes. *Exception:* The first hex traced may be from an Army HQs overland (per above) to a road; in this instance the hexside traced across, and hex traced into, may be of any terrain except that prohibited to a non-motorized unit.

3. Railroad/Naval. The railroad/naval element of a supply line must be traced from a friendly operational supply depot to a supply source. It may be traced along any combination of railroad and naval sub-elements.

a. Railroad Sub-Element. A railroad sub-element of a supply line may only be traced through friendly-owned hexes, and only along rail lines which may be used for rail movement by that player. It may be traced an unlimited length along high-volume rail hexes, but it may be traced through only a maximum of 7 low-volume rail hexes. Note that the low-volume rail hexes traced through need not be consecutive, or even in the same railroad sub-element. *Special:* If a player has less than 10 REs of overall capacity on a rail net (see Rule 7A4) at the start of a player turn he treats all rail hexes of that net as low-volume rail hexes for purposes of tracing supply (only) during that player turn. Rail breaks and rail obstruction hits (Rules 7A6 and 7A7) do not block the tracing of a railroad sub-element of a supply line.

b. Naval Sub-Element. A naval sub-element of a supply line is traced through sea hexes. It may start at any functioning, friendly-owned port and be traced through any number of sea hexes to any other functioning, friendly-owned port. (Ports are

illustrated on The Great War Master Terrain Key Chart and described in detail in Rules 26B1 (Basic Naval Rules) and 30A (Advanced Naval Rules). A port is functioning unless it has maximum damage per the Port Summary (on the Naval Combat Charts and Tables Chart.) *Special:* Some of these ports are located inland on rivers or canals. A player may trace a naval sub-element of a supply line along inland waterway hexsides (Rule 7C1) to and from these ports so long as no hexside between the port and the open sea is blocked (Rule 7C3).

Only a limited number of units may trace a naval sub-element of a supply line through a specific major, standard, minor, or marginal port. (Note that an unlimited number of units may trace a naval sub-element of a supply line through a great port.) These limits are as follows:

- 60 REs: Through a specific major port.
- 30 REs: Through a specific standard port.
- 15 REs: Through a specific minor port.
- 3 REs: Through a specific marginal port.

Special: Each hit of damage on a port reduces the number of REs which may trace a naval sub-element of a supply line through that port by 3 REs.

When using the basic naval rules (only), players are restricted when tracing naval sub-elements of a supply line into or through sea hexes in various sea areas: 1) Only the Central Powers side may trace such a line in sea areas where the Central Powers historically had naval dominance: that is, in the Baltic Sea and the Turkish Straits, 2) Neither the Central Powers nor the Entente may trace such a line in areas where neither side had naval dominance: that is, in the Black Sea or Adriatic Sea, and 3) Only the Entente side may trace such a line in sea areas where the Entente historically had naval dominance: that is, all sea areas except the Baltic Sea, Turkish Straits, Black Sea, and Adriatic Sea.

When using the advanced naval rules (only), various naval considerations may stop the tracing of a naval sub-element of a supply line. These considerations are defined in the naval rules, and their impact on naval sub-elements of a supply line is summarized in Rule 34K.

Designers' Note: The 6-hex overland + road limit on a supply line in good weather reflects the fact that WWI logistics moved at the speed of the horse cart (once beyond the rail heads) and centuries of military experience showed that this limited an army's effective operational radius to about 100 miles in good weather. Only in the western theater did this appreciably change during the war, with the Entente approaching something like WWII levels of motor transport in their supply services by war's end.

C. General Supply.

1. Supply Depots. Supply depot markers are used to regulate the distribution of general supply. Supply depots have two sides: operational and non-operational. (The operational side of the marker is shown on the Unit Identification Chart; the other side is the non-operational side.)

During the setup phase at the start of each scenario, and during any friendly initial phases thereafter, players may activate supply depots in rail hexes of rail nets in commands they control up to the limits of their rail capacity for a net. (Rail capacity and

rail nets are covered in Rules 7A4 and 7A5. Note that each supply depot a player maintains (i.e. has present) on a rail net in a turn uses 2 REs of that rail net's capacity for that turn. Further note that each time a player activates a supply depot in a rail hex of a rail net, his rail capacity on that net is permanently reduced by 1 RE. Finally, note that this means that a player may not activate a supply depot on a rail net for which he has a rail capacity of less than 3 REs.) When a supply depot is activated on a rail net, place its marker, operational side up, in any unisolated, friendly-owned rail hex of that net.

Operational supply depots may form part of a supply line, but may not move; non-operational depots may move, (per below), but may not form part of a supply line. A player may flip his supply depots between their operational and non-operation sides in any friendly initial phases.

A supply depot may move by strategic rail movement (only). Note that this means that it cannot move by any other form of movement (including naval transport). It requires no rail capacity for this move (as it is using its maintenance rail capacity). A supply depot may use rail movement only within rail hexes of the rail net where it was activated. Note that this means that a supply depot can never move from one rail net to another rail net.

When a hex containing a supply depot becomes enemy-owned, the depot there is captured (and removed from the map). Note that this supply depot capture will result in the owning player losing rail capacity and the capturing player gaining capacity on the rail net where the depot was located (per Rule 7A5f).

A player may voluntarily deactivate (remove from the map) any of his supply depots at any time during an initial, movement, combat, or exploitation phase where he is the phasing player, and at any time during a reaction movement or reaction combat phase where he is the reacting (non-phasing) player. A player must immediately deactivate supply depots on a rail net when rail capacity losses (per Rules 7A5f and 7A5g) would cause his capacity on the net to drop below that necessary to maintain the depots on the net. *Example:* The Entente player has 17 REs of capacity on his SW Europe Standard Gauge rail net and has 7 supply depots in rail hexes of this net during a turn. These depots require 14 REs of rail capacity to maintain each turn, leaving him with 3 REs of capacity on this net for other purposes. During the turn, the Central Powers player captures 2 Entente rail marshaling yards, causing the Entente player to lose 4 REs of capacity from the net. As this capacity loss would drop the Entente player's capacity for the net to 13 REs (1 RE less than is needed to maintain his 7 supply depots), the Entente player must immediately deactivate one of his depots on the net.

Designers' Note: It may seem extreme that each supply depot require 3 REs of rail cap (2 REs for maintenance, 1 lost to inefficiency) when all they do is provide general supply, but the historical record shows that the almost complete dependence on the horse in all armies of this period mandated a huge amount of fodder being moved forward by the rail system; this amounted to between a third and a half of all military rail traffic.

2. General Supply Sources. A general supply source may be used only by units of its own side and only if that side owns it.

Note: Some rules specify that units must be "in regular general

supply" for various purposes. This means the unit must draw general supply from a regular general supply source and not from a special general supply source.

a. Regular General Supply Sources. Any major city (Rule 3E2) or factory in production (Rule 37B1) is a regular general supply source if it is connected (per Rule 7A1) to another major city and/or factory in production. (Note that a factory located in a major city hex is connected to that major city.) *Special:* A major city or factory can be used as a regular general supply source only if the enemy has not owned it. (Note: A multi-hex major city is not considered to have been enemy-owned until all hexes in the city have been enemy-owned.) Once a city or factory has been owned by the enemy, it may no longer be used as a regular general supply source, even if the player regains ownership of the city or factory.

b. Special General Supply Sources. A unit drawing general supply from a special general supply source is treated as being in general supply for the entire player turn. However, use of these sources does not negate or defer the number of turns a unit has been out of general supply. *Example: A Central Powers unit has been out of general supply for one turn, and would now be starting its second turn out of general supply. However, the unit draws general supply from a Res Pt (per below): it is in general supply for the current player turn but still has started its second turn out of general supply for general supply purposes. If isolated, it would not be checked for elimination (per Rule 11F), as it is in general supply.*

i. Resource Points (Res Pts). Each Res Pt (Rule 11G) is a special source of general supply for all units which can trace an overland supply line to it. A Res Pt used to provide general supply in this manner is removed from play at the end of the initial phase in which it is used to provide general supply.

ii. General Supply Points (GSPs). Each GSP is a special source of general supply for 1 RE of units. A unit may use friendly GSPs if it can trace an overland supply line to them.

GSPs are generated at friendly operational supply depots which can trace a supply line to a regular general supply source. The number of GSPs that can be generated at a supply depot is limited by how the railroad/naval element of the supply line from the depot is traced, as follows:

- *Up to 16 GSPs:* If it is traced only along high-volume rail lines and only through major or great ports.
- *Up to 8 GSPs:* If it is traced along low-volume rail lines for no more than 7 hexes and/or through 1 or more standard ports in addition to major/great ports.
- *Up to 4 GSPs:* If it is traced along low-volume rail lines for 8-14 hexes and/or through 1 or more minor ports in addition to major, great, and standard ports.
- *One GSP only:* If it is traced along low-volume rail lines for 15 or more hexes and/or through 1 or more marginal ports.

GSPs are generated in a player's initial phase, after both players have checked the general supply status of their units. (Note that this means a unit cannot draw on a GSP in the initial phase in which the point was generated.) Use status markers to denote the presence and amount of GSPs in a hex.

Note: A player is not required to generate GSPs at his supply depots. Unless the player is supplying a cut off (or

amphibious/airborne) force by air or naval transport, or conducting a campaign in an area with a poorly developed rail net, he will have no need for these points and will simply waste time calculating and placing his allotment.

Once generated, a GSP remains in play for three initial phases: the initial phase in which it was generated and the next two initial phases. It is removed at the end of the third initial phase. *For example, if a Central Powers GSP was generated in the initial phase of the Dec I 14 Central Powers player turn, it remains in play throughout the initial phase (and player turn) of the Entente Dec II 14 player turn and to the end of the initial phase of the Central Powers Dec II 14 player turn.*

See Rule 11H for common features of GSPs/Res Pts.

iii. Improved Fortresses. Each improved fortress (Rule 15B) is a special source of general supply for up to 15 REs of units in the fortress' hex. Note that the units must be in the fortress' hex in order to use this special general supply source.

If a fortress is isolated when its special general supply ability is used, the fortress may become depleted. The enemy player checks this after supply is determined by rolling a die and consulting the Ground Success Table (note that there are no modifiers to this die roll); if the attempt succeeds, the fortress is depleted. A depleted fortress has no special general supply ability; it is replenished (regains its special general supply ability) during any friendly initial phase in which a supply line can be traced from the fortress to a regular general supply source.

Once a fortress has been owned by the enemy, it may no longer be used as a special general supply source, even if it is recaptured.

D. Combat Supply.

Each friendly-owned Res Pt (Rule 11G) is a source of combat supply for up to 30 or 150 REs of friendly units, as follows:

- *150 REs:* Each Res Pt stacked with an active Army HQs (Rule 14M). Note that the Army HQs must be active side face up; it may not be inactive.
- *30 REs:* Each Res Pt not stacked with an active Army HQs.

A supply line traced to a Res Pt used to provide combat supply may only have one element: overland. A Res Pt used in this manner is removed from play at the end of the bombardment segment or combat segment of the combat phase or reaction combat phase in which it is used to provide combat supply. Note that this means that a Res Pt used to provide combat supply for bombardment in a phase cannot be used to provide combat supply for attack in same phase.

Artillery units (Rule 3A2) and overstacked units (Advanced Rule 8C2) count at twice their normal RE size for purposes of combat supply (only). Note that this means that an overstacked artillery unit would count at four times its normal RE size. *For example, a heavy artillery regiment (1 RE in size) would count as 2 REs for purposes of combat supply if in a normal stack or 4 REs if in an overstack.*

Special: Each combat and reaction combat phase, each side may have up to 2 REs of units in each command they control draw combat supply from a Res Pt without expending the Res Pt. Within each command, all of a side's units must trace a supply line to the same Res Pt; the Res Pt may not provide

combat supply to any other units that phase. A side may use this ability for a maximum of 2 REs of units per command (not per Res Pt).

E. Nationality Restrictions.

A unit may not trace a supply line to an Army HQs of a different nationality, or to a regular general supply source outside its home territory, or to a resource point stacked with an active Army HQs of a different nationality. (Each nation's home territory is listed under that nation's section of Rule 41.) *Exception:* Units of a minor power (Rule 3B4) may also trace supply lines to regular general supply sources of nations they cooperate with. (Cooperation is covered in Rule 15E.) *Example:* *Belgian units (and only Belgian units) may trace supply lines to Belgian Army HQs and factories and to major cities in Belgium. As the minor power of Belgium cooperates with the major power of France, Belgian units may also trace supply lines to French factories and major cities in France.*

When the railroad sub-element of a supply line (Rule 11B3a) is traced (in whole or in part) over a rail net controlled by a non-cooperating nation, every 2 high volume rail hexes (or fraction thereof) of the foreign rail net count as 1 low-volume rail hex. *Exception:* Nations that cooperate may trace over each other's rail nets without restriction. (The rail nets a nation controls are listed under that nation's section of Rule 41.) *Example:* *A British force operating in France traces a railroad sub-element of a supply line along 13 high-volume rail hexes of the NW Europe Standard Gauge Rail Net (which net is controlled by France, not Britain); the 13 hexes traced along the French rail net therefore count as 7 low-volume rail hexes.*

F. Supply Effects.

A unit in general supply operates normally except its attack and defense strengths are halved. A unit, regardless of its general supply condition, always bombards, attacks and defends at full strength if it is in combat supply.

A unit out of general supply has its abilities restricted, depending upon the number of consecutive turns the unit is out of general supply. A turn out of general supply consists of two consecutive player turns. (*Example:* *An Entente unit is first judged out of general supply in the Central Powers initial phase of the Dec I 14 game turn. Its first turn out of general supply consists of the Dec I 14 Central Powers player turn and the Dec II 14 Entente player turn.*) Use supply status markers to mark the turns units are out of general supply.

1. First Turn out of General Supply (U-1). On the first turn out of general supply, a unit has its attack and defense strengths quartered if (and only if) the unit is isolated; if the unit is c/m, it also has its movement rating halved (regardless of isolation status). A unit's AA strength, special combat effects capabilities, and (for a non-c/m unit) movement rating are unaffected.

2. Second and Subsequent Turns out of General Supply (U-2 or later). On the second and subsequent turns out of general supply, a unit (whether isolated or not) has its attack and defense strengths quartered, and its AA strength and movement rating halved. A unit with a ZOC has a reduced ZOC; a unit with a reduced ZOC has no ZOC. The unit is no longer capable of special combat effects; it is treated as having no capability for AECA, AECD, ATEC, CEC, EEC, GEC, or SEC.

3. Elimination from Lack of General Supply. During each initial phase, starting with the second turn out of general supply, the unit is checked for elimination if it is both out of general supply and isolated (Rule 3G) at that time. (It need not have been isolated in preceding turns.) For each unit, roll a die and modify the die roll as follows:

- +3 if the unit is in a major city hex (Rule 3E2) or an improved fortress (Rule 15B).
- 1 during frost, winter, or snow weather. (This modifier is not used if the unit is in a major city hex or an improved fortress.)

Using the modified die roll, consult the Ground Success Table (on the Ground Combat Charts and Tables Chart):

- A *success* means the unit survives the check and remains in play.
- A *failure* means the unit is eliminated.

G. Resource Points (Res Pts).

Res Pts are used for various purposes, such as to increase a player's rail capacity (Rule 7A5), to provide combat supply (Rule 11D), and to construct various items (Rule 13). A Res Pt marker is used to show Res Pts. The owning player may freely build up or break down his Res Pt markers at any time, as long as the total number of Res Pts in each hex does not change. *For example, a player may break a 2 Res Pt marker down to two 1 Res Pt markers.*

See Rule 11H for common features of Res Pts/GSPs.

H. Common Features of Logistics Items.

Res Pts (Rule 11G) and GSPs (Rule 11C2bii) collectively are known as logistics items.

A logistics item does not count against stacking, does not have a combat strength, and does not have a ZOC. Such an item in a hex is ignored when combat or overrun occurs; it is never eliminated or retreated as a result of such actions.

A player may voluntarily eliminate any of his logistics items at any time during movement, combat, and exploitation phases where he is the phasing player, and at any time during reaction movement and reaction combat phases where he is the reacting (non-phasing) player.

Friendly-owned logistics items in a hex captured by the enemy may either be destroyed or captured. The player capturing the hex rolls one die for each logistics item in the hex and consults the Ground Success Table (note that there are no modifiers to this die roll): *Success* means the item is captured; *Failure* means the item is eliminated.

A logistic item has no overland movement ability. Instead, a logistics item may move by rail or river movement, may be carted by ground units, and may be transported by air and/or naval units.

1. Rail/River Movement. A logistics item may move by rail (Rule 7A) by itself (note that this uses rail capacity), in which case it may move a maximum of 40/200 hexes when using operational/ strategic rail movement.

A logistics item may move by river (Rule 7C) by itself (this uses river capacity), in which case it may move a maximum of 40 hexsides when using river movement.

2. Cartage by Ground Units. Each Army HQs (Rule 14M) may carry up to 9 REs of logistics items. Each transport unit

(Rule 14O) may carry up to 6 REs of logistics items. All other ground units may carry general supply points (GSPs), only, up to twice their RE size. *Exception:* One divisional unit per side, per command, may carry a single resource point each turn in lieu of GSPs.

Ground units (excepting Army HQs and transport units) carrying logistics items have MPs deducted from their movement ratings as follows:

- Deduct 1 MP when the unit carries GSPs up to its RE size.
- Deduct 2 MPs when the unit carries GSPs greater than its RE size.
- Deduct 3 MPs when the unit carries a resource point.

When a movement rating is to be halved or doubled, these MPs are deducted first.

A unit may pick up logistics items at any time during its movement as long as its RE-limit is not exceeded; it may drop off logistics items at any time during its movement. Note that a unit can carry logistics items and still use accelerated movement. When retreating, units may carry logistics items up to their maximum limits.

3. Air and Naval Transport. Naval units may transport logistics items between ports and beaches as covered in Rule 26B (or Rule 31 when using the advanced naval rules). When using the advanced air rules, air units may transport/airdrop logistics items as covered in Rule 20H.

4. Combining forms of Movement. During each movement phase, a logistics item may move by operational rail movement or river movement (but not both) once, be carted by a ground unit once, and be transported by air or naval transport (but not both) once. Note that if a logistics item moves by strategic rail movement during a phase it cannot move by any other means during that phase.

Rule 12 — Artillery

A. Support.

All units possess an intrinsic combat ability as given by their printed combat strengths. However, certain units are unable to use their strengths fully by themselves, due to a lack of artillery (support). These units are unsupported.

The following are supported units:

- All divisional units, except: 1) those with the unsupported indicator (a hollow circle) in the upper left area of their counters, and 2) those with a printed combat strength of 0.
- All artillery units.
- All units with the self-supported indicator (a black dot) in the upper left area of their counters.

All other units are unsupported. An unsupported unit has its combat strength halved, and its ZOC (Rule 5) reduced (if it has a ZOC), as long as it remains unsupported.

A supported unit provides support to all unsupported units in the hex, unless the supported unit has the self-supported indicator.

A unit with the self-supported indicator supports itself but no other units. Note that some divisions have self-supported indicators and thus cannot support other units.

When defending, a unit providing support to other units must

be stacked in the same hex with the units it is supporting. When attacking, a unit providing support must participate in the same attack as the units it is supporting, as well as being stacked in the same hex with them.

Note: In the rules and the orders of battle, an asterisk following a unit's listed rating indicates the unit is supported, while a superscripted hollow circle following a division's listed rating indicates the division is unsupported. *Examples:* 1) "2-3-5* rifle brigade" means a supported rifle brigade with an attack strength of 2, defense strength of 3, and movement rating of 5, while "2-3-5^o rifle brigade" means an unsupported 2-3-5 rifle brigade. 2) "4-7-5^o rifle division" means an unsupported 4-7-5 rifle division.

B. Artillery Units.

Artillery units are defined in Rule 3A2 and listed on the Unit Identification Chart.

Artillery units with heavy equipment count at double their RE size for transport purposes (Rule 3A3).

Artillery units never have a ZOC outside the hex they occupy (Rule 5A).

Artillery units generally have higher terrain movement costs than other units (see the Terrain Effects Chart) and are more susceptible to fatigue than most other units when using accel movement (Rule 6B).

Artillery units have advantages when stacking (see Rule 8 and the Stacking Summary).

Artillery units operate at full effectiveness only if their nation uses modern artillery tactics. Nations use these tactics as follows:

- *From Oct 1 17 on:* Austria-Hungary and Germany.
- *From Jul 1 18 on:* America, Britain, and France.
- *From Feb 1 19 on:* All other countries.

Designers' Note: A country which uses modern artillery tactics has artillery command and control staffs integrated at each command level, artillery units trained in effective massed indirect fire control techniques as the norm, and regularly utilizes survey/mapping techniques to tie its artillery units to a common grid.

Artillery units have their attack strengths halved for purposes of overrun (Rule 6F) and combat (Rule 9) if their nation does not use modern artillery tactics. Note that the ability of artillery units to bombard (Rule 12C) is unaffected by their nation's use, or nonuse, of modern artillery tactics.

Artillery units do not defend with their full strength unless the number of non-artillery REs in their hex is at least two times the number of artillery REs there. *Exception:* If a nation uses modern artillery tactics, its artillery units do not defend with their full strength unless the number of non-artillery REs in the hex is at least equal to the number of artillery REs there. All artillery units in excess of this number defend with a total strength of the lower of the following values:

- 1, or
- the artillery units' modified (per supply status, terrain, etc.) defense strength (see Rule 9A).

Example #1: During the Feb 1 16 turn (at which time no nation is using modern artillery tactics), a player has three 7-8-5 artillery regiments (3 REs) and one 3-4-5 rifle brigade (2 REs) defending in a hex. Since only two non-artillery REs are in the

hex, only one artillery regiment may defend using its full defense strength. The other two artillery units defend with a total strength of 1. Thus, the total strength of the hex is 13.

Example #2: A player has three German units defending in a hex during the Feb I 18 turn (at which time Germany is using modern artillery tactics): one 1-2-5 rifle regiment (in general and combat supply), one 5-7-5 artillery regiment (also in general and combat supply), and one 2-6 artillery regiment (out of combat supply and out of general supply long enough to have its defense strength quartered). Since only 1 RE of non-artillery units is in the hex, only one artillery regiment may defend using its full defense strength (and the player chooses the supplied 5-7-5 regiment). The other artillery regiment has a modified defense strength of 0.5, which is less than 1, and therefore defends with a total strength of 0.5. Thus the total strength of the hex is 9.5.

Artillery units do not attack with their full strength unless the number of non-artillery REs participating in the attack is at least two times the number of artillery REs. *Exception:* If a nation uses modern artillery tactics, its artillery units do not attack with their full strength unless the number of non-artillery REs participating in the attack is at least equal to the number of artillery REs there. At all times, all artillery units in excess of the artillery to non-artillery ratio attack with a total strength of the lower of the following values:

- 1, or
- the artillery units' modified (per supply status, terrain, etc.) attack strength (see Rule 9A).

Artillery units may have their attack strengths further affected as described below. (*Note:* These effects are summarized on the Artillery Summary (on the Ground Combat Charts and Tables Chart).

1. Field Artillery. Field artillery, motorized field artillery, mountain field artillery, light mortar, motorized light mortar, and horse artillery units are field artillery. Field artillery has its attack strength modified as follows:

- Halved when they bombard (Rule 12C).
- Halved when they attack a hex containing an improved great fortress, improved fortress (new), or a major city, unless the hex also contains an improved fortress (old).

Designers' Note: Field artillery (2-3" guns) is light and very portable, but the small shell size is not very effective against most fortifications (except the old ones built before high explosive shells came into use).

2. Heavy Artillery. Heavy artillery, self-propelled heavy artillery, mountain heavy artillery, gas heavy artillery, heavy artillery training, heavy mortar, and gas heavy mortar units are heavy artillery.

Prior to the Feb I 17 game turn, a non-German heavy artillery unit that moves (by any method of movement) in a movement or reaction movement phase is disrupted (Rule 3A5) upon completion of its movement. Note that German heavy artillery is not disrupted following movement, nor is non-German heavy artillery disrupted following movement on or after Feb I 17.

Heavy artillery has its attack strength modified as follows:

- Doubled when they attack or bombard a hex containing an improved fortress (old), even if the hex also contains a major city.

- Halved when they attack or bombard a hex containing an improved great fortress.

Designers' Note: Heavy artillery (4-6" guns) is the work-horse of the artillery family; it is effective against all but the heaviest of fortifications. During the early/mid-war years, most countries' heavy artillery was obsolescent (or obsolete); which, when combined with the primitive fire direction techniques then in use, made it difficult to use the bigger guns effectively except from prepared positions. German heavy artillery was practically all new (or recently refurbish-ed) at the start of the war. Also, German fire control procedures were more flexible/responsive, with corps able to call on and receive army-level artillery support in a matter of hours (instead of the days required for most others).

3. Siege Artillery. Siege artillery and siege mortar units are siege artillery.

A siege artillery unit that moves (by any method of movement) in a movement or reaction movement phase is disrupted (Rule 3A5) upon completion of its movement.

Siege artillery has its attack strength modified as follows:

- Tripled when they attack or bombard a hex containing an improved fortress (old), even if the hex also contains a major city.
- Doubled when they attack or bombard a hex containing an improved fortress (new) or a major city, unless the hex also contains an improved fortress (old).

Siege artillery units may not advance after combat.

Designers' Note: WW I Siege artillery (7-10" guns) primarily consisted of converted naval or coast defense guns, which, because of their heavier shells and increased muzzle velocities, were better able to penetrate fortifications. However, their greater weight, slower sustained rates of fire, ad hoc nature of their land mountings, and non-standard fire control arrangements also made it difficult to use them to full effectiveness except in set piece battles.

4. Heavy Siege Artillery. A heavy siege artillery unit that moves (by any method of movement) in a movement or reaction movement phase is disrupted or badly disrupted (Rule 3A5) upon completion of its movement as follows:

- *Badly Disrupted:* If the date is prior to Feb I 17, and the unit is not Austro-Hungarian or German.
- *Disrupted:* If the date is Feb I 17 or later, and the unit is not Austro-Hungarian or German.
- *Disrupted:* If the unit is Austro-Hungarian/German (regardless of the date).

Heavy siege artillery units have their attack strengths modified as follows:

- Quadrupled when they attack or bombard a hex containing an improved fortress (old), even if the hex also contains a major city.
- Tripled when they attack or bombard a hex containing an improved fortress (new) or a major city, unless the hex also contains an improved fortress (old).
- Doubled when they attack or bombard a hex containing an improved great fortress.

Heavy siege artillery units may not advance or retreat after combat.

Designers' Note: Heavy siege artillery (11" and up guns) is

even better at attacking fortifications than siege artillery; but it is extremely difficult to use effectively in mobile combat due to the extensive site preparation and set up times required. German and Austro-Hungarian heavy siege guns, especially the excellent 30- and 42-cm guns, were built expressly for siege warfare; consequently they were much more mobile (they broke down into loads that could be reassembled in hours instead of days, and each load was pulled by tractors instead of horses) than anything the Entente put into the field until late in the war.

5. Coast Artillery. When involved in ground combat, treat coast artillery units the same as heavy artillery.

When using the advanced naval rules, coast artillery units may engage naval units in naval combat (Rule 33B).

Designers' Note: Although most coast artillery units are made up of guns of siege (or heavy siege) artillery caliber, they are treated as heavy artillery in ground combat since: 1) their crews usually do not have the training/equipment to properly mesh with the regular artillery command and control system; and 2) their physical siting and immobile nature reduces their effectiveness versus land targets.

6. Mortars. Light mortar, motorized light mortar, heavy mortar, gas heavy mortar, and siege mortar units are mortars. As listed on the Terrain Effects Chart, mortar units are not halved when attacking into mountain hexes or across mountain hexsides.

Designers' Note: Mortars can engage targets on reverse slopes better than any other kind of artillery.

7. Long Range Artillery. A long-range artillery unit is any artillery unit with an attack/bombardment range of two or more hexes. (An artillery unit with a range of 2 or more has its range printed in the upper left-hand corner of its counter, as shown on the Unit Identification Chart. (Note that when a "1" is printed in the upper left-hand corner of an artillery unit's counter, this indicates the unit has an antiaircraft (AA) strength of 1, not a range of 1.)

When a long range artillery unit fires at 2-hex or greater range, its attack strength is halved for combat (but not for bombardment); it is not subject to any combat results; may not advance after combat; and may not be included in exchange calculations. Long range artillery may not attack (it may bombard) by itself when firing at 2-hex or greater range; it may attack in conjunction with other units adjacent to the defending hex.

When firing at 1-hex range (i.e. adjacent to the defending hex), long range artillery is subject to combat results.

Designers' Note: Long range artillery includes any gun types which can range 25,000 yards (about 14.5 miles) or more. Note that most WW I artillery could only range 7-15,000 yards (4-8 miles). A few gun types could reach 50,000 yards (29 miles) and they have a 3 hex range in the game. The special purpose guns built by Germany to shell Paris could range a whopping 74 miles (5 hexes).

8. Gas Artillery. Gas heavy mortar and gas heavy artillery units are gas artillery. When a player includes gas artillery in a combat or bombardment (Rule 12C), he may attempt to use gas effects capability (GEC) to modify that combat or bombardment (both a die roll and a column shift are possible) as described in Rule 10.

9. Art XX HQs. Art XX HQs represent the command and control staffs needed for artillery to be used effectively en masse. An Art XX HQs is heavy artillery (Rule 12B2); is 1 RE in size; and has HE (Rule 3A4); it does not have a ZOC (Rule 5), even in its own hex; and, unless other artillery units are attached to it (per be-low), it is treated as if it had a printed combat strength of 0.

An Art XX HQs may have up to 4 REs of non-HQs artillery units attached to it. *Exception:* If one or more siege artillery or heavy siege artillery units is attached to an Art XX HQs then a maximum of 3 REs of non-HQs artillery units may be attached to that HQs. A player may attach artillery units to his Art XX HQs during his initial phases (only); the units to be attached to a HQs must be stacked with that HQs. Show the attachment by placing the artillery units under the Art XX HQs. *The Art XX HQs and its attached units now constitute an artillery division.* (Note that artillery divisions stack (Rule 8) more effectively than other artillery units.) A player may detach units from his artillery divisions at any time during a turn.

All units constituting an artillery division move as a single unit using the movement rating of the slowest component of the division; but if the division moves by accel movement (Rule 6B), each component of the division accrues fatigue hits separately. *Example: An artillery division consisting of a +6-3 Art XX HQs and a 5-7-5 heavy artillery regiment has a movement rating of 3. During a movement phase, the division uses accel movement to double its available MPs to 6 and spends all of them, resulting in 3 fatigue hits to the HQs and 1 fatigue hit to the regiment.* Note that an artillery division can contain zero-movement artillery units, but if it does, it cannot move (until the zero-movement units detach). Further note that an artillery division can contain rail-only and water-only artillery units (Rule 14B), but such units automatically detach the instant the artillery division moves.

An artillery division's combat strength is the sum of the combat strengths of its component artillery units plus the combat strength modifier printed on the division's HQs counter. An artillery division's RE size is the sum of the RE sizes of its component artillery units plus the RE size of the division's HQs counter. *For example, an artillery division composed of a +6-3 Art XX HQs (1 RE) with 1x 7-8-5 heavy artillery regiment (1 RE) and 1x 5-2-4 siege artillery regiment (1 RE) attached, has an attack strength of 18, a defense strength of 16, and is 3 REs in size.* Each component of an artillery division has any modifications to its strength applied separately. *For example, if the artillery division cited above were to participate in an attack on an improved fortress (old), the Art XX HQs and the heavy artillery regiment would have their attack strengths doubled (per Rule 12B2), and the siege artillery regiment would have its attack strength tripled (per Rule 12B3).*

Artillery divisions may not move during the reaction movement phase, attack during the reaction combat phase, or advance after combat (although units that detach from them could do so).

When allocating bombardment hits (Rule 12C3), treat each component of an artillery division as a separate unit.

Designers' Note: The effective use of heavy artillery en masse was a skill that most countries lacked early in the war. Germany,

however, entered the war with a command structure (Art X HQs which shortly became Art XX HQs) and doctrine that allowed for better use of artillery than its opponents. This German ability is shown in the game by the mechanic of Art XX HQs. Later in the war, as experience in using artillery properly grows, the German Art XX HQs convert into actual artillery divisions; and, later yet, most other countries receive artillery divisions of their own.

10. Siege Art XX HQs. A Siege Art XX HQs is in all respects the same as an Art XX HQs (Rule 12B9) except that it may have up to 6 REs of non-HQs artillery units (of any types) attached to it.

C. Bombardment.

During the bombardment segment of the combat phase (see the Master Sequence of Play Summary Chart), both sides' eligible artillery units may use their attack strengths (as modified by disruption (Rule 3A5), bombarding from an overstack (Advanced Rule 8C2b), terrain (per the Terrain Effects Chart), general and combat supply status (Rule 11F), artillery type (Rule 12B), and any special rules) to bombard, attempting to reduce enemy fortifications and disrupt enemy units prior to combat being resolved. Note that bombardments may not be made during the reaction combat phase. In each bombardment segment, the phasing player resolves all his bombardments, and then the non-phasing player resolves all his bombardments.

All phasing artillery units are eligible to bombard during the combat phase. Non-phasing artillery units are eligible to bombard in a combat phase only if their hex is bombard-ed by the enemy during the phase (this bombardment by the non-phasing player is known as counterbombardment). Bombarding units (both phasing and non-phasing) must be in the zone of influence (ZOI) of an Army HQs or their attack strengths are halved for bombardment. (Army HQs and ZOIs are covered in Rule 14M.)

Units which bombard in the bombardment segment of a combat phase have their combat strengths halved in the following combat segment; further, gas artillery units (Rule 12B8) used to make GEC attempts during a bombardment segment, may not be used to make GEC attempts in the immediately following combat segment.

1. General Restrictions. The following general restrictions apply to bombardment:

- No unit may bombard more than once per combat phase.
- No unit may bombard into a prohibited terrain hex or across a prohibited terrain hexside.
- Each bombardment must be against the units occupying a single hex. Two or more hexes may not be attacked in a single bombardment. Units in the same hex may bombard into different hexes, but even in this case each bombarded hex requires a separate bombardment
- A unit may not split its bombardment strength, such as to bombard more than one hex.
- The stacking limit of the bombarded hex limits the number of units that may bombard the hex from adjacent hexes (see Rule 8B).

2. Procedure. A bombardment consists of one or more artillery units bombarding a hex that contains enemy units. Bombarding units may bombard individually, or some (up to all)

may combine their attack strengths to make a single bombardment. An artillery division (Rule 12B9) may bombard as a single unit, or its component artillery units may bombard individually; if they bombard individually, the combat strength modifier of the Art XX HQs is ignored.

Use the Bombardment Table (on the Ground Combat Charts and Tables Chart) to resolve bombardments. For each bombardment, use the bombardment strength column that most closely matches (without exceeding) the bombardment strength of the bombarding units. Roll one die and modify the number rolled with the appropriate modifiers on the Bombardment Table. Cross-index the bombardment strength column with the modified die roll to obtain a result. Possible results are: M (miss, no effect), H (1 bombardment hit), 2H (2 bombardment hits), 3H (3 bombardment hits), and 4H (4 bombardment hits).

Special: If the bombardment is made on the 50 or 100+ bombardment strength column against a hex containing a fort, improved fort, or fortress (of any type), the bombardment may affect the fortification in the hex in addition to enemy units there. In this instance check first to see if the bombardment results in the reduction of the fortification in the hex before checking the effect of the bombardment on the enemy units. (Note that if the fortification in the hex is reduced it may change the die roll modifiers applied when the player checks the effect of the bombardment on the enemy units, but it does not affect the strength of the bombarding units.) Roll one die and consult the bombardment table, but the only modifiers applied to the die roll in this in-stance are those for tactical reconnaissance and weather. If the result includes an asterisk, the fortification in the hex is reduced 1 level (as described in Rule 15B); all other results have no effect on the fortification in the hex. Then determine the effect the bombardment has on the enemy units in the hex. Use the die roll already rolled, but now apply all modifiers.

Example: A player makes a bombardment during clear weather against a woods hex containing enemy units and an improved fortress (new) using a bombardment strength of 102. He resolves the bombardment on the 100+ column. As this bombardment potentially can reduce the fortress, he checks for this first. He rolls a 4, and modifies it to a 5 as he has tactical recon (Note that the minuses specified for bombarding an improved fortress (new) and a woods hex are ignored.) Cross-indexing the modified die roll of 5 with the 100+ column yields a result of "4H*". As this result includes an asterisk, the fortress is reduced (and becomes unimproved per Rule 15B). The player then checks for the effect the 100+ bombardment has on the enemy units in the hex. (Note that the bombardment strengths of the bombarding units are not recalculated due to the fortress' reduction.) He uses the die roll of 4 already rolled, but now applies the -1 specified for bombarding an unimproved fortress (note that this would have been a -2 had the fortress not been reduced) and the -1 specified for bombarding a woods hex, in addition to the +1 for tactical recon. The net die roll modifier is, therefore, a -1, which modifies the die roll to 3. Cross-indexing the modified die roll with the 100+ column, yields 3 bombardment hits.

Designers' Note: The +1 applied to bombardments against various nationalities (as shown on the bombardment table)

reflects those nations tendency to keep their front line trenches packed with troops. Although this did result in more riflemen to repel an enemy attack, it also significantly increased casualties from enemy artillery fire. Note that Great Britain and Italy kept this as part of their tactical doctrine until almost the end of the war!

3. Bombardment Hits. Immediately upon completion of all bombardments against the units in a hex during a com-bat phase, allocate any resulting bombardment hits among the units in the bombarded hex. Each bombardment hit affects one unit. Half of these hits (rounded up) are allocated by the attacker, and then half of these hits (rounded down) are allocated by the defender. *For example, if there are 5 bombardment hits to allocate, the attacker allocates 3 hits and then the defender allocates 2 hits.* Bombardment hits may disrupt or badly disrupt (Rule 3A5) units as follows:

Against divisional units:

- When an undisrupted divisional unit receives 2 bombardment hits, it is disrupted.
- When a disrupted divisional unit receives 2 bombardment hits, it is badly disrupted.

Against brigades/brigade groupings/American cadres (for convenience these are termed large non-divisional units):

- When an undisrupted large non-divisional unit receives 1 bombardment hit, it is disrupted.
- When a disrupted large non-divisional unit receives 1 bombardment hit, it is badly disrupted.

Against all other units (for convenience these are termed small non-divisional units):

- When an undisrupted or disrupted small non-divisional unit receives 1 bombardment hit, it is badly disrupted.

Special: The defender may not allocate bombardment hits to units with a defense strength of zero; neither side may allocate bombardment hits to badly disrupted units; and neither side may allocate bombardment hits to units in an overstack unless all regularly stacked units in the hex are badly disrupted. *Note:* If all units in the bombarded hex are badly disrupted and bombardment hits remain to be allocated, the excess hits are ignored.

Example: The CP player bombards a hex containing six Entente units (one Corps HQs, one 8-11-5 division, one 6-9-5 division, one brigade (which is already disrupted), one regiment, and one battalion) and achieves 5 bombardment hits. The CP player will allocate 3 of these hits and the Entente player will allocate 2 of these hits. The CP player allocates 2 hits to the 8-11-5 division, disrupting it; and allocates 1 hit to the already disrupted brigade, badly disrupting it. The Entente player allocates 1 hit to the 6-9-5 division, which has no effect on the division; and allocates 1 hit to the battalion, badly disrupting it. *Note that the Entente player may not allocate hits to the Corps HQs as that unit has a defense strength of zero.*

4. Air & Naval Bombardment. Air and naval units may bombard as follows:

a. Basic Rules. Monitor and gunboat naval units (the only non-transport naval units used with the basic naval rules) are treated as water-only artillery units (per Rule 26A) and bombard normally. Air points (described in section B17A of the basic air rules) may be assigned to bombardment missions, with each air

point functioning the same as an artillery unit, except air points are counted at half strength for bombardment. *For example, 4 air points assigned to a bombardment mission would have a bombardment strength of 2.*

b. Advanced Rules. Air units may fly aerial bombardment missions as described in Rule 20G2j. Naval units may bombard as described in Rule 33C.

5. Terror Bombardment. A player may bombard enemy-owned major city hexes in nations which have joined his opponent's side. This is conducted in the same manner as regular bombardment except that terror hits (vice bombardment hits) result; and each terror hit reduces by 1 point the morale of the nation in which the bombarded city is located. (Morale is covered in Rule 40.)

Designers' Note: The historical shelling of Paris by long-range artillery was terror bombardment.

Rule 13 — Engineers

A. Construction Engineers.

Construction engineers and other construction units may construct, demolish, and repair facilities, as described below. To do so they must be in general supply (Rule 11C). All construction, demolition, and repair takes place during initial and movement phases (only); no such activities may be undertaken during any combat, reaction movement, reaction combat, or exploitation phases. Also note that no construction unit can perform any construction, demolition, or repair activities while using accel movement (Rule 6B).

1. Construction. Construction units may build, upgrade, and improve fortifications and extend roads. (Fortifications are covered in Rule 15B.)

a. Fieldworks. A construction unit may build field-works in any hex except prohibited terrain or a hex already containing any other type of fortification. Fieldworks cost 2 MPs to build. Once built, fieldworks remain on the map only if a construction unit remains in its hex at all times to maintain them. (The unit need not be the one that built the fieldworks, does not spend any MPs for maintenance of the fieldworks, and may spend MPs to perform other tasks in the hex.) If there is no eligible unit in the hex, remove the fieldworks from play as they have been abandoned.

b. Entrenchments. A construction unit may upgrade the fieldworks in a hex to an entrenchment. It costs 4 MPs to make this upgrade in clear or rough terrain and 6 MPs in any other terrain. Simply substitute an entrenchment for the fieldworks when the upgrade is complete. (Note that a player may build fieldworks in a hex and then upgrade them to an entrenchment in the same movement phase.) Entrenchments must be maintained in the same manner as fieldworks.

c. Forts. A construction unit may upgrade an entrenchment to a fort. The unit begins the upgrade during the initial phase. To begin the upgrade, the owning player must trace an overland supply line (per Rule 11B) from the construction unit to a Res Pt (Rule 11G) and spend it for the upgrade. (Place a fort under construction marker on the unit to show the construction.) It takes one game turn make this upgrade in clear or rough terrain and two game turns in any other terrain. *For example, if the upgrade of an entrenchment to a fort in a woods hex is begun*

during the Central Powers initial phase of the Jul I 15 game turn, then it will be completed in the Central Powers initial phase of the Aug I 15 turn. (When completed, flip the fort marker to its completed side; and remove the entrenchment marker from the hex.) If the construction unit leaves the hex at any time before the upgrade is completed, remove the fort under construction marker from the map. Note that if the construction is not completed, for any reason, the Res Pt spent for the construction is not recovered.

d. Improved Forts. A construction unit may upgrade a fort to an improved fort. This is done in the same manner as upgrading an entrenchment to a fort, except it takes two game turns to make this upgrade in clear or rough terrain and three game turns in any other terrain. (Place an improved fort under construction marker on the unit when the construction begins. When completed, flip the improved fort marker over to its completed side; and remove the fort marker from the hex).

e. Fortresses. A construction unit may improve the condition of a fortress, changing its status from unimproved to improved. (Note that improved forts cannot be up-graded to fortresses.) This is done in the same manner as upgrading an entrenchment to a fort except it takes 6 months (12 game turns) to complete this improvement and 6 Res Pts (1 per month) must be spent for the construction.

Designers' Note: Fieldworks represent quick improvements to take advantage of local terrain (falling trees to block roads, digging hasty trenches, etc.). Upgrading field-works to entrenchments represents deepening and enlarging the hasty trenches, adding barbed wire, and tying them into a coordinated system. Upgrading entrenchments to forts represents adding minefields, concrete bunkers and other strongpoints to the trench system, and deepening the depth of the defense with multiple lines. Upgrading forts to improved forts represents adding subterranean fortified positions capable of sheltering entire battalions and regiments at a time, as well as adding numerous static heavy weapons to the bunker system. Improved fortresses represent fortified camps 10-20 miles in diameter, with 360 degree defenses, multiple fort lines with numerous static machineguns and artillery pieces, and a central bastion. Unimproved fortresses have either been stripped of their MGs and artillery or have had their fort rings allowed to fall into disrepair. Several unimproved fortresses were improved during the war (including Verdun and Salonika). However, during the war no nation could afford to divert the resources construction of a new fortress would require. (Fortresses took 5-10 years to build in peacetime and required the expenditure of 15-20 resource points each.)

f. Roads. A construction unit may extend a road, moving the roadhead forward into an adjacent hex. A road may be extended into any adjacent hex except prohibited terrain, and across any adjacent hexside except major river, great river, high mountain, karst, high mountain pass, all-sea, all-lake, narrow straits, impassable escarpment, and prohibited. The construction unit begins the extension during the initial phase and must occupy the roadhead hex. The hex the road is to be extended into must be friendly-owned and in general supply throughout the construction. To begin the extension, the owning player must trace an overland supply line (per Rule 11B) from the

construction unit to a Res Pt (Rule 11G) and check to see if the construction requires the Res Pt's expenditure. He checks for this by rolling a die; if the result is 1 or 2 the Res Pt must be spent for the construction; if the result is 3, 4, 5, or 6 no expenditure is required. *Exception:* If the road is being extended into a mountain hex, or into any hex across a mountain or river/canal hexside, a Res Pt must always be spent for the construction. (Place a road under construction marker on the unit to show the construction.) It takes 4 game turns to extend a road into a wooded rough, mountain, forest, swamp, wooded swamp, ravines, or sand hex, or into any hex type across a mountain or river/canal hex-side; in all other cases it takes 2 game turns. (When the road extension is completed, remove the road under construction marker and advance the roadhead marker 1 hex.)

Designers' Note: Major road building projects were completed during the war in Albania, the Caucasus, Egypt, Greece, Mesopotamia, and Palestine.

g. Restrictions on Construction. Certain types of construction work may not be undertaken before a specified date, as follows:

Restrictions on Central Powers Construction:

- Prior to the Oct II 14 game turn, construction units may not upgrade fieldworks to entrenchments.
- Prior to the Feb I 15 game turn, construction units may not upgrade entrenchments to forts.
- Prior to the Feb I 17 game turn, construction units may not upgrade forts to improved forts.

Restrictions on Entente Construction:

- Prior to the Oct II 14 game turn, construction units may not upgrade fieldworks to entrenchments.
- Prior to the Feb I 16 game turn, construction units may not upgrade entrenchments to forts.
- Prior to the Feb I 18 game turn, construction units may not upgrade forts to improved forts.

Some nations have additional restrictions on construction as described in Rule 41 (Nations).

Designers' Note: Before the horrendous casualties of 1914 forced both sides to change their doctrine, construction of fortifications by *active* armies was limited. Field-works to take tactical advantage of terrain while you were temporarily on the defensive were OK, but anything more extensive than that was considered a sign of poor offensive spirit and actively discouraged by the high command. After all, the purpose of the active army was to *attack* the foe, not cower in fortifications.

Even after both sides began entrenching in earnest, this philosophy lingered on. Now it was OK to build entrenchments (as to not do so was suicidal), but to build any fortification system more elaborate was still discouraged by the high command. As the deadliness of the trench warfare increased, however, the tendency of the front-line units was to expand the trench systems no matter what the high command wanted.

Historically, the Entente lagged behind the Central Powers in constructing each new class of fortifications. For example, by late 1916 most of the German west front line was effectively forts, while almost the entire Entente line was still entrenchments. This was mostly due to the prevailing Entente doctrine, which stressed offensive spirit over everything else. The Italians carried this attitude to its most ridiculous extreme:

At the time of the Caporetto disaster in late 1917 their front-line fortifications still mostly consisted of a single trench line (i.e. fieldworks)!

2. Demolition. Construction units may demolish port capacity, bridges, and certain types of fortifications. Note that they may also break rail lines (per Rule 7A6).

A construction unit may demolish an improved fort, fort, or entrenchment by spending 8 MPs in the fortification's hex. Note that they cannot demolish fortresses, and that fieldworks are demolished simply by abandoning them. Treat demolished fortifications as follows:

- Replace a demolished improved fort or fort with an entrenchment.
- Remove a demolished entrenchment from the map.

A construction unit may demolish a bridge by spending 4 MPs in either hex adjacent to the bridge to do so. The bridge must be friendly owned or unowned. (Bridges are covered in Rule 15A1).

A construction unit may demolish the capacity of a port by spending MPs in the port's hex; for every 3 MPs spent, the port receives one hit of damage. (Ports are covered in Basic Rule 26B1/Advanced Rule 30A.)

3. Repair. A construction unit may repair broken rail lines and damaged ports and clear obstructed rail lines. In all cases, the general procedure is the same: the unit must spend a number of MPs in the hex of the item to be repaired. It costs a construction unit 6 MPs to remove one hit from a port, 4 MPs to remove a hit from a broken rail line, and 2 MPs to clear an obstructed rail line in a hex. *Special:* If the rail line in a hex is both broken and obstructed, the break must be repaired before the obstruction can be cleared.

A construction unit may repair a demolished bridge. A bridge may be repaired only if the player owns both hexes adjacent to the bridge. Repairing a bridge across a river/canal costs the construction unit 8 MPs. Repairing a bridge across a major/great river costs the construction unit 16 MPs, and it must trace an overland supply line to a Res Pt which must be expended for the repair.

4. Weather. Poor weather (mud, frost, winter, and snow) affects the abilities of construction units. (Weather is covered in Rule 36.) All MP construction, demolition, and repair costs are doubled. *For example, 8 MPs are required to repair (remove a hit from) a broken rail line in poor weather.* All construction, demolition, and repair costs based on turns are doubled. *For example, 2 turns are required to build a fort in clear terrain during poor weather.*

Note: When the weather changes from good to poor (or vice versa) while a construction project is underway, only the remaining part of the work is affected by the change in weather. *Example: A construction unit spends 3 MPs during good weather to partially repair a demolished bridge across a canal. As it costs 8 MPs to repair this bridge in good weather, 5 (8 - 3) MPs of work remain. The next turn the weather turns poor, doubling the MP cost of the remaining work to 10 (5 x 2) MPs. The construction unit spends 4 MPs, leaving 6 (10 - 4) MPs of work. The next turn sees the return of good weather, halving the MP cost of the remaining work to 3 MPs. The construction unit spends 3 MPs, completing the repair of the bridge at a total cost*

of 10 MPs spread over three turns.

5. Quick Engineering. A player may use two construction units in conjunction in order to speed construction, demolition, and repair. The construction units must be stacked together at the time their engineering abilities are to be used together. In this case, each construction unit pays half the engineering cost. *For example, when two construction units are used to repair a rail line, each spends 2 MPs (half of 4) during good weather or 4 MPs (half of 8) in poor weather.* When two construction units are used to build an item requiring one turn to build, then each unit spends one half its movement allowance for the construction. *For example, if two 1-2-5 construction units are used to upgrade an entrenchment to a fort in a rough hex during clear weather, then each unit spends 2 1/2 MPs for the construction.*

Engineering costs cannot be further decreased, even if the player uses three or more construction units in conjunction, two construction units plus civilian labor (Rule 13A6), or any other combination of construction abilities.

A brigade-sized construction unit (i.e., any construction unit with the brigade or brigade grouping size designation) is treated as two construction units for the purposes of quick engineering.

A division-sized construction unit (i.e. any construction unit with the division or divisional grouping size designation) is treated for construction purposes (only) as if it were two construction brigades. Further, such a unit may use its construction ability in the hex it occupies and/or in any adjacent (Rule 3E5) friendly-owned hexes in general supply.

Note: Construction of a fort, improved fort, or fortress must always be begun in the initial phase, even if quick engineering is used.

6. Civilian Labor. If a construction unit can trace a line no more than 4 hexes in length to a friendly-owned major city in its own country, then the unit may use the quick engineering rule (per above) without a second construction unit being present. This 4-hex line is traced the same as an overland supply line (per Rule 11B1).

Only one construction unit may use this ability per major city hex.

7. Pontoon Engineers. Construction engineer units which have a "P" printed in conjunction with their movement rating are also pontoon engineers. A pontoon engineer may construct pontoon bridges across river, canal, and major river hexsides, enabling other units to cross those hexsides at a reduced MP cost. Note that a pontoon engineer cannot construct a pontoon bridge across a great river, all-lake, all-sea, or narrow straits hexside.

A pontoon engineer builds a pontoon bridge in the same manner as a construction unit extends a road (Rule 13A1f), except that no Res Pt is required. It takes one turn (two turns in poor weather) to build a pontoon bridge across a river or canal hexside, and two turns (four turns in poor weather) to build a pontoon bridge across a major river hexside. Quick engineering may be used only if both units are pontoon engineers. (Place a pontoon bridge under construction marker on the unit when the construction begins; when completed, flip the marker to its completed side.)

Once built, a pontoon bridge remains on the map only if both

hexes adjacent to the bridged hexside remain friendly-owned and a pontoon engineer unit remains in one of the hexes at all times to maintain the bridge. (The unit need not be the one that built the pontoon bridge, does not spend any MPs for maintenance of the bridge, and may spend MPs to perform other tasks in the hex.) If either hex adjacent to the pontoon bridge becomes enemy-owned, or there is no pontoon engineer unit in either of these hexes, remove the pontoon bridge marker from the map.

A pontoon bridge across a river or canal hexside enables other units to cross such a hexside at a cost of +1 MP (vice the normal +2 MPs). A pontoon bridge across a major river hexside enables other units to cross such a hexside at a cost of +2 MPs (vice the normal +4 MPs).

Designers' Note: *Europa* players will note that the MP costs to cross all types of rivers in *The Great War* are double those used in WW II. This reflects the extreme scarcity of bridging equipment in almost all the WW I armies. A few nations did have sizable bridging trains (or acquired them before the war's end) and these are shown as pontoon engineers.

B. Railroad Engineers.

Railroad engineers are specialized construction units that may only perform the following engineering tasks:

1. Rail Breaks. A railroad engineer unit may break a rail line in a hex (per Rule 7A6) by spending 1 MP. (Note that all other units must spend 2 MPs to do this.)

2. Repair. A railroad engineer may repair a broken rail line or clear an obstructed rail line in the same manner as a construction engineer (Rule 13A3) except that it costs 3 MPs to remove a hit from a broken rail line, and 1 MP to clear an obstructed rail line in a hex. (Note that all other construction units must spend 4 MPs to repair a rail break and 2 MPs to clear a rail line.) When using quick engineering (Rule 13A5), the reduced MP cost applies even if only one of the units is a railroad engineer.

3. Railroad Engineering. Railroad engineer units may regauge, upgrade, and extend rail lines; collectively these tasks are known as railroad engineering. Railroad engineering is under the same general restrictions as construction (per the introductory paragraph to Rule 13A): That is, all railroad engineering takes place during initial and movement phases (only), the units performing railroad engineering must be in general supply (Rule 11C), and no unit may perform railroad engineering while it is using accel movement (Rule 6B). Poor weather affects railroad engineering in the same manner as construction (see Rule 13A4). Quick engineering and civilian labor (Rules 13A5 and 13A6) may be used in conjunction with railroad engineering. For quick engineering, only one railroad engineer unit need be present; the other unit may be a construction unit.

a. Regauging Rail Lines. A railroad engineer may regauge a cleared and unbroken rail line, changing it from one gauge to another, in the same manner as a broken rail line is repaired except that it costs 2 MPs to regauge a rail line. (Use rail gauge change point markers to show where rail lines change gauge.)

b. Upgrading Rail Lines. A railroad engineer may upgrade a low volume rail line to high volume. The railroad engineer unit begins the upgrade during the initial phase. To begin the upgrade, the owning player must trace an overland supply line

(per Rule 11B) from the railroad engineer unit to a Res Pt (Rule 11G) and expend it for the upgrade. (Place a railroad construction marker on the unit to show the upgrade is in progress.) It takes two game turns to make this upgrade. (When completed, flip the railroad upgrade marker to its completed side.)

c. Extending Rail Lines. A railroad engineer may extend a rail line, moving the railhead forward in the same manner as a construction unit extends a road (Rule 13A1f), except that: 1) The extension always requires the expenditure of a Res Pt (increase this to two Res Pts if the rail line extension is into a mountain hex, or into any hex across a mountain or river/canal hexside), and 2) It takes eight turns to extend a rail line into a wooded rough, mountain, forest, swamp, wooded swamp, ravines, or sand hex, or into any hex type across a mountain or river/canal hexside; in all other cases it takes four game turns. (Place a railroad construction marker on the unit when the extension begins. When completed, remove the railroad construction marker and advance the railhead marker one hex.)

4. Rail Capacity Deterioration. Railroad engineers can reduce rail capacity deterioration (per Rule 7A5f).

Designers' Note: Historically, the most important function of the railroad engineers quickly became that of rail capacity deterioration reduction. This explains, for example, why the Entente railroad engineer units on the western front continuously increased in number (reaching 30+ regimental equivalents by late 1918), while the southern front with its numerous rail construction projects never saw more than four Entente railroad engineer regiments present at any point during the war.

C. Port Construction Engineers.

Port construction engineers are specialized construction units that may only perform the following engineering tasks:

1. Port Demolition/Repair. A port construction engineer may demolish and repair the capacity of a port in the same manner as a construction engineer (Rules 13A2, 13A3) except that it costs 2 MPs for demolition and 4 MPs for repair. (Note that all other construction units must spend 3 MPs for demolition and 6 MPs for repair.) When using quick engineering (Rule 13A5), the reduced MP cost applies even if only one of the units is a port construction engineer.

2. Port Upgrades. A port construction engineer may upgrade a minor or standard port, increasing it to a major port; or upgrade the port capacity of a major or great port by 6 REs. The port construction engineer begins the up-grade during the initial phase, must be in the hex of the port to be upgraded, and must be in general supply (Rule 11C). To begin the upgrade, the owning player must trace an overland supply line (per Rule 11B) from the port construction engineer to a Res Pt and expend it for the upgrade. (Place a port upgrade construction marker on the unit to show the upgrade is in progress.) It takes 12 game turns to make this upgrade. (When completed, remove the port upgrade construction marker, and flip the port construction engineer unit over to its zero-movement side. The port construction engineer unit is now dedicated to maintaining the port's upgraded status.) Poor weather affects port up-grades in the same manner as construction (Rule 13A4). Quick engineering and civilian labor (Rules 13A5 and 13A6) may be used in conjunction with port upgrades. For quick engineering, only one port construction

engineer unit need be present; the other unit may be a construction unit.

A port construction engineer may abandon its port upgrade maintenance duty during any friendly initial phase (merely flip the unit over to its mobile side). The upgraded port immediately reverts to its original status.

Designers' Note: The Entente upgraded several ports during the war: Calais (standard to major) to better supply British units in Flanders, Le Treport (actually St. Valery-sur-Somme, but in same hex) (minor to major) to handle supplies going up the Somme river, Moudhros (minor to major) on Lemnos Island in the Aegean to supply the Gallipoli operations, Salonika (standard to major) which became the major Balkan supply base, and Basra (minor to major) to supply the Mesopotamian campaign.

D. Combat Engineers.

Combat engineers are construction units. Combat engineers also have the following abilities:

- When they are included in an attack on a major city or any fortification (except fieldworks), the attacker may attempt to use the engineering effects capability (EEC) of his combat engineers to modify the combat resolution die roll as described in Rule 10.
- They are automatically supported (Rule 12A) when attacking into or defending in a hex containing a major city or fortification (except fieldworks). When supported in this fashion, a combat engineer unit cannot provide support to other units.

E. Assault Engineers.

Assault engineers are not construction units. They have the combat abilities of combat engineers. Assault engineers also have the following abilities:

- When they attack into a hex containing a major city or an improved fortress (of any type), their RE size is doubled for purposes of EEC (Rule 10C).
- When they attack into a hex containing an improved fortress (old) their attack strength is tripled (even if the hex also contains a major city).
- When they attack into a hex containing an improved fortress (new) or a major city (unless the hex also contains an improved fortress (old)), their attack strength is doubled.
- When they defend in a hex containing a major city, improved fortress (of any type), or improved fort, their defense strength is doubled.

For example, a 1-2-5 assault engineer regiment attacking a major city hex would have an attack strength of 2 and would be counted as 2 REs for EEC.

F. Flamethrower Units.

Flamethrower units are not construction units. They have the combat abilities of assault engineers. In addition, the inclusion of a flamethrower unit in an attempt to use engineering effects capability (EEC) increases the chance of success (modifies the die roll by +1), as shown on the Ground Success Table.

G. Siege Engineers.

Siege engineers are not construction units. Siege engineers have the following abilities:

- When they are included in an attack on a major city or any fortification (except fieldworks), the attacker may attempt to use the siege effects capability (SEC) of his siege engineers to modify the combat (both a die roll and a column shift are possible) as described in Rule 10.
- When they defend in a hex containing a major city, improved fortress (of any type), or improved fort, their defense strength is doubled.

H. Gas Engineers.

Gas engineers are not construction units. When gas engineers are included in a combat, players which have them present may attempt to use the gas effects capability (GEC) of their gas engineers to modify the combat (both a die roll and a column shift are possible) as described in Rule 10.

Designers' Note: Gas engineers represent two types of units. The first type positions cylinders of poison gas along the front line, waits for a favorable wind, and then opens them up. The second type uses a variety of projectors (compressed air, etc.) to loft gas bombs into the enemy front-line trenches.

I. Divisional Engineers.

Divisional units with a printed attack strength of 5 or more have divisional engineers. Divisional engineers have limited construction abilities as follows:

- From the beginning of the game, they may build fieldworks and maintain fieldworks/entrenchments.
- From the Jun I 15 game turn, they may upgrade fieldworks to entrenchments.

Special: A divisional engineer may maintain fieldworks and entrenchments even when at cadre strength. Note that divisional engineers have no other construction, demolition, or repair abilities. All construction MP costs are doubled when divisional engineers are used. A divisional unit may use quick engineering, but only in conjunction with another divisional engineer. A divisional engineer may not use civilian labor.

Designers' Note: Until the summer of 1915 most divisions rarely had more than 1 company of engineers and had only the most basic of engineering equipment.

Rule 14 — Special Ground Units

A. Combination Unit Types.

Certain units combine two different unit type symbols and have the abilities of both. *For example, a mountain light rifle unit is both a light unit (Rule 14E) and a mountain unit (Rule 14F).*

B. Restricted Movement Units.

Restricted movement units never count against stacking limits (Rule 8A).

1. Rail-Only Units. The only ground movement allowed for a unit with a printed movement rating of "R" is rail movement. This rail movement uses no rail capacity (rail-only units have intrinsic locomotives and rolling stock). In combat, it may attack an adjacent hex per the standard rules; however, it may not advance after combat. A rail-only unit required to retreat may retreat only to a hex it could enter using rail movement. If there is no such hex available, the unit is eliminated instead. Note that if a rail-only unit is in a hex when the rail line is broken, the unit may not leave the hex until after the line is repaired. If required

to retreat from such a hex due to combat, the rail-only unit is eliminated instead.

A rail-only unit cannot use air transport (Rule 20H).

A rail-only unit can use naval transport (Basic Rule 26B or Advanced Rule 31), if all the conditions of that rule are met. However, a rail-only unit can only be embarked or disembarked at a port; and the port of disembarkation must be on a rail line of the same gauge as the port of embarkation.

2. Water-Only Units. A unit with a printed movement rating of "W" may move only by water along navigable inland waterway hexsides (Rule 7C) and unfrozen coastal hexsides. (A coastal hexside is any all-sea hexside forming part of a hex containing land.)

A water-only unit may use all forms of movement detail-ed in Rule 6 except accelerated movement. It has a movement allowance of 40 MPs, and spends 1 MP per navigable inland waterway hexside or coastal hexside entered. When a water-only unit ends its movement during a phase, place its counter so it straddles the hexside it occupies.

ZOCs have no effect on the movement of water-only units (this is an exception to Rule 6A). However, when a water-only unit enters an enemy-interdicted navigable inland waterway/coastal hexside; or begins any phase (except an initial phase) in such a hexside; the water-only unit is subject to an immediate attack by the enemy units interdicting the hexside. (A hexside is enemy-interdicted if enemy coast defenses (per the Coast Defenses Summary on the Naval Combat Charts and Tables Chart) are present in either hex adjacent to the hexside.) For each unit subject to this attack, the enemy player rolls two dice, sums the result, and subtracts the naval gunnery strength of the coast defenses in the adjacent hexes from the sum to obtain a differential; if the differential is:

- **0 or less:** The water-only unit is eliminated.
- **+1 to +5:** The water-only unit is turned back; retreat it to any connected navigable inland waterway/ coastal hexside. If the attack was triggered by the unit's own movement, retreat it to the hexside it occupied prior to the attack, and deduct 5 MPs from its remaining movement allowance.
- **+6 or more:** The attack has no effect.

If the unit has MPs remaining, it may continue moving, including moving to enter another enemy-interdicted hex-side (even to enter the same enemy-interdicted hexside again).

Example: A water-only unit enters a coastal hex-side interdicted by a 5-7-5 heavy artillery regiment (naval gunnery strength of 2.5) in one adjacent hex and a 6-9-5 rifle division (naval gunnery strength of 0.5) in the other adjacent hex. The enemy player rolls a 3 and a 5 which sums to 8; subtracting 3 (the combined naval gunnery strength of the coast defenses in the two adjacent hexes) from this yields a differential of +5: the water-only unit it therefore turned back.*

Water-only units may overrun enemy forces in connected navigable inland waterway/coastal hexsides (only), per the normal overrun rule (but mentally substitute "hexside" for "hex" wherever it appears in Rule 6F). Note that this includes overrunning enemy zero-gunnery strength naval units (such as naval transports).

The presence on a navigable inland waterway/coastal hexside

of a water-only unit with an attack strength greater than zero prevents enemy units from moving or attacking across that hexside.

In combat, a water-only unit may attack an adjacent hex per the standard rules; however, it may not advance after combat. It also may attack enemy forces in a connecting navigable inland waterway/coastal hexside; and in that case, it may advance after combat. A water-only unit may (but is not required to) participate in the defense of an adjacent hex. A water-only unit required to retreat, may retreat only to a connected navigable inland waterway/ coastal hexside. If the hexside retreated to is enemy-interdicted, and the water-only unit is turned back, the unit is eliminated instead.

When the advanced naval rules are used, a water-only unit may also move by naval transport (Rule 31).

Designers' Note: Water-only units are river gunboats armed with MGs, mortars, and field artillery. Although uncommon on the west front, there are several of these in the East and South theaters. In the Near East command, where control of the Tigris-Euphrates river system is vital, they are probably the most important units in the game.

3. Zero-Movement Units. A unit with a movement rating of 0 cannot move from the hex it occupies. It cannot be transported by air or naval transport. It cannot retreat and is eliminated if required to do so.

C. Combat/Motorized (C/M) Units.

C/m units are defined in Rule 3A2 and listed on the UIC.

C/m units count at double their RE size for transport purposes (Rule 3A3).

C/m units generally have higher terrain movement costs than other units (see the Terrain Effects Chart).

C/m units have movement advantages when using re-serve commitment/exploitation movement (Rules 6C/6E).

1. C/M Artillery Units. Some units are both c/m and artillery. These c/m artillery units use the c/m movement costs, and the artillery combat effects, of terrain.

2. Tank Unreliability. Tank, light tank, amphibious light tank, engineer tank, assault engineer tank, and flame-thrower tank units whose reverse sides bear the notation "disabled" are unreliable. An unreliable tank unit may not use accel movement (Rule 6B). Each time an unreliable tank unit moves during a phase by a means other than rail/river movement or naval transport, the owning player checks the unit for possible disruption/disablement upon completion of the movement. Further, each time an unreliable tank unit engages in combat the owning player checks for possible disruption/disablement when the combat is declared. For each affected unit, roll a die and consult the Ground Success Table (note that there are no modifiers to this die roll). Results are:

- **S: Success:** The unit succeeds in moving or engaging in combat with only negligible loss due to breakdowns. Its combat strength is unaffected.
- **F: Failure:** The unit suffers appreciable losses due to breakdowns. The unit is disrupted (per Rule 3A5). *Special:* If the unit was already disrupted, it is now badly disrupted.
- ***F: Failure:** The unit suffers severe losses due to breakdowns. The unit is badly disrupted (per Rule 3A5).

Special: If the unit was already disrupted or badly disrupted, it is now disabled. Flip the unit over to its disabled side. A disabled tank unit is affected as a badly disrupted unit except it has a combat strength and movement rating of 0.

A disabled tank unit can be repaired during any friendly initial phase in which it is eligible to recover from disruption. The unit must be in general supply (Rule 11C) and the owning player must spend Equ Pts (Rule 16B1) for the repair as follows: 2 Equ Pts if the unit is a battalion/ battalion grouping and 4 Equ Pts if the unit is a regiment/ regimental grouping. (Note that there are no tank brigades or divisions subject to this rule.) When repaired, simply flip the unit over to its non-disabled side.

Designers' Note: Early tanks were extremely prone to breakdowns, with 70-90% of the tanks ordered into combat commonly breaking down before reaching the battle area.

3. Specialized Tank Units. When attacking a hex where the combat engineer modifier is possible (per Rule 10C and the Terrain Effects/Fortifications Effects Charts), an engineer tank unit, assault engineer tank unit, or flame-thrower tank unit is treated in all respects the same as a combat engineer unit (Rule 13D), assault engineer unit (Rule 13E), or flamethrower unit (Rule 13F), respectively.

Designers' Note: Most of the Entente armor in the game is shown as engineer tank since they primarily used tanks in the combat engineer role (and designed them accordingly): to clear away opposing wire defenses, to bridge the various trenches, and to knock out enemy bunkers.

4. Fast C/M Units. C/M units with a printed movement rating of 7 or 8 are fast c/m units. Fast c/m units have the following abilities:

- They pay the same reduced ZOC and overrun movement costs as cavalry units (Rule 14D).
- They may attempt to retreat before overrun and combat (Rules 6F2 and 9I).
- They are treated as if they were supported (Rule 12A) (regardless of actual support status) when overrunning (Rule 6F) enemy forces in clear, rough, or stony desert terrain which does not contain any type of fortifications (except fieldworks).
- They are treated as if they were supported (Rule 12A) (regardless of actual support status) when attacking enemy forces in clear, rough, or stony desert terrain, or when defending in such terrain, and the combat is resolved using the Mobile Ground CRT.

Designers' Note: The 7 and 8 MP c/m units in the game are motorized machinegun and armor car units that proved to be exceedingly effective in mobile combat. Unfortunately, there was little use for them in deadlocked France. The units that served in Ireland, SW Africa, the Middle/Near East, and Russia, however, often had an impact far out of proportion to their actual numbers.

D. Cavalry Units.

Heavy cavalry, mounted rifle, mountain mounted rifle, mounted rifle training, irregular cavalry, mixed mounted rifle and rifle, pack transport, mountain pack transport, sleigh machinegun, horse artillery, and bike units are cavalry.

Cavalry units have movement and combat advantages in

certain types of terrain during clear and frost weather as summarized on the Terrain Effects Chart and described in Rule 15C (Adverse Terrain Expertise). Note, however, that their movement during mud weather is generally penalized.

Cavalry units pay reduced MP costs to move through ZOCs (Rule 6A) and overrun enemy units (Rule 6F) as summarized on the ZOC/Overrun Movement Costs Tables.

Cavalry units are more susceptible to fatigue than most other units when using accel movement (Rule 6B).

Cavalry units have movement advantages when using reserve commitment/exploitation movement (Rules 6C/6E).

Cavalry units with a printed movement rating of 7 or 8 may attempt to retreat before overrun and combat (Rules 6F2 and 9I).

Designers' Note: Bicycle units are treated as cavalry as that's how they functioned in this period. Bicycle units were (usually) faster than the normal light infantry units and only marginally slower than horse-mounted units. They almost always were conversions from earlier light infantry or cavalry formations. They also had much the same advantages and difficulties that horsed cavalry had in different types of terrain: pushing the heavy military bicycles of the time (150 lbs was common) through mud was only marginally less difficult than riding a horse through it; and both bicycle and horsed troops had the same ability to make up lost time in broken terrain (by putting spurs to the horse (or pedal to the metal) over the occasional patches of open ground).

1. Heavy Cavalry Units. When heavy cavalry units are included in an attack resolved on the Mobile Ground CRT, the attacker may attempt to use the ability of heavy cavalry to charge (use cavalry effects capability (CEC)) to modify the combat die roll as described in Rule 10.

Heavy cavalry units have their attack strength halved when overrunning or attacking units in a hex containing a major city or any type of fortifications (except fieldworks).

Designers' Note: Cavalry in trenches in reality has close to zero attack value due to its extreme vulnerability to MG and artillery fire, but we allow you to use them at half strength to represent the historical tactic of occasionally sending them into the line as dismounted infantry. Usually when this was done, however, the loss of morale that went with the loss of the horses resulted in poor caliber riflemen.

2. Camel Units. Cavalry units which have a "C" printed in conjunction with their movement rating are camel units.

Camel units have movement advantages in sand, wadi, and salt desert terrain not given to other cavalry units.

Camel units are not affected by the water line of communications rule while in the Desert. (The Desert and water line of communications are covered in Rule 37D.)

Camel units may not enter any hex outside the D, E, F, G, H, and I weather zones, and if forced to do so are eliminated instead. (Weather zones are covered in Rule 36.)

3. Mixed Mounted Rifle and Rifle Units. Mixed units are considered to be rifle units for purposes of exploitation movement (Rule 6E), adverse terrain expertise (Rule 15C) and tsetse fly (Rule 37I3). Note that they are cavalry units for all other purposes.

4. Horse Artillery Units. These units use the cavalry movement costs, and the artillery combat effects, of terrain.

5. Sleigh Machinegun Units. These are the only cavalry units that may operate in the Arctic (Rule 37C) without penalty. They are also over-snow units (Rule 14G).

E. Light Units.

Light rifle, mountain light rifle, amphibious light rifle, and jager machinegun units are light units. Some ski units are also light units (see Rule 14G).

Light units have movement and combat advantages in certain types of terrain during clear and frost weather as summarized on the Terrain Effects Chart and described in Rule 15C (Adverse Terrain Expertise).

Light units pay reduced MP costs to move through ZOCs (Rule 6A) and overrun enemy units (Rule 6F) as summarized on the ZOC and Overrun Movement Costs Tables.

Light units have movement advantages when using reserve commitment/exploitation movement (Rules 6C/6E).

Designers' Note: WW I light units are not the stripped down motorized units of WW II. In WW I they are THE elite units of the infantry, and the French/German terms for them —chasseur: master of the chase/jager: hunter—describe their functions well. Most of these units were recruited from mountainous/forested areas and included large numbers of hardy, self-reliant personnel accustomed to taking the initiative. Note that these are normally among the first units to convert to regular infantry.

F. Mountain Units.

Any unit with the mountain symbol (a black triangle in the unit symbol box) is a mountain unit. *For example, a mountain rifle unit is a mountain unit.* Some ski units are also mountain units (see Rule 14G).

Mountain units have movement and combat advantages in certain types of terrain (especially in mountain terrain) as summarized on the Terrain Effects Chart and described in Rule 15C (Adverse Terrain Expertise). Under certain conditions mountain units may use their combat advantage in concert with infantry units (as described in step 1 of Rule 9A (Combat Procedure) and Rule 14H (Infantry Units)).

Mountain units have movement advantages when using reserve commitment/exploitation movement (Rules 6C/6E).

1. High Mountain Units. Under normal conditions (as shown on the Terrain Effects Chart), high mountain units are the only units that can move, attack, and trace supply across high mountain hexsides (in clear weather), high mountain passes (in other weather), and impassable escarpment hexsides. (Weather is covered in Rule 36.) However, high mountain units may guide other mountain units (only) so that they also can move, attack, and trace supply across such hexsides. Note that they cannot guide non-mountain units. The following restrictions apply:

- They may guide mountain units up to 4 times their RE size. *Example: A high mountain regiment (1 RE) could guide up to 4 REs of other mountain units.*
- They must be stacked with the mountain units to be guided. Further, they may only guide mountain units during movement if they move with them. *For example, a high mountain battalion stacked with a mountain brigade in clear weather could guide the brigade across an adjacent high mountain hexside for purposes of tracing an overland supply line as long as they remain*

stacked together. However, it could not guide the brigade across the hexside during movement (or during retreat after combat) unless it moved (or retreated) across the hexside with the brigade.

High mountain units are also over-snow units (Rule 14G).

2. Mountain Artillery Units. These units use the mountain movement costs of terrain, and the most advantageous of the artillery or mountain combat effects of terrain.

Designers' Note: Europa players will note that there are major differences in how mountain units are portrayed in WW I versus WW II. In particular, we allow WW I mountain units greater freedom to move and attack across high mountain, high mountain pass, and karst hexsides than is allowed in WW II; and artillery units are allowed to move and attack in mountain terrain in WW I during snow weather, but are prohibited from doing so in WW II. Three key differences between the two wars are our justification for these changes. 1st: WW I units had little or no motorized tail; they moved almost entirely by foot or horse; thus they could move over mountain terrain easier than practically all WW II units (even the supposed 'leg' ones). 2nd: The average WW I foot soldier was greater accustomed to hardship than his WW II counterpart (one fact illustrates this dramatically: the combat load for a WW I soldier averaged 100 lbs, versus about 60 lbs in WW II; even though the WW I soldier was smaller and more malnourished on average than his WW II counterpart). 3rd: There was a need in WW I to make these kinds of attacks that just was not there in WW II (as no long-term campaign was fought in the high alpine regions during WW II). Just how important this last point was is illustrated by a picture in one of the volumes of the official Italian history of the war which shows a regiment of infantry in harness pulling a 25-ton 12" howitzer almost straight up a 3,000 foot cliff to a firing platform (and the firing platform was made by leveling off a 100-foot high chunk of solid marble by hand after first cutting about 10,000 steps into the mountainside to get to it).

High mountain units were quite active on the Italian front during WW I, with several brigade/division-level attacks across high mountain hexsides by guided mountain units. (Note that the guide function is apparent even in the name given to many of the Austrian high mountain units: Berg-fuhrer (mountain leader).) In late 1916 Italy tried to use a rifle division guided by alpini (mountain light rifle troops) for such an attack (across a glacier hexside during a snow-storm!), but the division suffered 90% casualties from frost-bite just reaching its assembly area. It was not until after this debacle that Italy formed its own high mountain units.

G. Over-Snow Units.

Ski, ski machinegun, snowshoe, high mountain, and sleigh machinegun units are over-snow units.

Over-snow units have movement and combat advantages in all types of terrain during snow weather as summarized on the Terrain Effects Chart and described in Rule 15C (Adverse Terrain Expertise).

Over-snow units with a printed movement rating of 7 or 8 may attempt to retreat before overrun and combat during snow weather (Rules 6F2 and 9I).

Note that sleigh machinegun units are also cavalry units (Rule

14D5). Ski and ski machinegun units are also either light units (Rule 14E) or mountain units (Rule 14F) depending on their nationality/contingent, as follows:

- Bavarian, Wurttemburger, Austro-Hungarian, Swiss, Norwegian, and Swedish ski and ski machinegun units are also mountain units.
- All other nationalities ski and ski machinegun units are also light units.

Designers' Note: Snowshoe units show up in the eastern theater and the Caucasus. The US expeditionary forces dispatched to North Russia and Siberia in 1918 were also snowshoe equipped. (Reindeer) sleigh machinegun units show up in northern Russia in 1918-19.

H. Infantry Units.

The following are infantry units:

- All Infantry, mountain infantry, marine infantry, infantry machinegun, and mountain infantry machinegun units.
- All units with a printed movement rating of 8.
- All assault engineer and amphibious assault engineer units with a printed movement rating of 6.

Designers' Note: The German 6-MP Sturm battalions were the first units to use stossstruppen tactics on a systematic basis and were the prototype for all the stoss units which followed. The 8-MP units stipulation covers a number of late-war pursuit units (armor car, light tank, bicycle, etc.) that routinely used infiltration tactics.

To simulate the spread of infantry tactics that would have occurred had the war continued into 1919, the following units are also infantry units on or after the listed date:

- *Feb 1 19:* All c/m and cavalry units (Rules 3A2 and 14D) with a printed movement rating of 6 or more.
- *Apr 1 19:* All light and mountain units (Rules 14E, 14F) with a printed movement rating of 6 or more.
- *Jun 1 19:* All rifle and mountain rifle divisions with a printed defense strength of 12 or more and all non-divisional rifle, mechanized rifle, and mountain rifle units with a printed defense strength of 5 or more.

Infantry units pay reduced MP costs to move through ZOCs (Rule 6A) and overrun enemy units (Rule 6F) as summarized on the ZOC/Overrun Movement Costs Tables.

Infantry units have movement advantages when using reserve commitment/exploitation movement (Rules 6C/6E).

1. Infantry-capable. Infantry units have special abilities in combat due to their use of infiltration (stossstruppen) tactics. When at least half of the REs of units a side has in a combat are infantry, that side is infantry-capable during that combat. The REs of participating artillery units are not counted for this calculation. When the attacker in a combat is infantry-capable:

- The combat is resolved using the Mobile Ground CRT, even if the Positional Ground CRT would normally be mandated.
- The 7:1, 8:1, or 9:1 odds columns of the Mobile Ground CRT can be used if the attacker can muster the requisite combat strength to achieve these odds. Note that these odds columns on the Mobile Ground CRT can only be used if the attacker is infantry-capable.
- The combat effects of any fortifications in the attack-ed hex are lessened as shown on the Fortification Effects

Chart. *For example, if the attacker is infantry-capable, the combat resolution die roll modifier due to the presence of a fort, improved fort, or fortress (of any type) is -1 instead of the normal -2.*

- The combat resolution die roll for that combat is modified by +1.
- Combat results of "AQ" become "AS" instead.

When the defender in a combat is infantry-capable:

- The combat resolution die roll for that combat is modified by -1.
- Combat results of "BX" become "BXM" instead.

2. Mountain/Infantry-capable. Under certain conditions, mountain units (Rule 14F) and infantry units may use their special combat abilities in concert. If a combat's hex is mountain terrain and contains no fortification (excepting fieldworks), and one side (attacker or defender), but not both, is mountain/infantry-capable, the side which is mountain/infantry-capable may choose which ground combat results table (Mobile or Positional) is used to resolve the combat. A side is mountain/infantry-capable during a combat when at least half of the REs of units the side has in the combat are mountain units and/or infantry units. The REs of participating artillery units are not counted for this calculation. Note that mountain/infantry-capable is a different status than infantry-capable. *For example, an attacker who is mountain/infantry-capable, but is not infantry-capable, does not gain the +1 combat die roll resolution modifier given to an attacker who is infantry-capable.*

3. Required Losses. If a side is infantry-capable (mountain/infantry-capable) during a combat which is resolved using the Mobile Ground CRT, and the combat results in losses to that side, at least half of all that side's losses must be taken from infantry units (mountain units or infantry units), if possible.

I. Marine Units (Advanced Rule).

Marine rifle, marine infantry, naval troops, amphibious light rifle, and amphibious assault engineer units are marine units. Note that the British amphibious light tank unit (Rule 41K6g) is not a marine unit. When using the advanced naval rules, marine units have special coastal raid and amphibious landing abilities as described below. Note that coastal raids and amphibious landings cannot be made when using the basic naval rules.

Designers' Note: Naval troops units in *The Great War* are really low-grade marine rifle units. Typically, each such counter either includes a battalion or so of real marines in its makeup, or it consists primarily of naval ratings with at least some familiarity with naval landing party tactics (and remember that in WW I most navies had a LOT of practice in gunboat diplomacy carried out by ad hoc naval landing formations). Units formed from naval troops for garrison or coast defense purposes are shown as static units.

1. Coastal Raid. Marine units (only) may make surprise attacks on coastal defenses (CDs); these are coastal raids. In a coastal raid, an eligible unit attempts to disrupt enemy coast artillery, heavy siege artillery, and siege artillery units in a hex. Up to one eligible unit per coast artillery, heavy siege artillery, or siege artillery units in the hex may attempt a coastal raid in the hex. *For example, if a hex contains 2 coast artillery units*

and 1 heavy siege artillery unit, then up to 3 eligible units may raid the hex.

To make a raid, a marine unit must have an amphibious landing planned for the hex containing the CD (per Rule 32C). Its transporting naval group (NG) must use night movement (Rule 34A2) to enter the hex containing the enemy CD to be raided. When the NG does this, units carried by the NG that will raid the CDs in the hex resolve their raids before the CD fires on the transporting NG. For each raiding unit, designate a coast artillery, heavy siege artillery, or siege artillery unit in the hex as a target, roll a die and consult the Ground Success Table (note that there are no modifiers to this die roll). If the raid succeeds, the targeted unit is disrupted (or badly disrupted if it was already disrupted) per Rule 3A5. If the raid fails, the marine unit may be eliminated (per the Ground Success Table).

When the raid is complete, the naval sequence resumes as normal, including combat between the NG and the CD in the hex, if the CD can fire.

The raiding unit is not required to make an amphibious landing in the hex, although it may do so if possible. However, if it does not make an amphibious landing, its transporting NG must spend 2 MPs in the hex after the raid, before it can spend MPs for any other purpose.

Designers' Note: There were no specialized marine commando or ranger units during WW I. However, coast artillery neutralization was still attempted on occasion by various marine detachments and naval landing parties. This was attempted during the historical Gallipoli landings and was part and parcel of all of the various British plans for landing on the Belgian coast, forcing the Baltic, seizing German North Sea coast islands, etc.

2. Amphibious Landings. Marine units have special abilities when making amphibious landings. (Amphibious landings are covered in Advanced Rule 32.) These are:

- Marine units are intrinsically amphibious. (*Note:* Intrinsically amphibious units can make amphibious landings from any type of water transport; non-amphibious units must use specialized landing craft or river transports to do so.)
- Marine units (except naval troops units) attack at full strength, and naval troops units attack at half strength (instead of being quartered like everyone else) when making amphibious landings.

J. Fortress Units.

Fortress and mountain fortress units are fortress units. Note that siege artillery, siege mortar, and heavy siege artillery units are not fortress units.

One fortress unit of any size may always stack in a hex in addition to any other units (Rule 8A).

K. Training/Replacement Units.

Any unit with the training symbol or replacement symbol as part of its unit type symbol is a training/replacement unit. *For example, a heavy artillery training unit is a training/replacement unit.* Note that march brigades (Rule 16C8) are training/replacement units (as their counters use the replacement symbol).

Most training/replacement units normally will be off-map in

various garrisons (representing their dedication to reinforcement/replacement activities). Rule 37F4 (Trng/Repl Forces Garrisons) details how these forces may be released for on-map operations. Note that a player's use of these forces on-map may negatively affect his flow of reinforcements and replacements (for which see Rule 16C9).

L. Irregular Units.

Irregular rifle units and irregular cavalry units are irregular units. Irregular units operate differently from other units as described below:

- Irregular units pay reduced MP costs to move through ZOCs (Rule 6A) and to overrun enemy units (Rule 6F) as summarized on the ZOC/Overrun Movement Costs Tables.
- An irregular unit, regardless of its unit type, may move the same as a light unit (Rule 14E) or mountain unit (Rule 14F) as the owning player wishes. Note that an irregular cavalry unit accrues fatigue hits due to accel movement (Rule 6B4) as a cavalry unit even while moving as a light/mountain unit.
- Irregular units have movement advantages when using exploitation movement (Rule 6E).
- Irregular units have their attack and defense strengths halved when they participate in combat that is resolved using the Positional Ground CRT.
- An irregular unit may attempt to retreat before combat and overrun (Rules 6F and 9I); it **MUST** attempt to retreat if the opposing force musters 3:1 or better odds and there is an allowable hex to retreat to; if a mandatory attempt to retreat fails, the unit is disrupted (Rule 3A5) following the attempt.
- Irregular units may not voluntarily attack at less than 3:1 odds unless non-irregular units constitute half or more of the attacking strength. (Note that some attacks, such as those by irregular units against enemy units in hexes where the irregulars appear, are mandatory.)
- An irregular unit participating in a combat (attacking or defending) may not be eliminated to satisfy losses until all non-irregular units on their side in the combat have been eliminated (or reduced to cadre/remnant).

Designers' Note: Irregular units in the WW II sense of guerrilla bands operating behind the enemy lines were rare in WW I. (The comitadj bands of Serbian guerrillas being the only real exception - for which see the Serbian nation-specific rules.) Far more common were irregulars using guerrilla tactics and living off the land, but operating in support of (or at least in loose concert with) regular forces (such as some of the Cossack units in Poland, the Arabs in Palestine, or the Kurds and Armenians in the Caucasus). The remaining unsubdued native African forces (Berbers and Sanussi) are really irregulars rather than guerrillas as well; when finally subdued by the Europeans it was not by means of anti-partisan sweeps, but by direct defeat in open battle followed by occupation of their home areas.

Irregulars historically were very good at massacring civilians and POWs, and at causing havoc among poorly-equipped enemy rear-area forces; but normally showed a decided lack of enthusiasm for making anything but 'sure-thing' attacks, and frequently just melted away when faced with superior enemy

strength.

M. Army HQs.

Army HQs represent the command and logistic staffs needed for large forces to operate at full effectiveness. Army HQs regulate reaction movement and reaction combat, and are the most efficient means of putting units in combat supply (as described below and in Rules 6D and 11D). An Army HQs is a non-motorized unit (Rule 3A2), has a combat strength of 0, is 3 REs in size, and has HE (Rule 3A4), has an AA value as listed on the Intrinsic AA Summary (on the Air Combat Charts and Tables Chart), and may carry up to 9 REs of logistics items (per Rule 11H2); it does not have a ZOC (not even in the hex it occupies), does not count against the stacking limit, and may not advance after combat (Rules 5, 8A, and 9F3).

Army HQs of differing nationalities may not stack together.

1. Active/Inactive. Army HQs have an active side and an inactive side (as shown on the Unit Identification Chart). An active Army HQs exerts a zone of influence (ZOI), covering the hex the HQs occupies and every hex within two hexes of the HQs. The ZOI of non-German Army HQs covers only units of the same nationality (per Rule 3B5) as the HQs exerting the ZOI. *For example, a British Army HQs does not exert a ZOI over French units.* Note that the ZOI of a German Army HQs covers all Central Powers units, not just German units. During reaction movement/reaction combat, units within the ZOI of an active Army HQs are the only units that may move and attack. Note that Army HQs themselves may not move during reaction movement. (Reaction movement is covered in detail in Rule 6D.) Res Pts (Rule 11G) stacked with an active Army HQs are the most efficient source of combat supply (Rule 11D).

All Army HQs enter play active side up. Thereafter, a player flips his Army HQs between their active and inactive sides as follows:

- At the start of his initial phase, the phasing player flips over all his inactive Army HQs so their active sides are face up.
- During the reaction movement phase, the reacting (non-phasing) player checks his Army HQs to see if they remain active (this is an activation check); for each HQs he rolls a die and consults the Ground Success Table. Note that die roll modifiers may apply to this check; these are listed in the appropriate nation-specific and/or scenario rules (Rules 41 and 42B). If the attempt succeeds, the Army HQs remains active; if the attempt fails, the Army HQs is flipped over so its inactive side is face up. After making an Army HQs activation check, all reaction movement of units in that HQs ZOI must be completed before the next HQs is checked.

2. Army HQs Disruption. Army HQs may become disrupted (Rule 3A5). When a disrupted Army HQs is checked during the reaction movement phase to see if it remains active, modify the check die roll by -1. If units participating in a combat trace combat supply to a Res Pt stacked with a disrupted Army HQs, modify the combat resolution die roll as follows: -1 if the attacker's Army HQs is disrupted; +1 if the defender's Army HQs is disrupted.

3. Army HQs Coordination (Advanced Rule). A player may attempt to coordinate the actions of two or more of his Army

HQs during the reaction movement phase. The player announces which Army HQs will attempt to coordinate their actions. He then makes a single check to see whether all of these Army HQs remain active or become inactive (vice the normal one check per HQs), applying a -1 modifier (in addition to any other applicable modifiers) to the check die roll for each HQs past the first involved in the attempt. If the coordination attempt succeeds, the player may carry out all reaction movement of units in the ZOIs of all the coordinating Army HQs before moving on to the next Army HQs activation check.

Designers' Note: Coordinating HQs is hard to pull off, but with a good leader (see below) and a bit of luck, it allows a player to position his assets for maximum effect during the following reaction combat phase. Some of the most successful offensives of the war are best simulated in terms of multiple-HQs coordination and attack in reaction, followed up by a maximum offensive in the players next regular combat phase.

N. Corps HQs.

1. Basic Rules. Corps HQs are used to help with stacking in congested portions of the map and to regulate overstacking (as listed in Rule 8C). They are labeled with the IDs of actual corps for historical flavor. A Corps HQs is a non-motorized unit (Rule 3A2), has a combat strength of 0, is 1 RE in size, and has a movement rating equal to the slowest unit in its box on the corps marker display (or 8 when moving by itself); it does not have HE, has no AA value, does not have a ZOC (not even in the hex it occupies), and does not count against the stacking limit (Rules 3A4, 5, and 8A).

2. Limited Intelligence (Advanced Rule). Corps HQs are also used to implement limited intelligence.

Corps HQs have a known side and an unknown side (as shown on the Unit Identification Chart). A corps (the Corps HQs and all units in the corresponding box on the Corps Marker Display) which is known, may be examined freely by the enemy player; and if he asks his opponent for the composition of such a corps, his opponent must answer truthfully. An unknown corps cannot be examined by the enemy player; and his opponent is free to tell him anything (or nothing) if he is asked its composition. (It is suggested that players keep known and unknown corps on separate Corps Marker Displays with unknown displays covered by a sheet of paper or similar object.)

If an unknown corps contains units which exert ZOCs into adjacent hexes (Rule 5), the owning player must truthfully inform his opponent of this at the instant the first enemy unit moves adjacent to the corps.

Players may attempt to overrun (Rule 6F) unknown enemy corps. To do so, the overrunning player announces his intention and points out his units making the overrun. The overrunning units must have sufficient MPs remaining to make an overrun at 10:1 odds. His opponent then compares the overrunning strength to that of his hidden units; if this is at least 10:1, he reveals the contents of the corps and the overrun proceeds normally. If the overrunning strength is less than 10:1, the overrunning units must end their movement and the corps remains unknown.

The status (known or unknown) of a corps when it enters play is determined by the distance from the corps entry hex to the closest enemy unit: If the closest enemy unit is within 3 hexes,

the corps enters play known, otherwise the corps enters play unknown. An unknown corps becomes known (and the Corps HQs counter is flipped over to its known side) when:

- It is an initial phase, and the corps is within 3 hexes of an enemy unit.
- The corps is revealed by a successful strategic reconnaissance air mission (per the Advanced Air Rules - Rule 20F1).
- It is the start of a combat sequence (per Rule 9A) and the corps is a participant in the combat.

A known corps becomes unknown (and the Corps HQs counter is flipped over to its unknown side) when:

- It is an initial phase, and there are no enemy units within 3 hexes of the corps.

Designers' Note: Both sides usually had pretty good intelligence regarding their opponents forces in the battle area (within 3 hexes of the front) through tactical air reconnaissance, radio intercepts, and (especially) local patrolling. Once a unit left the battle area, however (and especially when they transferred between commands or spent some extensive time refitting back in the national homeland), they often were 'lost' for months at a time.

O. Transport Units.

Motorized transport units, pack transport units, and mountain pack transport units are transport units. Transport units may transport cargo and extend supply lines as described below.

Transport units never count against the stacking limit (Rule 8A), but any units they transport do count against the stacking limit.

1. Mode. Transport units have two modes: transport and supply line. A transport unit is in transport mode when the side of the counter with a movement rating is face up; and it is in supply line mode when the side of the counter with the notation "Extend Supply Line" is face up. A transport unit always enters play in transport mode. Thereafter, a player may change his transport units from one mode to the other (flip them from one side to the other) in his initial phases. A transport unit in transport mode may transport cargo, but it may not extend supply lines. A transport unit in supply line mode may not transport cargo, but it may extend supply lines. A transport unit in supply line mode may not move; and, if forced to retreat, it is eliminated instead.

2. Transport of Cargo. Transport units in transport mode may transport cargo: i.e. logistics items (per Rule 11H2) and certain categories of units as listed under the various transport unit types below. Each transport unit can transport up to 3 REs of units, or up to 6 REs of logistics items. *Special:* A transport unit may not transport any cargo while disrupted. (Disruption is covered in Rule 3A5.) *Example:* An undisrupted transport unit may transport up to 3 REs of units, or up to 3 REs of a mixture of units and logistics items, or up to 6 REs of logistics items.

A transport unit may transport units in the movement, reaction movement, and exploitation phases only. Note that it may transport logistics items in all phases of a turn. A transport unit, and any cargo it is transporting, has movement abilities based on its transport type as listed below. Note that transport units cannot transport units during the combat and reaction combat phases and thus cannot impart any of their abilities to other units

in these phases.

A transport unit may pick up cargo at any time during its movement as long as its RE-limit is not exceeded; it may drop off cargo at any time during its movement. The transport unit and all cargo being transported are treated as a single unit with a unit type and movement rating as shown on the transport unit's counter, and a combat strength and RE size equal to the combined strength of the transport unit and any cargo it is transporting. *For example, a 0-6 mountain pack transport regiment (1 RE) transporting a 2-3-5* rifle brigade (2 REs) and four GSPs (1 RE), is treated as a 2-3-6* mountain pack transport unit 4 REs in size.*

A unit cannot both move by itself and be transported by a transport unit in a phase. Note that this means that a unit which moves by itself during a phase may not subsequently be transported by a transport unit in the same phase; nor may a unit transported by a transport unit in a phase subsequently move by itself during the same phase.

a. Motorized Transport Units. A motorized transport unit is c/m (Rule 3A2); it may carry non-motorized units (but not Army HQs), artillery units without HE (Rule 3A4), and logistics items (Rule 11H). Note that artillery units count double their RE size for this purpose. Prior to Feb I 17, motorized transport units are restricted, in that:

- They may not use accel movement (Rule 6B).
- Their movement ratings are halved during reserve commitment movement (Rule 6C) and exploitation movement (Rule 6E).

Designers' Note: Early-war trucks were lightly built and prone to breakdowns. The 6-MP movement rating given all motor transport units is a compromise; prior to Feb I 16, 5 MPs would be more accurate; just as on or after Feb I 18, 7 MPs would be a more accurate representation.

b. Pack Transport Units. A pack transport unit is a cavalry unit (Rule 14D); it may carry non-motorized units without HE (Rule 3A4) and logistics items (Rule 11H).

i. Mountain Pack Transport Units. A mountain pack transport unit is also a mountain unit (Rule 14F). Mountain pack transport units are the only pack transport units that may extend supply lines in mountainous terrain (i.e. rough, wooded rough, and mountain hexes).

ii. Camel Pack Transport Units. A pack transport unit with a "C" following its movement rating is a camel pack transport unit. A camel pack transport unit is also a camel unit (Rule 14D2). Camel pack transport units are the only pack transport units that may extend supply lines in the Desert (Rule 37D).

Designers' Note: Both sides made extensive use of pack mule/camel trains for supply work in WW I. Mules were of major importance in Italy, the Balkans, and the Caucasus; and as players will discover, they are the only way to extend your supply lines to cover some of the historical mountain offensives. The Indian Army used camels almost exclusively for supply when operating outside Europe (with each division having the equivalent of a camel pack transport regiment attached to it), and camels also featured prominently in the Turkish 1915 attack on the Suez Canal defenses, and during the Russian Expedition into Persia.

3. Supply Line Extension. Transport units may extend the road and overland elements of supply lines (Rule 11B) as follows:

- If the road or overland element of the supply line is traced into or through hexes containing one undisrupted transport unit in supply line mode, the maximum length of that element is extended by 1 hex.
- If the road or overland element of the supply line is traced into or through hexes containing at least three undisrupted transport units in supply line mode, the maximum length of that element is extended by 2 hexes.

Note that disrupted transport units may not extend supply lines; that transport units can never extend a road or overland element of a supply line by more than 2 hexes; and that a transport unit used to extend the overland element of a supply line may not be used to extend the road element of a supply line (and vice versa).

Example: During mud weather the overland and road elements of a supply line are limited to 2 hexes (as shown on the Supply Line Summary). However, if the overland element of the supply line is traced into or through a hex containing an undisrupted transport unit in supply line mode, the overland element could be up to 3 hexes in length; if the road element of the same supply line were traced into or through a hex containing a second undisrupted transport unit in supply line mode, the road element of the supply line could also be up to 3 hexes in length.

P. Leaders.

Each major power has one or more leader counters (leaders). These have been labeled with the names of the more prominent of each country's WW I leaders, but they actually represent the effect exerted by the nation's overall higher military leadership (i.e. general staff). Each leader has three leadership ratings (ranging from -1 to 1) printed on its counter (as shown on the Unit Identification Chart). These numbers represent the leader's ability to influence the activation check of Army HQs and the combat resolution die roll as described below.

Leaders can be off-map in the available leader pool (back at the general staff), or on-map assigned to a specific Army HQs (at the front exercising their influence). Show that a leader is assigned to an Army HQs by stacking it on top of the Army HQs counter. Only one leader may be assigned to each Army HQs. The owning player may switch his leaders between on-map and off-map during his scenario setup and any of his initial phases. Note that this means that a leader assigned to one Army HQs cannot be reassigned to another Army HQs without spending at least 1 friendly initial phase in the off-map available leader pool (at the general staff getting new instructions). An on-map leader automatically moves wherever its associated Army HQs moves; it may not move by itself. When an Army HQs is eliminated, any leader assigned to it is placed in the off-map available leader pool (the leader always gets away).

1. Influencing Army HQs Activation Checks. During the reaction movement phase, a leader may (at the owning player's option) attempt to influence the activation check of the Army HQs it is assigned to. The owning player rolls a die; if the result is:

- **1 or 2:** Modify the activation check die roll by the

leftmost number on the leader counter.

- **3 or 4:** Modify the activation check die roll by the center number on the leader counter.
- **5 or 6:** Modify the activation check die roll by the rightmost number on the leader counter.

Example: The British leader Haig, with leadership ratings of -1/0/1, is assigned to the British 2nd Army HQs. During the reaction movement phase, the Entente player decides it is imperative that 2nd Army remain active and decides to gamble on Haig's leadership positively influencing the HQs activation check. He rolls a 5, and breathes a sigh of relief, as this results in the activation check die roll being increased by +1 (as the rightmost number on Haig's counter is 1).

If a player tries to coordinate the activation check of multiple Army HQs per Advanced Rule 14M3, a leader (one only) assigned to any of the coordinating HQs may attempt to influence the coordination activation check using the same procedure as listed above.

2. Influencing Combat. Leaders may attempt to influence combat. Immediately prior to resolving a combat, each player (defender first) announces if an eligible leader (one only per side) will attempt to influence the combat resolution die roll. A leader is eligible to make this attempt if all units involved in the combat on its side are in the zone of influence (ZOI) of the Army HQs the leader is assigned to. Each player with a leader attempting to influence the combat rolls a die; results are as in the preceding paragraph except: 1) the combat resolution die roll is modified instead of the activation check die roll, and 2) defending player combat resolution die roll modifiers have their signs reversed (if a -1 is called for, it is changed to +1; if a +1 is called for it is changed to -1).

Example: After successfully using Haig to keep his 2nd Army HQs active, the Entente player decides to gamble again, this time on Haig's leadership positively influencing an attack made by three stacks of units, all of which are in the ZOI of the 2nd Army HQs. (Note that had even one attacking unit been in a hex outside of 2nd Army HQs ZOI, Haig could not have been used.) Unfortunately, he rolls a 1, with the result that the combat resolution die roll is modified by -1 (as this is the leftmost number on Haig's counter). Even more unfortunately, the Central Powers player also committed a leader to the combat: Falk. 0/0/1; and he rolled a 6, resulting in an additional -1 to the combat resolution die roll (as the rightmost number on Falkenhayn's counter is 1, a +1 would normally be called for, but as he is the defender this is changed to a -1 instead). The final combat resolution die roll modifier due to leadership, therefore, is -2.

Q. Elite Brigades.

Some nations (notably Italy and the Ottoman Empire) routinely transferred their elite brigades from one division to another so as to maximize the time their elite units could spend in the front lines. This tactic has been accommodated in the game by giving such nations elite brigade counters which players may use to show which divisions their elite brigades are assigned to. Note that the assignment of an elite brigade counter to a division merely denotes that the division includes an elite brigade; the elite brigade counter has no other function in the game, and is ignored for all other purposes.

An elite brigade counter must be assigned to a division at all times. Up to two elite brigade counters may be assigned to a rifle division; a maximum of one elite brigade counter may be assigned to any other division. Show that an elite brigade counter is assigned to a division by stacking it on top of the division. If a division's movement rating is higher than the movement ratings of the elite brigades assigned to it, that division has its movement rating modified to that of the slowest attached elite brigade counter. Elite brigade counters assigned to one division may be re-assigned to another division during initial phases (only), if both divisions occupy the same hex or replacement pool. While an elite brigade counter is assigned to a division, that division's combat strength is increased (including when at cadre strength and for replacement purposes) by the combat strength modifier printed on the elite brigade counter. *For example, a 6-9-5 rifle division, with two elite brigade counters assigned (one a +2-5, the other a +1-5) would have its attack strength increased to 9 (6 + 2 + 1) and its defense strength increased to 12 (9 + 2 + 1).*

R. Rifle Assault Units.

Rifle assault units have special abilities in positional combat due to their use of aggressive attack tactics. Note that they have no special abilities in mobile combat. When at least half of the REs of units the attacker has in a combat are rifle assault, the attacker is rifle assault-capable during that combat. The REs of attacking artillery units, and of attacking units with the combat abilities of combat engineer units or assault engineer units (see Rules 13D, 13E, 13F, and 14C3), are not counted for this calculation. When a combat is resolved using the Positional Ground CRT and the attacker is rifle assault-capable:

- The combat resolution die roll for that combat is modified by +1.
- Combat results of "DX" become "DXM" instead.
- At least half of all attacker losses must be taken from rifle assault units, if possible.

Designers' Note: Rifle assault units are limited to the USA (where practically the entire army is rifle assault) and Russia. US combat doctrine stressed continuation of the rifle attack (backed by every available supporting arm), until either the attacking units burned out or the foe broke. The high morale and lavish equipment of US units allowed this tactic to be successful against enemy forces denied the ability to maneuver (e.g. use *stosstruppen* tactics), but at the cost of higher than normal casualties. On the east front, the 1916 Brusilov Offensive (which almost knocked Austria-Hungary out of the war), was spearheaded by a Russian army specially trained and equipped for the assault role.

Rule 15 — Special Ground Rules

A. Terrain.

1. Bridges. A road or rail line crossing a minor canal, river/canal, or major river hexside is a bridge. A player cannot use a bridge unless he owns it. A player owns a bridge if he owns both hexes adjacent to the bridge hexside or if he was the last to do so.

Bridges may be demolished by construction engineers (Rule 13A2). A demolished bridge may not be used for any movement

purposes, such as accel movement, road movement, rail movement, etc. *Exception:* Supply lines may be traced across a demolished bridge without penalty. *For example, a unit using a road to cross an unfrozen river hexside and enter a woods hex in clear weather normally pays 1 MP to do so; it must spend 4 MPs to do so if the bridge is destroyed (2 MP for the river and 2 MPs for the woods hex).* Demolished bridges may be repaired by construction engineers (Rule 13A3). Note that air units can not demolish bridges by bombing in *The Great War*.

Designers' Note: The small bombloads and inexperience of 1914-18 aircraft made it all but impossible to destroy a bridge from the air during WW I.

2. Causeways. Roads and rail lines which cross sea, lake, or great river hexsides are causeways. Ground units treat such a hexside as a major river hexside for all movement and combat purposes.

Causeways block naval movement unless both hexes adjacent to the causeway are friendly-owned.

3. Rail Ferries. A rail ferry is treated as a low volume rail line that starts at one port and ends at another, as depicted on the map. A player may use a rail ferry for rail movement only if he owns both ports and only if both ports are functioning. (*Note:* A port is functioning unless it has maximum damage per the Port Summary (on the Naval Combat Charts and Tables Chart).) If a rail ferry links two rail nets, using the ferry counts against the capacity of each net.

Note: A rail ferry is never treated as a road. A rail ferry is not a bridge or a causeway.

4. Major Rivers. Units which move across an unfrozen and unfordable major river hexside (whether by movement, or advance or retreat before or after combat) are disrupted (see Rule 3A5) when the crossing is completed. *Exception:* Units crossing a major river at a bridge (Rule 15A1) or pontoon bridge (Rule 13A7) are never disrupted.

5. Great Rivers. *Note:* There is no special symbol delineating great rivers on the maps, although their effects on movement and combat are listed on the Terrain Effects Chart. There are three great rivers on the European maps:

- The main channel of the Severnaya Dvina river from where the river is formed by the junction of its Vichega and Sukhona river tributaries at Kotlas to its entrance into the White Sea.
- The main channel of the Volga river from where it receives its Kama river tributary three hexes south of Kazan to its entrance into the Caspian Sea.
- The main channel of the Danube river from where it receives its Sava river tributary at Beograd to its entrance into the Black Sea.

On the non-European maps, a great river is defined as any section of a major river downstream of where it receives another major river as a tributary. *For example, the Niger river is a great river from the CA:3277/3377 hexside (where its major river tributary, the Benue, joins up) to the sea (including all river branches in its delta).*

6. Partial Flooding. When enemy units attack a canal-intensive hex, the player owning the hex may attempt to partially flood it. Follow this sequence:

- 1) The attacking player (the attacker) announces his attack

on the hex and indicates his attacking units.

- 2) The player owning the hex may attempt to flood the hex, if he wishes. If he decides to do so, he consults the Ground Success Table, rolling one die and modifying it as indicated on the table. A *failure* result means he failed to flood the hex before the attack; a *success* result means the hex is flooded for the rest of the player turn (only). Treat the hex as a swamp hex for all movement and combat purposes.
- 3) If the hex is flooded, the attacker may call off the attack if he wishes. If called off, his units indicated for the attack may not attack a different hex.

Due to the elevated nature of the Po river dikes over the surrounding terrain, when enemy units attack any hex adjacent to the major river section of the Po river (circa GW2:4615), the player owning the hex may attempt to partially flood it (per above).

Note: Partial flooding of a hex may result in an atrocity, with morale point penalties to the player initiating the flooding (see Rule 40A). Further, a humanitarian player will spend 1 Res Pt for disaster relief each time he partially floods a hex containing a city (Rule 3E5) or partially floods a hex adjacent to a hex containing a city. (The Res Pt to be spent must be within overland supply range of the flooded hex; and if it is to be spent, must be spent immediately when the hex is flooded.) If a player cannot (or will not) spend this Res Pt for disaster relief, this in itself may result in a separate atrocity.

Designers' Note: The Italians made extensive preparations to breach the Po river dikes after the 1917 Caporetto disaster made it look like the Austrians might overrun all of northern Italy; and Dutch defense plans from 1916 envisioned flooding several areas to help defend Holland.

7. Resource Centers. *Note:* Resource centers are covered in detail in Rule 37A; only their effects on combat are described below.

When a hex containing one or more resource centers is attacked, the presence of the resource centers in the hex may affect the combat. To check for this, the player owning the hex consults the Ground Success Table (on the Ground Combat Charts and Tables Chart), rolling a die, and modifying the roll as indicated on the table. A *failure* result means the resource center has no effect on the combat; a *success* means the combat resolution die roll is modified by -1.

Designers' Note: Many accounts of combat in the Lens coal mining area (GW2:0624) comment on the usefulness of the numerous mining tunnels and pits in the area for defensive purposes. Some of the more extensive resource centers (such as the Lorraine iron ore fields (circa GW2:1719) approach the intricacy of a major fortress, with hundreds of miles of tunnels and intricate networks of blast furnaces, foundries, and slag piles above ground.

8. Devastation. Players may devastate friendly-owned hexes. *Special:* Neither side may devastate a hex prior to the Feb I 16 game turn.

It takes 4 REs of construction units in regular general supply (Rule 11C2) two turns (four turns in poor weather) to devastate a hex. Quick engineering may not be used when devastating a hex. When the devastation is completed, place a devastated

marker in the hex to show the devastation. A devastated hex has the following effects:

- The MP cost to enter a devastated hex is increased by +2 MPs. Note that this increased MP cost applies even when moving along a road.
- Any rail line in a devastated hex is broken (Rule 7A6), and may not be repaired (Rule 13A3) while the hex is devastated.
- When an attacking force includes one or more units in a devastated hex, the combat resolution die roll for the combat is modified by -2.
- Each devastated hex (regardless of the actual terrain in the hex) counts as 2 hexes when tracing the overland and road elements of a supply line (Rules 11B1 and 11B2).
- For purposes of tracing the railroad sub-element of a supply line (Rule 11B3a), each devastated hex, is treated as if it were 2 low-volume rail hexes.

Note: Devastating a hex always results in an atrocity, with morale point penalties to the player initiating the devastation (see Rule 40A). Further, a humanitarian player will spend 1 Res Pt for disaster relief each time he devastates a hex. (The Res Pt to be spent must be within overland supply range of the devastated hex; and if it is to be spent, must be spent immediately when the devastation begins.) If a player cannot (or will not) spend this Res Pt for disaster relief, this in itself may result in a separate atrocity.

A devastated hex may be repaired. It takes 4 REs of construction units in regular general supply (Rule 11C2) four turns (eight turns in poor weather) to repair a devastated hex. Quick engineering may not be used when repairing a devastated hex. The construction units must all trace overland supply lines to the same Res Pt, which must be expended for the repair when it begins. (When the repair is completed, remove the devastation marker from the hex. Note that the rail break in the hex is also repaired at this time.)

Designers' Note: Germany devastated the front line hexes abandoned during the retreat to the Hindenburg line in early 1917. It took the Entente months to repair the damage, and as late as the spring, 1918 offensives, the damage was still hampering operations.

9. Open Cities. At the beginning of a combat phase or reaction combat phase in which a major city is isolated, or in which at least one hex adjacent to the major city is enemy-owned, the player owning the major city may designate that city to be an "open city" for that phase. An open city is treated as clear terrain for purposes of bombardment (Rule 12C) and combat; but attacking, bombarding, terror bombarding, or terror bombing (Advanced Rule 20G1c) an open city is likely to result in an atrocity, with morale point penalties to the attacking/bombarding/bombing player (see Rule 40A).

B. Fortifications.

Fortifications have combat effects as listed on the Fortification Effects Chart.

Fortifications may be built, maintained, upgraded, and improved by construction engineers (Rule 13A).

1. Fieldworks. When a hex containing fieldworks is captured by enemy units, the fieldworks are destroyed and immediately removed from play.

Special: The fieldworks in a hex are ignored during combat when the hex is subject to concentric attack and the fieldworks constitute a detached fortification. A hex is subject to concentric attack when attacking units exert ZOCs into every adjacent (per Rule 3E5) hex. The fieldworks in a hex constitute a detached fortification if no adjacent hex contains friendly fortifications (of any type).

2. Entrenchments. Entrenchments are not affected by hex capture.

Special: The entrenchments in a hex are treated as field-works during combat when the hex is subject to concentric attack (per Rule 15B1) and the entrenchments constitute a detached fortification. The entrenchments in a hex constitute a detached fortification if no adjacent hex contains friendly fortifications (of any type).

3. Forts and Improved Forts. When a hex containing a fortification of these types is captured by enemy units or reduced by bombardment (Rule 12C2), the fortification is immediately replaced by a fortification of the next lower level. *For example, an improved fort would be replaced by a fort, while a fort would be replaced by an entrenchment.*

4. Fortresses. There are three types of fortresses: new, old, and great. Each type of fortress may be at either of two conditions: improved or unimproved. When a rule does not mention the condition of a fortress it applies to all fortresses, regardless of condition. When a rule does mention the condition of a fortress, it applies only to those fortresses at that condition. *For example, a rule on "fortresses" applies to all fortresses: new, old, and great, whether improved or unimproved; while a rule on "improved fortresses" excludes all unimproved fortresses; and a rule on "improved old fortresses" applies only to improved old fortresses.*

A fortress has differing combat effects based on its condition, as specified on the Fortifications Effects Chart.

When enemy units capture a hex containing an improved fortress, or bombardment reduces the fortress (Rule 12C2), the fortress in the hex immediately becomes unimproved. (Place a fort in a hex containing an unimproved fortress to distinguish it from an improved fortress.) An unimproved fortress is not further reduced, no matter how many times it changes hands, or is bombarded.

C. Adverse Terrain Expertise.

Various units may use their expertise in adverse terrain to affect the outcome of mobile combat during clear, frost, winter, and snow weather. Note that this ability can not be used during positional combat or during mud weather. (Weather is covered in Rule 36.) When at least half of the REs attacking into a hex would be eligible to use the "exceptions" movement effects column on the Terrain Effects Chart (TEC) were they to enter the attacked hex, the attacker is adverse terrain-capable during that combat. The REs of attacking artillery units are not counted for this calculation. When a combat is resolved using the Mobile Ground CRT during clear, frost, winter, or snow weather and the attacker is adverse terrain-capable:

- The combat resolution die roll for that combat is modified by +1.
- At least half of all attacker losses must be taken from adverse terrain-capable units, if possible.

Example: Two mountain rifle brigades (2 REs each), one light rifle brigade (2 REs), two rifle regiments (1 RE each), and three artillery regiments (1 RE each) attack into a wooded rough hex during winter weather. As the mountain brigades would be eligible to use the "exceptions" movement effects column on the TEC were they to enter the attacked hex, exactly half of the attacking REs (4 of 8, ignoring the artillery units) qualify, and the combat resolution die roll for the combat is modified by +1. If the combat results in an attacker loss, at least half of the losses (if possible) must be taken from the mountain rifle units.

D. Morale.

Note: This rule uses the concept of National Will (NW). NW is described in detail in Rule 40; only its effect on combat are described below.

1. Morale Advantage. For a particular combat, each side has a NW equal to the lowest NW of any units it has participating in the combat. *For example, if the Entente side has French units with a NW of 3 and Belgian units with a NW of 1 in a combat, then the Entente NW for that combat is 1.* The side with the higher NW in a combat has the morale advantage in that combat. Morale may affect combat as follows:

- When the attacker has the morale advantage in a combat, the combat resolution die roll for that combat is modified by +1.
- When the defender has the morale advantage in a combat, the combat resolution die roll for that combat is modified by -1.

2. Home Advantage. When units of a nation participate in combat in the vicinity of their nation's natural capital (see below) their NW is affected as follows:

- When units of a great/major power (Rule 3B4), participate in a combat anywhere within 3 hexes of their nation's natural capital, their NW for that combat is increased by 2.
- When units of a minor power (Rule 3B4), participate in a combat anywhere within 1 hex of their nation's natural capital, their NW for that combat is increased by 1.

A nation's natural capital is the city where the nation's government (Rule 37G) would normally reside; this is specified for each nation under the appropriate section of Rule 41 (Nations). *For example, per Rule 41S, the natural capital of France is Paris (any of hexes GW2:1229, 1230, 1329, or 1330).* Note that the listed NW effects apply even if the nation's government is not present at the natural capital, and even if the nation's natural capital is enemy-owned.

3. Instability/Collapse. When a nation's NW is driven low enough, that nation may become shaken or collapse (this is described in detail in Rules 40B and 40C).

- While a nation is shaken, all of its units are unreliable on the attack. Note that their ability to defend is not affected.
- While a nation is in collapse, all of its units are unreliable on both the attack and the defense.

When an unreliable unit participates in combat, it must be checked for possible disruption when the combat is declared. For each such unit, roll a die and consult the Ground Success Table (note that there are no modifiers to this roll); results are: *success*, the unit participates in the combat as normal; or *failure*,

the unit is disrupted (or badly disrupted if it is already disrupted) per Rule 3A5.

E. Cooperation.

Due to a variety of technical, organizational, and political factors, some nations had difficulty cooperating with other nations.

1. Cooperating Nations.

- All Entente minor power nations cooperate with France. Note that Entente minor powers do not cooperate with each other.
- All non-German Central Powers nations cooperate with Germany. Note that non-German Central Powers nations do not cooperate with each other.

2. Supply Effects.

- Cooperation affects supply as de-scribed in Rule 11E. *Special:* For supply purposes (only):
- The USA cooperates with France.
 - Up to 15 REs of units from each great/major power (Rule 3B4) may cooperate with each other great/ major power on its side. *For example, the Entente player could have up to 15 REs each of British, Italian, and Russian units trace supply lines to French regular general supply sources.*

Designers' Note: American forces were equipped mostly with French equipment and supplied via the French depot system until late in 1918. Note that until the first American Army HQs shows up in Aug 18, US units will only be able to be put in combat supply using the inefficient 30 REs per Res Pt method (as even cooperating units can not trace supply lines to Res Pts stacked with Army HQs of a different nationality).

3. Other Effects.

- Cooperation also affects the following:
- Units which do not cooperate can not provide support (Rule 12A) to each other.
 - Units which do not cooperate may not combine in an attempt to use a special combat effects capability (Rule 10), may not combine their strengths when bombarding (Rule 12C), may not use quick engineering together (Rule 13A5), and may not combine their REs for purposes of calculating if a side is infantry-capable, mountain/infantry-capable, rifle assault-capable, or adverse terrain-capable (Rules 14H, 14R, and 15C).
 - When units which do not cooperate participate in the same attack, the combat resolution die roll is modified by -1.
 - When units which do not cooperate defend together in an attacked hex, the combat resolution die roll is modified by +1.
 - Air units may not fly tactical reconnaissance, ground support, or defensive air support (Basic Rules B17B2, B17B4, and B17B5, or Advanced Rules 20F2, 20G2b, and 20G2c) for units they do not cooperate with.
 - Naval units may not provide naval gunfire support (Basic Rule 26C or Advanced Rule 33A) for units they do not cooperate with.

4. Entente Unified Command. Each initial phase beginning with the first initial phase in which conditional reinforcements 11 and 25 (The French Mutiny and British National Emergency) have been triggered (historically this occurred Apr I 18), the Entente player checks to see if the Entente Unified Command

has become a reality. To check for this, he rolls a die: If the result is a 6, the Entente Unified Command has become a reality and the penalties for non-cooperation listed under Rule 15E3 do not apply to the Entente for the remainder of the game. Note that the existence of the Entente Unified Command has no affect on the cooperation (or non-cooperation) of Entente nations for supply purposes (Rule 15E2).

F. Breakdowns.

Various units may break down into component units. These component units may subsequently assemble to reform the parent (original) unit.

1. Procedure. A phasing unit may break down into its component units at the start of any movement, reaction movement, or exploitation phase. There is no MP cost to break down. Remove the unit from the map or replacement pool, place it in the correct box on the appropriate Game Chart, and place its breakdown units in its hex or replacement pool. The stacking limit (Rule 8A) may be violated when a unit breaks down, as long as the limit will not be violated at the end of the phase.

Phasing units may assemble to reform their parent unit at the end of any movement, reaction movement, or exploitation phase, if the correct units are stacked in the same hex at that time. Remove the assembling units from the map and place the parent unit in the hex. If units at different states (such as different disruption states per Rule 3A5, different fatigue states per Rule 6B4, or different general supply states per Rule 11F) are assembled to reform a parent unit, the assembled unit assumes the worst state of its component units. *For example, if a badly disrupted brigade and an undisrupted brigade assemble into a division, then the division is badly disrupted.*

2. Game Charts. Each player's game charts show which units may break down and lists their component units. The charts detail, by nationality, unit type, and unit ratings, all allowed breakdowns. Units not listed on these chart may not break down. A player may not break down more units than there are breakdown counters provided in the game.

Each game chart has a number of labeled boxes. When a unit is broken down, place its counter in the appropriate box on the applicable game chart.

3. Breakdown Combinations.

a. General. Some units do not have specific break-down counters. Instead, the lettered breakdown counters of the appropriate nationality/unit type are used. Each specifically lettered set of breakdown counters may be used to break down one unit at a time, and the unit broken down is placed in the corresponding lettered box on the chart.

b. Specific. Most units have specific breakdown counters; these units are identified on the unit breakdown charts. Such a unit may break down using only its specific breakdown counters, and these breakdown counters may not be used to break down any other unit.

Designers' Note: With the exception of specialized units like the British naval division, Austro-Hungarian mountain divisions (where the brigade was the operational unit), and German cavalry divisions on the east front, it was rare for units to operate broken down in WW I. (The African theater was an exception to this normal rule, as the low unit density there mandated that units often operated broken down spread out over

long distances.) The OBs and game charts reflect this, as breakdown components are only given for these types of units. (Although it is our intent to give each major power a limited number of generic rifle division breakdown counters as space in the counter mix of the various games in *The Great War* series permits.)

Players will also note that the breakdown rules are used to show how countries like Britain took exceedingly long periods of time to complete formation of certain units. In Britain's case the infantry components of rifle divisions often completed formation 6 months to a year before the artillery did. We have shown this by splitting such divisions into a rifle component and an artillery component; and leaving it up to the player to assemble them into a division. Note, however, that it is intentional that such units, once assembled, cannot be broken down again (as the game charts do not list their breakdown (only assembly) components and do not contain breakdown boxes for them.)

G. Siege (Advanced Rule).

If, at the start of a player's movement phase, a hex containing enemy units is surrounded by friendly units (that is, friendly units occupy every adjacent (per Rule 3E5) hex, then the phasing player may place the enemy units in the surrounded hex under siege. The sieging player (the surrounding player) establishes the siege by moving one or more units from his surrounding force into the besieged hex (the hex containing the enemy units under siege). While a siege is in effect, the following special rules apply:

- Besieged units have a ZOC in the hex they occupy only; their ZOCs do not extend into adjacent hexes while they are besieged. Note that ZOCs of sieging units are not affected.
- Units of the besieged player, may only enter a hex under siege by means of air or naval transport. Note that units of the sieging player may freely enter or leave the besieged hex by a form of movement allowed by the normal rules.
- Both sides may stack units in a hex under siege up to the maximum stacking limit for the hex.
- Besieged units may attack sieging enemy units in their hex (only); they may not attack enemy units in adjacent hexes. Note that sieging units are under no such restriction; they may attack enemy units in both the sieged hex and adjacent hexes. The sieging player may attack besieged units with his units in the besieged hex and in adjacent hexes.

Note that siege has no effect on ownership of the hex.

A siege is immediately lifted when:

- All sieging units leave the besieged hex.
- A unit of the same side as the units under siege occupies any hex adjacent (per Rule 3E5) to the besieged hex. If a siege is lifted in this manner, the sieging player must immediately retreat all sieging units (per Rule 9F2). *Special:* Previously besieged units do not regain the ability to extend ZOCs into adjacent hexes until all retreat mandated by this rule is completed.

Rule 16—Ground Replacement System

During the course of the game, each player receives reinforcements and replacements and performs various reinforcement activities such as converting, reorganizing, disbanding, transferring, and withdrawing units. Players receive reinforcements and replacements during their initial phases.

If a unit enters play (as a reinforcement or replacement) at a map location (or holding box) that is out of general supply, the unit's general supply status is the same as that of the map location (or holding box). *For example, if the city of Aachen has been out of general supply for two turns and a replacement unit appears there, the unit is in its second turn out of general supply.* Units appearing at a map location (or holding box) that is isolated and has been out of general supply for at least two turns are not checked for elimination (per Rule 11F3) on the player turn they are received (or arrive).

The orders of battle (OBs) specify all reinforcements and replacements in the game. The OBs are organized by nation, and, unless specified otherwise, reinforcement and replacement items for one nation cannot be taken by another nation. *Note:* Air and naval reinforcement, replacement, and repair activities are covered in Rules 25 and 35.

A. Reinforcements.

Players receive reinforcements during the course of the game, as given on their OBs. A player's reinforcements are placed on the map during his initial phase. Reinforcements may be placed only in friendly-owned hexes; these hexes may be in enemy ZOCs.

Reinforcements are specified by theater/command, nationality/contingent, and district, specific map location, holding box, or garrison. (*Note:* Each nation is divided into one or more districts as listed in the appropriate section of Rule 41. Holding boxes and garrisons are covered in Rules 37E/37F.) A reinforcement specified for a district appears in any friendly-owned city (Rule 3E2) in the district. A command-wide reinforcement appears in any friendly-owned city in the command. If a reinforcement has specific entry conditions listed on the OB, follow those instructions.

Unless otherwise specified, reinforcement activities that are unable to occur for some reason are delayed until they are able to occur. *Example: A reinforcement unable to enter play as specified in the OB is delayed until it can enter play.*

Note: Various reinforcement rules refer to Man/Equ Pts or other replacement concepts. These are covered in detail in Rule 16B.

1. Concepts. The OBs use the following terms and general definitions:

a. Add. Add the indicated new unit to the specified available leader pool, breakdown box, or replacement pool on the appropriate game chart; or add the indicated Man/Equ Pts to the general pool of accumulated replacements for the specified command.

b. Assemble. Assemble the indicated units (per Rule 15F) to form the larger single unit listed.

c. Assign. The OBs require certain units be assigned to garrisons at various times. To do this, first withdraw the indicated unit from play (per Rule 16A1cc), and then assign

(add) it to the specified garrison. (Garrisons are covered in detail in Rule 37F.)

d. Available. The indicated unit is now available for the specified purpose (i.e. assembly/breakdown (Rule 15F), reorganization (Rule 16A1t), or call up/substitution (per various conditional reinforcements)).

e. Breakdown. Breakdown the indicated unit to its component units (per Rule 15F).

f. Convert. This specifies when a unit (or units) converts into another unit (or units). The player may convert a unit in any of his initial phases on or after the turn the conversion is specified. To be converted, the unit must be in regular general supply (Rule 11C2), and may not be in an enemy ZOC. When two or more units are involved in a conversion, the converting units must be stacked together or in the same garrison box. Remove the original unit(s) from play and put the new unit(s) in its place. Units removed from play through conversion are out of play; they are not eliminated and may not be replaced.

When a unit with a flip side strength is specified as being converted from its weaker strength to its full strength, but the unit is already at full strength, the player first reduces the unit to its weaker strength and then receives Man/Equ Pts equal to the replacement cost of rebuilding/ augmenting the unit to its full strength (see Rule 16B3). The player may either add these points to his general pool of accumulated replacements for the command or place them in the unit's hex (using Man/Equ Pt markers as described in Rule 16B3). The player then performs the conversion using the reduced strength unit.

g. Demobilize. This specifies when a unit is temporarily removed from play. To do this, first withdraw the indicated unit from play (per Rule 16A1cc), and then add the unit to the demobilized units box for the specified district. *Note:* Demobilized units may remobilize (per Rule 16A1n or 37F8) at a later date.

h. Disarm. This specifies when certain units must be disarmed. Remove the unit from wherever it is on the map or in a replacement pool. Calculate special Man/Equ Pts (per Rule 16B4) for units that are removed from the map (but not from a replacement pool) and divide this number by 2 (rounding down to the nearest 1/2). The result is the number of Man/Equ Pts points the player receives. If the unit was not isolated when disarmed, the player may either add these points to his general pool of accumulated replacements for the command or place them in the hex where the unit was disbanded (using Man/Equ Pt markers as described in Rule 16B3). If the unit was isolated when disarmed, any Man/Equ Pts generated must be placed in the hex where the unit was disarmed. Units removed from play through disarming are out of play; they are not eliminated and may not be replaced.

i. Disband. This specifies when certain units must be disbanded. Remove the unit from wherever it is on the map or in a replacement pool. If the unit was removed from the map, the player receives Man/Equ Pts equal to the unit's replacement cost (Rule 16B3) plus its scrapping value (per the Scrapping Value Table on the Replacement Costs Chart.) If the unit was removed from a replacement pool, the player receives Man Pts equal to its scrapping value (only). If the unit was isolated when disbanded, place these Man/Equ Pts in the hex where the unit was

disbanded (using Man/Equ Pt markers as described in Rule 16B3); in all other cases, the player may either place the Man/Pts in the hex or add them to his general pool of accumulated replacements for the command where the unit was disbanded. Units removed from play through disbanding are out of play; they are not eliminated and may not be replaced.

j. Flip. This indicates that at least one of the units that will result when the listed conversion, reorganization, or upgrade is completed is on the reverse of one of the original units; merely flip the original unit over to its converted, reorganized, or upgraded side when the specified reinforcement activity is completed.

k. Foreign Aid. A player may give Equ Pts and Res Pts to neutral countries as described in Rule 16C3. Foreign aid is normally at the discretion of the player, but when the OB lists foreign aid transfers to a command not under the player's control, that foreign aid is mandatory and must be transferred (per Rule 16A1aa below).

l. Forming/Full. Certain units which require a considerable amount of time to form, equip, and train go through a two-step process when appearing as reinforcements. Initially, the unit is listed as "forming" in a district or garrison. At this time, place it in the "forming" box for that district or garrison. When the OB then lists the unit as "full," remove it from the forming box and receive it as a reinforcement in that district or garrison.

m. Historical. This usually indicates historically significant reinforcement actions that the specified player may follow (at his option) for greater historicity. (These typically cover events which are stupid in game terms (they generally were stupid in real life as well, but were not always obviously so until after the fact); or they cover events in the non-European commands which cannot be duplicated without use of the grand campaign rules.) *Note:* This term is also used to denote historical losses to naval units that are provided in the OB merely for information.

n. Mobilize/Remobilize. This indicates: 1) When certain full-strength units mobilize (form up and enter play) in the countryside rather than at cities, or 2) When certain cadres and remnants mobilize to full-strength units while in the field. When a full-strength unit mobilizes, the player places the mobilized unit in any friendly-owned hex in the specified district. When a cadre/remnant unit mobilizes to a full-strength unit, the player either: a) Flips the mobilizing cadre/remnant over to its full-strength side if the cadre/ remnant is in regular general supply (Rule 11C2), or b) Adds Man/Equ Pts equal to the replacement cost of re-building the unit to full strength (see Rule 16B3) to his general pool of accumulated replacements for the command.

Remobilize is the same as mobilize except that a unit previously demobilized (Rule 16A1g) returns to play.

Designers' Note: Mobilization covers situations like the South African home defense forces and British African Colonial units which would probably form up in the country-side no matter how successful an initial enemy invasion of their mobilization district might be. Mobilization also covers situations such as the British first-line territorial divisions (which begin the war cadred and on coast defense duty) having their remaining manpower and equipment dispatched to the division's location as it is mobilized.

o. Move. This indicates that the listed unit must be moved

from one garrison to another garrison. Release (Rule 16A1q) the indicated unit from the first garrison listed, move it by the most expeditious means possible to any hex in the second garrison's area, and then assign (Rule 16A1c) it to the second garrison.

p. Receive. This indicates that the listed unit is received as a reinforcement in the specified command, district, holding or garrison box, or specific on-map location.

q. Release. Release the indicated unit from the specified garrison or African Winter Quarters box and receive it as a reinforcement (Rule 16A1p) at any city (Rule 3E2) in the garrison's area or at any city in the African Winter Quarters Box's command.

r. Remove from. Remove the indicated unit from the specified available leader pool, breakdown box, or replacement pool.

s. Remove to African Winter Quarters Box. Remove the indicated unit from wherever it is on-map and assign it to the African Winter Quarters Box for the command. *Special:* If the indicated unit is in a replacement pool, it remains there until it is replaced, at which time it must be assigned to the African Winter Quarters Box if the African Winter Quarters conditional reinforcement is in effect.

t. Reorganize. A reorganization works similar to a conversion (16A1f), except that there may be a Man/Equ Pt point cost or gain, depending upon the unit (or units) involved. The Man/Equ Pt costs or gains for each specific reorganization are shown in the OBs. If Man/Equ Pts must be spent, they may be spent from the player's general pool of accumulated replacements for the command or from on-map Man/Equ Pts in the same hex as the reorganizing units. If Man/Equ Pts are generated by the reorganization, the player may either add these points to his general pool of accumulated replacements for the command or place them in the hex where the unit was disbanded (using Man/Equ Pt markers as described in Rule 16B3).

u. Replace. This lists forces that are specially replaced, at no cost to the player. Take the indicated unit from the replacement pool of the specified command and receive it as a reinforcement. This unit is replaced for free, costing no Man/Equ Pts. If there is no appropriate unit in the replacement pool to be replaced, receive Man/Equ Pts equal to its replacement cost instead.

v. Scrap. Scrapping works similar to disbanding (Rule 16A1i), except: 1) No action is taken unless the indicated unit is in the replacement pool, and 2) Man/Equ Pts are received equal to the unit's scrapping value (only). *Note:* If the indicated unit is not in the replacement pool, it is not scrapped until such time as it enters the replacement pool.

w. Sequester. This indicates when certain units in a garrison must be sequestered (held apart) from the other units in the garrison. Simply move the listed units to the sequestered units section of the garrison's box. *Note:* Sequestered units are under special restrictions regarding their release from garrison (as described in Rule 37F (Garrisons) and the conditional reinforcement event which required their sequestration).

x. Stand Down. This specifies when various units called up under various conditional reinforcement events must be stood down. Remove the listed unit from wherever it is (on the map, in a holding or garrison box, or in a replacement pool) and place it

in the appropriate "available for call up" box. Note that a unit may be stood down when isolated, and that there is no forfeiture of Man/Equ Pts for standing down a unit in the replacement pool.

Designers' Note: No Man/Equ Pts are forfeited for standing down units in the replacement pool because all units stood down in the OBs are African Native Levies or Native Laborers; unit types recruited using such ruthless methods that casualties had little or no effect on the ability to raise such units anew.

y. Substitute for... the following. This indicates that the specified unit is exchanged for another unit. To substitute one unit for another, simply remove the first unit from wherever it is (on the map, in a holding or garrison box, in a replacement pool, etc.) and put the new unit in its place. Units removed through substitution are out of play; they are not eliminated and may not be replaced.

z. Switch. Remove the specified unit from the first garrison listed and add it to the second garrison listed.

aa. Transfer/Arrive. This lists forces that transfer from one command and arrive in another command. Note that the method of transfer from one command to another (by rail, sea, overland, etc.) is listed; and that if the transfer will take multiple turns to complete, the game turn the unit will arrive at the receiving command is also listed. When the OBs denote that forces transfer between commands under the player's control, the player simply ignores these transfers. A player must, however, transfer forces to or from commands he does not control, as specified by the OBs.

When a transfer is mandatory, treat it the same as a withdrawal (16A1cc). When a mandatory transfer takes place by rail or sea, the player must allocate rail capacity or naval transport capacity, as appropriate, in the transfer-ring command sufficient to transport the units on the turn they transfer out of the command if he has any ability to do so. **Example 1:** *The Sep I 14 regular reinforcements entry in the German OB requires the Central Powers player to transfer 34 REs of units by rail from the West (France/ West Germany) command (which he controls) to the East (East Germany/West Russia) command (which he does not control). Unfortunately, he only has 26 REs of rail capacity available on his NW Europe Standard Gauge Rail Net during this turn. He spends 1 Res Pt to temporarily increase the capacity of this net by 10 REs (which he must do), and then uses 34 REs of his augmented net's capacity of 36 REs to transfer the listed units.* **Example 2:** *The Mar II 15 regular reinforcements entry in the French OB re-quires the Entente player to transfer 9 REs of units by sea from the West (France/West Germany) command (which he controls) to the South (West Turkey/Aegean) command (which he does not control). As naval transports with a total capacity of 12 REs are also listed as transferring between these commands at this time, none of the Entente naval transports remaining in the West (France/West Germany) command need to be allocated to the transfer.* **Example 3:** *A player is required to transfer 5 REs of units by sea to a command he does not control. He has a single naval transport (with 3 REs of capacity) in the command and must allocate this transport to the transfer. The remaining 2 REs of naval transport capacity are assumed to be supplied by a command he does not control.*

When a unit arrives in a command by rail, place it in any friendly-owned rail hex in the command adjacent to the command it transferred from. *For example, a unit arriving by rail in the West (France/West Germany) command from the East (East Germany/West Russia) command would be placed in any friendly-owned rail hex in Germany along the eastern edge of The Great War map #2.* If the unit arrived by rail from another command in the same theater, the owning player may declare the unit to have arrived either by operational rail movement or by strategic rail movement. If the unit arrived by rail from a different theater, the unit arrives by strategic rail movement. Mark arriving units so that their manner of arrival is apparent. During the immediately following friendly movement phase, units that arrived by rail may continue moving as normal, except that units that arrived by operational rail movement are considered to have already spent half of their MPs, and units arriving by strategic rail movement are considered to have already used 100 hexes of their 200 hex allotment.

When a unit arrives in a command by sea, place it in any friendly-owned port in the command. Mark arriving units in some manner so it is apparent which units arrived by sea from commands in the same theater and which arrived by sea from a different theater. During the immediately following friendly movement phase, units that arrived by sea from commands in another theater may not spend MPs for any purpose, while units that arrived by sea from commands in the same theater are considered to have already spent half of their MPs.

When a unit arrives in a command overland, place it in any friendly-owned hex in the command adjacent to the command it transferred from. Such a unit may not spend MPs for any purpose in the immediately following friendly movement phase.

bb. Upgrade. This is the same as a conversion except that the units to be upgraded must also trace a supply line to an operational friendly-owned factory in their nation's home district. If the unit cannot trace a supply line to an eligible factory, the player receives Man/Equ Pts equal to the replacement cost of augmenting the unit to full strength (see Rule 16B3) at any eligible factory. If no factory is eligible to receive these Man/Equ Pts, the points are forfeited instead. (Factories are covered in Rule 37B.)

cc. Withdraw. The OBs require certain units be withdrawn from play at various times. Any unit of the indicated nationality, contingent, size, type, and strength may be withdrawn. An isolated unit may not be withdrawn. A withdrawn unit is out of play (simply remove it from the map, holding box, garrison box, or replacement pool it occupies) and may not return to play unless called for in the OBs.

If the unit to be withdrawn is in a replacement pool, then the player forfeits Man/Equ Pts equal to the unit's replacement cost. If the player does not have sufficient Man/Equ Pts to meet this cost, then the player maintains a deficit (per Rule 16B1b) until he has the points available. The player must also remove from the replacement pool (per Rule 16A1n) an eliminated unit, as soon as an appropriate unit is in the pool.

When the OB requires a cadre or remnant to withdraw, the owning player may instead withdraw a full strength unit that has the indicated cadre/remnant. If he does this, he receives Man/Equ Pts equal to the cost of rebuilding the cadre/remnant to

its full strength. These Man/Equ Pts may not be used during the initial phase they are generated but may be used thereafter.

dd. Either A or B. This indicates the player may choose which of the two listed activities he will perform.

ee. Combinations. The OBs often combine two or more reinforcement activities into a single entry. In such cases, carry out the reinforcement activities in the order listed. *For example, if the OB entry for a unit specified: "Release from Garrison of Great Britain—Transfer (Sea) to West (France/West Germany)", then the specified unit would first be released from the Garrison of Great Britain (per Rule 16A1q) and then transferred by sea to the West (France/West Germany) command (per 16A1aa).*

ff. Linked. This indicates that a linked series of reinforcement activities follows. These activities are numbered (1, 2, 3, etc.), and must be carried out in numerical order. Some numbered activities are further broken down by letter (1A, 1B, 1C, etc.). Within a specific numbered activity, the lettered actions may be carried out in any order, but all of these lettered actions must be completed before the next higher numbered activity may be started. For example, if a linked series of reinforcement activities included steps #1A, 1B, 1C, and 2 then the player may carry out the activities under steps 1A, 1B, and 1C in any order he desires, but steps 1A, 1B, and 1C must all be completed before step 2 can be begun.

Designers' Note: The "linked" OB listings usually break down reorganizations or conversions that involve multiple units into discrete steps so that players do not have to pull too many units out of the line at any one time. (However, there is nothing stopping a player from doing everything at one gulp in a single initial phase if he wants to and arranges for all the normal requirements for each action to be met.) This procedure also allows players to easily follow the major organizational changes no matter how convoluted the reorganization process historically was.

gg. Special/Other. Follow whatever OB instructions appear for special reinforcement events.

2. Conditional Reinforcements. Each player may receive conditional reinforcements. A player receives a conditional reinforcement in his initial phase in which he meets the conditions for its appearance for the first time. These reinforcements and their conditions for arrival are listed on the players' OBs.

B. Replacements.

1. Production. Manpower points (Man Pts), equipment points (Equ Pts), and resource points (Res Pts) are collectively called production. Players receive and use production during their initial phases. Unused production may be accumulated for use in later turns. (*Note:* It is fundamental to the play of *The Great War* that Man Pts and Equ Pts (but not Res Pts) be received, accumulated, and used in increments of 1/2 point.)

Designers' Note: Each Res Pt represents 100,000 to 1,000,000 field artillery shells (or a proportionally smaller number of heavier shells), using a graduated scale ranging from 100,000 shells in 1914 to 1,000,000 shells in 1918. Each Equ Pt represents 24x 3" guns (or a proportionally smaller number of larger guns) or 100 heavy MGs. (Guns/MGs of obsolescent or obsolete design they are further discounted.) Each Man Pt

represents 5,000 men. This accounts for both the actual material going into a unit plus about a 50% margin for inefficiency and small-scale losses below the scale reflected in actual unit elimination.

a. Receipt/Placement. Players receive production on the I turn of each production cycle: i.e. the Jan I, Mar I, May I, Jul I, Sep I, and Nov I turns of each year. The Production Charts list each nation's production. A player receives his production in his initial phase as follows:

- **Man Pts.** These are received as specified on the various Manpower Production Charts in the OBs. Note that certain conditional reinforcement actions may increase or decrease the number of Man Pts received; while enemy ownership of certain cities may also decrease the number of Man Pts received. (Items affecting Man Pt production are summarized at the bottom of each Manpower Production Chart.) *Example: The Entente player controls the West (France/West Germany) command during his Jan I 18 initial phase and receives Belgian/ Portuguese, British, French, and American Man Pts as listed on the Manpower Production Charts in the Minor Forces OB-West, Entente OB-British Forces (I), Entente OB-French Forces (I), and Entente OB-American Forces booklets, respectively. He, therefore, receives the following :*

0.5 Belgian Regulars Man Pts

1 Portuguese Regulars Man Pt

12.5 British Imperial Army Man Pts

8 Anzac Man Pts

10 Canadian Man Pts

0.5 South African Man Pts

11 French Metropolitan Army Man Pts

3 French Army of Africa Man Pts

4 French Colonial Man Pts

0.5 French Foreign Contingent Man Pts

4 American Man Pts

Note that production of Belgian Regular Man Pts was reduced from 3.5 due to Central Powers ownership of the cities of Liege, Bruxelles, Antwerpen, and Gent); that production of Imperial Army Man Pts was reduced from 13.5 as the Irish Rebellion has occurred.; and that no American Man Pts are being diverted to North Russia or Siberia. Newly produced Man Pts may be added to the player's general pool of accumulated replacements for the specified command, or placed on-map in any friendly owned cities (Rule 3E2) in regular general supply (Rule 11C2) in the specified command (using Man Pt markers as described in Rule 16B3).

- **Equ Pts/Res Pts (Basic Rule).** When using this basic rule, Equ Pts and Res Pts are received as indicated on the Historical Production Table on the player's Production Charts. *Example: The Central Powers player controls the West (France/West Germany) command during his Jan I 18 initial phase. He consults the Historical Production Table on the Central Powers Production Chart (West) and finds that he receives 42 Equ Pts and 21 Res Pts. Newly produced Equ Pts may be added to the player's general pool of accumulated replacements*

for the specified command, or placed on-map in the same manner as Man Pts (but using Equ Pt markers). Newly produced Res Pts are placed at any friendly-owned cities in regular general supply in the specified command (using Res Pt markers as described in Rule 11G).

- **Equ Pts/Res Pts (Advanced Rule).** When using this advanced rule, Equ Pts and Res Pts are produced at friendly-owned factories in production. This rule makes use of several concepts relating to resource centers (Rule 37A) and factories (Rule 37B) and is fully explained in Rule 38 (Advanced Production System).

b. Deficit. Occasionally, a rule will require a player to spend an amount of production. For example, a player may have to pay a Man Pt penalty if a garrison is below its required size. If the player does not have sufficient production to pay the penalty, he incurs a deficit in that type of production. Each time he receives that type of production, he must spend it to pay off his deficit. He cannot spend that type of production for other game purposes until the deficit is paid off.

2. Replacement Pools. Both players have replacement pools. Each player has a separate replacement pool for each command he controls. (A player's replacement pools are located on his various game charts.) Note that a player's replacement pools never combine, not even when the player controls two or more commands.

When a unit is eliminated, place it in the appropriate replacement pool. *For example, if a unit is eliminated in the West (France/West Germany) command, place it in the replacement pool box on the France Game Chart if it is an Entente unit, or in the replacement pool box on the West Germany Game Chart if it is a Central Powers unit.* Note that each replacement pool has a separate section for units eliminated while isolated (these units are more expensive to replace). The OBs may also specify that certain reinforcement units be added to, or removed from, the players' replacement pools.

The phasing player may switch units between the replacement pools of commands he controls, so long as an overland supply line (Rule 11B1) of any length can be traced from a friendly-owned city (Rule 3E2) in regular general supply (Rule 11C2) in the originating command to a friendly-owned city in regular general supply in the destination command. Such transfers occur in the initial phase, after all other reinforcement/replacement activities have been performed.

3. Replacements. Players receive Man Pts and Equ Pts, which are used to replace eliminated units, to rebuild cadres and remnants to full strength, and to augment units at reduced strength to full strength. Man Pts and Equ Pts are collectively called replacements.

Replacements may be on-map or in a general pool. Each player has a separate general pool of accumulated replacements for each command he controls. Note that these general pools never combine. When a Man Pt or Equ Pt is received, place it on-map or add it to the accumulated replacements in the specified general pool as appropriate. (Use Man Pt/Equ Pt markers to denote the presence of replacements on-map. Use any convenient method to distinguish between Man Pts of different contingents. Place status markers under the Man Pt/Equ

Pt marker to note the specific number of points present.)

The phasing player may switch his replacements between his general pools and the map during his initial phases (after all other reinforcement/replacement activities have been performed) as follows:

- *From one General Pool to another General Pool:* The player must be able to trace an overland supply line (Rule 11B1) of any length from any friendly-owned city (Rule 3E2) in regular general supply (Rule 11C2) in the originating pool's command to any friendly-owned city in regular general supply in the destination pool's command. Simply deduct the transferred points from the one pool and add them to the other pool.
- *From On-Map to a General Pool:* The hex containing the Man Pt or Equ Pt must be in regular general supply. Simply remove the point from the map and add it to the player's general pool of accumulated replacements for the command in which the hex is located.
- *From a General Pool to On-Map:* Simply deduct the Man Pt or Equ Pt from the total accumulated replacements in the general pool and place it in any friendly-owned hex in regular general supply in the general pool's command.

Treat an on-map Man Pt as if it were an unsupported 1/2 RE static unit with an attack strength of 0, a defense strength of 1/2, and a movement rating of 4. Note that this means that on-map Man Pts may move using all forms of ground movement, may move by air and naval transport, count against stacking, may participate in combat, are affected by combat results, may be carried by transport units, and are counted for purposes of special replacements (Rule 16B4 below).

Treat an on-map Equ Pt as if it were a 1/2 RE logistics item. Note that this means that an on-map Equ Pt may move by rail and river transport, be carted by Army HQs and transport units (but not by other ground units), move by air and naval transport, and be captured by the enemy as described in Rule 11H.

Designers' Note: On-map Man Pts were a common feature in the Eastern Theater, with various march (or replacement) battalions (and regiments and brigades) frequently being used in combat roles until their manpower was needed to replace losses in the permanent units.

The largest example of Equ Pt capture during the war, was at Caporetto in 1917 where the Austrians captured 8,000+ Italian artillery pieces. Even counting only those guns the Austrians actually put into service with front-line units, this is a minimum of 28 Equ Pts!

a. Replacement Strengths. The replacement strength of a unit is the number of Man Pts and/or Equ Pts it costs to replace the unit. To determine a unit's replacement strength consult the "replacement strengths" section of the Replacement Costs Chart. *Special:* A unit's replacement strength is doubled while in the eliminated while isolated section of a replacement pool.

b. Replacement Uses. In general, Man Pts are contingent-specific, and these points may not be used for other contingents. *For example, French Colonial Man Pts may be used to replace French Colonial units, but not French Metropolitan Army, Army of Africa, or French Foreign Contingent units.* Exceptions to this general rule are described under the appropriate nation's

section of Rule 41. Equ Pts are generic; and these points may be used for any contingents.

Replacing a unit uses Man Pts only, Equ Pts only, or a combination of the two, depending on the type of unit. To determine the number of each type of replacement point that must be used to replace a unit, consult the "replacement uses" section of the Replacement Costs Chart.

c. Replacing Eliminated Units. Replacements may be used to replace an eliminated unit. *Special #1:* A unit with a cadre or remnant side may only be replaced to its cadre or remnant strength; it may not be replaced to its full strength (although in later turns it may be rebuilt to full strength per 16B3d below). *Special #2:* Some units have differing strengths on their fronts and backs, even though neither side is a cadre or a remnant; such units may be replaced at either strength (regardless of which strength they were at when they entered the replacement pool), if (and only if) both sides of the counter have the same unit type and movement rating. *For example, a 4-3-4/8-6-4 Siege Art [II]/[III] that entered the replacement pool at its 4-3-4 [II] strength could be replaced at that strength or at its 8-6-4 [III] strength; but a 1-2-7/2-8 Mtd Rifle [III] that entered the replacement pool at its 1-2-7 strength cannot be replaced at its 2-8 strength; similarly, a 2-3-6 Lt Rifle/ Amphib Lt Rifle [III] that entered the replacement pool as a Lt Rifle unit cannot be replaced as an Amphib Lt Rifle unit.*

A player may replace eliminated units only during his initial phases.

The player may replace units using replacements in his general pools. Replacements in a command's general pool may be spent to replace units from that command's replacement pool only. *For example, replacements in the South (Balkans) general pool of accumulated replacements may be spent to replace units from the South (Balkans) replacement pool, but may not be spent to replace units from any other command's replacement pool.* He spends the replacements required to replace the unit, removes it from the replacement pool, and places it at any friendly-owned city (Rule 3E2) in regular general supply (Rule 11C2) in the command. *For example, a unit replaced from the South (Balkans) replacement pool would be placed at any friendly-owned city in regular general supply in the South (Balkans) command.*

The player may replace units using his on-map replacements. On-map replacements may be spent to replace units only from the replacement pool of the command the replacements are in, and only if the hex where they are to be spent is in regular general supply (Rule 11C2). Replacements from two or more on-map hexes cannot be combined. Replacements in the command's general pool may be spent in combination with on-map replacements. The owning player spends the replacements required to replace the unit, removes the unit from the replacement pool, and places it at the hex where the on-map replacements were spent.

d. Rebuilding Cadres/Remnants to Full Strength. Replacements may be used to rebuild a unit at cadre or remnant strength to its full strength.

A player may rebuild cadres/remnants to full strength during any initial phases. Note that a player may rebuild units in both friendly and enemy initial phases.

The player may rebuild a cadre/remnant using his replacements in a general pool or on-map. Replacements in a general pool may be used to rebuild cadres/remnants in their command only. If replacements from a general pool are to be used to rebuild a cadre/remnant, the unit to be rebuilt must be in regular general supply (Rule 11C2). On-map replacements may be used to rebuild cadres/remnants only if the unit to be rebuilt, and the replacements to be used, occupy the same hex. Note that on-map replacements and replacements in a general pool may be combined to rebuild a cadre/remnant in a hex in regular general supply. The cadre/remnant to be rebuilt may not be in an enemy ZOC unless its hex contains a fortification (excepting fieldworks). Note that units in hexes containing fortifications (except fieldworks), including contested hexes (Rule 9J) with fortifications, may be rebuilt in enemy ZOCs. The owning player must spend the replacements required to rebuild the cadre or remnant. Then flip the cadre/remnant over to its full strength side.

e. Augmenting Units to Full Strength. Some units have differing strengths on their fronts and backs, even though neither side is a cadre or a remnant. When these units are in play at their weaker strength, a player may spend replacement points to augment them to full strength. *For example, a 9-8-4/10-12-4 Hv Art X in play at its 9-8-4 strength could be augmented to its 10-12-4 strength, and a 4-5-5/9-5 Fld Art [III]/[X] in play at its 4-5-5 [III] strength could be augmented to its 9-5 [X] strength.*

A player may augment units at reduced strength to their full strength only during his initial phases.

The player may augment a unit at reduced strength to its full strength in the same manner as a cadre/remnant is rebuilt. *Special:* A unit at reduced strength whose reduced and full strength sides have differing movement ratings may not be augmented to full strength. (These units change from one side to another only as directed by the OBs.) *For example, a 2-3-7/3-8 Bike [X] at its 2-3-7 reduced strength cannot be augmented to its 3-8 full strength except as directed by the appropriate OB.*

f. Replacement Limits. Each player may replace, rebuild, and/or augment only a limited number of certain unit types, per nation. The limits are:

- *C/M Units (Rule 3A2):* Only 1 c/m RE may be replaced per month. For the Entente only, this increases to 2 REs per month from Feb I 18 and to 4 REs per month from Feb I 19.
- *Artillery Units (Rule 12):* Only 6 artillery REs may be replaced per month. For the Entente only, this decreases to 3 REs per month prior to Feb I 16. *Special:* For the purpose of this rule (only): field artillery units (Rule 12B1) count at half their normal RE size; and siege artillery units (Rule 12B3) and heavy siege artillery units (Rule 12B4) count at double their normal RE size.
- *Engineer Units (Rule 13):* Only 2 engineer REs may be replaced per month. *Special:* For the purpose of this rule (only): construction engineer units count at half their normal RE size; and railroad engineer, port construction engineer, flamethrower, siege engineer, and gas engineer units count at double their normal RE size.
- *Cavalry Units (Rule 14D):* Only 6 cavalry REs may be replaced per month. *Special:* For Russia (only) the limit

is 12 cavalry REs per month.

- *Light/Mountain Units (Rules 14E, 14F):* Only 6 light/mountain REs may be replaced per month.

The above limits are for major and great powers (per Rule 3B4); halve all limits for minor powers; also, the limits for minor powers never increase (they do decrease). *Special:* Units replaced for free per the OBs do not count against these limits.

If a unit subject to the above limits is replaced from the eliminated while isolated section of a replacement pool, it counts at double its RE size.

Units which qualify for more than one category above count against each category. *For example, if the Entente player replaces an engineer tank regiment, this unit counts as 1 RE against both the c/m and engineer categories.*

4. Special Replacements. When units are eliminated due to combat or overrun, the owning player receives special replacements in the form of Man Pts and/or Equ Pts. Special replacements are calculated and received separately for each command a player controls.

a. Special Replacements from Units Eliminated while not Isolated. When a non-isolated unit is eliminated, the owning player places the unit to one side. When a non-isolated unit is reduced to cadre/remnant, the owning player notes the actual replacement strength loss by taking the difference between the cadre/remnant replacement strength and the unit's full strength replacement cost. In the next initial phase (his or the enemy's), the player determines his total losses by calculating the total replacement strength loss of his units eliminated and units reduced to cadre/remnant since the previous initial phase (and he may then place these units in his replacement pool). The losses for each contingent are calculated separately.

The player determines the number of replacements received as special replacements, based on his losses. To calculate these RPs, divide all Equ Pt loss totals by 4; divide French, German, Anzac, and Canadian Man Pt loss totals by 3, divide American and Russian Man Pt loss totals by 5, and divide all other Man Pt loss totals by 4. (Round down to the nearest 1/2 point.) The result is the number of Equ Pts and contingent-specific Man Pts he receives due to special replacements. Add these replacements to the general pool of accumulated replacements for the command in which the losses occurred.

Example: In the Entente initial phase, the Entente player finds that he has lost unisolated units with a total replacement cost of 8 Equ Pts, 14 French Metropolitan Army Man Pts, and 5 British Imperial Army Man Pts in his West (France/West Germany) command. Thus, he receives as special replacements, and adds to his general pool of accumulated replacements for his West (France/ West Germany) command 2 Equ Pts, 4.5 French Metropolitan Army Man Pts, and 1 British Imperial Army Man Pt.

Designers' Note: The differences in divisors used for special replacement Man Pts are due to the following: 1) France allowed the fewest wound exemptions (many more cases can be found of French soldiers being wounded on multiple occasions and still returning to combat than can be found for other countries); 2) Germany probably had the most efficient system for keeping track of and returning the wounded to the front; 3) British Dominion troops were probably the most likely troops overall to

volunteer to return to combat; 4) American adherence to rifle assault doctrine resulted in relatively high casualties even in low-level combat; and 5) Russia suffered from the double burden of poor medical treatment, and probably the worst system of any nation in the war for tracking and returning wounded to the front.

b. Special Replacements from Units Eliminated while Isolated. When a combat results in units being eliminated while isolated, the owning player calculates his total losses for the combat and the resulting special replacements per 16B4a above, except he does this during the combat phase, immediately after implementing the combat result. Players receive special replacements which result from this procedure as follows:

- *If the combat hex is friendly-owned:* The player places his special replacements in the combat hex.
- *If the combat hex is enemy-owned, but at least one adjacent (Rule 3E5) hex is friendly-owned:* The player places his special replacements in any friendly-owned hex adjacent to the combat hex.
- *If both the combat hex and all adjacent hexes are enemy-owned:* The player forfeits his special replacement Man Pts and all of his special replacement Equ Pts are captured by the enemy player and placed in the combat hex.

C. Special Considerations.

1. Voluntary Disbanding. In addition to disbanding units as required by the OBs, players may voluntarily disband certain other of their units. Players may voluntarily disband any of their eligible units in commands they control. A unit is eligible for voluntary disbandment if it is on-map and has a printed movement rating of 5 or more. Note that units in the replacement pool and units with a printed movement rating of 4 or less (including units with a printed movement rating of "W" or "R") cannot voluntarily be disbanded. *Special:* Each player may voluntarily disband only a limited number of units for each nation they control; the limits are: 12 REs of units per month per major or great power (Rule 3B4), and 4 REs of units per month per minor power.

A player may voluntarily disband eligible units in his initial phases, using the procedure in Rule 16A1i (Disband).

2. Voluntary Scrapping. In addition to scrapping units as required by the OBs, players may voluntarily scrap units in replacement pools they control. Note that there are no restrictions on the number or types of units that may be scrapped voluntarily.

A player may voluntarily scrap units in his initial phases, using the procedure in Rule 16A1v (Scrap).

3. Foreign Aid. Players may give Res Pts and Equ Pts to neutral countries as foreign aid. (The game effects of this foreign aid are covered in the appropriate section of Rule 41 - Nations. Typically a player gives such aid in an attempt to influence the neutral country to join its side.)

The player must move the foreign aid item to a city (Rule 3E2) in the neutral country to which the aid is to be given. For the purpose of moving foreign aid to a neutral country (only), the player may use ports in the country and may use the rail capacity of rail nets under the country's control. *For example, the Entente player could deliver Equ Pts to a neutral Portugal*

by moving the Pts by naval transport to the Portuguese port of Lisboa and then disembarking them there. Once a Res Pt or Equ Pt arrives in a neutral country it ceases to be owned by the player, and is thenceforth part of the neutral country's forces.

4. Early Activation of Forming Units. Players may attempt early activation of a forming unit, before the turn a unit becomes full strength. *Exception:* A player may not attempt early activation of forming units in a command in which no enemy units in regular general supply (Rule 11C2) are present. To do so, in any friendly initial phase after the turn a unit is placed in a forming box, the owning player rolls a die and consults the Ground Success Table; results are: *Success*, the unit is received that turn as a reinforcement, at full strength; *Failure*, the unit is received at cadre/remnant strength. If it has no cadre/remnant strength, it is eliminated and placed in the replacement pool; or *Failure**, the unit is eliminated and placed in the replacement pool.

5. Unreliable Units. The OBs indicate that certain units are unreliable when forming. *For example, many units of the Provisional Russian Government successor state to Tsarist Russia are unreliable when forming.* Place an "unreliable" marker on these units when they are in the forming box to remember that they are unreliable. When such a unit goes to full strength (on its scheduled turn), consult the Ground Success Table for its formation, as described for early activation of forming units (Rule 16C4). Note that a player may attempt early activation of forming unreliable units, but with a -1 modifier to the die roll.

6. Fragile Units. Various units are may not be replaced or have their cadres/remnants rebuilt to full strength; these are fragile units. If a nation has fragile units (most do not), they are listed in the appropriate section of Rule 41 (Nations). *For example, rifle divisions of the British Army formed from the pre-war professional army are fragile (as listed in Rule 41K6a).* Instead, when a fragile unit is eliminated, it has another unit substituted for it in the replacement pool. (These substitutions are also listed in Rule 41.) If a fragile unit is at cadre/remnant strength, it may be rebuilt to the strength of its substitute unit; when rebuilt, remove the original unit and put the substitute in its place.

7. Zero-Movement Units. A zero-movement unit is any unit with a printed movement rating of 0. Zero-movement units (excepting zero-movement coast artillery units) may not be replaced (Rule 16B3c). (They may be scrapped.)

Some zero-movement units have a mobile flip side. When such a unit is eliminated, place it in the replacement pool at its mobile side. *For example, when a 1-3-0/5-4-4 Hv Art III in play at its 1-3-0 strength is eliminated, it is placed in the replacement pool at its 5-4-4 strength.*

8. March Brigades. Players may assemble their on-map Man Pts to form March Xs during friendly initial phases. The number of Man Pts required to assemble a March X varies as follows:

- 1-2-4/1-2-5 March/Mtn March X: 4 Man Pts.
- 2-3-4 March X: 6 Man Pts

The Man Pts to be assembled must all be in the same hex. When the assembly occurs, merely substitute a March X of the appropriate strength for the Man Pts.

Players may break down their March Xs into Man Pts in any

friendly initial phase. Merely substitute the listed Man Pts for the March X.

9. Training/Replacement Forces. *Note:* Rule 37F4 (Trng/Repl Forces Garrisons) details how these forces are released from garrison and returned to garrison.

Each training and replacement forces garrison is affiliated with a specific nation and command. A garrison is affiliated with the nation who controls the garrison's district, and with the command in which its district is located. *For example, the Mainland France Training and Replacement Forces Garrison is affiliated with the nation of France and the West (France/West Germany) command.*

Release of training and replacement forces from garrison can affect reinforcement/replacement activities:

a. Reinforcements. If a training and replacement forces garrison is missing, certain reinforcement activities in the garrison's affiliated command involving units from the garrison's affiliated nation may be affected. The reinforcement activities that may be affected are: add, avail-able, convert, forming/full, mobilize/remobilize, receive, reorganize, replace, and upgrade. Each time such a reinforcement event occurs, the player rolls a die and consults the Ground Success Table (note that there are no modifiers to this roll); results are: *Success*, the reinforcement activity occurs as normal; or *Failure*, the reinforcement activity is forfeited.

b. Replacements. If a training and replacement forces garrison is missing, production of Man Pts in the garrison's affiliated command by its affiliated nation is halved.

10. Making Zero-Movement Artillery Mobile. Players may make mobile a limited number of zero-movement field artillery units (Rule 12B1) and heavy artillery units (Rule 12B2) each month beginning with the Oct I 14 turn. (Note that such units may not be made mobile prior to Oct I 14; & that zero-movement coast artillery units may never be made mobile using this procedure.) The limits are:

Nation	Oct14 to Dec14	Jan15 to Mar15	Apr15 to Jun15	Jul15 and on
All Minor Powers, Japan, Ottoman Emp.	1	2	3	4
Britain, France, Italy, Russia, USA	3	6	9	12
Austria-Hungary, Germany	6	12	18	24

Note that these limits apply separately to each nation. *Special:* Halve the limits for Austria and Germany if either the East or West theater is out of play.

A player may make mobile his zero-movement artillery units in his initial phases.

To make non-Russian zero-movement artillery units mobile, the player simply selects an eligible unit and then either: A) Flips the unit over to its mobile side (if it has a mobile side), or B) Withdraws the unit and receives Man/Equ Pts equal to twice its replacement strength (if the unit does not have a mobile side).

To make Russian zero-movement artillery units mobile, the player uses the following procedure: he selects an eligible unit; rolls a die and consults the Ground Success Table (note that

there are no modifiers to this roll); if the attempt succeeds, withdraw the unit and receive Man/Equ Pts equal to twice its replacement strength; any other result and the attempt fails. Note that a failed attempt still counts against the RE limits for that month.

The player may make a unit mobile if it is on map or in an off-map fortress garrison. If the unit is in a fortress garrison, it is released from garrison when made mobile. (Fortress garrisons are listed in the OBs and covered in detail in Rule 37F1.)

When a zero-movement heavy artillery unit or field artillery unit in the hex of an improved fortress is made mobile, the fortress immediately becomes unimproved per Rule 15B4 (Fortresses). (Note that there is no effect to the fortress if it was already unimproved.)

(Designers' Note: The limiting factor in making fortress artillery mobile was usually the supply of gun carriages. The Entente (and most of the minor powers) had an acute shortage of these; while the Central Powers did not (Germany, in particular, had a central stockpile of gun carriages which could be rolled out as needed).

The special procedure for Russian artillery reflects the facts that the Russian fortress artillery was a separate arm of the Tsarist army, (considered the elite branch of that army prior to the war), and time and again its commanders (who were almost always superior in rank to the Russian field commanders) refused to release the fortress guns to operate with the 'inferior' infantry and field artillery units.)

11. Local Drafting. When a player liberates (regains ownership of) enemy-owned major city hexes in a home district of a nation he controls, he may conduct an immediate draft of Man Pts. The liberated major city hex must have been enemy-owned for at least 12 consecutive turns prior to its liberation. When the draft is conducted, the player receives 3 Man Pts per major city hex; the nationality/ contingent of these Man Pts is that of the district containing the hex. *For example, liberated major city hexes in France provide French Metropolitan Army Man Pts, while liberated major city hexes in Bavaria provide Bavarian Man Pts.*

The player conducts the draft upon liberation of the major city hex, and the Man Pts are either added to the general pool of accumulated replacements for the hex's command if the hex is in regular general supply, or placed at the hex if the hex is not in regular general supply.

12. Isolation and Unit Appearances. In any turn in which reinforcement units or units of a garrison are placed in the cities (Rule 3E2) of a district, only one reinforcement or garrison unit may be placed in an isolated friendly-owned city if there are any unisolated friendly-owned cities available in the district.

13. Restrictions on the use of Replacements the turn they are Generated. Man Pts and Equ Pts generated by disarming, disbanding, reorganizing, or scrapping units which are added to a general pool of accumulated replacements may not be used during the initial phase they are generated but may be used in initial phases thereafter. Note that there is no restriction on using Man/Equ Pts generated in a phase which are placed on-map (as on-map replacement points must be used in the hex they occupy).

14. Loss of all Cities. If all cities (Rule 3E2) in a district,

command, or garrison's area are enemy-owned when a reinforcement is to be received there, the reinforcement is forfeited instead. *For example, if a reinforcement is listed as being received in the garrison of Ireland, but all cities in Ireland are enemy-owned, the reinforcement is forfeited.* Note that forfeited units are out of play; they are not eliminated and may not be replaced.

If a player owns no cities in a district during his initial phase, then all his "forming" and "demobilized" units in the district are eliminated. If a player owns no cities in a garrison's area, then all his units in the garrison (including all "forming" units in the garrison) are eliminated.

If a player owns no cities in a command during his initial phase, then all his replacements in the command's general pool (Rule 16B2) are forfeited, and all of his units in the command's replacement pool are removed from play.

15. Other. Occasionally, a reinforcement activity may call for a unit that a player has previously voluntarily disbanded/scrapped. When a reinforcement activity calls for such a unit, the player may substitute replacement points equal to the unit's combined replacement strength and scrapping value instead.

If a garrison is released and a reinforcement event subsequently is listed as occurring in that garrison, the reinforcement event occurs on-map in the garrison's district instead.

Both players have three replacement pools for the West (British Isles/North Sea) command, one each for Great Britain, Ireland, and the North Sea Coast of Mainland Europe. Each of these replacement pools has a separate associated general pool of accumulated replacements.