

Attrition Table

(12.8)
Roll once per stack of one or more units per Supply Phase for each stack determined to be Out of Supply. Roll on the column of the **best** OOS Action Rating unit in the stack.

	Action Rating						Result
	5	4	3	2	1	0	
	2-8	2-7	2-5	2-3	2	—	No Loss
Two Dice Roll	9-10	8-9	6-7	4-5	3-4	2-3	-1 Step
	11	10	8-9	6-7	5-6	4-5	-2 Steps
	12	11	10-11	8-9	7-8	6-7	-4 Steps
	13+	12+	12+	10+	9+	8+	-All Steps

Die Roll Modifiers:
+3 if 5 steps or more in the hex.

Dump Blowing Table

(12.11a)

Die	% Destroyed
1	25
2-3	50
4-5	75
6	100

Capture Table

(9.14)

Roll whenever enemy units enter the hex and no friendly units are also in the hex.

Die	Dump (on Ground) ²	Trucks (and loaded SPs) ^{3,5}	Wagons (and loaded SPs) ^{4,5}
1	0	0	0
2	25	0	0
3	25	25	25
4	50	50	50
5	50	50	75
6	75	75	100

Notes:

- Roll for each category in the hex separately. Number is % captured. Handle the remainder according to the following.
- Remainder is destroyed.
- Remainder displaces up to 10 hexes.
- Remainder displaces up to 5 hexes.
- Captured portion includes the vehicles the dump might be with. These are converted into friendly counters and can move during the current phase, if captured during the Movement Phase.

Important: Extenders are never captured, but “collapse” to any hex within their draw range if an enemy unit enters their hex (9.14c). An extender may also “collapse” voluntarily (12.7h).

Rail Transport

(13.3)

Capacity. Each side has a rail capacity given (if any) in the Game-Specific rules. This capacity can move combat units, Transport Points, and/or SPs (as modified by Transportation Equivalents rule).
Rail Connections. Rail transport begins and ends in detrainable hexes (13.3c), and must follow a path of functioning rail hexes connecting those locations. Rails blocked by enemy combat units or ZOCs (or of the wrong gauge) cannot be used for rail cap movement.
Phasing. Rail Transport is during the Movement Phase only, with connections checked at the instant the movement takes place. Combat units must be in Move Mode and can move up to half their MA before entraining. No movement is allowed after ending the rail move.
RR Repair units (13.3g). These special units can entrain/detrain in any rail hex, can be in Combat Mode, and move after a rail move.

Shipping

(19.0f)

Capacity. In some games, each side has a shipping capacity given in the scenario rules. This capacity can move combat units, Transport Points, and/or SPs (as modified by Transport Equivalents rule).
Shipping Connections. A naval movement path (18.1c) is needed between the two ports. The capacity of each Port limits what can be shipped in and out in a single phase. (Exception: a port with a capacity greater than 0 (19.0a) can opt to use its full capacity to load/unload any single ground unit.) Unnegated EZOCs reduce a port’s capacity to zero.
Phasing. Shipping is during the Movement Phase only, with connections checked at the instant the movement takes place. There is no movement allowed before or after being shipped, and combat units must be in Move Mode.

Supply Summary

Ground Units: Only Combat Units need supply, never non-combat units.
Aircraft: Only need Refit Supply.
Ships: Never need supply.

Supply Level Effects

Supplied: All values Normal
Out of Supply: Mark the units found to be Out Of Supply and check them for Attrition (12.8b)

Effects: With Combat Supply, units marked Out of Supply attack and defend at half strength. Without Combat Supply, such units cannot attack or barrage, and they defend at 1/4 strength. OOS units have no ZOC.

Action Ratings, Barrage strength, and Movement are **unaffected** (given other supply concerns, such as Barrage supply or fuel).

Direct Draw (12.3a) Always 5 Truck MPs from drawing unit back to the needed supplies.

Throw (12.3b) HQs can first Draw supply and then throw it a number of MPs equal to their Throw Range to where needed. Use mobility type indicated on HQ (usually Truck MP).

Any need of SPs can be satisfied by either the Direct Draw of the SPs or throw by an HQ.

Supply Path Movement: Pay normal terrain costs when tracing draw and throw paths (but never apply weather effects that would **increase** this cost). Path can be through enemy aircraft, ships, or non-combat units, but never through enemy combat units. Unnegated EZOCs block truck and rail paths.

Adjacent Hex Provision (12.3c) Supply Path Movement only needs to reach a hex adjacent to the supplies for Draw, and only needs to reach a hex adjacent to the unit for Throw.

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Fuel Supply

(12.5)

Required to move Combat Units with Truck or Track MPs (Advance after combat and retreat do not need fuel.)

Pay 1T to move one counter, or

Pay 1 SP to flip a Formation marker (3.6f) to its fueled side. All units in the multi-unit formation are now fueled until next friendly Clean-Up Phase.

Pay 1 SP to place a fuel marker on an HQ. All independent units within that HQ’s throw range are now fueled until next friendly Clean-Up Phase. (12.5e)

Trace Supply

(12.6)

Connections. Draw can be to a Supply Source, or to a detrainable hex, or Extender connected to a Supply Source.

ZOCs (12.6b) A n unnegated EZOC shuts down a Supply Source.
Eating Off The Map (12.6c) If no Connection is available, 1T per 2 RE can keep combat units in a given hex in supply. (Exception: Strat Mode units cannot eat off map.)

Miscellaneous

Blowing Dumps (12.11). This can be done during friendly Movement, Reaction, or Exploitation Phases.

Capturing Dumps and Transport Points (9.14b and 9.14c). See the Capture Table.

Refit Air Base (15.1). Inactive aircraft refit at rate of 2 units per Air Base Level. Refit costs 1T (Direct Draw or Throw) per base.
Air Base Construction (15.3). Build/improve one Level costs 1 SP.

Hedgehog Construction (16.0b). Build/improve one Level costs 2 SPs.

Port Repair (19.0d). Repair one Hit costs 1 SP.

Loading & Unloading Costs (13.2f). 10% of Transport’s MA.
Requirements: A Transport Point can load in any hex. Transport points can only **unload** in hexes which contain one or more of the following: friendly Combat Units, port, Air Base or an existing unloaded Supply Dump.

Anti-Tank Effects

(9.4e)

In some situations, a x2 Terrain Effect for attacking Armor or Mech is reduced to x1.5. This occurs when the defender’s hex has the **same or higher** level of AT Effects.

A) Heavy AT Effects are given to hedgehogs, all Yellow-coded units, Red-coded units with a Tank Symbol (such as a Soviet Tank Brigade), and units with an Anti-Tank or Anti-Aircraft symbol.

B) Light AT Effects are given to Red-coded units which **do not** have a Tank Symbol (such as Panzergrenadiers).

C) No AT Effects are given to all other unit types.

Surprise Modifier (9.8) Roll two dice, add Action Rating differential for the combat.
Overrun Attack:
 ...if 9 or more, Attacker gains Surprise
 ...if 6 or less, Defender gains Surprise

Regular Attack:
 ...if 10 or more, Attacker gains Surprise
 ...if 5 or less, Defender gains Surprise

Modifier: Add 1 to the defender's Action Rating if the defending units occupy a Hedgehog of any Level. If a player has surprise, roll one die and shift that many columns in that player's favor.

Combat Supply (9.5)
Attacker: 1T per attacking step (DAK 2-step brigades cost 1T.)
Defender: 2T per combat (if 1 RE or less, cost is 1T.)

Internal Stocks. (12.10) Units can use Internal Stocks only if on-map supply is unavailable. After using Internal Stocks in one combat, mark a unit Low; after its next combat using Internal Stocks mark them Exhausted. Low and Exhausted units **must** pay SPs to remove these markers in the soonest Supply Phase where this is possible (12.10e).

Note: Units which do not have their full combat supply available cannot attack. Defenders always have the option to withhold combat supply and defend at x/2.

COMBAT TABLE

(Two Dice)

<i>Extr Close</i>	1:2	1:1	2:1	3:1	4:1	8:1	12:1	16:1	20:1	28:1	36:1	44:1	52:1	
<i>Very Close</i>	1:3	1:2	1:1	2:1	3:1	4:1	6:1	9:1	12:1	15:1	18:1	21:1	24:1	
<i>Close</i>	1:4	1:3	1:2	1:1	2:1	3:1	4:1	6:1	8:1	10:1	12:1	15:1	18:1	
<i>Open</i>	1:5	1:4	1:3	1:2	1:1	2:1	3:1	4:1	5:1	7:1	9:1	11:1	13:1	

1 or less	AL2	AL2	AL2	AL2	AL2	AL2	AL2	AL1o1	AL1o1	AL1o1	AL1	AL1	AL1	1 or less
2	AL2	AL2	AL2	AL2	AL2	AL2	AL1o1	AL1o1	AL1o1	AL1	AL1	Ao1	Ao1	2
3	AL2	AL2	AL2	AL2	AL2	AL1o1	AL1o1	AL1o1	AL1	AL1	Ao1	Ao1	Ao1	3
4	AL2	AL2	AL2	AL2	AL1o1	AL1o1	AL1o1	AL1	AL1	Ao1	Ao1	Ao1	Ao1 e4	4
5	AL2	AL2	AL2	AL1o1	AL1o1	AL1o1	AL1	AL1	Ao1	Ao1	Ao1	Ao1 e4	Ae4	5
6	AL2	AL2	AL1o1	AL1o1	AL1o1	AL1	AL1	Ao1	Ao1	Ao1	Ao1	Ae4	Ae4	6
7	AL1o1	AL1o1	AL1o1	AL1o1	AL1o1	AL1	Ao1	Ao1	Ao1	Ao1	Ao1 e4	Ae4	Ae3	7
8	AL1o1	AL1o1	AL1o1	AL1o1	AL1	Ao1	Ao1	Ao1	Ao1	Ao1 e4	Ae4	Ae4	Ae3	8
9	AL1o1	AL1o1	AL1o1	AL1	Ao1	Ao1	Ao1	Ao1	Ao1 e4	Ae4	Ae4	Ae3	Ae3	9
10	AL1o1	AL1o1	AL1	Ao1	Ao1	Ao1	Ao1	Ao1 e4	Ae4	Ae4	Ae3	Ae3	Ae2	10
11	AL1o1	AL1	Ao1	Ao1	Ao1	Ao1	Ao1	Ae4	Ae4	Ae3	Ae3	Ae3	Ae2	11
12	AL1o1	Ao1	Ao1	Ao1	Ao1	Ao1	Ao1 e4	Ae4	Ae3	Ae3	Ae3	Ae2	Ae2	12
13	Ao1	Ao1	Ao1	Ao1	Ao1	Ao1 e4	Ae4	Ae3	Ae3	Ae3	Ae2	Ae2	Ae2	13
14	Ao1	Ao1	Ao1	Ao1 e4	Ao1 e4	Ae4	Ae3	Ae3	Ae3	Ae2	Ae2	Ae2	Ae2	14
15 or more	Ao1	Ao1	Ao1 e4	Ae4	Ae4	Ae3	Ae3	Ae2	Ae2	Ae2	Ae2	Ae2	Ae2	15 or more

Combat Sequence Summary (9.2)

- 1) The attacker identifies the defending and attacking hexes.
- 2) Both players expend required SPs (see Supply Tables). The defender can spend no supply and defend at half strength.
- 3) The attacker identifies his Action Rating unit, followed by the defender identifying his.
- 4) The defender announces terrain choices (9.3b) and players determine the initial odds.
- 5) Using each side's Action Rating unit, determine the Dice Roll Modifier (9.6).
- 6) Roll two dice to determine Surprise. Modify the odds column as per 9.8.
- 7) Roll two dice, modify by the DRM in 9.6, to determine the result.
- 8) Execute the results—attacker first, then the defender.

Explanation of Results:
A: Attacker, **D:** Defender
L#: Loss Number, lose # steps.
o#: Option Number, retreat or step loss option.
DG: Defender is disorganized.
e#: Attackers with action ratings of # or more are exploitation marked. Does not apply to HQs. (These apply only in the Combat Segment of the Combat Phase.)

- 1) If the attacker takes his option as a retreat void any exploitation result.
- 2) The defender can ignore his options if the attacker chooses to use an option to retreat or if the attacker is destroyed before taking any options. The defender can **choose** to apply his full option even if negated by this rule.
- 3) Any unit which retreats 2 or more hexes is DG on entering the second hex.

No attack involving three or more attacking hexes OR any two non-adjacent hexsides **ever** generates an exploit result. Ignore any "e" result in such an attack, but apply the remaining results normally.

Standard Action Rating Die Roll Modifier (9.6):

Action Rating of selected Attacking Unit — Action Rating of selected Defending Unit — Hedgehog Level (if the Defender has a Hedgehog) = DRM

Flak

(14.4)
Always roll Flak: Barrage, Hip Shoot, and Trainbusting.
Only roll Flak in PZ: Air Transport/Drop and Base Transfer.
Never roll Flak: Fighter Sweep and Interception.

Roll two dice for the mission and add the modifiers below. If the modified result is 11 or more, kill one mission aircraft step. Otherwise, the Flak has no effect. Determine which air unit in a stack takes the loss on the Mission Loss Table below.

Modifiers:
 +1 Three or more aircraft in mission

Target hex contains...
 +1 one or more HQs

+ Air Base Level (Air Strips = 0)

+ *Value* Intrinsic Flak of the hex (Map Printed Flak) or total ship Flak Ratings

Target hex is in enemy PZ and...
 +1 if mission includes at least one Fighter

+2 if mission includes no Fighters

+1 if mission is Trainbusting (cumulative with the above)

Important: Note that for the two different PZ Flak Mods, the Fighters the mission has or does not have must be **part** of the mission itself. Fighters that just happen to be at the destination (such as in an Air Transport mission) do not count.

Mission Loss Table

Roll	Size of Mission		
	2	3	4
1	#1	#1	#1
2	#1	#1	#2
3	#1	#2	#3
4	#2	#2	#4
5	#2	#3	Weakest
6	#2	#3	Strongest

“#” is position in the mission stack. “Weakest” and “Strongest” are in terms of barrage strength (owning player gets choice if there is one).

Barrage Table

(10.0a)

		Total Barrage Strength										
Two Dice	Cost →	1 or less IT	2 IT	3-4 2T	5-7 2T	8-11 2T	12-16 3T	17-24 3T	25-40 4T	41-68 6T	69-116 8T	117+ 10T
2		-	-	-	-	-	-	-	-	-	DG	DG
3		-	-	-	-	-	-	-	-	DG	DG	DG
4		-	-	-	-	-	-	-	DG	DG	DG	DG
5		-	-	-	-	-	-	DG	DG	DG	DG	[1/2]
6		-	-	-	-	-	DG	DG	DG	DG	[1/2]	[1/2]
7		-	-	-	-	DG	DG	DG	DG	[1/2]	[1/2]	1/2
8		-	-	-	DG	DG	DG	DG	[1/2]	[1/2]	1/2	1/2
9		-	-	DG	DG	DG	[1/2]	[1/2]	[1/2]	1/2	1/2	1/2
10		-	DG	DG	DG	[1/2]	[1/2]	1/2	1/2	1/2	1	1
11		DG	DG	DG	1/2	1/2	1/2	1/2	1/2	1	1	2
12		DG	1/2	1/2	1/2	1/2	1	1	1	1	2	3

Roll once for hex. Owner's choice of unit(s) which take the step loss. Targeted ship automatically subject to loss.

Shifts:

Apply each *line* a maximum of once in a given barrage if one or more of its reasons apply. Use all lines which do apply.

- Shift 1 column left if in a **Hedgehog** (any Level, see also the [1/2] result).
- Shift 1 column left if in a **Close or Very Close Terrain Hex**.
- Shift 2 columns left if in an **Extremely Close Terrain Hex**.

4. Shift 3 columns left if **no correct spotter adjacent** to target hex. (This shift always applies to a barrage involving any Strategic Bomber aircraft.)

5. If any unit in the target hex is in Strat Mode, shift 3 columns right.

6. Shift 1 column right if all mission aircraft are at or within 10 hexes of their base.

7. (Optional) Shift 1 column left if any aircraft at more than half range (21.4).

Barrage Supply

(10.1b)

Pay as per the Barrage Tables.
 Do not use for aircraft or ship Barrages

Density Shifts:

REs in Hex (don't round)	Shifts
1 or less	left 1
Greater than 1, up to 3	none
Greater than 3, up to 4	right 1
Greater than 4, up to 5	right 2
Greater than 5, up to 6	right 3
Greater than 6	right 4

Only combat units count for density, never Transport Points, SPs, etc.
 No multi-step unit or multi-unit formation ever counts for more than 3 RE for this purpose.

Explanation of Results:

-: No Effect
 #: Lose # steps and become disorganized.
 [1/2]: If in a Level 3 Hedgehog (or more), **AIR** or **SHIP** Fires, **OR** if No correct spotter adjacent to the target hex **treat as DG**, otherwise treat as regular 1/2.
 1/2: Roll one die, on a 4-6 lose one step and become disorganized, otherwise, become disorganized only.
DG: Target is disorganized. All combat units in the hex are now in DG mode.

Ship to Shore Barrages:

Reduce each result as below:
 • DG remains DG.
 • 1/2 (either kind) becomes DG
 • 1 becomes 1/2, 2 becomes 1

Barrage vs Facility Table

(10.0c)

Die	Cost →	Total Barrage Strength							
		1 IT	2 IT	3-4 IT	5-10 IT	11-20 2T	21-40 4T	41-80 6T	81+ 8T
1		-	-	-	-	-	-	(5)	1(5)
2		-	-	-	-	-	(5)	1(4)	1(4)
3		-	-	-	-	(5)	1(5)	1(4)	1(4)
4		-	-	-	(6)*	1*(5)	1*(4)	1*(4)	2*(4)
5		-	(6)	(6)*	1*(5)	1*(4)	2*(4)	2*(4)	2*(3)
6		(6)*	(5)*	1*(5)	1*(4)	1*(4)	2*(4)	2*(3)	2*(3)

Explanation of Results

-: No Effect
 *: Trainbusting barrage is successful
 1: Air Base reduced by one Level (min Level is 1), or a Port takes 1 hit (max 4 hits).
 2: Air Base reduced by two Levels (min Level is 1), or a Port takes 2 hits (max 4 hits).
 (#): When an Air Base is the target, use the number in parenthesis to check for aircraft losses at that Air Base. Roll this number or more (1 die) to reduce an aircraft.

Current Hits on port →	0	1	2	3	4
% of Capacity →	100	80	60	40	20

Round a damaged port's capacity to nearest Token (so 1 SP x 80% = 3T, etc.).

Outline Sequence of Play

(2.2)

I. Pre-Turn Phase

1. Weather Determination Segment
2. First Player Determination Segment

II. First Player, Player Turn

- A. Aircraft Refit Phase
- B. Reinforcement Phase
- C. Mode Determination and Movement
 - Breakout Segment
 - Mode & Movement Segment
 - Barrage Segment (aircraft & ship only)
- D. Supply Phase
- E. Reaction
 - Movement Segment
 - Barrage Segment
- F. Combat
 - Barrage Segment
 - Combat Segment
- G. Exploitation
 - Movement Segment
 - Barrage Segment
 - Combat Segment
- H. Clean Up

III. Second Player, Player Turn

Repeat the steps of the first player with the roles of phasing and non-phasing player reversed.

IV. Turn End Phase

Transportation Equivalents

(4.10)
1 RE = 1 SP = 4T

Modifiers to Transport Costs (cumulative):
If Move Mode MA of a unit is 6 or less, **halve** the unit's transport cost (so a 1 RE unit could be moved for 2T capacity).

If Rail transport is done exclusively on multi-track lines, **halve** the cargo's transport cost.

Air Base Capture Table

(9.14f)
When an Air Base is captured by enemy ground units, roll two dice for each aircraft separately below. After rolling and taking any losses, remaining aircraft must displace to another base (within 2x range) and become Inactive there.

Two Dice		Result
Active	Inactive	
4 or less	6 or less	Reduce Aircraft (Destroy if already reduced.)
5 or more	7 or more	No Effect

+2 if captured as a result of an Advance After Combat (9.12g)

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Air Transport

(14.9)

Capacity. Transport-type aircraft have a capacity on their counter. They can carry a load up to that limit. Transports at the same Air Base can combine to carry loads. Gliders can also increase a Transport-type aircraft's capacity. Short range doubles a Tpt-type unit's capacity (14.9e). This capacity can move combat units and/or SPs (as modified by Transportation Equivalents rule).

Unlike other forms of transport, Air Transport can only be used to move SPs and combat units whose Move Mode is less than or equal to 10 Leg MPs.

Air Connections. An Air Base can only unload 2T times its Level per phase. Exception: If the Transport planes go Inactive at the destination base, the normal unloading limits can be ignored. Unlike other forms of transport, enemy ZOC do not affect Air Transport missions.

Phasing. Air Transport missions can be flown during a player's Movement, Exploitation, and Reaction Phases. To be eligible, a combat unit must be in Move Mode (as with other Mode changes, mode **can** be changed if the mission is flown in the Movement Phase; but during the Reaction or Exploitation Phases the unit would have to be in Move Mode already). A total of 1/2 movement is allowed before and/or after a ground unit is transported by Air.

Air Combat Table

(14.3e)

Roll three dice (use two for the main table and the third for the loss decision (if needed) below).

Dice Roll	Result
6 or less	Attacker Aborts
7	Both Abort
8 or more	Defender Aborts

Modifiers:

Add the Attacker's Air Combat Rating
Subtract the Defender's Air Combat Rating
(Optional) Modify Air Combat Rating by
-1 if beyond half range (21.4)

Third Die:

1-4 No Effect
5-6 Step Loss from Aborting Aircraft

Air Drop

(14.10)

Similar to Air Transport missions, but more complicated since an Air Drop's destination can be any land hex (not just another Air Base) within range. Numerous special rules apply, including the needs for prior planning and to roll on the Air Transport Success Table to see if the dropped unit or supplies survive.

Air Transport Success Table

(14.10d)

Hex Status	Terrain Type	Drop Method	Two Dice	
			Failure	Success
Friendly Hex	Clear	Glider	3 or less	4 or more
		Air Drop	4 or less	5 or more
	Closed	Glider	4 or less	5 or more
		Air Drop	5 or less	6 or more
Enemy Hex	Clear	Glider	4 or less	5 or more
		Air Drop	5 or less	6 or more
	Closed	Glider	5 or less	6 or more
		Air Drop	6 or less	7 or more

Hex Status: "Friendly" is any hex occupied by a friendly unit at the beginning of the current phase, otherwise the hex is "enemy"

Terrain Type: "Clear" is Open terrain, Open with a village, or any hex with an Air Base; otherwise the hex is "Closed"

Modifiers:
-1 Allied Air Drops, 8/44 or earlier
-1 Soviet Air Drops, any time