

Ten Rounds Rapid

Fast play Rules for 20 mm WW II, and Korea.

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1.0 Introduction.

There appears to be a reaction at the moment to the complex, highly technical approach to writing rules. There also appears to be a reaction against using small scale models, and a ratio where one vehicle is one vehicle. These rules are my attempt to deal with this. They are simple in concept, only involve simple calculations, and have the minimum of tables. Tables are in the main body of the rules.

I've chosen to use the real organisations of units, fudging the scales at times to do this. So an infantry section represents a company, a single tank represents a platoon, and one gun model a troop or battery, depending on the size of the prototype. However the size of infantry units is scaled down slightly, to allow for the inevitable shortage of foot troops. This allows battalion and brigade scale actions to be fought on a reasonable budget. This is a very important consideration given the ever increasing cost of 20 mm models.

To play the rules you will need only a supply of ten sided dice (D10) , some markers, a metric tape, realistic terrain and at least a battalion of models per side. This should give a reasonable evening game. For a complex game landing craft, aircraft and gliders can be added.

Most of the data in these rules was taken from "Tiger", so if your favourite vehicle or gun is missing you can look to that source for it. The majority of the data you will need is here somewhere, I think only the Poles, Hungarians and Romanians are missing, together with the odd small run vehicle for the other powers. Even some of these have crept in, but Maus and E100 have not.

There is no fixed order for undertaking actions within a move, and the move is fully interactive.

2.0 Scales and Figure representation

In rules of this type all scales are something of a fudge, particularly time and movement scales. So :-

Time Scale is 1/2 to 1 Hour per move. Use which ever suits, the times have been chosen to allow some engineering and vehicle repair to be carried out.

Ground Scale is 1 cm = 20 m, approximately. All distances are quoted in centimetres, so there is no need to work anything out. Use this scale for 15 mm, 10 mm, and 6 mm figures as well.

Figure and Model Representation.

This is somewhat more complex. The exact ratios vary between various armies, and at various

times. Some fudges will be needed to account for this, so a few example units are included, to help make the process clear. Firstly the ground rules or guide lines are :-

Infantry :

1 Rifle Section is an infantry company. Therefore a rifle company will have between 6 and 10 figures. This restriction is deliberate, and ignores the sections, or squads if you insist, which have more than 10 figures these should be reduced to that size. Additionally any A/T weapon, each LMG, and any support weapons operated must be represented. The Russian Tank Desant and Cavalry units armed primarily with SMG's should be modelled as such.

A platoon HQ represents a battalion HQ. It should look like the prototype, and must have a radio if platoons were so equipped . Similarly there must be a recognisable officer figure.

Battalion level support weapons such as medium and heavy mortars are represented by 1 model per two, three or four weapons. MG platoons are represented by a pair of weapons. If all Rifle companies have a weapons platoon add a section of each the weapon types carried. If each company in the prototype has a single weapon of a particular type add one of these to your scaled "Battalion".

Vehicles :

Fighting vehicles each represent 1 Platoon of the prototypes, except in the rare cases where this would be 6 vehicles. This means that a vehicle represents two to five real vehicles. Therefore Russian Heavy Tank and Tank Destroyer companies, with 5 vehicles may have either two or one models, at players choice. Any six vehicle platoons should be split into two models, of three each.

Transport vehicles represent enough of their prototypes to lift or tow their assigned passengers or guns. Therefore : American models represent 5 Tanks, or 4 Tank destroyers. British models represent 3 Tanks, or 4 for some in 1944, or 4 Tank Destroyers. German models can be 2 to 5 vehicles, depending on type, and period. Russian models can be 2, 3 or 5 vehicles.

Artillery and A/T Guns.

An A/T gun model represents one platoon or troop, 2 to 4 weapons, and one platoon only. Artillery Models represent 3 or 4 Guns, except in the case of railway artillery, where they represent one weapon. Therefore 6 and 8 gun batteries should be represented by 2 models.

3.0 Move Sequence.

At the start each move both players roll a D10. The higher score then attempts to motivate his first unit. This is covered under Section 4 Morale. Once this unit has finished all its actions the opposition may activate a unit. In a big game with multiple players divide the table into sectors, and assign at least one battalion sized unit to each sector. Check to see who moves first in each sector. Both sides should use the same sectors, and are restricted to operating only in that sector.

When testing roll for company sized units, and supporting platoons, i.e. as detailed in the examples above.

Off table artillery activates when it's OP team, if it has one, is activated.

On table artillery is treated in the same way as any other unit.

Off table artillery with no OP team must be programmed, and fires at the start of the move.

Aircraft attack during the first phase of the move at the same time as programmed artillery.

Most units may move and fire, or fire and move. However units attempting to fire indirect, or engage aircraft may not move and fire.

4.0 Morale.

In these rules morale is called motivation, and must be checked by each unit in any move that it attempts to carry out any combat action. This includes moving forward, firing on located enemies, and rallying if it has broken. Motivation is checked by Company, or Independent Weapons or Support Platoon. All battalion sized units must be grade at one of the following three levels :

Green - this represents poorly trained or motivated units.

Normal - this represents the bulk of most armies.

Elite - Highly motivated units such as airborne, or commandos.

Units are also divided into Armoured (or vehicular), and Other, which includes all other types of combat unit. Armoured units are units which fight entirely from vehicles. This means that infantry in armoured carriers count as Other, whilst an American Recce jeep, or an LRDG patrol would be armoured, despite their soft vehicles. Units have a motivation number based on grade and type :

Green Armour have a motivation number of 6

Green Other have a motivation number of 5

Normal Armour have a motivation number of 7

Normal other have a motivation number of 6

Elite Armour have a motivation number of 8

Elite other have a motivation number of 9.

To see if a unit is motivated roll a D10 and add the motivation number. Modify this as follows :

For Armour

Advancing or firing Artillery	+1
Entering poor visibility with no friendly foot within 5 cm	-1
Enemy infantry located in terrain cover within 15 cm	-2
No friendly vehicles in Company within 20 cm	-1
No Friendly troops within 20 cm	-2
Per damage marker on unit this move	-1
Each vehicle lost in the game	-2
Under Flame attack	-2
Under gas attack	-2

For Other

Advancing or firing artillery	+1
Enemy armour within 20cm, and no friendly Armour or A/T within 30cm	-2
Officer lost	-2
No friendly units within 20cm	-1
In field defences	+/- 1
Per figure lost	-1
Per figure lost this move	-1
Under flame attack	-2
Under gas attack	-2

Results :-

Any unit other than towed artillery scoring over 18 will advance at full speed towards the nearest located enemy, or position which could be concealing one. Towed artillery will carry on with its current orders.

Armour scoring 8 or more, and Other scoring 10 or more carry out any action they wish.

Armour scoring 4 or more and Other scoring 6 or more may only move forward at 1/2 speed, and may not move closer than close range to any located enemy. Towed artillery will carry on with its current orders.

Armour scoring 1 or more and Other scoring 4 or more retire to the nearest cleared terrain feature, and halt until they can motivate with a score of 10 or more. Off table artillery will carry on with its current orders. On table artillery will attempt to limber up and move out of sight of any visible enemy.

Any type of unit scoring 0 or less routs, moving towards the edge of the table it entered from. If it cannot get off table it will surrender to the first enemy unit in its path.

5.0 Observation.

One of the most important features of World War II was the empty battlefield, with few or no men visible to the enemy at any time in the front lines. This can cause problems, since a table top general can see all of the units deployed by his opponent, and if not restricted to react to them unrealistically. So we need to include an observation test to limit what can be seen, and therefore fired at. The real situation is very complex, so this section is very much simplified. It is covered by the use of both maximum visibility distance and a test to see models in terrain features. The distances can also be modified by weather and night, but these are left as optional rules. To be seen there must also be a line of sight, which may not be broken by :

- Building models
- Patches of wood.
- Areas of higher ground.

Models do not break line of sight, and it should be checked from centre to centre. In the case of foot figures the centre is the top of the head, even if prone.

The maximum visibility distance is 150 cm.

Moving foot troops can be seen at 100 cm.

Stationary foot troops, and vehicles or heavy weapons on the edge terrain features can be seen at 50 cm.

This applies to hull down vehicles.

Foot on the edge of a terrain feature, or stationary along a wall or hedge can be seen at 25 cm.

However if models are concealed in or along a terrain feature they will only be seen automatically at half the distances shown above. Otherwise they can only be seen after a successful location test. Roll a D10 :

Vehicles and heavy weapons are located on a score of 7 or better at 25 to 50 cm.

Infantry are located on a score of 9 or 10 at 12.5 to 25 cm.

Troops who are firing are not concealed, if firing small arms, MG's or mortars they will be seen at 100 cm, if firing heavier weapons 150 cm.

6.0 Movement.

All move distances are quoted in centimetres. The distances that AFV's can move are based on

their cross country speed. When moving in poor or bad terrain, or trying to cross a linear obstacle such as a hedge fence or wall units and individual roll terrain penalties. These take the form of a D10 centimetres deducted from the distance moved. I have included some examples of vehicle speed classes to allow others to be fitted in. It is not comprehensive. Similarly the definitions of poor and bad terrain are not comprehensive.

Movement Type	Road Rate	Cross Country Rate	Penalties			
			Poor	Bad	Impassable	Linear (1)
Infantry	20cm	29cm	1P	2P	3P	1P
Cav/Bicycles	30cm	30cm	2P	3P	N/A	1P or 2P*
Horse Transport	30cm	25cm	2P	3P	N/A	N/A
Manhandled Gun	10cm	5cm	3P	N/A	N/A	N/A
Jeep Type Veh	80cm	50cm	2P	3P	N/A	3P
Lt Truck, Wheeled AFV	80cm	40cm	2P	3P	N/A	2P or 1P
Larger Wheeled Transport	60cm	30cm	2P	3P	N/A	2P
1/2 Tracks & Carriers	80cm	40cm	2P	4P	6P	2P
Very Slow Tracked	25cm	20cm	1P	2P	3P	1P
Slow Tracked	40cm	30cm	1P	2P	4P	1P
Normal Tracked	60cm	40cm	2P	3P	6P	1P
Fast Tracked	70cm	45cm	3P	4P	7P	1P
Very Fast Tracked	80cm	50cm	4P	5P	8P	1P

* Where two penalties are shown, as with Cavalry and Bicycles, or Lt Trucks and Wheeled AFV's the first figure is for the first list type, i.e. cavalry or Lt trucks.

(1) This applies to normal types of hedge, fence, wall or drainage ditches. For large obstacles, such as walls or fences of over 1.5m high, (hull height on a medium tank model) and rivers or larger streams add 1 penalty. For particularly solid hedges such as Bocage add 2 Penalties. Specialist hedgerow cutters and bulldozers subtract one penalty when crossing linear obstacles. Barbed wire is impassable to cavalry and wheeled transport. Infantry take one penalty per cm width, if it is deeper than 3 cm roll three dice and subtract the result. This continues until the wire is fully traversed.

Poor going woods to AFV's and cavalry, infantry moving off roads in towns, soft ground, vehicles going up shallow slopes and similar.

Bad going woods to other vehicles, boggy ground to all vehicles, marshes, rubble and A/T ditches to infantry, and steep slopes to all.

Impassable is swamp to all, rubble to vehicles, A/T Ditches to vehicles. Cliffs to all.

Bulldozers moving in rubble, or attacking an A/T ditch take the penalties for moving in impassable terrain, but reduce it to bad going for following vehicles. They may continue this process until the area is either normal or road going again.

Infantry take 1 penalty from their move to mount or dismount vehicles, except bicycles, which are free to dismount.

Vehicles take 2 Penalties to unlimber towed weapons, or unload passengers.

Cavalry take one penalty to dismount, and must leave 1 figure in 4 to hold the horses (round this to the nearest whole number).

Any figure or vehicle moving and firing takes one penalty to do so. Towed weapons, Tripod MG's, Medium or heavier mortars, and weapons firing at aircraft may not move and fire.

Some examples of Tracked Vehicle Speeds :

Very Slow : WW I Tanks, Renault FT, Matilda I

Slow : Matilda II, Valentines, Churchill's, Char B1, Chart D1, Renault R35, R38 & 40, Elefant, Type 3 Ka-Chi, Type 89 Ko, KV's.

Medium: M4A3E2 Sherman Jumbo, Centurion's A9, A10, Hotchkiss H35, FCM 36, Renault UE, Panzer I,

Panzer II A-J, Panzer 35(t), Panzer III's, Panzer IV's Tiger's, Stug III's & IV's, Jagd Pnz IV, Nashorn, Hummel, Wespe, Marder II's, P40, Type 97's, T26's, T28's, T32, T35's, IS-II & III, ISU's, SU152.

Fast: M3 & M5 Stuart's, Sherman's, M26 Pershing, Lee/Grant, M10, M36, M7 Priest, A13, Covanantor, Crusader, Cavalier, Centaur, Cromwell, Challenger, Comet, AMR's, Hotchkiss H39/40's, Souma S35, Lorraine Carrier, Panther's, Jagd Panthers, Japanese Tankettes, & SP's, Russian Lt Tanks, BT's, most T34's, most SU's.

Very Fast: M24 Chaffee, M18 Hellcat, Vickers Lt Tanks, Tetrach, T34/76 A.

7.0 Firing at Infantry and Soft Targets, except Indirect Fire.

This covers infantry small arms fire, support weapons fire from tripod MG's, auto cannon, and light mortars, and firing HE from vehicles and deployed guns. All use the casualty chart to see what results occur.

Ranges.

There are five range brackets for firing, Point Blank, Close, Medium, Long, and Extreme. They are different for different weapons. These are measured from closest point to closest point.

	Point Blank	Close	Medium	Long	Extreme
Small Arms/ Pivot MG's	to 4 cm	to 8 cm	to 24 cm	to 40 cm	to 60 cm
Tripod, Turret MG's	to 4 cm	to 20 cm	to 40 cm	to 60 cm	to 75 cm
Auto Cannon	to 4 cm	to 24 cm	to 50 cm	to 60 cm	to 100 cm

Basic Small Arms Factors.

The basic factor for small arms fire is 1 per firing figure, but no more than 10 figures may fire in the same group. The basic factor is amended as follows :

-1 If no LMG carried

- +1 For each extra LMG carried (Max +2)
- +2 If light mortar is carried
- +2 If carrying Bazooka, PIAT or PanzerSchreck (but not if firing at an armoured vehicle at the same time).

Factors for Support Weapons

These are primarily tripod MG's and auto cannon up to 40 mm. The calibre of a Machine Gun makes little difference to soft targets, larger weapons fire slower, and therefore generate less fire, but it is more effective when it hits. Fire is resolved by MG platoon, or single heavy weapon or vehicle. The basic factors are :

- Single Vehicle Pivot mounted MG/HMG/Auto Cannon 4
- Twin Vehicle Pivot mounted MG/HMG/Auto Cannon 6
- Single Tripod or Vehicle mounted MG/HMG/Auto Cannon 6
- Twin Tripod or Vehicle mounted MG/HMG/Auto Cannon 8
- Triple Tripod or Vehicle mounted MG/HMG/Auto Cannon 9
- Quad Tripod or Vehicle mounted MG/HMG/Auto Cannon 10

Fire modifiers.

The two sections above give the basic fire values. These are increased or reduced by the target circumstances. The table below gives the final factor after such modification. This takes account of range, cover, movement and other factors. Any shift which would move the factor off the table to the right means that the fire is ineffective, if to the left use the left most column. The basic factor is used on Column C.

For Range

At Point Blank	2 Left
At Close	1 Left
At Long	1 Right
At Extreme	2 Right

For Cover

Light Cover	1 Right
Medium Cover	2 Right
Heavy Cover	3 Right
Total Cover	4 Right

For SMG's at Point Blank 1 Left, at Medium, 1 Right, at Long 2 Right, at Extreme 3 Right.

For Self Loading Rifles at Long 1 Left. (This applies to US infantry from 1943).

Vehicles firing on the move 1 Right.

Final Fire Factors.

A	B	C	D	E
2	2	1	1	1
4	3	2	1	1
6	4	3	2	1
8	6	4	3	2
10	8	5	4	2
12	9	6	4	3
14	11	7	5	3
16	12	8	6	4
18	14	9	6	4
20	15	10	7	5
22	17	11	7	5
24	18	12	9	6
26	20	13	9	6

28	21	14	10	7
30	23	15	11	7
32	24	16	12	8

Factors over 15 are lost, as the casualty table does not go over this value.

Casualty Table.

Roll along the top of the table with a D10 and check against the fire factor in the left column.

Fire Factor:	1	2	3	4	5	6	7	8	9	10
1										1
2									1	1
3								1	1	1
4							1	1	1	1
5						1	1	1	1	1
6					1	1	1	1	1	1
7				1	1	1	1	1	1	2
8			1	1	1	1	1	1	2	2
9		1	1	1	1	1	1	2	2	2
10	1	1	1	1	1	1	2	2	2	2
11	1	1	1	1	1	2	2	2	2	3
12	1	1	1	1	2	2	2	2	3	3
13	1	1	1	2	2	2	2	3	3	3
14	1	1	2	2	2	2	3	3	3	3
15	1	2	2	2	2	3	3	3	3	4

Allocating Casualties.

Once the number of casualties has been decided they must be allocated. This is important to see if any specialist weapons are removed. In the case of Russians all hits are permanent, as men were only trained to operate their own personal weapon. In other armies weapons may not be fired in that turn. (Note that this is deliberate, if a unit has already fired it does not lose the use of any weapons which are casualties later in that move.) If a unit remains stationary in it's next move any specialist weapons are replaced, and another figure removed instead. This is not done with radios or Officer figures, whose loss is permanent. To decide which figures are casualties roll a D10 for each hit taken, count from the right, any duplications are not re-rolled, this shot was absorbed by the terrain. Soft transport takes 1 damage marker per 2 hits, as does deployed artillery under fire at point blank range, or being fired at by Auto Cannon or HE Shells. Passengers take hits as normal, in addition to any on their transport, so that it offers no protection to its passengers.

Direct Firing HE.

This section covers firing High Explosives over open sights. This can be done by vehicles and guns with high explosive shells supplied. Therefore British tanks may not fire HE until 1943, since they were not issued with HE rounds until after this date, unless they are CS vehicles. Correct models must be used to represent these, they must be armed with 3", 3.7" or 95 mm howitzers to do so. Tanks may only fire either their main gun or a coaxial MG, unless the main weapon is an auto cannon, HMG or MG. Casualties are decided in a similar way to those from small arms fire. However first you need to see if the target has been hit. There is also a minimum range of 5 cm, to keep the firing model out of it's own HE fire. To hit a target roll a D10, and **subtract 4** if the firer is moving :

Range	Die Roll Needed
Up to 30 cm	2 +
Up to 60 cm	4 +
Up to 90 cm	6 +
Up to 120 cm	8 +
Up to 150 cm	10 +

Deployed artillery and stationary vehicles may fire twice with HE.

The factors for HE fire are listed below. They take the modifiers for cover, but not range which is covered by the roll to hit. To keep things simple hits which miss are ignored. This is somewhat unrealistic, so players can if they wish use the following. Instead of ignoring misses the shells will land at the point rolled, each point represents 15 cm, so a roll of 7 would land the round 75 cm from the firing vehicle, unless it's target is closer.

Gun Calibre	Factor
Up to 46 mm	4
Up to 70 mm, 60 mm Mortars	6
Up to 85 mm	7
Up to 125 mm 3" & 81 mm Mortars	8
Up to 160 mm, 4.2" & 120 mm Mortars, Rockets	9
Over 160 mm Guns and Mortars	10

Some Specials :

Multiple Calibre Mountings. These are primarily LRDG cannon trucks, the US M15, and Italian desert patrol vehicles. In this case the factor for the weapon is the number of barrels fitted. Where they are on different pivots or mounts they may fire at different targets, if on the same mount as in the M15 they may not.

Flame-throwers. These are of two types, Manpack and vehicle mounted. The difference is in the range. All figures and models between the firer and it's maximum range are attacked with a factor of 16. Range modifiers are not used, but cover ones are. Ranges are :

Manpack 4cm
Vehicle 8cm

This section covers the firing of anti-tank weapons. They may be used against armoured vehicles, soft transport, deployed artillery and located bunkers. It cannot be carried out by weapons which have only HE, and is less accurate for low velocity weapons using HEAT ammunition. A/T grenades are covered at the end of the section. The procedure is fairly simple, and the number of modifiers has been kept to a minimum. Similarly one die roll will decide the result. The calculation used is as follows :

$D10 + \text{Gun Strike Value} - \text{vehicle Defence Value} - 1$ per damage

- +/- Range Modifier
- Movement Modifiers
- Concealment Modifiers

- + Aspect Modifier
- +/- Ammunition Modifiers (Optional)
- 5 If soft transport or deployed artillery.

Gun strike values and Vehicle Defence values are shown later. This does not cover all the 200 + vehicles, and 50 + guns, but does give the most common ones. Others can be slotted in as needed.

Range Modifiers.

There are 5 ranges used, as for small arms fire. The modifiers are :

Point blank	+2
Close	+1
Normal	0
Long	- 1
Extreme	- 2

The distances vary with the type of weapon being fired, and are covered below. Measure from closest point of the hull to closest point of the hull.

Weapon	Point Blank	Close	Medium	Long	Extreme
AT Rifles	to 4 cm	to 8 cm	to 24 cm	to 40 cm	to 60 cm
HMG's and Auto Cannon.	to 4 cm	to 20 cm	to 40 cm	to 60 cm	to 75 cm
AT Rocket Launchers (1)	to 2 cm	to 4 cm	to 8 cm	to 10 cm	to 12 cm
Guns Up to 50 mm	to 4 cm	to 25 cm	to 50 cm	to 60 cm	to 100 cm
Guns Up to 85 mm	to 4 cm	to 30 cm	to 60 cm	to 80 cm	to 125 cm
Larger Guns	to 4 cm	to 30 cm	to 70 cm	to 100 cm	to 150 cm
Howitzers(2)firing HEAT	to 4 cm	to 24 cm	to 50 cm	to 60 cm	to 100 cm

(1) It also applies to German Stick Bombs & Petard Mortars.

(2) Use this for weapons like the German 75 mm L24, French 75 mm L17, British 95 mm, and US 105 mm, or similar.

Movement Modifiers

Self Moving -2

Target Moving -1

Concealment Modifiers

Concealed in wood or Built Up Area -1

Concealed behind hill or dug in -2 (Vehicles claiming this may not fire sponson mounted weapons)

Camouflaged target -2

Aspect Modifiers

These only apply to armoured vehicles.

Firing at flank +1

Firing at rear +2

The centre of the firing vehicle or weapon must be behind the lines shown to claim either flank or rear.

Vehicle Aspects.

Straight lines are drawn across the tanks sides, front and rear.(e.g. to shoot on the rear the firing gun must be within the two sides of the tank as if an imaginary line is drawn from them towards the firer's position)

Front	Front	Front
Flank	Tank (facing upwards)	Flank
Flank	Rear	Flank

Ammunition Modifiers (Optional)

This section covers the ammunition types which significantly changed the performance of a gun. It can be ignored, but does give the weapons a better chance at times. There are three types of ammunition considered, in some cases, as with the American 90 mm, and British 20 pdr the improved ammunition is all that is fired. Only American, British, German and Russian weapons may fire the improved ammunition types. Date restrictions are guestimates, based on trials and issuing dates.

Americans used HVAP, in all A/T weapons . It adds 2 at Point Blank, and Close, 1 at Normal, and Long ranges.

It can be used as follows :

37 mm* from 1943 onwards, any weapon, but very rare.

57mm from 1943 onwards.

76 mm (also 3") from 1944 onwards, in Towed and Tank Destroyers, 1945 onwards for tanks.

* also applies to the British 2 pdr.

British used APDS in 6 pdr, 17 pdr, and 77 mm .

It adds 3 at Point Blank and Close, 2 at Normal and Long, 1 at Extreme.

6 pdr from August 1944 onwards, not in Tanks

17 pdr from October 1944 onwards, in Towed and Tank Destroyers only.

77 mm, this may not have been issued during W.W.II, it can only be used by Comets.

German Used APCR in all weapons upto 1943/4.

It adds 1 at Point Blank, Close, and Normal, and subtracts 1 at longer ranges.

37 mm from 1939 to 1942

50 mm from 1940 to 1944

75 mm L43/48 from 1941 to 1944

88 mm L56 from 1941 to 1943

Note : it was tested for many other weapons, but appears not to have been issued.

Russian Used APCR, affects are as above. It may be used from 1941 onwards, as weapons are introduced. It was only issued to A/ T units, and AFV's. The following weapons had the round :

76 mm L30/41, 76mm L54, 100mm L54, and 122 mm L46.

Results.

The final score must be 6 or more to damage a vehicle.

A Result of +6 gives one damage marker

A Result of +7 gives two damage markers

A Result of +8 gives three damage markers

A Result of +9 gives four damage markers

A Result of +10 gives five damage markers.

If the number of markers **exceeds** the remaining strength of the vehicle or weapon it is destroyed, otherwise it is out of action, and may be repaired. Mark destroyed models with smoke, and out of action ones with a suitable marker. Passengers in vehicles which take

damage roll on the casualty table once for each marker added, using the final score as the factor.

Examples of Vehicle Defence Values .

Defence Value	Vehicles
1	Most A/Cars, M3 1/2 Tracks, Universal Carriers, Scout Cars, A9, A13Mk1, Vickers Lt Tanks, Pnz I, SDKFZ 251 & 250, AMR35/38, Nashorn, L3/33, 38 & 40, Type 94, Type 95 Ha Go, & Tankettes, Russian T27 to T40, T26 A & B1, BT2, BT3, SU 45, SU 57.
2	M18 Hellcat, M2 & M3A1,A2, M8 & M20, A10, A13, Covenantor, Crusader I, Bishop, Archer, Sexton, Staghounds, Humber MkIV A/Car, Renault FT, ACC38, FCM36, Char D1, Panhard 178, PnzII Pnz35(t), Pnz 38(t),A-D&S, PnzIII A-G, PnzIVA-D, Marders, Sdkfz234/1, 2,&4, M11/39, M13/40, Semoventte L40 & M41M, Type 2 TeKo, Type 89, Type 97, HoNi & HoRo, T40S, T60, T26B2/3, AT26, T32, T35-I
3	M3A3, M5, M24, M3 Grant & Lee I-IV, M12, Crusader II & III, AEC Mk I&II A/Car, R35/, R40, H35, S35, Pnz III H&J, StugIIIA-D, Sdkfz 234/2, M15/42, P40, Semoventte M40/42/43, Type 3 Ka-Chi, Type 1 Ch-He, Type 2, Type 3, T60A, BT5&7, T28A&B, T35-II, SU-76m, Su-37
4	M3 Lee IV-V, M10, M36, M7Preist, Matilda I, Valentines, Centaur AA, AEC MkIII, Kangaroo's, H39/40, R38, PnzIVE- G, T70
5	M4, M4A1, M4A2, M4A4, M4A5 Sherman, Cavalier, Centaur, Cromwell I-VIII, Matilda II, CharB1Bis, Pnz III L-M, Pnz IV H/J, Stug IIIF-G, T70A, T80, T34/76, T100, SU-152.
6	M4A3 Sherman, Cromwell IV-VIIIw, Challenger, Comet, Churchill III-VI, Avenger, T34/85, KV I, KV-IA, KV -IS, KV-85, KV-II.
7	Churchill I-II, Su-85,100, 122.
8	Centurion III-V, Churchill IX-XIIILT, Panther, Tiger I, Jagd Pnz IV, JagdPnzIV/70, Stug IV, Hetzer, KV-IB&C, ISU-122, ISU-152.
10	M4A3E2 Jumbo, M26 Pershing, M46, Churchill VII, VIII, X, XI, IS-II, JagdPanther
12	Tiger II
13	Elefant
14	JagdTiger
15	IS-III

Gun Strike Values

Strike Value	Example Weapons
1	French, German, Italian 37 mm, Japanese 57mm , A/T Rifle, HMG's
2	French 25mm, 75mmL17, Italian 47mm, Japanese 45mmRussian 37 & 45mm,20mm & 37/40 mm Auto
3	American 37 mm, British 2 pdr, French 47mm, German 50mmL42 & L60, 75mmL24, Russian 76mmL16 & L30/41.
4	American 75mmL30, 105mm,L21 British 25pdr, 95mmL21, French 75mmL30, Italian 75mmL30, Japanese 75mmL44
5	American 57mm, British 6 pdr, German 75mmL43/48, Russian 122 mm Howitzer. A/T Grenades
6	American 75mmL40, 57mm RCL,Britsh 75mmL39, Russian 76mm L54, 85mmL53

- 7** American 76 mm L54, British 77 mm, German 88mmL56, 37 mm Stick Bombs, Italian 90 mm L50
- 8** American Bazooka, British PIAT, 17 pdr, German 75mmL70, Russian 100mmL54, 122 mm L46
- 10** American 75mmRCL, British Petard Mortar, German Panzerfausten & Panzershreck
- 11** German 88mmL71, Russian 152mmL21
- 13** American 90mmL56, German 128mmL55
- 20** British 20 pdr

Special Weapons.

A/T Grenades. These are of two types, hand hurled and rifle launched. Rifle launched count as Infantry Launchers. Hand hurled are fired in the same way as other weapons, with the ranges being Point Blank - in contact with the vehicle, Close 0.5 cm, normal 1 cm, long 1.5 cm, extreme 2 cm.

Flame-throwers. These are not very effective against armoured vehicles. They have a strike value of 3 against armoured targets. Fire is always at normal range, aspect modifiers are not used, and only the Concealed behind a Hill or Dug in modifier applies.

9.0 Firing Medium and Heavy Mortars and Off Table Guns or Rockets.

This section covers the use of "*Indirect Fire*". Its use is restricted to off table guns, all rockets, and mortars of 60 mm or more calibre. It may either be requested, or planned, unless being fired by on table mortars or rockets which can see their target, who request themselves. It cannot be used by on-table guns which have a visible target, these must fire as covered in Section 7. No weapon may move and fire indirect. All successful fire is resolved on the casualty table for soft targets, with the factors listed in Section 7, armoured targets are covered below.

Requesting Fire

Russian forces may only request fire from their Battalion Mortar platoons.

60 mm and larger Mortars, plus Salvo Rockets which can see their target need to make no request to engage stationary targets. They must score 6 or more on a D10 to engage moving targets moving over 6 cm in a move. If successful on table mortars may fire twice. Mortars may only be requested by the Battalion or Regiment to which they are attached.

Off table weapons, and guns which cannot see their target. These must be requested. There are two types of request, Radio, and Telephone. Radio may be used by any radio equipped unit which is stationary for that move. Telephones may only be used by observers who have not moved at all. Both require a 4 or better on a D10 to make a successful request. 8 or more is needed to fire on a target moving at more than 6 cm. The die roll can be reduced by the following :-

For Radio's 1 per point of jamming being used.

For Telephones - 3 if there is artillery fire falling between the observer and his base line.

Requests may only be directed to the observer's battery (either troop if it represented by 2 models) unless using British or American from 1943 onwards, in which case any artillery battery may be requested, but there is a -1 on the roll for other batteries. Off table weapons fire once per move, unless salvo rockets, which may fire only every other move.

Planned Fire.

Fire from weapons which do not have an observer , and Russian off table artillery (also North Korean and Chinese in the Korean War) must be planned. Such plans must be in writing, and specify the point of aim, firing battery, and move it is fired. The first five moves must be planed before opponents deploy, and move six plans must be written at the start of move one, and so on. Such fire is resolved at the start of each move, before any other elements are moved.

Hitting The Target.

Once a request has been made the landing point of the fire must be found. To do this place a marker on the intended target and roll a D10. Adjust this for each turn of fire at the same point by + 2 if the fire is at a visible point or observed. The test may be taken per battery, or per target as the players wish.

- On a roll of 9 or 10 it lands on target.
- On a roll of 7 or 8 it lands over the target.
- On a roll of 5 or 6 it lands short of the target.
- On a roll of 3 or 4 it lands to the right of the target.
- On a roll of 1 or 2 it lands to the left of the target.

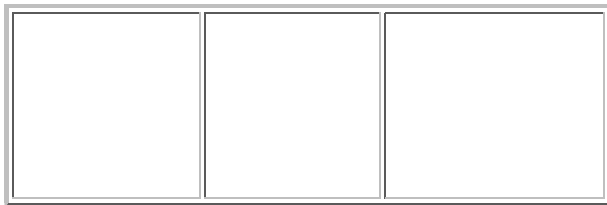
- If the score is less than 9, roll a D10 to see how far the fire scatters,
 - Fire visible to the weapon scatters by 1 D10 cm in the direction shown.
 - Observed fire (where the target point is visible to the observer), scatters by D10 x 2 cm in the direction shown.
 - Unobserved fire scatters by D10 x 3 cm in the direction thrown.

Therefore if a battery is firing at an obsevered target and it rolls 5 it would scatter short, if the second roll was 4 it would be 8 cm short of the target. If the target had been visible the scatter would have been 4 cm, and if unobserved 12 cm.

Area Covered.

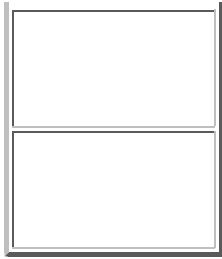
All batteries firing cover an area **10 cm by 10 cm**. Where more than one battery if firing and all use the same scatter roll the areas covered may be superimposed, or laid so that all sides are parallel, therefore it may be a rectangle projecting from each side, or up and down from the target.

i.e. :



or





Where batteries are superimposed add the factors for the batteries together (these are listed in section 7) ,

Effects of on Armoured Vehicles Fire.

There are two types of armoured vehicle, open and closed. Any vehicle under the area covered by fire must test to see if they are hit. Roll a D10.

Open vehicles are hit on a 9 or 10.

Closed vehicles are hit on a 10.

Once hit test as for an A/T hit using the artillery factor as the strike value, but reducing the die roll by 5.

Counter Battery Fire.

This is restricted to specialist weapons, allocated to counter battery fire. It may be used against medium mortars or larger firing indirect, even if on table. It is a three stage process. First the counter battery battery has to be requested. Assume it is attempting to engage a moving target. Second the target needs to be located, this requires a 10 on a D10 for the first move, add 1 if the firing battery has an air observer, or is British or American trying to engage mortars or rockets form 1944 onwards. Add 1 for each turn that the target battery has fired form it's current location. Third the effect of the fire must be assessed. If the target is on table use the normal procedures. This can also be used against off table batteries if you wish, but it would really need a side table with models to keep track of the effects. To avoid this an abstract procedure can be used. Roll a D10 for the target and firer, with the target adding 1 if it is dug in or SP. Subtract the two, if the firer has a positive score it is subtracted from the target's next activation roll. Counter battery fire must stay on the same target until it's target ceases fire, either due to the effects of the counter fire, or voluntarily.

10.0 Engineering : Mines, Entrenching, Bridging, and Demolition's.

Engineering is very important to modern warfare. Many of the tasks take times measured in days, rather than hours, so the timings here are fudged somewhat to allow players to carry them out. Obviously some things cannot be done, so the construction of concrete fortifications is not allowed.

Mines

There are three types of minefield, Anti-Personnel, Anti-Tank, and Mixed. They all work in the same way, the type just decides what type of target the field will attack. These are :

Anti-personnel attack soft targets only.

Anti-Tank mines will attack any vehicle.

Mixed attack both.

All minefields are given a density, in terms of a number between 1 and 10. This number or less must be rolled on a D10 to hit models crossing the field. Roll once per 4 cm moved in the field to see if a model is hit. So a score of 6 would hit models crossing a field of density 6.

Armoured targets do not test crossing an Anti-personal field don't test, and troops on foot, or cavalry don't test crossing an Anti-Tank field. All test crossing a mixed field.

If hit soft targets are hit they test on a factor of 8 on the casualty table.
Armoured targets are attacked with a strike value 5, there are no other modifiers.

Mines can be cleared by troops on foot or specialist vehicles. They move forward at bad going rate, leaving a path as wide as the model. At least one of the foot figures must be an engineer.

Entrenching.

This is a form of movement, although the units attempting it don't move. It may be attempted by any element who move at foot rate, taking penalties as if in impassable terrain. The unit must "move" a total of 40 cm to prepare a basic trench, weapons pit or vehicle run-in. Providing overhead cover requires an extra 20 cm movement, and camouflaging takes a further 20 cm.

Bridging and Water Crossing.

This is another type of movement.

Bridges take a long time to build and are not normally built under fire. They may only be erected by engineers. One cm of river model represents 20m of foot movement, but take impassable penalties.

Water crossing requires boats, which may either be rowed or powered. One boat model represents enough boats to lift one company. Powered boats count as slow tracked vehicles, and rowed ones count as very slow ones. Optionally if operating at sea or in a river roll one D10 and move the boat that far down tide or stream.

Demolitions.

These may be with fire, earth moving equipment for obstacles, (this is covered under movement) or with explosives.

Demolition by fire may be used either with AP shot, aimed at firing slits, by specialist demolition weapons (such as Petard or the German 380mm rocket launcher), or by Direct or Indirect HE fire.

For AP shot pill box firing slits have a defence value of 3, and may only be fired at from close range or closer. Any shot which penetrates causes casualties on the occupants as if they are passengers. The position can be reoccupied as if undamaged.

For Specialist weapons roll to hit as normal, from any range. Then roll for armour penetration, using the defence value of 3. If destroyed by this fire the bunker is demolished. An engineer figure moving up to a bunker may place a demolition charge on it, it counts as a Petard mortar, rolling as if at point blank range.

Flame-throwers attack the occupants as if in total cover.

Direct and Indirect fire is carried out as normal i.e. rolling to hit in the normal way, treating the bunker as an armour target for indirect fire. The effect is resolved using a defence value of 6.

Bunkers have 1 damage marker per 3 figures occupying it. An anti- tank gun adds 1, a coast gun or similar artillery piece of up to 125 mm adds 2, a weapon of up to 160mm adds 3, and larger adds 4 per weapon fitted . A bunker can have a maximum of 5 in any one section, if it would have more divide it up into sections, which can be hit separately.

Indirect fire can also destroy built up areas, and woods. This is purely on moves of fire. Any such area under fire becomes poor going for one move's fire, bad for two move's fire, and impassable after three move's fire. Paths through these areas may be cleared by earth moving equipment, as shown under movement.

Flame-throwers will set fire to buildings and woods on an odd roll when attacking them. The fire will spread downwind at a rate of 6 cm per move, minus the roll of 1 D10. Burning areas must be evacuated by any figures occupying them.

11.0 Smoke.

Smoke was much used to cover movement and on occasion attack troops in cover using phosphorus. It comes in two basic types, long term screens, and emergency smoke used by vehicles and infantry.

Long Term Screens.

There are two types of these, Pots and Artillery.

Pots. These are used to mask areas of terrain, and must be set up before a game. They lay a screen 20 cm long per pot,, and **last 2 D10 moves.**

Artillery . These may be fired by any mortar of 60 mm to 120mm, and guns of 60 mm to 160 mm. Phosphorus covers one 4 cm square, and other covers 2 such squares. Phosphorus lasts for 2 moves, other for 3 moves. Each firing battery must test individually to see where it lands.

Emergency Smoke.

This represents smoke grenades and smoke dischargers or mortars fitted to vehicles. It produces a screen sufficient to cover the firing group, 1 cm in front of it. It lasts one move. It may only be used once in a game.

12.0 Aircraft Operations.

This section covers air attacks, air combat, and air landings. They have been kept basic to avoid the mass of data and complex rules needed to cover the real situation.

Air Attacks .

The effect of an air attack is the same as an artillery barrage. Aircraft models are moved to their target point, were they may be fired at, by their target and any specialist AA unit in range. They then release or fire their weapons and the attack is resolved. The factors used depend on the size of the aircraft and the year of the attack. There are also three types of attack, Bombing/Rocketing, Strafing, and A/T Gun attacks.

Bombing & Rocketing.

This is carried out either in level flight, or as a divebomber. Divebombing is restricted to specialist aircraft, and fighterbombers. Air attacks may be requested or programmed, using the rules for indirect fire. Heavy Bombers may only be programmed and must attack from high altitude. Air attacks can only scatter long or short, the aim point of scatter depends on the altitude, and type of delivery. The distances are as follows :

On a roll of 9 or 10 the attack is on target.

On a roll of 5 to 8 the attack scatters over the target

For low altitude and divebombing attacks they scatter by 1 D10 cm.

For Medium altitude attacks they scatter by 2 D10 cm.

For High altitude attacks they scatter by 4 D10 cm.

Factors are :

Year of Game	Fighter Bomber	Type Light & Dive Bomber	Medium Bomber	Heavy Bomber
1939 - 42	6	8	12	16
1943 - 45	12	16	24	30
1950 - 53	16	20	30	36

One model represents one flight, and makes one attack.

Strafing.

This represents fighter type aircraft spraying an area with it's MG's and Auto Cannon. It counts as small arms fire, but can kill open topped AFV's. It is resolved in the same way small arms fire, counting 1/2 the number of barrels the aircraft carries., as a tripod mount. Calibre is ignored. AFV's are tested as if under artillery fire.

A/T Gun Attacks .

These are restricted to aircraft equipped with large calibre auto cannon. They can only fire at armoured targets, and concrete fortifications. They are resolved in the same way as Anti-Tank fire, the aircraft ignores target and it's own movement, the fire is always at long range, and uses the aspect of the target it is facing.

Air To Air Combat.

This is very simplified. Only one side is allowed to have aircraft making attacks over the table at one time. Fighters and Fighter Bombers chase off all other types. If both sides have these attempting to attack, both roll a D10. The higher scorer may attack, but is delayed by the roll of the lower scorer. It is also limited Strafing attacks, as bombs or rockets would jettisoned during the air to air combat.

Anti-Aircraft Fire.

This is restricted to the target of an attack, and specialist AA units. Aircraft are armoured targets, and fired at using the procedures for shooting at tanks, using the following factors :

For the target* of an attack :	1
For Lt AA up to 30 mm :	2
For Lt AA up to 40 mm :	4
For Heavy AA	6

* If it is an AA unit, use the AA Factors.

These are modified for altitude :

Type	Low	Medium	High
Target	0	No Fire	No Fire
AA up to 30 mm	+1	0	- 4
AA up to 40 mm	0	+ 2	- 4
Heavy AA	- 4	+ 1	0

Divebombers attack from medium altitude, but their target may fire at them at low altitude before they attack.

Aircraft have the following defence values :

Gliders & Helicopters	2
Single engined	3
Twin engined	4
3 or 4 Engines	5

Transports, and light observation aircraft reduce these by 1, Armoured aircraft and jets increase it by 1.

One damage marker subtracts 3 from the targets die roll for scatter, or fire effect.

Two damage markers subtract 5 from the targets die roll for scatter, or fire effect.

Three damage markers abort the model fired at. It will crash on a 5 or less on a D10.

Air Landings.

These may only be carried out by specialist units. There are two basic types, Paratropping, and glider landings. Crash landing transport aircraft is treated in the same way as glider landings. Each model carries one company, or one gun and tow, two jeep sized vehicles, or one tank (British only). Where paratroops or gliders are being used in conjunction with ground forces they must be requested, roll a D10, they will arrive on a score of 8 or higher on move one, with a move's delay for each point less. Paratroopers and glider troops must remain stationary for one move after their landing.

Paratroopers should be represented by 4 cm paper squares held on a ruler 75 cm above the table. These are dropped from the ruler. They should be marked up to show what they represent. For Germans, Japanese and Russians mortars and Tripod MG's should be given separate markers. Americans and British need not do this. Any squares which hit terrain features are potentially lost. Roll a D10 for each such model. Remove it on the following scores :

On hedge or fence	1 or 2
In a Wood	1 to 4
In a Built up area	1 to 6
In water feature	1 to 8

Gliders need an area of 20 by 20 cm of clear ground. They will crash on a score of 1 or 2 if this space is available. Subtract one from the die roll for each cm short of this the area is in either direction. Therefore if landing in an area of 15 by 20 cm a score of 8 + would be needed to land successfully.

AA fire at transports and gliders occurs before they land or troops jump. Each damage marker adds 2 to the score needed to land a glider, and means that a paratroop figure needs to roll a Die to land, again with a score of 2 per damage marker. Check this after checking for possible terrain casualties. Aborted transports and gliders are shot down. In this case roll for the cargo of transports, needing a 9 or 10 to land successfully, glider cargoes are lost.

13.0 Optional Rules.

This section covers some odds and ends that add a bit of complexity, or were options available to but not used by the various fighting powers.

Snipers.

This is used to represent the specialists available to each infantry battalion. A sniper is represented by a single figure who operates alone. He fires at a factor of 4, and ignores range modifiers, but not cover ones. He may only hit one figure, and if a hit is scored he will remove firstly an officer figure, then a radio operator, then a specialist figure of players choice. Regardless of his actual circumstances he must be located, and is never automatically seen.

Gas

All the major powers in World War Two had the ability to fire gas. It was not used, but was always available to all of them. It may be fired by any gun or howitzer with smoke rounds. It moves downwind 1 D10 cm per move, and remains for the rest of the game. The effects depend on the type of target, and it's level of preparedness. Use the normal factors for the firing weapon when resolving attacks, except that armour is always hit. Modify the die roll as follows :

For unprepared foot or open vehicles

0

For unprepared enclosed armoured vehicles	- 2
For prepared foot troops	-4
For prepared enclosed armour	-6

Gas ignores cover modifiers, and all prepared troops take a move penalty.

Vehicle Repair

This is carried out by a specialist recovery vehicle, and may be attempted on any armoured vehicle with damage markers. Carryout an AT attack, using a strike value of 5, with the vehicle defence value of the vehicle being repaired. This is to reflect the greater difficulty of recovering and repairing heavier vehicles, which have the higher defence values. If the attack is successful remove rather than add the number of damage markers scored.

Logistics.

Unfortunately the most important aspect of World War II is logistics. It is very difficult to represent without recourse to extensive bookkeeping, which is not the intention of these rules. The following is an attempt to avoid just that. The amount of supply required is dependant on the type of unit and the role it is undertaking. The need to supply units is restricted to on table combat elements, and the mechanisms are much simplified but based on real practice. I have assumed that all armies worked in the same way, which they did not. Supply is covered by moving soft transport to a battalion HQ, which will then automatically distribute the supplies to it's companies. Artillery differs in that one transport model is required for each firing model. The mode being used by the unit decides when resupply is needed. The type of unit decides how much supply is needed. The size of models used reflects the amount of supply. The amount of supply is based on the "standard" military vehicle, the 2 1/2 or 3 tonne truck. Larger vehicles are ignored, the equivalent for smaller vehicles is as follows :

3 jeep types, or 3 pack horses are equal to 1 truck.

2 15 cwt or equivalent, or 2 Carriers, or 1 horse drawn wagon are equal to one truck.

Specialised gun tractors or horse teams towing Field , medium, and AA guns are equal to one truck.

The supply requirements are :

Infantry battalions, including any organic anti-tank guns of any type require 1 truck load, plus their mortar supplies (see below), if attacking they need to be resupplied every other move, if on defence every five moves.

Anti-Tank gun companies (3 or 4 models) require 1 truck load. The rates are the same as for infantry.

Medium Mortar Platoons (70 - 90 mm) require 1 15 cwt load per move they fire.

Armoured battalions (Tank, Assault Gun and Tank destroyer) require 3 trucks, at the same rate as infantry.

Companies of armoured vehicles attached to infantry units (1 to 5 vehicle models) add 1 truck to their requirements.

Artillery models and heavy mortars (4.2" or larger) require 1 truck per move they fire. They may use their tractors to do this.

Weather and Night.

Weather affects both movement and visibility, night just reduces visibilty. Deciding weather and night conditions is left to the players.

Mobility effects.

5 moves of rain turns normal cross country going into poor going, poor into bad, and bad into

impassible going.

Lying snow turns roads and tracks into poor going, poor into bad, and bad into impassible going, but Russian medium tanks and assault gunscan ignore 2 penalties, due to their lower ground pressure.

Fog adds three penalites if moving cross country, two if on a road or track.

Visibility Effects.

Clear moonlight nights, and falling rain reduce the maximum visibility by 50%, but do not affect location distances.

Moonless nights, falling snow and mist reduce the maximum visility by 75%, and the location distances by 5 cm.

Fog, blizzards and sandstorms reduce visisbilty by 90 %, and location distances by 7.5 cm.

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