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RADIO CONTACT TABLE		
Type Contacting Element	New Contact	Maintain Contact
German Infantry Forward Observer	5	0
German Command Element	6	1
US Infantry Forward Observer	4	0
US Command Element	5	0
British Infantry Forward Observer	6	0
British Command Element	6	1
Russian Infantry Forward Observer 39+ 41-42	9	2
Russian Infantry Forward Observer 43	8	2
Russian Infantry Forward Observer 44+	7	1
Russian Command Element 43	7	1
Other Infantry Forward Observer	8	1
Other Command Element	8	2
<p>New Contact is required each time a new request for fire is called. Also New Contact is needed for some change of plans from one company command to a higher off board command element. Command elements requesting fire are usually company or battalion leader elements.</p> <p>Treat special radio FO vehicles same as Infantry FO with -1 to maintain contact.</p> <p>Elements only need to maintain contact to change location of artillery fire or stop it sooner than requested allocation.</p>		

Initiative								
Nation	Time Period							
	1939	1940	1941	1942	1943	1/44	7/44	1945
Finland	+3	+3	+3	+2	+2	+2	+2	+1
France						+1	+2	+2
Germany	+3	+3	+4	+4	+3	+2	+1	
Italy						+1	+2	+2
Japan	+1	+2	+2	+2	+1	+1	+1	
Poland							+1	+1
Russia	-2	-2	-2	-1				+1
U.K.		+1	+2	+3	+2	+2	+3	+3
U.S.A.					+1	+2	+3	+4
Other Allied	-2	-2	-1	-1	-1			
Other Axis	-1	-1	-1	-1	-1	-1	-2	-2
<p>Add Initiative Bonus to initiative die roll.</p> <p>Elite troops add an additional +1 to die roll.</p> <p>A tie results in a straight 'roll off' with the highest die roll winning (no modifiers).</p> <p>Winner of the initiative moves second in each movement segment. It does not determine who fires first nor does it allow an element moving full move after an element moving half.</p> <p>Regardless of who wins or loses initiative tactical orders must be followed.</p>								

Variable Sighting	
D10 roll	Percent of Distance
1 or less	25%
2 - 5	50%
6 - 9	100%
10 - 11	150%
12 or more	200%

Sighting Calculator		
Factors	Distance	Start here when:
less than 0	10	
0	15	
1	20	
2-3	25	
4-5	35	
6-8	50	
9-11	60	
12-13	75	
14-15	85	
16	100	
17	110	
18	125	
19	135	
20	150	
21	160	
22	175	
23	190	
24	210	
25	225	
26	250	Moving buttoned up
27	275	
28	300	
29	325	
30	350	Stationary buttoned up
31	400	
32	450	
33	475	
34	500	
35	550	Moving unbuttoned
36	600	
37	650	
38	700	
39	750	
40	800	Stationary unbuttoned
41	875	
42	950	
43	1025	
44	1100	
45	1200	
46	1300	
47	1400	
48	1500	
49	1600	
50	1700	
51	1800	
52	1900	
52	2000	
54	2100	
55	2200	
56	2300	
57	2400	
58	2500	
59	2600	
60+	2700	

AFV Trying to Sight Modifiers	
Factors	Adjustments
Buttoned up with cupola	+2
Firing main weapon	-2
Stationary but shifted	-2
Vehicle Commander killed	-8

Infantry Trying to Sight Modifiers	
Factors	Adjustments
Firing weapons or fired weapons last turn	-2
Driven to ground	-10
Broken, suppressed or hiding	-15
Under HE fire this turn or last	-15

Target is Vehicle or Gun Modifiers	
Factors	Adjustments
Stationary vehicle rotating turret 45° or more.	+2
Side of hull up vehicle.(Doesn't apply if hull down)	+4
Vehicle shifting	+5
Vehicle moving more than a shift move	+15
Vehicle hull down	-8
Antitank gun or artillery piece in open.	-5
Vehicle in or among buildings or rubble	-10
Vehicle or AT gun in prepared camouflaged position.	-7
Target in or behind covering foliage of at least twice its height.	-5
LOS through 1-25 of light woods.	-10
LOS through 26-50 of light woods.	-15
LOS through 51-75 of light woods.	-25
LOS through 76-100 of light woods. (Max 100)	-35
LOS through each 25 of heavy woods. (Max 50)	-20
LOS through each 25 of sketchy smoke.	-10
LOS through each 25 of thick smoke.	-25
Vehicle fired machineguns (tracers)	+5 (+8)
Vehicle fired cannons 20-41mm	+10
Vehicle fired cannons up to 82mm.	+15
Vehicle fired cannons up to 164mm.	+20
Vehicle fired cannons over 164mm.	+22
Adjust by vehicle/ AT gun target size factor.	-?/+?

Target is non-vehicle Sight Modifiers	
Factors	Adjustments
Infantry squad (team)	-20 (-24)
Firing small arms or machineguns (tracers)	+5 (+8)
Moving	+10
LOS through each 25 of light woods	-5
LOS through each 25 of heavy woods	-20
Concealed in woods, buildings or rubble	-5

Direct Fire To-Hit Modifiers	
Factors	Adjustments
Target acquired	-1
Target is side of stationary AFV	-1
Target size factor	+?
First shot at target over 300 range.*	+1
Target moved at any range.	+1
Target moved at range over 600 range.	+1
Target moved 500 or more in the turn.	+1
Firing HEAT or HE and Target moved 100-199.	+1
Firing HEAT or HE and Target moved 200 or more.	+2
Target among buildings of greater height.	+1
Target through up to 26-50 of woods.	+2
Target through up to 51-75 of woods.	+4
Target through up to 76-100 of woods.	+7
Target through each 50 of sketchy smoke.	+2
Target through each 25 of thick smoke.	+2
Firer's turret turning penalty.	+?
Another gun on firing vehicle is also firing.	+1
Firer moved a shift move this turn.	+2**
Firer moved up to half move this turn.	+3
Firer moved more than half move this turn.	+4
Firer ROF 4 or less second shot factor	+ ?
<p>The final adjusted to-hit number can never be lower than 1.</p> <p>* First shot is defined as: First shot from the firer's current position and..</p> <ol style="list-style-type: none"> 1. The target is not within 75 of previous shot from turreted gun. 2. The target is not within 50 of previous shot from non-turreted gun. 3. The target is not within 100 of previous shot for fast turret rotation tanks. <p>** For s1 stabilized vehicles this is only +1.</p>	

Target size factor is the negative of the size factor. Thus a target with a size of 1 would have a -1 target size factor.

Fire Segment Regulation Table			
Amount of movement the vehicle performs			
none	shift	half	full
Segments 1&3	Segments 2&4	Segment 3	Segment 4

Additional Hit Table								
Rate of Fire	Number above for this amount of hits							Second Shot Pluses
	2	3	4	5	6	7	8	
AC	+2	+4	+6	+8	+10	+12	+14	
10	+3	+5	+8	+10	+13			
9	+3	+6	+9	+12	+15			
8	+4	+7	+11	+14				
7	+4	+8	+12					
6	+5	+10	+15					
5	+6	+12						
4	+7	+14						+1
3	+8							+3
2.5	+9							+4
2	+10							n/a
1.5	-							n/a
1	-							n/a
½	-							n/a
¼	-							n/a
<p>To see if any additional hits are scored the D10 roll must equal or exceed the final adjusted to-hit number plus the additional hit number.</p> <p>For weapons with a ROF of 4 or less there is a To-hit penalty when they fire a second time in a turn.</p> <p>Fractional ROF - The vehicle must remain stationary the denominator number of turns to reload before firing another time.</p> <p>Note- Moving vehicles do not always get to use their ROF to scored additional hits. See below table.</p> <p>n/a - no second fire is allowed.</p>								

Number of times a vehicle may fire per turn				
Rate of Fire	Amount of movement the vehicle performs			
	none	shift	half	full
AC	2 x	2 x	1 x	1 x
5 - 10	2 x	2 x	1 x	1
2.5 - 4	2 x	1 x	1 x	1
1.5 - 2	1 x	1 x	1	1
1	1	1	none	none
less than 1	1	none	none	none
<p>x - Firer may use its Rate of Fire to try to score additional hits.</p> <p>1 - Only one firing permitted per turn and no additional hits may be scored no matter how high the die roll.</p>				

AP, APHE, HEAT - Variable Penetration Table			
Armor Type		Adjust the base penetration by this:	
Normal, Underlined (D6)	Rounded, Deflection (D6)	AP, APHE	HEAT
5,6	6	maximum	maximum
4	5	max. -1 *	max. -2 **
3	4	max. -3 *	max. -6 **
2	3	max. -5 *	¾ max.
1	2	½ max.	¼ max.
0 or less	1 or less	¼ max.	1/10 max.

* - But never **less** than ½ maximum penetration.

** - But never **more** than ¾ maximum penetration.

APBC - Variable Penetration Table		
Armor Type		Adjust the base penetration by this:
Normal, Rnded, Defn	Underlined	
	5-6	maximum +1 ***
5-6		maximum
4	4	max. -1 *
3	3	max. -3 *
2	2	max. -5 *
1 or less	1 or less	½ max.

HE - Variable Penetration Table		
Armor Type		Adjust the base penetration by this:
Normal, Rounded, Deflection (D6)	Underlined (D6)	HE
6	5+	2 x maximum
5	4	1.5 x maximum
2 - 4	2-3	maximum
1	1	½ max.

Vehicle Location Damage Table				
Hull Front	Hull Rear	Turret, SuperS	Cupola	Track
Fire [D]	Fire [D +1]	Fire [D]	TC [all]	Track [D-2]
Mob.[D]	Mob.[D-1]	Gun [D]		
(Pass [D])		TC [D]		

Damage that shows a 'D+1' the D-number is increased by one not the die roll.

Damage that shows a 'D-1' the D-number is lowered by one not the die roll.

For Rear Engine vehicles swap front and rear results.

For mid-engine use rear hull as center hull and SuperS as rear hull.

Pass - passengers only apply to front and mid engine armored personal carriers and where front and rear effects are swapped.

APCR, APDS, HVAP - Variable Penetration Table		
Armor Type		Adjust the base penetration by this:
Normal (D6)	Rounded, Deflection, Underlined (D6)	APCR, APDS, HVAP
6	-	maximum
5	6	max. -2
4	5	max. -6 **
3	4	¾ max.
2	3	½ max.
1 or less	2 or less	¼ max.

** - But never **more** than ¾ maximum penetration.

Use this table for ATR vs. spaced armor.

British APCNR and German squeeze-bore treat as APDS.

Critical Hit Penetration	
D6	Adjust the penetration by the ratio below
9	2 x maximum
8	1.5 x maximum
7	maximum + 1 ***

*** But no more than 1.5 x maximum.

Note - There is no Critical penetration for HE shells.

Artillery Piece Location Damage Table		
D 10	Location	Damage
5-10	Gun Shield	Gun [D], Crew [D]
1-4	near miss	HE effect on Crew

Gun Shield - Must penetrate the gun shield to do damage.

Near miss - Roll per HE killpower effects on the crew taking into account protection of gun shield and defensive cover.

Vehicle Crew Morale Bailout Factors	
Factors	Adjustment
One track broken	+1
Mobility loss or two tracks broken.	+2
Track or mobility loss while moving.	+1
Main weapon destroyed.	+1
Vehicle commander killed and armor penetrated.	+1
Vehicle commander killed but armor not penetrated.	+0
Green crew	+1
Elite Crew	-1
Stunned and vehicle penetrated.	+1
Vehicle on Fire	+5

If any factors apply one D6 bail roll must be made.

If roll is equal or less (use unders) the crew bails out.

Artillery Data Table							
Type	Gun Shield	Range	Size	ROF	Date	Notes	
		Max					
US M3	37/L53	.5	5800	-3	10	40	w,s
US M1	57/L50	.5	4700	-2	10	5/41	w,s
US M1 How.	75mm	.5	4400	-2	10		
US M1917	75mm	.5	5700	-1	10		
US M5 3"	76.2/L50	.5	4500	-1	9	1/44	w,s
US M2A1	105/L23	.5	5500	-1	6		w,s
US M1A1	155/L20	.5	5600	0	3		
US M3	155	0	7400	0	3		
US M1917	155/L38	0	9200	0	3		
US Long Tom	155/L45	0	11600	1	2		
US M2	203/L23	0	16300	1	1.5		
Bofors	37mm	.5	3700	-3	10	36	w
Br 2pdr	40/L52.2	.5	3600	-2	10	38	
Br 3 pdr	47/L41.3	.5		-2	10	38	
Br 6 pdr	57/L50.6	.5	2500	-2	10	41	
Br Canon de 75	75mm	.5	9200	-1	9	1900	
Br 17 pdr	76.2/L58	.5	4500	-1	8		
Br 18 pdr	84/28	.5	5000	-1	7		
Br 25 pdr	87.6/28.8	.5	6100	-1	8		
Br 95mm		.5	2700	0	5		
Br 4.5"	114/L41	.5	3200	0	5		
Br 5.5"	140/L30	.5	8200	0	3	39	
Ge 2.8 sPzB 41	28/20	.5		-3	9	41-42	
Ge Pak 36	37/L45	.5	2700	-3	10	36	
Ge sPzB 41	42/28	.5		-3	9	41-42	
Ge Pak 38	50/L60	1s ²	1400	-2	10	38	
Ge le.IG 18	75/L25	.5	1700	-1	9	40	
Ge le.IG 42	75/L26	.5	2300	-1	9	44	
Ge Pak 40	75/L46	1s ²	3800	-2	9	41	
Ge Pak 41	75/55	1s ²		-2	9	41-42	
Ge Pak 36(r)	76.2/L42	1s ²	4500	-2	9	42	
Ge Pak 39(r)	76.2/L51.5	1s ²	4500	-2	9	42	
Ge Flak 18,36	88/L56	.5	7400	0/-1	8	34	
Ge Pak	88/71	.5	8750	-1	7	44	
Ge le. FH 105mm		.5	3800	-1	6	18	
Ge le. FH 18/40	105/L22	0	5300	-1	6	35	
Ge K44	128/L44	.5	12200	0	2.5	44	
Ge le. IG 33	150/11	0	2350	0	3	18	
Ge le. FH 18	150/30	0	9150	0	1.5		
Ge K18	170/30	0	11500	1	1.5		

Ranges are in game units.

Note - to reach ranges over 4000 with heavy shells often entails using multiple bag charges which may reduce ROF or reduce duration of bombardment.

Artillery Data Table							
Type	Gun Shield	Range	Size	ROF	Date	Notes	
		Max					
R 45mm	45/L46	.5	4450	-3	9	1/41	
R ZiS-2	57/L73	.5	4200	-2	9	7/41	
R M1902/30	76.2/L30	.5	4200	-2	9	10/30	
R M1936	76.2/L51.6	.5	6800	-2	8	10/36	
R F-22 USV	76.2/L40.5	.5	3850	-2	9	1/41	
R ZiS-3	76.2/L51.6	.5	6800	-2	8	10/41	
R ZiS-5	76.2/L42	.5	5800	-2	9	10/41	
R ZiS-S-53	85/L54.6	.5		-1	8		
R 100M-1944	100/L59.9	.5	8800	-1	5	9/44	
R 107 M1910	107/L38	.5	5300	0	5	1910	
R M1938	122/L20	.5	5900	0	4	1930	
R 130mm	130/L50	0		1	2.5		
R M-1930	152/28.8	0	8500	1	2.5		
R B-4	203/L25	0	8000	1	1		
I Cannon de 47/32	47/L36	.5	1700	-2	10		
I Cannon de 65/17	65/L18	.5		.2	9		
I Cannon de 75/27	75/L30	.5	5100	-1	9		
I Cannon de 105/25	105/L28	.5	8800	0	6		
I Cannon de 149/20	149/20	0	7300	0	3		
I Cannon de 149/40	149/L44	.5	8800	0	2		
I Cannon de 210/28	210mm	0	8000	0	1		
F 25mm Hotchkiss	25/L72	.5		-2	9		
F 25mm Puteaux	25/L77	.5		-2	10		
F Puteaux SA37	47/L53	.5		-2	9		
F Puteaux Cavalerie	75/L18	.5		-1	9		
F Puteaux M1897	75/L36.3	.5		-1	9		
J Meiji 41	75mm	.5	5500	-1	9		
J how. M91	105mm	0	5200	0	6		
J how. M4	150mm	0	4900	0	3		

Mortar/Rocket Data Table							
Type	Gun Shield	Range		Size	ROF	Date	Notes
		Min	Max				
50mm mortars	0	50	300	-3	10		
50-60mm mortars	0	100	900	-3	10		
61-90mm mortars	0	150	1200	-2	9		
91-120mm mortars	0	300	2700	-1	8		
121mm+ mortars	0	600	4800	-1	5		
R Katysuha 82mm	0	500	2500			7/41	
R Katysuha 132mm	0	600	3600			8/41	
US 4.5" salvo rockets	0	300	1900				
Ge 150mm Nebelwerfer	0	400	3350				HE
Ge 210mm Nebelwerfer	0	400	3900				HE
Ge 300mm Nebelwerfer	0	400	2250				Flam

Artillery Area Fire Sizes							
Size Shells	Closed Sheaf		Killpower		HE		
	mortar	guns	HE	HEAT	Pen	D	S
Up to 32mm		19dia	-1		.5	8	15
32-39mm		20x25	0		.5	7	12
40-59mm	25x25	25x50	1	0	1	6	11
60-79mm	50x50	50x75	2*	1	1.5	5	10
80-99mm	75x75	75x100	3	1	2	4	9
100-119mm	75x75	75x125	3	2	2.5	3	8
120-139mm	100x100	100x125	4	3	3	2	7
140-159mm	100x100	100x150	5	4	4	2	6
160-179mm	125x125	125x150	6	4	5	1	5
180-199mm	125x125	125x175	6	5	6	0	4
200-239mm	125x125	125x200	7	6	8	-1	3
240-299mm	125x125	125x200	8		10	-2	2
Mortars under 120mm are -.5 to penetrate but have +1 to HE killpower. * 75mm US and UK HE is +1 to this factor.							

Indirect Artillery Call for Fire Allocation					
Type Target	Turns of fire				
	Ge.	Br.	USA	USSR	Othr
Infantry - battalion	6	5	6	8	6
Armor - battalion	6	5	6	7	7
Infantry - Coy in the open	5	4	6	6	4
Infantry - Coy dug in	3	2	4	3	2
Armor - Coy	5	4	6	6	5
Infantry - Platoon in open	2	3	3	0	0
Armor - Platoon	4	3	4	2	2
Armored Infantry platoon	3	2	4	2	2
AT guns - battery	3	2	4	3	2
FO or command positions	2	1	2	0	1
Counter Battery Fire	4	4	4	4	4
Suspected enemy position	1	1	2	0	0
Except for British reduce the number of turns of fire by 1 if more than one battery joins in. Except for British reduce the number of turns of fire by 2 if more than a battalion joins in. Targets of priority 1 or less are not worthy of attention unless FO is in sight of it and it is a mission objective. Only pre-designated counter battery may fire counter fire and no other fire. For guns under 85mm the turn length may increase 2 turns. For guns 85-110mm the turn length may increase 1 turn.					

Armor Basis Penetration of Direct Fire HE									
Size Shells	Penetration at Range							Effect	
	3.5	3	2.5	2	1.5	1	.5	D	S
32-39mm					300	600	900	7	12
40-59mm			225	450	675	900		6	11
60-79mm	200	350	550	725	900			5	10

Armor Basis Penetration of Direct Fire HE									
Size Shells	Penetration at Range							Effect	
	6	5	4	3.5	3	2.5	2	D	S
80-99mm			200	350	550	725	900	4	9
100-119mm		200	350	550	725	900		3	8
120-139mm	200	350	550	725	900			2	7

Armor Basis Penetration of Direct Fire HE									
Size Shells	Penetration at Range							Effect	
	10	9	8	7	6	5	4	D	S
140-159mm/L15-				225	450	675	900	2	6
140-159mm/L16+			200	350	550	725	900	2	6
160-179mm		200	350	550	725	900		1	5
180-209mm	200	350	550	725	900			0	3

Armor Basis Penetration of Direct Fire HE									
Size Shells	Penetration at Range							Effect	
	13	12	11	10	9	8	7	D	S
210-239mm			200	350	550	725	900	-1	2
240-279mm		200	350	550	725	900		-1	1
280-319mm	200	350	550	725	900			-2	-1

Armor Basis Penetration of Direct Fire HE									
Size Shells	Penetration at Range							Effect	
	16	15	14	13	12	11	10	D	S
320-359mm			200	350	550	725	900	-3	-3
360-389mm	200	350	550	725	900			-4	-4

Artillery To-Hit for Direct Fire of HE, HEAT							
Size Shells	To-Hit for Range						
	1	3	5	7	9	10	11
40mm-69mm	100	275	350	450	550	700	900
70mm-149mm	50	200	350	450	600	750	900
150mm+	25	150	350	450	600	750	900
This represents a generalization of all guns firing HE and HEAT. Specific guns may be better or worse depending on various factors.							

Kill Power on Infantry Adjustment Factors	
Situation	Adjustments
Target moving 20 or more in the open.	+1
Target charging 20 or more in the open.	+2
Target riding on outside of AFV.	+2
Team sized not in contact with friendly squad.	+1
Target in woods and under HE attack without overhead cover.	+1
Target gun crew protected by gunshield.	-1
Target gun crew protected by emplacements.	-1
Target firing from trenches or foxholes.	-2
Target firing from open AFV	-1
Target stationary or ½ moving in woods.	-1
Target stationary or ½ moving in wooden or terra cotta buildings or ruins.	-1
Target stationary or ½ moving in stone or concrete buildings or rubble.	-2
Target stationary or ½ moving in heavy woods.	-2
Target stationary hiding in hard cover.	-3

Notes:

Emplacements may include sandbags, gun pits, spider holes, stone walls. Various things that are bullet proof.

The protection of various buildings and walls, etc. is negated to 0 if the weapon can penetrate it.

Wood can be penetrated if the weapon penetrates .5cm.

Terra cotta or masonry is negated by 1cm penetration.

Sone or concrete is negated by 2cm penetration.

Casualty team sized elements in contact with can be rebuilt from the squad if in contact (touching) with the squad. The squad and team becomes suppressed for one turn.

Factors are additive.

Vehicle Movement Costs Table			
Movement Situation	Speed	Max. Move	
		CC	Road
Moving in clear terrain.	Full	Full	-
Moving along roads	Full	-	Full
Climbing hills	½	½	
Through light woods.	½	100	-
Through heavy woods.	¼	50	-
Through soft sand.	½	100	
Through rocky ground	½	100	
Through high vegetation	¾	150	
Through bog or marsh	¼	50	
Through deep snow	½	100	200
In reverse (un-buttoned)	½	50	50
In reverse (buttoned)	¼	30	
Crossing linear obstacle	-50		
Turning over 22½° to 60°	-25		
Turning over 60°	-50		

Set up and Take Down	Required Time	
	Up	Down
Anti-tank gun up to 60mm	1	½
Anti-tank gun 60 - 80mm	2	1
Anti-tank gun 80 - 110mm	3	2
Anti-Aircraft gun up to 60mm	1	½
Anti-Aircraft gun up to 110mm	3	2
Mortars up to 66mm	½	½
MMG, HMG	½	½
Mortars 66 - 88mm	1	1
Mortars 88mm - 130mm	2	1
Self-propelled Artillery up to 95mm	1	1
Artillery up to 95mm	2	2
Artillery 95 - 165mm	3	2
Artillery 165- 210mm	4	3

Ramming/Crushing Table				
Weight Difference	Damage/Stun			
	Stationary		Moving	
	heavier	lighter	heavier	lighter
under 5	8/7	7/7	8/8	8/7
5- 10	9/8	6/5	9/9	7/6
10-20	10/9	5/3	10/9	6/5
20-30	11/10	4/2	11/10	5/4
30-40	12/11	3/2	12/11	4/3
40-50	13/12	2/1	13/12	3/2
50+	14/13	1/0	14/13	2/1
Determine the weight difference between ramming vehicle and ram target. Stationary vehicle is the target of ram . Ramming vehicle is the moving vehicle. Vehicles ramming each other both use the Moving column.				

General Moral Test				
Type Unit	Level of Loss			
	15%	30%	60%	80%
Finish	5	17	57	80
French 39-40	18	38	75	95
French Foreign Legion	5	15	50	75
German Army	10	30	60	85
German SS Infantry	9	28	60	80
German SS Panzer	6	25	55	80
German Fallschirmjäger	5	25	50	75
Hungarian-Rumanian	17	45	60	92
Italian	20	40	80	98
Japanese Army	10	30	50	75
Japanese Marines	5	20	40	60
Russian 39-41	25	50	90	98
Russian 42-43	18	40	80	92
Russian 44-45	11	35	75	88
Russian Guard	9	30	69	80
U.K.	10	32	66	90
U.K. elite	8	30	62	84
U.K. Gurka	6	25	50	75
U.S. Army	12	35	70	95
U.S. Marines	10	30	70	90
U.S. elite	8	28	65	85
Other Allies	25	55	87	97
Other Axis	22	55	88	99

General Morale Test Modifiers:

Add +5 to the D100 if under charge orders.

Add +10 to the D100 if defending in homeland city.

Add +10 to the D100 if no fighting enemy within 600.

Subtract 10 if the enemy is on three sides.

Subtract 15 if surrounded by enemy.

Failure Results Modifiers:

Add +10 to D100 if 25% or less losses.

Subtract 10 from D100 if more than 75% losses.

F - Treat this morale failure as the loss of the unit when computing the number of lost elements of the next higher level unit in the organization.

Moral Test Failure	
D100	Results
0 or less F	Surrender and Rout - All elements (troops, vehicles and gun crews) in this unit within 500 of the enemy surrender. All other elements within this unit retreat off the game table. All immobilized vehicles and stationary artillery pieces within 800 of the enemy are abandoned.
01-11 F	General Retreat - Crews abandon immobilized vehicles and towed guns within 500 of the enemy. Crews abandon all vehicles within 200 of the enemy and all troops within 100 of the enemy surrender. All other units withdraw at half movement or better speed to a position 2500 or more away from current know enemy locations.
12-33 F	Disengage - Advancing elements forward progress must halt. Defending elements must fall back some distance. Motorized elements must withdraw back 800 away from enemy positions. Infantry elements must withdraw 300 away from enemy positions. Immobilized vehicles within 250 of the enemy are abandoned. Routing troops within 150 of the enemy surrender. Troops not within 800 of the enemy must establish a communication link to the next higher command element and halt from 1-4 turns. Troops that have suffered casualties must regroup after reaching a position 800 or more from the enemy.
34-66	Forward Progress Ends - Units not engaged within 200 of the enemy must halt their progress. They may not continue to advance until a communications link with the next higher level of command can be made. Units that have suffered more than 50% casualties may not advance until they are reinforced with elements of an equal quantity. Elements currently engaged may continue with their orders.
67-88	Regroup - Units must temporarily halt progress. Units must halt and regroup for D6 number of turn. Units may regroup while under fire, but may not regroup while engaged. Units may not issue any other orders except cover or withdraw until they regroup. Once regrouped the unit may advance again provided it passes a test of rolling a D100 greater than its actual percentage loss.
89-100	Halt for Contact - Unit must halt until it can establish contact with battalion command. Units may change orders at this time.
101+	Uncontrolled Advance - Elements move forward the enemy for at least 200 or until they reach the enemy's position.