

7. TRANSPORTATION LINES. (V 12.03.24)

Many types of transportation lines are printed on the map: railroads and roads are the main two but others are shown on the TEC. They usually use bridges to cross rivers. A unit may use the transportation line movement rate only when moving in hexes directly connected to each other by the line.

7.A. RAILROADS.

Railroads consist of high-volume railroads (HVRs) and low-volume railroads (LVRs). When captured, they change status and have restrictions placed on them until they are restored or regauged to the countries normal rail gauge. All rules refer to HVRs unless otherwise specified.

All city hexes of a multi-hex city are connected by HVRs.

7.A.1. RAIL DEFINITIONS AND EFFECTS.

Several terms are used when defining the status and effects of a rail line or rail net.

7.A.1.a. RAIL NETS.

Each country has a rail net showing the number of REs of units (rail capacity) that may be moved on the country's rail lines during a turn (Rule 7.A.5.f). Each country also has a supply net that may be used to move SPs, SRPs, or to supply attacks (Rule 19.A.1).

7.A.1.b. RAIL GAUGES.

Different rail gauges slow the movement of trains from one to another. The maps show five different rail gauges: standard, broad, narrow, Iberian, and metre gauge.

- 1) **Broad-Gauge:** All rail lines in the 1939 Soviet Union and Finland. The HVRs from Kiev to Lvov and from Velikie Luki to Riga are broad-gauge at the start of April 1941. The HVRs in Turkey from Sarikamis (21A:1409) to the Soviet border, and the HVRs in Iran from Tabriz (32:0229) northwards off-map are also broad-gauge.
- 2) **Iberian-Gauge:** All Rail lines in Spain and Portugal are Iberian-gauge.
- 3) **Narrow-Gauge:** All LVRs in Lybia, French North Africa, Palestine, the Levant, and Transjordan. *Note: In French North Africa high-volume rail lines are standard-gauge while low-volume rail lines are narrow-gauge.*
- 4) **Metre-Gauge:** All LVRs in Iraq and the LVR in Turkey between Izmir (20A:1131), Manisa (20A:1029), and Afyonkarahisar (20A:1319).
- e) **Standard-Gauge:** All other rail lines are standard-gauge.

7.A.1.c. MARSHALLING YARDS.

Each standard, major, or great port (regardless of city size) or city is a rail marshalling yard if on a rail line. Minor ports on rail lines on islands (excluding Britain and Ireland) are also marshalling yards. Rail marshalling yards are used for the purposes of rail nets Rule 7.A.5.f and bombing (Rule ?).

Some rules require two rail marshalling yards (of a specified size) or cities 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 element of a supply line (per Rule 18.B.2.a).

Rail marshalling yards have an initial rail capacity value as shown on the table below:

Table 1 Marshalling Yard Capacity Table

MARSHALLING YARD CAPACITY TABLE		
INITIAL CAPACITY	CITY TYPE	PORT TYPE
½	Reference cities	Minor ports on islands*
1	Dot cities	Standard ports
2	Major cities	Major and great ports

* Excluding Great Britain and Ireland.
 Note: If a hex contains both a city and a port, the capacity is the greater of the two.

7.A.1.d. RAIL COSTS CHART.

All rail capacity multipliers, SMP additions, and additional MP costs are shown below for rail lines and rail movement:

Table 2 Rail Costs Chart

RAIL COSTS CHART	
DIFFERING RAIL TYPE EFFECTS	
TYPE OF RAIL	CAPACITY MULTIPLIER
High-Volume	1 x
Low-Volume	2 x
Uncertified	4 x
Different Gauge (friendly)	2 x
Uncertified Different Gauge (enemy)	8 x
OPERATIONAL RAIL/SUPPLY DISTANCE	
TYPE OF DAMAGE/GAUGE	ADDITIONAL MPs/SMPs
Interdiction Level	x 2*
Each Harassment Hit	½
Collateral Damage/Partisan Mode Unit	1
Rail Break	2
Rail Cut/Reg. Mode Partisan/Unsupported Btl	4
Double Rail Cut	Impassible
To Change Gauge (friendly)	1
To Change Gauge (enemy)	2
STRATEGIC RAIL	
TYPE OF DAMAGE/GAUGE	ADDITIONAL MPs COUNTED
Interdiction Level	x 10*
Each Harassment Level	+5 MPs
Collateral Dam./Partisan Mode Unit/Unsuprt Btl	+10 MPs
Rail Break	+25 MPs
Rail Cut/Regular Mode Partisan	+50 MPs
Double Rail Cut	Impassible
To Change Gauge (friendly)	+20 MPs
To Change Gauge (enemy)	+40 MPs
UNIT TYPE & SIZE MULTIPLIERS	
UNIT TYPE	CAPACITY MULTIPLIER
C/m, Transport, Cavalry, Artillery Divisions	2 x
All units in operational reserve	2 x
Cadres, Remnants	2 x
All other Units	1 x
FACTORY MOVEMENT COSTS	
TYPE OF DAMAGE	ADDITIONAL REs COUNTED
Rail Break	+ 1 REs
Rail Cut	+ 2 REs
Double Rail Cut	+ 4 REs
Destroyed Bridge	+ 4 REs

* Plus die roll on Interdiction Table.
 Note: R type units count each additional hex as 10 MPS.

7.A.1.e. HIGH-VOLUME RAIL LINES (HVRs).

High-volume rail lines are printed on the map with a solid line. Captured rail lines “restored” to HVR status are shown by using “High-Volume Railhead” markers.

7.A.1.f. LOW-VOLUME RAIL LINES (LVRs).

Low-volume rail lines are printed on the map with a dashed line. Captured rail lines “recertified” or “regauged” to LVR status are shown by “Low-Volume Railhead” markers.

A low-volume rail line may be “restored” to HVR status if it was the original printed map type.

7.A.1.g. UNCERTIFIED RAIL LINES (UCRs).

Captured rail lines of the same gauge are classed as UCRs and are shown by using “Uncertified Railhead” markers.

Uncertified rail lines may be “recertified” to LVR status.

7.A.1.h. LARGE UNIT RAIL COSTS.

Artillery divisions, cavalry units, cadres, remnants, and c/m units count double their RE size for rail movement purposes. See the RAIL COSTS CHART below. This is in addition to any increase in required capacity due to non-high-volume rail lines. *For example, a panzer division using rail movement on a regauged rail line (but not recertified) in the 1939 Soviet Union would use 24 REs of capacity (3 × 2 for being armour × 4 for uncertified rail lines).*

7.A.2. RAIL MOVEMENT.

Units may move by rail on rail lines. The only difference between HVRs, LVRs, UCRs, and different gauge railroads is their effect on rail capacity and supply ranges (Rule ?).

A unit moving by rail may not be adjacent (except across impassable hexsides) to an enemy unit (ground, air, or naval) any time during its movement.

The phasing player may only use rail movement in the initial movement phase. A unit moving by rail moves at an accelerated rate and ignores standard terrain costs. Two types of rail movement exist: operational and strategic. A player may only use railroads he owns at the start of his turn.

7.A.2.a. OPERATIONAL RAIL MOVEMENT.

Operational rail movement allows a unit to move by rail and engage in other operations in the same turn. During its rail movement, a unit moves several hexes by rail for each MP spent as shown on the OPERATIONAL RAIL TABLE.

To use operational rail movement, a unit may be required to spend MPs to entrain. A unit spends MPs to move hexes by rail as shown on the OPERATIONAL RAIL TABLE. As it enters each hex, the unit may have to spend additional MPs as shown on the RAIL COSTS CHART.

The unit then chooses whether it will detrain or not. If not, use an “Entrained” marker to show its status. An entrained unit does not pay entraining costs in its next turn. It will still count against the next turn’s rail capacity if it uses rail movement. If it does detrain, it may spend its remaining movement points normally (including entraining again).

Table 3 Operational Rail Table

ENTRAINING COSTS	
UNIT TYPE	MP COST TO ENTRAIN
Motorized Units	2
Non-c/m Units with Heavy Equipment	1
All other Units	0

RAIL MOVEMENT RATES	
MOVEMENT RATING	HEXES PER MP
9, 10	4
8	5
7	6
6	7
5	8
4	10
2	20
R*	40

* Only allowed on friendly gauge rail lines.

7.A.2.b. STRATEGIC RAIL MOVEMENT.

Strategic rail movement allows a unit, SP, or SRP to move a long distance by rail, sacrificing its ability to engage in other operations in the same turn. This is shown by placing an “Entrained” marker on the unit which may not be removed until the end of the player turn. An entrained unit may not otherwise move in the movement phase, attack in the combat phase, or move in the exploitation phase.

To use strategic rail movement a unit must start and end its movement on a rail line. It may use 100 MPs while moving on rail lines. As it enters each hex, the unit may have to spend additional MPs as shown on the Rail Costs Chart.

7.A.3. RAIL ONLY UNITS.

A unit with a printed movement rating of “R” may not move except by rail movement. In combat, it may attack any 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: If a rail-only unit is in a hex when the rail line there is damaged the unit may not leave the hex without paying the appropriate MP cost for the collateral damage, break or cut. If required to retreat from such a hex due to combat, a rail-only unit is eliminated instead.*

7.A.4. EFFECTS OF DIFFERENT GAUGES.

The rail connection between different rail gauges will have effects on movement, supply lines, etc. as described below.

7.A.4.a. ENEMY DIFFERENT GAUGE RAIL LINES (DGRs)

A unit, SP, or SRP that traces any of its rail movement over a different gauge rail line counts eight times against the rail capacity of the rail net being used.

Captured rail lines of a different gauge are classed as unregauged and are shown by using “Unregauged Railhead” markers. Unregauged rail lines may be “regauged” to uncertified status.

Captured rail lines of a different gauge affect rail element supply lines. If being traced to a supply element, count each

rail hex as 8 SLPs for the portion of the rail element on the unregauged line per the RAIL COSTS CHART.

7.A.4.b. MULTIPLE FRIENDLY DIFFERENT GAUGES.

If a country starts the game with two different gauges of rail lines or is allied with a country with a different gauge of rail lines, the effects of using a different gauge of rail line are reduced. The unit uses only double capacity if both friendly gauges are used by a unit during the movement phase. If all of the rail movement is on one gauge, then normal rail capacities are counted.

If a country has multiple friendly different rail gauges, any rail element supply line being traced to a major depot (Rule 15.1.1) or special supply source counts each rail hex as 2 supply line points (SLPs) (Rule 18.A.3) for the portion of the rail element on the secondary gauge rail line. See the RAIL COSTS CHART.

7.A.4.c. CONVERTING GAUGES.

Railroad and construction engineer units may convert gauges from one type to the other (Rule 14.H.1). A rail hex is not usable for rail movement on the turn it is regauged. Place "Uncertified Railhead" markers to show which lines are regauged.

7.A.5. RAIL NET CAPACITY (RAILCAP).

Each country's starting rail net capacities are shown on the RAIL NET CAPACITY SUMMARY. These capacities are used to move units, SPs, etc. and may be modified as describe below.

7.A.5.a. RE CAPACITY OF RAIL NETS.

Capacities are stated in REs. The RE capacity is the maximum number of REs of items (units, factories, SRPs, etc.), which may use rail. Cavalry units, artillery divisions, c/m units, and all cadres, and remnants count double their RE size for rail movement (Rule 7.A.2). *Note: Rail-only units (Rule 7.A.3) still count against a player's railcap.*

7.A.5.b. SUPPLY NET.

Both players can rail SPs, SRPs, and REs of eliminated units (between replacement pools) within a rail net without affecting their normal rail capacity. The supply net capacity is equal to five times the normal rail capacity on any European standard or broad gauge rail net (excluding Turkey and the Iberian rail gauge). All other rail nets have a supply net capacity of three times their normal rail capacity. *For example, any rail net in Africa, the Middle East, or the Iberian Peninsula would have a supply net capacity of three times normal. Note: Each SP moved by rail counts as 3 REs against the rail net capacity.*

The supply net capacity will be decreased as described below if the regular nets capacity is temporarily increased.

7.A.5.c. CHANGES TO RAIL CAPACITY.

A rail nets capacity may be temporarily or permanently modified as described below.

7.A.5.c.1. TEMPORARY CAPACITY INCREASE/DECREASE.

A player may temporarily increase his rail capacity on a regular (non-supply) rail net by expending SRPs. *Note: SRPs may not be spent to increase the capacity of a supply net.*

The player spends SRPs as he moves units during his movement phase to increase his capacity on a rail net for his current player-turn. The SRPs must be on any rail marshalling yard hex on the net or in the theatres SRP pool. He may

increase the capacity by up to a maximum of half the current capacity of the net. For each SRP spent, the regular rail nets capacity is increased by 20 REs that player-turn and the supply nets capacity is reduced by 20 REs. Fractional SRPs may be spent to increase the capacity by less than 20. *For example, if the Soviet player has a capacity of 50 REs on his on-map rail net. By spending 1.25 SRPs he may increase the capacity by its maximum of 25 REs and reduce the supply net by 25 REs.*

7.A.5.c.2. PERMANENT CAPACITY BUILDING.

A player may permanently build up his rail capacity on a rail net by expending SRPs. He must own at least two connected, unisolated dot or major city marshalling yards. The expended SRPs must come from the theatres SRP pool.

The player spends the SRPs in the initial phase. For each rail net, the player may spend up to 6 SRPs. For each 3 SRPs spent, his capacity on the net is increased by one.

Example: The Allied player has invaded France and now owns two connected, unisolated marshalling yards on the Mainland France/Benelux net. He previously had no capacity on this net but now can start building it.

7.A.5.c.3. CAPACITY LOSS/CAPTURE.

If a player loses ownership of all rail marshalling yards on a rail net, his rail capacity on that net is destroyed and goes to zero. Keep track of rail capacity gains and losses on paper.

When a country surrenders, half its original (plus any permanently increased) rail capacity is captured. It may be used by the capturing player after four turns. **Exception: See Rule ? for effects of Italian surrender.**

Rail capacity may be temporarily lost per Rule ?.

If a marshalling yard in a colony/possession is captured or a country is undergoing a civil war, capture of RE capacity occurs immediately. When the enemy player captures (or recaptures) a rail marshalling yard, the (previously) owning player loses its RE value from his rail net and the capturing player gains half its current value as capacity for his rail net. (Round fractions down to the nearest 0.5 REs).

When capacity is captured during a civil war or in a colony, it may be used by the capturing player at the beginning of his next initial phase.

7.A.5.d. CAPTURED RAIL LINES.

Rail lines in enemy-owned territory at the start of a war may not be used by the attacking player at full effectiveness even if they are the same gauge as the attackers. They must first be recertified to LVR status and then restored from LVRs to HVR status by construction or railroad engineers. This is because they suffer collateral damage when control of the hex changes (Rule 3.E.2).

If a country has not surrendered, its rail lines become part of the capturing players' rail net if they are connected to it. If the country surrenders, Rule 7.A.5.c.3 applies.

7.A.5.e. COMBINING RAIL NETS.

Any captured or newly allied country with a rail net capacity of less than 10 may have its rail net combined with any adjacent rail net that started the game (in 1939) with a capacity of 10 or greater. No more than 4 countries may combine rail nets. *For example, after France, Belgium, and the Netherlands are conquered, they would have capacities of 10, 3, and 3 REs respectively. They could combine into one rail net of 16 RE capacity, leave France at a 10-RE capacity, and add 6 REs to the Greater Germany rail net (counted as two countries due to previously absorbing the Austrian rail net), or leave all three countries as separate rail nets.*

7.A.5.f. RAIL NET CAPACITY SUMMARY.

A countries (or areas it owns) rail net capacity is shown below. The countries general size is also indicated here.

Table 4 Rail Net Capacity Summary

RAIL NET CAPACITY SUMMARY			
COUNTRY RAIL NET SIZE		ALLIED AXIS	NEUTRAL
0	Abyssinia*		1
0	Albania		1
2	Austria		6
3	Belgium		6
4	Britain	40	
	Middle East (Egypt & Palestine)*	8	
	Northern Ireland	3	
2	Bulgaria		5
3	Czechoslovakia		8
2	Denmark		5
1	Estonia		2
1	Finland		5
5	France/Benelux (Mainland)	20	
	Corsica*	4	
	North Africa (Combined total)*	8	
	Algeria*	3	
	French Morocco*	2	
	Tunisia*	3	
	Levant*	2	
	Vichy (subtract 10 from Mainland France total)		10
6	Germany	25	
	East Prussia	5	
	East Front/Balkans (Scenarios)	30	
2	Greece		6
3	Hungary	6	
5	Italy (Mainland)	20	
	Sardinia*	3	
	Sicily	5	
	Cyrenaica*	1	
	Tripolitania*	1	
	Eritrea*	1	
	Somaliland*	1	
1	Iran*		4
1	Iraq*		3
2	Ireland		3
0	Luxembourg		0
3	Netherlands		6
1	Norway		5
1	Persia*		3
5	Poland	15	
2	Portugal*		4
4	Rumania		6
7	Soviet Union	45	
	Off-Map	15	
4	Spain*		9
	Spanish Morocco*		1
2	Sweden		10
2	Switzerland		3
3	Turkey		7
3	Yugoslavia		5

* Supply net capacity is three times the rail nets capacity.

7.A.6. SPECIAL RULES FOR NATIONAL RAIL NETS.

Each country may have special rules dealing with its rail net as described in the country specific rules.

7.A.7. RAILROAD DESTRUCTION.

Ground and air units may damage railroads by spending MPs or by bombing them. The types of rail destruction are described below.

7.A.7.a. RAIL BREAKS.

A unit may break a rail line by spending movement points in the hex they are in (see the ENGINEERING AND NON-ENGINEERING SUMMARIES). Any hit on a rail line by an air unit counts as a break (Rule 3.B.2.b). If the line already has a "Rail Break" marker on it when it receives a hit from an air unit, the break is replaced by a "Rail Cut" marker. Partisan attacks may also break rail lines (Rule 45.A). See Rule 7.C for effects on bridges.

Rail line breaks are repaired according to Rule 14.H. Rail breaks affect movement according to the RAIL COSTS CHART. *Note: Roads may not be broken.*

Use a "Rail Break" marker to mark a broken line in a hex. Use "Line Break" markers to show a broken stretch of rail line. *For example, if the rail line in each hex from (and including) Smolensk (2A:3532) to (and including) Vjazma (2A:3425) is broken, then place a "Line Break" marker pointing east at Smolensk and another pointing west at Vjazma.*

7.A.7.b. RAIL CUTS.

"Rail Cut" markers may be placed on rail lines by engineers or support divisions spending MPs according to the ENGINEERING SUMMARY or by air units as described above. Rail cuts affect rail movement according to the RAIL COSTS CHART. Rail cuts may be repaired (Rule 14.H).

7.A.7.c. RAIL MARSHALLING YARD HITS.

"Rail Marshalling Yard Hit (RM#)" marker is placed by means of a successful attack on the BOMBING TABLE when an air unit is flying the rail marshalling yard bombing mission (Rule ?). It has the same effect as a "Rail Cut" marker but costs more to repair.

7.A.7.d. MAXIMUM RAIL LINE DAMAGE.

Railroad engineers may increase the damage on a rail line beyond one rail cut or rail break per hex (Rule 14.I.4). If any other engineer or support division places a rail cut in a hex with a "Rail Break" marker, it replaces the break with a cut.

A railroad engineer putting a rail cut on a hex with a rail break on it leaves both markers on the hex. Remove the excess breaks if more are in the hex than allowed. A maximum of two cuts, or one cut and a break be in a rail hex.

7.A.8. OFF-MAP RAIL CONNECTIONS.

Certain scenarios do not use all the maps and so have rail lines running off-map. These are connected to each other as specified on the MAP EDGE RAIL DISTANCE CHARTS.

7.B. ROADS.

A unit moving along a road pays the MP cost for **clear** terrain for each hex it enters; ignore terrain costs for hexes entered and hexsides crossed. A unit may use a road in any movement phase.

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

7.B.1. RAILROADS ACTING AS ROADS.

Besides the roads printed on the map, each rail line (but not rail ferry) may also act as a road as shown on the TEC. Even when a unit is prohibited from using a railroad in a hex, it may still use the rail line as a road. *Note: Roads may not be broken.*

7.B.2. IMPROVED ROADS IN WESTERN EUROPE.

Due to the extensive, paved road systems in Western Europe, a unit (or SMP) moving along certain roads pays 1 MP for each hex it enters regardless of weather. The actual terrain costs for hexes entered and hexsides crossed are ignored.

A unit may use this cost when moving by road or counting SLPs anywhere in Europe west of the Soviet German Demarcation Line excepting Scandinavia, the Iberian Peninsula, and mountain hexes/hexsides.

7.B.3. ROADS IN NORTH AFRICA.

Due to the less intensive effect of bad weather in North Africa, a unit (or SMP) moving along a road in Zone E in North Africa only pays clear terrain costs for each hex it enters regardless of weather.

7.B.4. TRACKS.

Certain roads begin the war as tracks. These may be improved to road status in the same manner that roads are improved to railroads. Tracks do not affect movement of units but SMPs only spend 2 MPs per hex when using them.

7.B.5. FAIR WEATHER ROADS.

The roads shown on the Wavell's War maps (i.e., maps WW1 through WW21) are differentiated between regular roads and fair weather roads, as shown on the WAVELL'S WAR SUPPLEMENTAL TERRAIN KEY on map WW 19. *For example, the transportation lines converging on Garissa (WW4:0902) from the north, east, and south are fair weather roads, while the transportation line from the west is a regular road.*

Fair weather roads function the same as regular roads except the following restrictions apply to their use during mud weather (Rule 42.A.2).

- 1) Units spend 2 MPs per hex when moving down a fair weather road in mud.
- 2) It costs 6 SMPs (Rule 19.F.1.b) to carry a supply point one hex along a fair weather road in mud.

Note: The road element of a supply line (Rule 18.B.4.a) can still be traced along a fair weather road in mud weather.

Construction units may upgrade fair weather roads to regular roads as described in Rule 14.M.

7.C. BRIDGES.

A transportation line crossing a river, major river, or great river hexside is a bridge.

7.C.1. OWNERSHIP.

A player owns a bridge if he owns both hexes next to a bridge hexside or if he were the last to do so. At the start of an invasion surprise phase (Rule 47.C), bridges on the border are not owned by either player and are captured intact by the invader if he gains control of them before they are demolished by the defending player. Bridges are subject to collateral damage (Rule 3.E.2), bridge damage, or demolition by friendly or enemy action.

7.C.2. DAMAGING BRIDGES BY AIR.

Air units may damage or destroy an **enemy-owned** bridge by bombing. (Rule ?) Each bombing hit puts a "Bridge Damaged" marker on the bridge. These accumulate to the maximum damage level. When the maximum damage is reached, the bridge is destroyed. The "Bridge Damaged" markers are replaced by a "Bridge Destroyed" marker.

7.C.3. DESTROYING BRIDGES.

An engineer, support division, or commando (Rule 46.B.1) may attempt to demolish a bridge as shown on the ENGINEERING SUMMARY. The bridge must be friendly-owned or unowned. Roll a die according to the SUCCESS TABLE (modified by the BRIDGE DEMOLITION TABLE below) at the end of the appropriate engineering phase to demolish or seriously damage a bridge. If not successful, the demolition must start over.

Table 5 Bridge Demolition Results and Modifiers

BRIDGE DEMOLITION	
Results:	
D:	Disaster: Bridge undamaged.
F*:	Complete Failure: The attempt fails. 1/3 possible damage done.
F:	Failure: The attempt fails. 2/3 possible damage done.
S:	Success: The attempt succeeds. Bridge destroyed.
S*:	Great Success: Bridge destroyed, Add back 2 MP to units MA.
Modifiers (Cumulative):	
-2	Unit is not in full supply and is destroying a friendly bridge.
-2	No enemy units within 7 SLPs (except for commando attempt).
-1	Attempt made by non-combat engineer unit.
-1	Attempt made by non-engineer unit.
-1	Unowned bridge.
-1	Attempt made by surprised units within four turns after an invasion surprise phase.
-1	Attempt made by surprised units (within the surprise front) during the next enemy player-turn after a surprise/invasion surprise phase.
+1	Attempt made by 1/2 RE commando unit.
+2	Attempt made by 1 RE commando unit.
<i>Note: Commandos make a bridge unowned by the enemy even if they do not own the hex they are in.</i>	
<i>Note: Commandos act as combat engineers (Rule ?) when attempting destruction of installations if they have performed an amphibious/airborne assault in the preceding movement phase.</i>	

7.C.3.a. MOVEMENT EFFECTS.

A destroyed bridge is not usable for any movement purposes, such as road or rail movement. *For example, a unit using a road to cross a minor river and enter a woods hex normally pays 1 MP to do so; it must spend 1/2M-1 for the minor river plus 2 MPs for the woods hex to do so if the bridge is destroyed.*

7.C.3.b. SUPPLY LINE EFFECTS.

Supply lines may be traced across destroyed bridges at reduced effectiveness. They reduce the normal effect of the river on supply as shown on the TERRAIN EFFECTS ON SUPPLY SUMMARY (Rule [18.A.3.a](#)).

7.C.4. BRIDGE REPAIR.

Only engineers may repair a bridge that has taken bombing hits or collateral damage, or replace a destroyed bridge with a new one (Rule [14.C](#)). Bridges are repairable only if the player owns both hexes adjacent to the bridge hexside. The ENGINEERING SUMMARY shows the cost of repair. When a unit expends an SP or SRP to fix a bridge, a special supply route must be traced to it (or to a pool).

7.D. RAIL FERRIES ACTING AS RAIL LINES.

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. 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 but has the ability to act as a road for a few REs (Rule [41.A.2](#)). A rail ferry is not a causeway and as such may not be used as part of an overland supply line. It may only be used as part of the rail portion of a supply line.

Rail ferries cannot be interdicted by enemy naval TFs.

7.E. IMPROVEMENTS TO TRANSPORTATION LINES.

Certain transportation lines printed on the maps do not exist (and thus cannot be used) until they are constructed. The initial section of each sides scenario OB lists the lines that do not exist (if any). Many roads on the map may be improved to railroad status as described later.

7.E.1. RAILROAD CONSTRUCTION.

Some rail lines that do not exist at the start of the war may be built as described in the country specific rules at no cost by using assets not shown within the context of the game.

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