

Richard & Paddy's House Rules for BFWWII

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1. Base Sizes

Troops: 30mm x 30mm each with 3 figs

COs, FOOs, LMGs, Light Mortars and Pzschreks should have 2 figures per base.

Command stands should comprise of 2 figures if representing company level command.

Higher levels of command should be represented by 2 figures but may be made into a vignette .

Light Guns: 40mm x 40mm with 3 crew.

Medium Guns: 40mm x 60mm with 4 crew (or 50mm x 50mm square for certain AA guns).

Heavy Guns: 40mm x 80mm with 5 crew (or 50mm x 50mm square for certain AA guns or larger as required).

BUS: 40mm x 40mm square (or as required)

Minefields: 60mm x 30mm (or multiples thereof). Should be modelled complete with "ACHTUNG MINEN" signs, dead cattle etc....

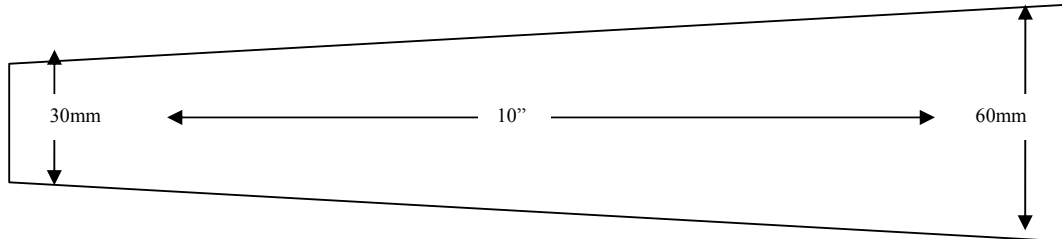
Wire/Roadblocks: 60mm x 15mm (or multiples thereof).

Strips of Rubble: 40mm x 20mm

Areas of rubble: 40mm x 40mm

2. Grazing Fire

Machine guns may elect to fire at a single target using normal rules. This is called "Point" fire. In certain situations, Machine guns may fire so that they effect more than one target. They place a template which will attack every unit (enemy and friendly) which has an aiming point in within the template or moves through the template. This template is a trapezoid which is 10" long. It is one infantry base across at one end and 2 infantry bases across at the other.



Grazing fire is subject to the following restrictions:

The unit must be a troop class Medium (MMG) or Heavy (HMG) machinegun. LMGs and vehicle mounted machineguns are limited to point fire.

To use grazing fire, the machinegun must be in an improved position.

The template can be placed so that its center line is within 45 degrees of the facing of the machinegun, originating in the front aiming point. This gives it a possible 90 degree arc.

The template can be placed in offensive, defensive, or during opportunity fire against any target that lies within the 90 degree arc. It also may be placed at the beginning of the enemy maneuver phase instead of defensive fire even if no targets are available. Once placed, it remains in place until the end of the current player turn and may not be moved. Note that the designated target must lie within the arc, even though that it is possible for targets slightly outside the 90 degree arc to be affected by the fire if they lie within the template.

The effect of the template does not pass through dense area terrain. It will effect units on the edge of dense area terrain, but not deep or behind it.

All units, enemy and friendly, which have an aiming point within the template are attacked with a additional -1 modifier. The effect of the template is similar to that of an artillery interdiction fire (p.43). If a unit moves into or through the template, it is immediately attacked.

3. Sneak Manoeuvre Action

The sneak manoeuvre action allows a unit to move without being considered "moving" for the purposes of spotting. To do so it sacrifices almost all of its movement for the turn.

A unit in open terrain which performs a sneak action may move 1" during the turn. It must follow the normal movement rules (facing, bog-down, etc.) and may conform to a terrain feature at the end of its move.

In dense terrain the sneak move is reduced to ½".

In sparse terrain the sneak move is increased to 1½".

Vehicles requiring bog down checks for the terrain they are moving through may not claim a sneak move.

Spotting attempts against a unit performing a sneak are resolved without using the "Moving or Firing" modifier on the spotting chart. For spotting, they are treated as if they are stationary in the terrain that they are moving through.

A sneak manoeuvre action may be performed with other movement manoeuvre actions. Therefore you can move for one action and then sneak for a second or vice versa, similarly you can displace and sneak in the same turn.

2 sneak actions may be performed in the same turn only by troops. 2 sneaks does not equal a rapid advance or moving for spotting or opportunity fire purposes.

A sneak manoeuvre action can be performed with other non-movement manoeuvre actions. Thus you can breach terrain and then sneak out of the breach without counting as moving or you can sneak to a crestline and then try to go hull down or you can sneak a gun into position and then emplace.

You can perform a sneak into any terrain into which you can move but cannot sneak into impassable terrain.

An example of a typical sneak would be infantry units moving up to the edge of an area of sparse cover. They could start deep within the area and then sneak up to the edge. This would make them visible at 5" instead of the normal 10" because the moving modifier would not apply.

4. British Artillery – Replacement of FOO Casualties

Only British FOOs can call in General support. If all observers become casualties, the British may lose the ability to call in MIKE and UNCLE missions. However, in the British system, regiments had a pool of 'first reinforcements' which included a Captain as well as more junior officers and if an observer became a casualty the Battery Commander would order one of the gun position officers up to the line as a replacement. This optional rule only applies to British Artillery and not mortar FOOs, FAC or Fwd Observers for NGS.

On the first friendly player turn after an observer becomes a casualty roll a d10. On a 10 or more, a replacement FO and appropriate transport becomes available on the friendly map edge.

Keep rolling every turn, increasing the chance of success by adding a +1 modifier until a replacement arrives.

Modify the dice roll by an additional +1 for each additional FOO casualty waiting to be replaced.

Modify the die roll by an additional +1 if there are no British FOOs on table at the present time.

If a second or successive FOO becomes a casualty whilst a player is rolling for a replacement FOO then the British player may only roll for one replacement at a time. Once a Replacement FOO is successfully deployed the increasing chance of success is reset to zero.

The original casualty will count for victory conditions and morale purposes even if replaced.

Subsequent FOO casualties will also count for victory conditions and morale purposes even if replaced but not to the overall size of the ME.

If after a FOO is replaced the replacement becomes a casualty then you are being really careless. All further Replacement of FOO dice rolls by -1 for each replacement FOO that has been destroyed during the game.

5. Multi-Level BUS

Definitions

Multi-Level BUS represent structures where their height or density has an effect on the battlefield that needs to be represented by BUS stacking. In general:

- A real world structure consisting of basement, ground floor and first floor or those less than 45 ft high is represented by a Level 0 BUS and normal Battlefield rules apply.
- A real world structure with a second, third or fourth floor or up to 90 ft high is represented by a Level 1 BUS and Multi-Level BUS rules apply.
- A real world structure with a fifth, sixth or seventh floor or those up to 135 ft high is represented by is represented by Level 2 BUS and Multi-Level BUS rules apply.
- etc every 3 floors or 45ft.

A Level 0 BUS counts as being at ground level for spotting purposes but count as a Level 1 obstruction to spotting. They may be occupied by any Troops or guns. A unit may attempt to achieve Improve Position status in a Level 0 BUS and if hard cover this will count as improved hard cover.

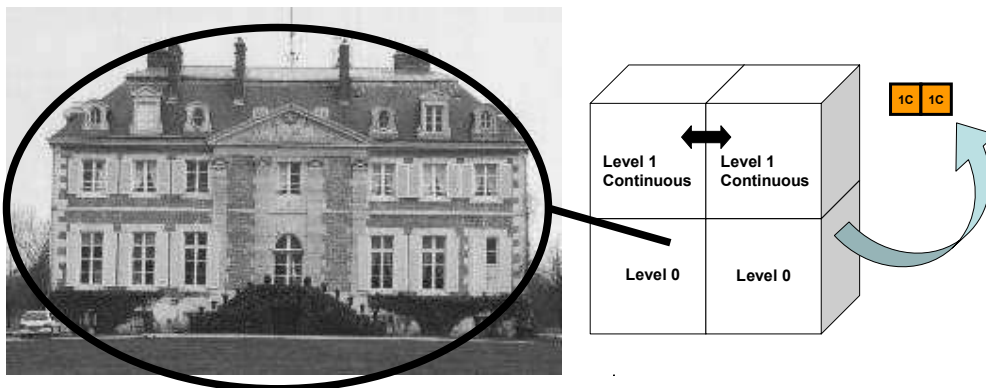
A Level 1 BUS counts as being at level 1 for spotting purposes but count as a Level 2 obstruction to spotting. They may only be occupied by Troops unless specifically permitted by scenario. A unit may attempt to achieve Improve Position status in a Level 0 BUS but will gain no benefit from doing so other than being able to designate it a Command Post.

A level 2 BUS counts as level 2 for spotting purposes but count as a Level 3 obstruction to spotting. Troops only and no IP other than as Command Post....etc.

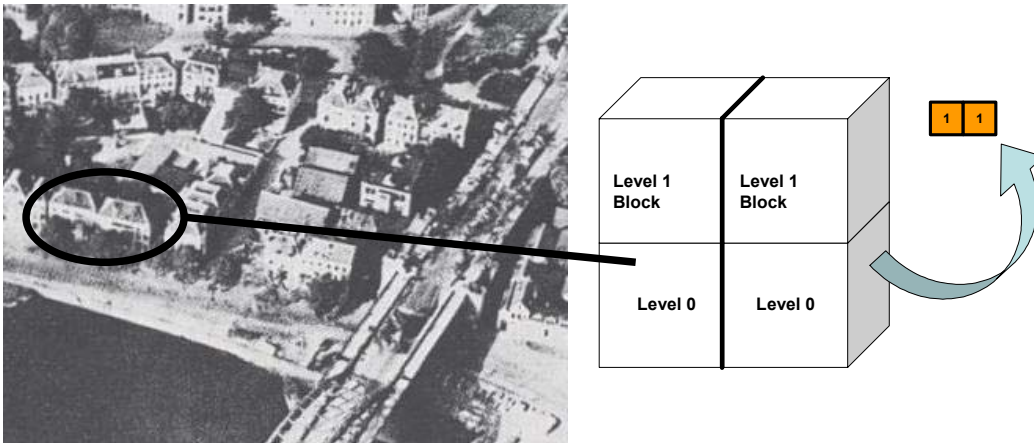
Sub-Designations and Map Symbology

In addition to its level Multi-level BUS are sub-designated as being:

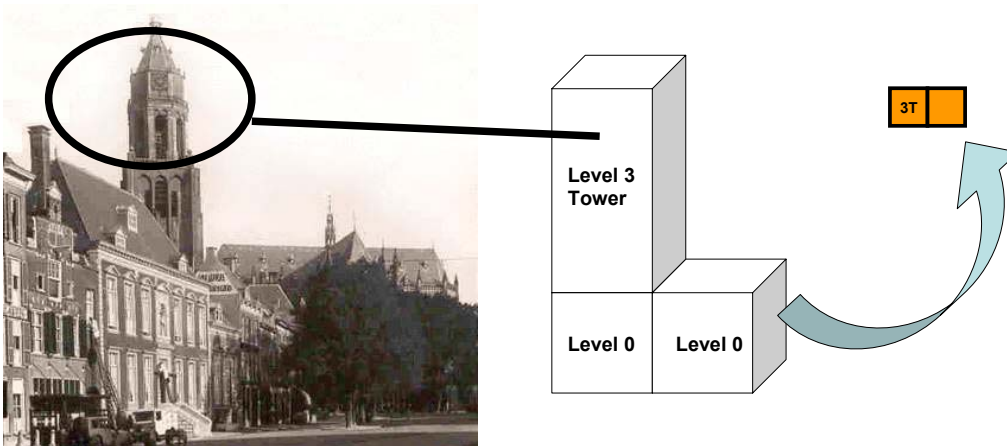
Continuous: These represent single large buildings covering a large area of ground but where there is a freedom of movement between upper areas by dint of corridors or easily destroyed partitioning walls. The multi-level BUS rules permit easy movement between adjacent continuous BUS For example this chateau would be represented by these 2 multi level BUS:



Block: These represent tall but isolated buildings where movement between upper areas is impossible because the buildings are separate structures or have strong partitions. This is shown by these 2 buildings in Arnhem.



Tower: These represent particularly tall buildings but intervening levels are insufficiently substantial to occupy. This is represented by the tower of the Eusebius Church in Arnhem which is tall enough to count as level 3 (or possibly even level 4 in this case) but which does not have a corresponding level 1 structure beneath it.



Movement into Multi-Level BUS

If a multi-level BUS is unoccupied then occupying it is merely a question of:

- Move into BUS.
- Select level to be occupied. (note that this is the only addition to the rules)
- Align facing of unit to side of BUS at the selected level.
- Cease all movement.

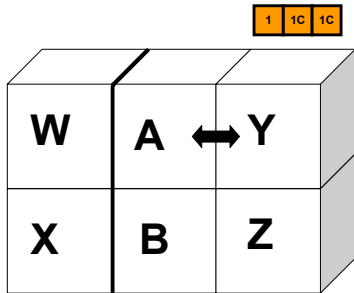
If a multi-level BUS is occupied by friendly elements then these can be moved through in order to occupy other areas of the BUS. However, an element cannot move through a BUS occupied by an enemy unit.

An element may move from the upper story of one Continuous Multi-Level BUS to another provided that the levels equal and adjacent (i.e. at the same level and sharing a common side.)

Elements may not move from the upper stories of block or tower BUS to any other multi-level BUS except by exiting and reentering via the Level 0 route.

Close Combat in Multi-Level BUS

Close Combat may be declared against a multi-level BUS by any element that is within 1" of the BUS and can occupy the BUS if victorious. Thus if we consider the example below – troops in an upper story of a level 1 BUS (A) where the lower story (B) was occupied by friendly troops can only have close combat declared against it by enemy troops the adjacent level continuous BUS (Y) but not by troops in W because of the block BUS.



The troops in sector B could be close combated by elements within 1 inch of the BUS aiming points or sectors X and Z (or indeed A if occupied by the enemy). If sector B is vacant or occupied by hostile troops then the position of troops occupying sector A becomes more perilous as they can now be close combated by troops in Y, or by troops within 1 inch of sector B (including those in X and Z). However, they can still not be close combated by troops in W. Note that with the spotting

rules below troops in X and Z would have to demonstrate that they at least suspect that enemy troops occupy A before declaring close combat. Also note that although troops in W cannot close combat troops in A they can still spot and shoot at them.

Spotting from and over Multi-Level BUS

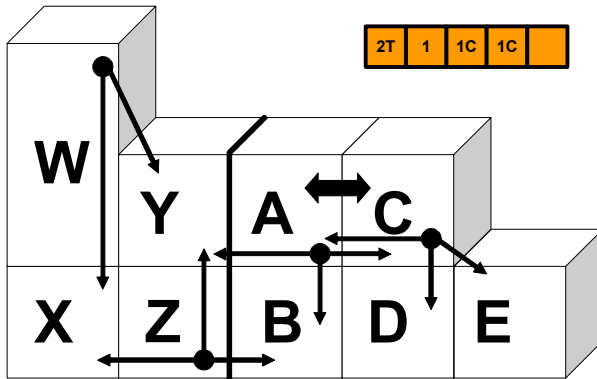
There are no changes to the rules when Spotting from and over Multi-Level BUS but note the clarifications covering the relative height of the spotter and the relative height of BUS (if it is intervening terrain) given above. Applying the existing rules, in particular the Spotting over Dead Zones Rule (page 17, Figure 13) it is noted that:

- A spotter in a level 0 (Ground Level) BUS cannot spot through intervening BUS. Indeed a spotter on a level 1 BUS can't spot over an intervening level 0 (Ground Level) BUS (rooftops in the way). This makes the peripheral BUS of a town or village important sites to occupy if you want to control the surrounding terrain. However, it does not make these BUS any easier to defend.
- A spotter in a level 2 (or higher) BUS (such as particularly tall buildings, church towers or lighthouses) can spot over intervening level 0 (Ground Level) BUS. This makes tall BUS particularly valuable as both sites to occupy and ones to deny to an opponent.
- Note that spotters occupying higher stories of a multi-level BUS will qualify as being at a higher elevation.
- Also note that the 4 inch maximum spotting distance for targets in areas of dense concealment (i.e. streets) remains unchanged.

Spotting between Multi-Level BUS

There are no significant changes to the rules when Spotting between Multi-Level BUS. It is noted that:

- LOS remains blocked by BUS that the spotter cannot see over – see earlier clarifications.
- A spotter's field of observation is limited to adjacent BUS and targets within 1 inch of the BUS base.
- Spotting between multi-level BUS (regardless of whether they are Continuous, Block or Tower) is restricted to one sector up, down, left or right but not on diagonals unless the spotting element is spotting into a lower level BUS where there is no adjacent BUS at the same level as the spotter. So in the diagram, A can spot into Y, C and B but not into Z or D whilst C can spot into A, D and E. W can spot into Y and X. The diagram also demonstrates other valid spotting paths.



- There is no change to the “if you can spot it and it is in range you can shoot at it” rules.
- There is no change to the “spotted by one suspected by entire ME” rule.

5. Night Rules - Good Visibility

Spotting

Down 2 spotting modifier (1" minimum remains)
No Up 1 modifier for higher elevation

Firing

Fire Combat Modifier of -1 for all direct fire
-1 on Call for Fire against SUSPECTED targets. Call for fire against spotted targets or predesignated targets unaffected.

Manoeuvre

No rapid advance except if moving on paved roads.
Movement on paved roads is at full speed not double speed.
Modifier of -1 on Bog Down table
No +1 command modifier for troops unless within 2 inches of commander
No +1 command modifier for vehicles unless within 4 inches and line of sight (LOS) of commander
No +2 enemy proximity modifier for no LOS to spotted or suspected enemy
Modifier of -1 if Troops panicked last Manoeuvre Roll.

Close Combat

Modifier for "DEF/ATT: vehicle vs. troops in concealment" changed to -3
Modifier for "DEF: outflanked" changed to -2

Discipline Rating

All units are rated one level lower than normal unless they are considered "night combat-trained" or unless this has already been factored into the scenario.

Flares

Commanders and all weapons capable of indirect fire can fire flares the scenario will dictate how many rounds of flares each element can fire (normally one). Flares can be fired as either direct fire (offensive or defensive) or as indirect fire but in this case only by elements capable of indirect fire.

Flares are fired as indirect fire use the Call for Fire procedure or may be self spotted. They may only be fired against a prominent terrain feature or units that the firing unit or spotter have either SPOTTED or SUSPECTED. Flares fired as indirect fire will last until the players next indirect fire phase (i.e. the battery is tasked with keeping an area illuminated and fires many shells to achieve the aim). Flares are fired as indirect fire are twice the size as an indirect fire template for the weapon concerned. If flares are fired as indirect fire then normal restrictions apply to subsequent manoeuvre or direct fire from those units.

If flares are fired as direct fire are considered to be short lived flares to illuminate a specific point over a short duration. Flares fired as direct fire may only be fired against units that the firing unit has either SPOTTED or SUSPECTED. Flares fired by direct fire are the size of a small IDF template and last only until the end of the players turn in which they were fired. If flares are fired as direct fire then normal restrictions apply to subsequent manoeuvre or fire from those units.

Any unit with an aiming point within a flare template does not benefit from either the down 2 spotting modifier for purposes of being a TARGET for spotting or the -1 Fire Combat Modifier for purposes of being a TARGET of direct fire. The unit also suffers an ADDITIONAL "DOWN 2" modifier on the spotting table when trying to spot an enemy target. (loss of night vision). A unit illuminated by Flares fired as indirect fire may wish to manoeuvre out of the illuminated area. This is treated as a disappearing target for the purposes of opportunity fire although the "first inch of movement" restriction still applies. This means that units on the edge of a flare template can often slip away but units at the centre cannot.

Fires

A burning vehicle or burning Built up areas also illuminates targets.

Line of Sight is blocked by fires. Any unit within fire template does not benefit from the Down 2 spotting modifier for purposes of being a TARGET for spotting or the -1 Fire Combat Modifier for purposes of being a TARGET of direct fire and also suffers an ADDITIONAL "DOWN 2" modifier on the spotting table when trying to spot an enemy target. (loss of night vision).

6. Dawn / Dusk Rules or Day Poor Visibility

Spotting

Down 1 spotting modifier (1" minimum remains)

Manoeuvre

Modifier of -1 on Bog Down table

7. Night Rules - Poor Visibility

Spotting

Down 3 spotting modifier (1" minimum remains)
No Up 1 modifier for higher elevation

Firing

Fire Combat Modifier of -1 for all direct fire
-1 on Call for Fire against SUSPECTED targets. Call for fire against spotted targets or predesignated targets unaffected.

Manoeuvre

No rapid advance except if moving on paved roads.
Movement on paved roads is at full speed not double speed.
Modifier of -2 on Bog Down table
No +1 command modifier for troops unless within 1 inches of commander
No +1 command modifier for vehicles unless within 2 inches and line of sight (LOS) of commander
No +2 enemy proximity modifier for no LOS to spotted or suspected enemy
Modifier of -1 if Troops panicked last Manoeuvre Roll.

Close Combat

Modifier for "DEF/ATT: vehicle vs. troops in concealment" changed to -3
Modifier for "DEF: outflanked" changed to -2

Discipline Rating

All units are rated one level lower than normal unless they are considered "night combat-trained" or unless this has already been factored into the scenario.

8. Knocked Out Vehicle Table

When a vehicle is destroyed throw one die and modify as follows:

- 1 for vehicles destroyed by indirect fire or in close combat
- 1 for soft vehicles
- 1 small vehicles
- 1 for modern vehicles with fire suppression systems
- +1 for vehicles destroyed by large calibre weapons (88mm or over)
- +1 or +2 modified for vehicle prone to burn (may be scenario dependant)

Modified score:

8 or more	Vehicle burns fiercely. This counts as smoke (down 2) for spotting purposes. This counts as fire for illumination purposes. For campaign purposes these vehicles are irreparable and the crew is killed.
6-7	Vehicle smokes. This counts as dissipating smoke (down 1) for spotting purposes. This does not count as fire for illumination purposes. For campaign purposes these vehicles can be recovered but need extensive repair and 50% of the crew are casualties.
5 or less	Vehicle does not burn. No impact on illumination or spotting For campaign purposes these vehicles can be recovered and the crew have survived the incident.

The effects of a burning vehicle lasts for the rest of the game.

Vehicles prone to burn

- +1 Panther (with near empty fuel tanks)
- +1 All Russian designed and built Tanks
- +1 Shermans
- +2 Shermans earlier than 1944

9. Fire

BUAs and certain vegetation types such as woods and crops can catch fire when hit by HE (direct or indirect fire) or flamethrowers. Also fire can spread from adjacent to burning BUSs or fires. Fires in BUSs are assumed to cover the entire BUS. Fires in the open assumed to be the size of a small IDF template. To check if a fire burns conduct the following procedure once for a small HE template, twice for a large HE template and once for each instance where direct fire or close combat involves an HE capable element (in this scenario, 75mm IeIGs, ATGs, tanks, mortars and howitzers(not panzerfausts or PIATs)) using TSVG characteristics or any flamethrower then check to see if a fire is started. Also each turn check for each vehicle fire or other fire to see whether it spreads:

Throw one die and modify as follows:

- 5 for water feature
- 2 for open ground
- 1 for cleared woods or orchards
- +0 for Thickets, Brush or Woods with underbrush, Tall Crops or Stone Buildings
- +1 Wooden buildings
- +/- for environmental factors (+1 hot and dry, -1 damp or wet, -2 raining)
- +/- indirect fire factor or tactical factor at 2" range (i.e. +1/+2/etc. for concentration / thickened etc, +4 for flamethrower)
- 2 if troops spend manoeuvre action trying to extinguish fire (no other movement or firing permitted)
- 1 for every 4 turns that the fire has been burning.

Modified score:

10 or more	Fire starts or spreads. If it spreads it will spread to the closest downwind adjacent aiming points in the BUA or if in the open down wind. If a fire cannot spread downwind as there is already fire burning there it will spread too the nearest available aiming point or combustible area. Fire will not cross a road or water feature.
8-9	Fire continues to burn as before. If fire is in a BUS one of the aim points (randomly determined) turns to rubble.
5-7	Fire continues to burn as before.
4 or less	Fire is extinguished or burns itself out.

If a troop or gun stand lies under a fire template then there is no immediate effect. However, the element becomes disordered after its next manoeuvre phase if it remains in position and the fire continues to burn.

10. Improved Position Clarifications

Improved position means basic IP

Dug-in means enhanced IP, except for +1 CC modifier

Direct Fire

Rule 1 - -1 modifier: soft cover, hard cover, basic improved position

-2 modifier: basic improved position in hard cover or BUS, enhanced improved position

-3 modifier: concrete pill-box

Rule 2 - Units in BUS, trenchline and pill-box are not subject to enfilade fire

Cover modifier for linear terrain only applies if LOS crosses terrain

Choose most beneficial cover modifier (modifiers are not cumulative)

Combine with any enfilade modifier (none if BUS)

	DF Front				DF Enfilade				IDF	
	Open	Soft	Hard	BUS	Open	Soft	Hard	BUS	Non-BUS	BUS
Nil	0	-1	-1	-1	+1	0	0	-1	0	-1
Improved Position	-1	-1	-2	-2	0	0	-1	-2	0	-1
Dug-In	-2	-2	-2	-2	-1	-1	-1	-2	-1	-1
Entrenched	-2	-2	-2	-2	-2	-2	-2	-2	-1	-1
Pill-box (Log)	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
Pill-box (Conc)	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3

Close Combat

Rule 1 - +1 modifier: any one of hard cover, BUS, enhanced improved position, pill-box

Rule 2 - Units in BUS, trenchline and pill-box are not subject to -1 outflanked modifier

No modifier for basic improved position

	CC Front				CC Outflanked				Move	Spotting	Manoeuvre	Construct
	Open	Soft	Hard	BUS	Open	Soft	Hard	BUS				
Nil	0	0	+1	+1	-1	-1	0	+1	N/A	N/A	N/A	N/A
Improved Position	0	0	+1	+1	-1	-1	0	+1	Lost	Down 1	+1	1 Roll
Dug-In	+1	+1	+1	+1	0	0	0	+1	Remain	Down 1	+1	2 Rolls
Entrenched	+1	+1	+1	+1	+1	+1	+1	+1	Remain	Down 1	+1	Scenario
Pill-box (Log)	+1	+1	+1	+1	+1	+1	+1	+1	Remain	Down 1	+1	Scenario
Pill-box (Conc)	+1	+1	+1	+1	+1	+1	+1	+1	Remain	Down 1	+1	Scenario

11. Flat Featureless Terrain

The Open Ground terrain type includes ground with a degree of undulation and a limited amount of obstruction. However, these real world effects are too small to be modelled by terrain pieces on the table but their effect is abstracted into the spotting range and combat charts for Open Ground.

Flat Featureless Terrain is an additional qualifier to ground type that provides for terrain that is un-naturally flat and free of obstruction. Examples of this might be air-fields, mudflats, large open beaches, frozen lakes etc. Thus a scenario can specify Flat Featureless Open Ground or Flat Featureless Soft / Marshy/ Muddy Ground or Snow. Rough or Rocky ground may never be designated as being Flat and Featureless.

Spotting

Up 1 spotting modifier against units in Flat Featureless Terrain.

Firing

Fire Combat Modifier of +1 for direct fire against units in Flat Featureless Terrain.

Manoeuvre

Vehicles may not go hull down in Flat Featureless Terrain.

-1 Improve Position modifier for troops or guns in Flat Featureless Terrain.

12. Destroying BUS and Rubble

IDF Firing against BUS

If a BUS is under an IDF template then roll a dice and modify as follows:

- +/- IDF factor against TGsV,
- 1 for each of the BUS aim points not under a template.
- +1 for each level of the BUS – i.e. level 0 = +0, level 1 = +1 etc...)

If the result is 8 or more then one of the aim points hit (determined randomly from the aim points that remain unaffected) is turned into rubble and places a 20mm (1/2") deep strip of rubble into the adjoining terrain covering the length of the side of the BUS.

If the result is less than 8 there is no effect.

Note: the strip of rubble would turn a street into a defile. Strips of rubble on each side of the road would block the street.

Troops conformed to a BUS aim point that has been turned into rubble may not claim to be in IP however may still claim to be in a BUS.

For stone buildings once all 4 aim points have been turned to rubble and the whole BUS is deemed to have collapsed and is completely turned to rubble. Occupying troops conduct Bail out checks.

For wooden buildings once any 2 aim points have been turned to rubble and the whole BUS is deemed to have collapsed and is completely turned to rubble. Occupying troops conduct Bail out checks.

If using multi-level BUS rules the number of turns required to turn buildings to rubble is halved for tower structures (i.e. 2 for stone and 1 for wooden BUS).
For continuous buildings the number of turns required to turn buildings to rubble is reduced by 1 (i.e. 3 for stone and 1 for wooden BUS).

Multi-level structures are destroyed in sequence one layer at a time but remember towers (T structures) do not have lower levels (apart from the ground level structure) below them.

DF Firing against BUS

If a BUS, or an element inside a BUS, is targeted by DF and the firing unit achieves a KO result by DF with a modified die roll of 12 or more for stone structures or 11 or more for wooden structures then the aim point fired at is turned to rubble in the same manner as above.

Troops in Collapsed BUS

Troops caught in a BUS that collapses and is completely turned to rubble conduct a Bail out check with the following modifiers:

- +1 if troops were disordered when BUS collapsed
- +2 if troops were suppressed when BUS collapsed
- +3 if troops were in good order when BUS collapsed

Guns caught in a BUS that collapses and is completely turned to rubble are destroyed.

13. Lanes, Streets & Roads & Rubble

Lanes

Lanes are not represented in BFWWII and are represented by being incorporated into BUS.

Streets

Streets in this context are wide enough to fit a vehicle down. However, they are always treated as a defile.

Troops move at full speed along streets, vehicles move at half speed.

Streets are partially blocked by 1 strip of rubble which forces vehicles to treat them move at half speed and conduct a bog down check but does not affect troops

Streets are blocked by 2 strips of rubble and are treated as rubble by all units.

Regardless of their true dimensions streets are assumed to be 1" across or less for spotting purposes. Therefore troops in a BUS conformed to street automatically spot troops in another BUS if that BUS aim points are directly opposite it.

Streets count as dense edge/deep and provide soft cover.

If streets at any particular point are considered to be narrow then treat it as being partially blocked by rubble.

Roads

Roads running through BUAs are also wide enough to fit a vehicle down. They are not counted as being a defile unless affected by rubble.

Roads through BUS are always paved however vehicles move at full speed and cannot claim the double speed advantage on roads running through BUS. Troops move at full speed along roads running through BUAs.

Roads are partially blocked by 1 strip of rubble and are the treated as streets by all units.

Roads are blocked by 2 strips of rubble and are treated as rubble by all units.

Regardless of their true dimensions streets are assumed to be over 1" across and are counted as open terrain for spotting purposes.

Roads do not count provide concealment or cover unless blocked by rubble.

14. Engineering Manoeuvre Actions

New Manoeuvre Actions

Three new manoeuvre actions are introduced. These lump together the performance of most engineering tasks under generic actions that is performed during the maneuver phase. They are:

- Perform Engineering Action
- Perform Demolition Action
- Remove Demolition Action

Restrictions on Engineering Actions

A unit must have at least one available action to perform an engineering action.

Units performing engineering action may not perform any other action during a turn.

Units that perform engineering actions may not fire in the offensive fire NOR may they have fired in the defensive fire phase of the previous player turn. Players must keep track of this externally. Note a unit that performs an engineering action may fire defensively in the same game turn, but would then be prohibited from performing another engineering action in the NEXT game turn.

Some engineering tasks require more than engineering action to complete. Players must keep track of this separately.

Units performing engineering actions are considered moving for spotting purposes.

Performing engineering actions will trigger opportunity fire. A disorder or knocked-out result will cancel the engineering action for that turn. If the enemy waits until the defensive fire phase to fire, the engineering action will be completed even if the fire is effective. If an engineering task requires several turns to perform, it is possible to do them on non-sequential turns or have a different unit continue the task if the original unit is knocked-out or disordered.

Demolition Action

A demolition action is a special case of engineering action. It is subject to all of the restrictions on engineering actions above.

It can only be done on prepared demolitions (the method for preparing a demolition will depend on what you are trying to do). Preparing a demolition is a separate process from the demolition action itself. You can prepare a feature for demolition and then delay exploding it until later, or you can specify in a scenario that demolitions are already prepared.

To perform a demolition action, roll a d10.

On any roll but a 1, the action succeeds and the demolition is successful (this may have different effects depending on what you are trying to do).

On a roll of 1, the demolition was a dud or failed to have the desired effect. It must be prepared again before another demolition action can be attempted.

Remove Demolition Action

It is possible for units to remove prepared demolitions. A remove demolition action is a special case of engineering action. It is subject to all of the restrictions on engineering actions above.

It can only be done on prepared demolitions.

To perform a remove demolition action a unit must emplace adjacent (within 1") to the demolition.

It may then perform an engineering action to remove the prepared demolition.

15. Minefield Rules

New Mine Passage Modifiers

Die result and effects from original chart remain the same. Use the following modifiers:

New Minefield Passage Modifiers	
Dense field	-1
Scattered minefield	+1
Surface laid mines	+1
Following a traversed path or marked lane	+2
Tracked vehicle moving through AP minefield	+1
Discipline Rating	+/-dr
Combat Engineer stand	+2
Using Rapid Advance	-1

Minefield Types and Restrictions

Minefields typically are laid in multiple sections that have a dimension of 30mm deep by 60mm wide (1" x 2")

Mines may not be laid in built-up areas, marshy ground, or streams

Mines may not be buried on paved roads

Minefields must be of one of 4 types:

- AT (anti-tank/anti-vehicle)
- AP (anti-personnel)
- Mixed
- Dummy

Unless otherwise specified, minefields are considered Mixed

All units roll for passage through AP or mixed fields. Only Vehicles only roll for AT fields.

Minefields have a density of

- Scattered
- Normal
- Dense

Unless otherwise specified, minefields are normal density.

Pure AT or AP fields may be of any density.

Mixed fields must specify different densities for AT or AP mines, but the maximum density that may be specified for either type in a mixed field is Normal.

Minefields are either buried or surface laid. Surface laid fields are easier to detect and pass through. Buried fields are concealed and may first be detected when something blows up. Buried minefields may only be laid before the scenario begins. Note that "surface-laid" in this context does not necessarily mean that the mines are lying around on the surface of the ground, just that the surface of the ground has been disturbed enough to indicate that some sort of engineering activity has taken place.

16. Laying Mines

Laying Mines During Play

Only surface minefields may be laid during the course of a game.

Only scattered minefields may be laid during the course of a game.

Typically, an engineering platoon has sufficient mines to lay one scattered field of one type either AT or AP, but this could be modified by the scenario.

It takes 9 engineering actions to lay a scattered field 30mm x 60mm field of one type of mine.

Up to three engineer stands may combine their efforts to lay a minefield.

Therefore, if one engineer stand were to lay a minefield, it would be completed at the earliest in 9 turns. Two stands could get it done in 5 turns, and 3 stands in 3 turns. Players must keep track of the engineering actions expended.

Only one type of field can be laid at a time. To lay a mixed field, you first lay either the AT or AP field, then lay the other.

Spotting mines

Buried minefields cannot be spotted. The only time you know you are in one is when the things blow up.

If laid in the open, surface minefields are treated as dug-in troops on the edge of dense cover. Otherwise treat them as dug-in troops deep in dense cover. If a surface minefield is spotted, the opposing player is told its dimensions, but this does not otherwise change its effectiveness.

Dummy minefields

A Dummy minefield is treated as surface laid/normal density minefield in all respects until the first unit attempts passage. If the die roll is anything other than traverse, it will be revealed to be a dummy and is removed. Alternatively, an umpire can make all minefield passage rolls in secret and just let players know the results. In this case, all attempts to traverse a dummy minefield would be successful, but the player would not know if the field is a dummy or he was just lucky.

Dummy minefields may be laid instead of real fields. It takes 5 engineering actions to create a dummy field.

17. Clearing Mines

In the scope of a game, the only way to clear a path through a field is either by mechanical means or by demolitions.

Troops marking a lane through a field

Troops may manually try and mark a lane through a mine field. To do so, the unit must make a breach action, and roll on the minefield passage table. If it successfully traverses, then a lane is marked in the field.

Note: Marking a lane does not cause the removal of the minefield, it merely makes a lane that other troops can try to follow through the field with a +2 Modifier. Any unit that wishes to follow directly in this path can perform a breaching action to use the path. When the unit moves through the field via the path, it gets the +2 modifier in the mine passage chart.

Units may attempt to move through a minefield without creating a lane (they can move farther than is allowed with a breach action). Even if they are successful, no lane is created.

Engineers marking a lane through a field

Any troops may be used to manually try and mark a lane through a mine field. However, attempting this with Combat engineers gives a +2 on the minefield traverse roll and is more likely to be successful and result in a traverse result and therefore the successful marking of a lane.

Engineers using line charges

Engineers can lay a line charge and blow a cleared path through the field. It takes engineering action to lay the prepare the line charge for demolition and a successful demolition action to explode it. A successful demolition action will result in a lane one vehicle wide and 30mm deep cleared of all mines. To use the lane, a unit must perform a breaching action, but does not need to roll on the mine passage table.

Flail tanks

Flail tanks can clear a lane through a minefield by merely moving through the minefield with the flail activated. To use the flail, a flail tank may only move at half its cross country speed. While the flail is activated, the tank may not engage in any fire (offensive or defensive). When a flail tank traverses a minefield, roll on the minefield passage chart. Any result except knocked out has no effect. The tank will successfully traverse the field and a cleared lane will be created. A knocked-out result will not destroy the tank, but will damage the flail and the tank must halt disordered without creating a lane. A damaged flail cannot be used for further mine clearing attempts, and the tank cannot engage in any fire (offensive or defensive) until the damaged flail is discarded. It takes one engineering action to discard a damaged flail. Just replace the flail tank with a normal tank of the same type.

Clearing minefields with Artillery Fire

If a minefield is struck by an artillery template, treat the field as dug-in troops. If a knocked-out result is rolled, then reduce the field density by one category. A field may not have its density reduced below "scattered."

18. Barbed Wire

Representation

Barbed wire entanglements should be placed on bases 15mm deep by 60mm wide (or no larger than 3/4" wide by 2" long, and no smaller than 1/2" wide by 1 1/2" long.) In addition, alternate bases can be made with gaps in the representative model, to depict when gaps are made.

Gaps in the Wire

While it is not usually possible to completely remove wire obstacles during the course of the game, it is possible to create gaps in the wire. Gaps should be indicated with special bases or markers. The gap is treated as one terrain effect better than it would normally be for units attempting to traverse the wire. Therefore, any troop stand, tracked vehicle, or half-tracked vehicle that wishes to pass through a gap merely has to perform a breach action (not a breach/bog down check normally associated with ungapped barbed wire). Any wheeled vehicle or gun may cross a gap in the wire if it performs a breach/bog down check (no longer impassable as for ungapped barbed-wire).

Creating gaps in Wire with Vehicular Movement

Whenever a tracked or half-tracked vehicle successfully traverses a barbed-wire obstacle by breaching and passing a bog down check, a gap has been created and you can replace the wire entanglement with a stand that has a gap in the wire or otherwise indicate that a gap exists.

Creating gaps in Wire manually

Troops units can attempt to create a gap in wire using wire cutters. To do so, the stand must conform to the wire, and then it must successfully roll on the improve position table. A successful roll will result in a gap being created.

Creating gaps in Wire with Demolitions

Engineers and specially trained assault troops can use demolitions to create gaps in wire entanglements. Specially trained assault troops are a scenario specific troop type. An example would be the first wave troops at D-Day had certain troops trained to use Bangalore torpedoes, despite the fact that they were not engineers.

To blow a gap through the wire, the stand must conform to the wire base.

The demolitions are prepared by expending one engineering action while conformed to the wire.

A successful demolition action will then result in a gap in the wire.

Creating gaps in Wire with Artillery Fire

If a wire obstacle is struck by an artillery template, treat the barbed wire as troops in a log-pillbox (-2) and roll a separate IDF attack against the wire. If a knocked-out result is rolled, then a gap is created.

19. Anti-Tank Ditches

Terrain Effect

An anti-tank ditch is impassable to all types of vehicles.

Troops may enter a Anti-tank ditch by first conforming to it and then moving into it.

If the troop stand wishes to leave and anti-tank ditch, it must perform a breaching action (since the ditches are usually 6' deep or more). Troop units may move along an anti-tank ditch without penalty.

While occupying the ditch, the troops are considered in a dug-in position for spotting and cover purposes.

Neutralizing an Anti-tank ditch by filling it in

Troop stands that are conformed or that occupy the anti-tank ditch may collapse the sides of the ditch, thus making it possible for vehicles to cross. The troop stand must perform an improve position action while either occupying or conformed to the ditch. If successful, the ditch is filled in sufficiently to allow a single vehicle to pass. The filled in section is treated as having a terrain effect of breach/bog down for the vehicle attempting to cross it.

Neutralizing an Anti-tank ditch by using Facines

Certain vehicles at the start of the scenario may be carrying facines. These bundles of tree limbs or lumber were dropped into the AT ditches to fill them up and make lanes through the ditches. Facines have the same effect on an AT ditch as if it had been filled in. Any vehicle may cross the section provide it performs a breach/bog down check.

To lay the facine, a vehicle must conform its front to the AT ditch. It then performs one action placing the facine. After that action, the facine is considered emplaced. During the course of the game it may not be moved. Each facine carrying vehicle may only fill in one section of ditch.

Neutralizing an Anti-tank ditch using Bulldozers

Tanks with dozer blades or bulldozers were also used to fill in AT ditches. To do so the dozer must be conformed frontally to the ditch. It then performs an engineering action. After performing the engineering action, treat the ditch as having been manually filled by troops.

Neutralizing an Anti-tank ditch using Demolitions

Engineers can fill in Anti-tank ditches through the use of explosives.

To use explosive to fill-in an anti-tank ditch, the stand must conform to the ditch.

To prepare the explosive requires one Engineering action performed while conformed to the ditch.

A successful demolition action will fill in that section of the ditch.

Bridging an Anti-tank ditch

Certain specially equipped vehicles were equipped with bridges to lay over smaller obstacles. To create a bridge over a linear obstacle, the vehicle must conform to the ditch and perform an engineering action. The bridge is then emplaced. Other units can use it by conforming to the obstacle and then performing a breach action. No bog-down check is needed to traverse bridged obstacles.

Anti-tank Ditch variants

The above rules are for standard sized AT ditches dug in the earth. There are variants that can be specified in the scenario:

Concrete-lined AT ditches may not be filled in by hand or by using bulldozers. They may be neutralized by explosives, fascines, and bridging.

Wide AT ditches require more than one Engineering Action to neutralize.

20. Dragons Teeth or AT Obstacles

Representation

Dragons Teeth Or AT Obstacles should be represented by bases 30mm deep by 60mm wide. These are laid in belts prior to the start of the game.

Terrain Effect

An anti-tank obstacle is impassable to all types of vehicles. Troops may enter the AT obstacle with no impact. While conformed to the obstacle, the troops are considered in sparse edge terrain, and in hard cover.

Reducing AT Obstacles with Bulldozers

Tanks with dozer blades or bulldozers were also used to clear AT obstacles. To do so the dozer must be conformed frontally to the obstacle. It then performs two engineering actions. After performing the engineering actions, treat the effect of the obstacle is reduced as follows:

Troops - no change, vehicles: breach/bog down check.

Reducing AT Obstacles with Demolitions

Engineers can clear Anti-tank obstacles through the use of explosives.

To use explosive to clear an obstacle, the stand must conform to the obstacle.

It takes one engineering action to prepare the charge.

A successful demolition action will result in the AT obstacle being reduced as above.

21. Bocage Hedgerows

Though a natural terrain feature, bocage hedgerows have certain characteristics that require engineering activity, and additional rules to accurately reflect this terrain type.

Additional Terrain Effect on Combat

If a vehicle performing a breaching action through a bocage hedgerow is fired upon using direct fire, use the flank armor of the vehicle unless it is equipped with hedgerow cutting devices. Vehicles which did not have these devices were forced to go OVER the hedgerow, and exposed their belly armor while doing so. Vehicles with a hedgerow cutter do not use this modifier.

Breaching the bocage

Vehicles which successfully breach the bocage leave a gap in the hedgerow. This gap is treated as one terrain effect better than it normally is. So troops crossing the gap, do so with no breaching action. Tracked vehicles do so only after they perform a breaching action. Wheeled vehicles do so after a breach/bog down check.

Breaching the bocage with Bulldozers

Tanks with dozer blades or bulldozers were also used to clear bocage. To do so the dozer must be conformed frontally to the hedgerow. It then performs two engineering actions. After the second action is complete, a gap is created in the hedgerow (for the effect of a gap see above).

Breaching the Bocage with Demolitions

Engineers can clear a gap as above, but require two engineering actions to prepare a charge. The number of actions needed to lay the charge can be reduced to one engineering action if a tank with a cullin hedgerow cutter spends one maneuver action conformed to the hedgerow at the point where the charge is being laid. This can be done any time before the engineers prepare their charges.

A successful demolition action results in a gap being created in the hedgerow as above.

22. Roadblocks

One common tactic was to blow trees down across a road to create an abatis. Engineers would often wire the trees on either side of a road before contact with the enemy was expected. When the enemy appeared, BLAM, and the road would disappear. Naturally, enough, engineers were also employed to clear these obstacles.

Creating a roadblock

To create a roadblock using explosives requires a successful Improve Position check, further modified by:

- 1 road through a clear area with no trees
- +1 road through a forested area or tree-lined lane.

A successful demolition roll will result in the creation of a roadblock.

Clearing a roadblock with Bulldozers

Tanks with dozer blades or bulldozers may clear roadblocks. Conform the dozer to the roadblock and perform two engineering actions. After the second action is complete, the block is removed.

Clearing a roadblock with explosives

Engineers may remove a roadblock with explosives.

Prepare the roadblock for demolition requires two engineering actions by a combat engineer.

A successful demolition action will result in the removal of the roadblock.

23. Bridging

Emplacing pontoon and Bailey bridges would usually take 5 hours or more over any significant obstacle and these are outside the scope of a normal Battlefront:WWII game. Most tactical bridging situations should be limited to the final stages of bridge completion or much smaller obstacles such as streams and anti-tank ditches. The technique for using dedicated bridge-laying vehicles is the same as that used for anti-tank ditches (see above). The following rules are designed for placing of spans of treadway or infantry pontoon bridges over small obstacles.

Building Pontoon Bridges

The scenario design will specify which obstacles can be bridged and how many spans are required to cross them. Most small streams and anti-tank ditches will require only one span. Rivers may require several spans. Major rivers will require more spans than are practical in the course of a tactical game, so you can start a scenario with a bridge constructed or nearly complete.

To be able to build a bridge, scenario designated bridging equipment must be available. A one-span bridge section counts as 3T worth of transport and cannot be transported as tankriders (it seems obvious, but we had better specify it). In the game, this means that only the heavy trucks can carry it. The Russians can use U.S. trucks (lend-lease). Bridging equipment must be dismounted within 2" of the obstacle to be crossed for bridging to occur. Before it is in place, bridging equipment is spotted and attacked as a Medium G class target. Suppression and Disordered results have no effect. Knocked-out results will destroy the span. Mounted Bridging equipment may not bail-out and is considered destroyed if its transport unit is destroyed.

More than one unit may attempt to construct the same bridge span, but the player must designate an engineer unit as the primary bridge builder. Only T class units can build a treadway/pontoon bridge.

Each span to be built requires that the unit(s) involved be conformed to the area to be bridged within 2" of the dismounted bridging equipment. They may then expend an engineering action, roll on the Improved position table with the following modifiers:

- +/- dr discipline rating of primary bridge builder.
- -1 attempting to bridge a swollen river (scenario defined condition)
- +1 more than one unit working on the same bridge span (max modifier of +1)

A successful roll results in the completion of one span. A bridge is considered built when the number of spans needed to bridge the obstacle have been placed.

Terrain Effects of emplaced bridges

A unit must execute a breaching action to cross a bridge.

A bridge is considered a defile for triggering opportunity fire.

Destroying Pontoon Bridges by Close Combat

Emplaced pontoon bridges and dismounted bridging equipment defend against close combat with a modifier of 0 (representing the bridge guards). Bridges may not initiate close combat. If the attacker scores a modified die roll equal or higher than the bridge in close combat, the bridge is destroyed. Permanent Bridges may not be destroyed with Close Combat.

Destroying Pontoon Bridges with Artillery

A constructed pontoon bridge span may be spotted and fired at as a dug-in Med gun target. Suppression and disordered results have no effect. A knocked-out result will destroy one span.

Destroying Permanent Bridges by Artillery

Permanent bridges are attacked as if they are armored vehicles. The scenario will give an armor strength to each bridge (large or stone bridges should have very high strength, making them almost immune to field artillery). Only knocked-out results will effect a bridge. Suppression and disordered results have no effect.

Destroying Bridges by demolition

All types of bridges may be destroyed by demolition. Preparing a bridge for demolition depends on the type and construction of the bridge. The scenario will specify the number of demolitions that are required. A major highway bridge would obviously require more preparation than a small wooden bridge. Each demolition requires a successful roll on the improved position table. Once all required demolitions are prepared, the bridge can be blown up. For some sample times, we can look at the Battle of the Bulge:

At Stavelot, preparations to blow a stone bridge began at 0100 and were completed at 0650. This would equate to 4 or 5 "demolitions". It should be noted that the demolitions were unsuccessful.

At Trois-pont, wiring a major bridge took from Midnight to 0800, equivalent to about 8 "demolitions"

At Neufmolin, a timber trestle bridge was wired in 1 1/2 hours with 2500lb of TNT and blown up in Peiper's face. This equates to 1 or 2 "demolitions"

Once a bridge is prepared for demolition, a successful demolition action result in the bridge being destroyed. If unsuccessful, the bridge still stands (as happened at Nijmegen and Remagen).

24. Concrete Bunkers and Fortifications

Normal "battlefield" fortifications - foxholes, trenches, and log emplacements are covered in the main rules. Larger and more substantial structures, such as those found in beach defences, the Maginot Line, and the Westwall, need a different approach.

Setting up the Fort

- All fortifications must be set up before the game begins and may not be moved.
- Each fortification, is given an "armor" value. For larger structures, these should range from 4-6. Small concrete bunkers should generally have a rating of 3, log bunkers a rating of 2.

This value is used in several ways:

1. It is a measure of the structural integrity of the fort.
2. It is the strength of the fortification when it is attacked separately from its occupants.
3. It is applied as a negative modifier when resolving attacks against the occupants of the fortification.

In some cases it may be necessary to split a fortification down into discrete elements each with it's own rating.

- It is important to note which angles any mounted weapons or the occupants of the fort may fire into, and also from which angles a bunker is visible. (Many bunkers are sighted or buried so that they may only be attacked from positions covered by their weapons).

Attacking the occupants of the Fort using Direct Fire

It is possible to attack the occupants of the fort using regular attack methods. Apply the armour value of the fort as a negative modifier to the attack. Units in forts that are under IDF templates are also attacked in this way.

Attacking the occupants of the Fort using Close Combat

Only engineers, vehicles that are specifically allowed to close combat built-up areas (i.e. flamethrowers and the AVRE), and scenario designated assault troops may close combat units defending in fortifications. The defenders use the armour value of the fortification as their base close-combat strength, but then apply all other modifiers normally. If the occupants of a fort initiate close combat, they lose all benefits of the fort.

Attacking the Fort

It is possible to attack the fort separately from its occupants, and a successful attack may result in the destruction and/or retreat of its occupants as well.

- Indirect artillery fire is useless against forts. These structures are built with exactly this sort of attack in mind, and unlike the armies of Great War, WW2 armies usually lacked the specialist artillery to crack them open. Situations such as were encountered in the siege of Sevastapol are outside of the scope of Battlefield:WWII.
- Dive Bombers may attack them only if allowed in the scenario. This should be allowed only if the fort's position has been mapped before the game (in those instances where dive-bombers were used successfully it was usually during a set piece attack and they were well briefed in advance about targets rather than being

called in by a FAC). Use the T,G,sV strength of the bomber and resolve the attack as a direct fire attack (see below).

- Forts may be attacked by direct fire. With the following restrictions:
 1. Use the T,G,sV attack strength of all units except for infantry armed with shaped charged weapons (such as bazookas and Panzerfausts) who use their V strength. The unmodified strength of the weapon must equal or exceed the armour rating of the fort to have any effect.
 2. The maximum range is 5" (unlike "normal" fire we are trying to hit a very small target - an embrasure, door or other weak point which requires pin-point accuracy, or in the case of the M12 (US-32), the unit is boresighting its gun on the target)
 3. If the firing unit is a vehicle, it must be emplaced to attack, and the target must be spotted, not suspected. (Again a matter of accuracy - against these targets "close enough" usually isn't)
 4. The attacker will receive no enfilade bonuses against a structure.

Attacks are resolved using the structure's armour value as a negative modifier. The fort has a discipline rating of 0 regardless of the dr of any of its occupants. Results of suppressed or disorder against the structure will suppress or disorder any occupants of the structure, but will have no other effect.

A kill result will collapse the structure and destroy any occupants. The area of the structure will then be treated as rubble.

The British AVRE (BR-13) is a special case. it fires a 40lb demolition charge specifically designed to reduce concrete structures to rubble. If it engages in a direct fire attack on a fort, any result of suppressed or better will not only affect the occupants, but will also permanently reduce the armour value of the fort by 1. If the armour value is reduced to 1, the fort is reduced to rubble, but the occupants survive.

- Engineer units may use demolitions on the fort.

An engineer must move within 1" of the fort.

It takes one engineering action to prepare a demolition and a successful demolition action to detonate it. Each demolition has an attack value of 4, and a successful demolition will attack the fort as a direct fire attack with only the armour value of the fort as a modifier.

It is possible for several demolitions to be prepared and detonated at once (however, all those which are ready must be set off at one time). Each additional demolition adds +2 to the attack. Like the AVRE's petard, a result of suppressed or better will permanently reduce the armour value of the fort by 1.

An enemy unit attempting to remove a prepared demolition must emplace outside of the fort and loses any benefit of the fort.

25. Hobart's "Funnies"-Special Engineering Vehicles

There were several vehicles developed for specific Engineering tasks, especially by the British in the 79th Armoured Division (known as "Hobart's Funnies"). While we do not have separate cards for these, they are often variants of common vehicles such as Churchills, AVREs, and Shermans, and you can specify their presence as a scenario rule.

AVRE

The bunker busting capabilities of the AVRE are described above. In addition, the AVRE crews were trained combat engineers and the vehicles carried engineering equipment in addition to the basic weapon. The scenario may allow AVREs to function as combat engineer troop units. They may open gaps in wire, fill in earthen AT ditches, set charges, etc.

DD Shermans

These were Sherman tanks with canvas skirts and propellers that allowed them to move through water obstacles. While the skirts are deployed, they may move 4"/movement action through any depth of water. Once the skirts are dropped, they function as normal Sherman tanks (US-02, BR-02). At the end of every movement phase that a DD tank moves amphibiously, roll a d10. On a roll of 1, the tank sinks and is destroyed. Modify the die roll by -1 if the scenario specifies rough water. Any DISORDER result combat result will also destroy a DD tank using amphibious movement. DD tanks may not fire while they are moving amphibiously.

ARK

These were armoured ramp carriers based on an unarmed Churchill chassis that can be used to bridge a linear obstacle, including sea-walls, walls, and anti-tank ditches. Once emplaced, they cannot move. They can carry the heaviest vehicles. They must conform to the obstacle and perform one engineering action. Following units move up to the ARK and then perform a breach action to move to the other side of the ARK.

Bobbins

A Bobbin-equipped AVRE can lay a lane through soft-ground or sand at 1/2 its normal cross-country speed. Following vehicles can move along the lane at 1/2 speed without rolling for bog-down. Before and while using the bobbin, the AVRE may not fire. The Bobbin can be used only once, and after use, the AVRE reverts to its normal configuration.

Conger

This is a rather unique and dangerous obstacle-clearing vehicle that is the granddad of modern line-charge mine-clearing vehicles such as the VIPER and GIANT VIPER. A gutted universal carrier is towed behind an AVRE. It contains a rocket with a hose attached and 200 gallons of nitroglycerine(!). Using this vehicle requires 2 actions that must be performed in consecutive turns:

1. The vehicle must conform to the edge of the obstacle. It is equally effective against minefields, barbed-wire, AT obstacles (Dragon's teeth), and road-blocks.
2. An engineering action is performed to simulate the firing of the rocket and the pumping of the nitro-glycerine.
3. In the next turn, a successful demolition action will result in a lane through the obstacle that is 3" long by 2" wide. The obstacle ceases to exist in this lane, and it may be traversed without executing a breaching action.

The Conger can only be used once. Once it has been used (including in unsuccessful demolition actions), the vehicle reverts to being a normal AVRE.

Not surprisingly, towing 200 gallons of nitro-glycerine around a battlefield can be exciting. If any attacks on the AVRE succeed in scoring a DISORDER, the AVRE is KNOCKED-OUT instead (a photo of the crater created revealed no sign of the 40-ton AVRE, it was completely obliterated). Today's vehicles use more stable plastic explosives instead of nitro-glycerine.

26. Miscellaneous Additional Rules and Restrictions

Transport Vehicles for ME Size and Casualties.

Soft-skin Transport does not count towards overall ME size but if destroyed does count as casualties.

Armoured transport counts towards overall ME size and casualties if destroyed.

Overrunning with Open Topped Armoured Vehicles

Troops without anti-tank weapons (PIATS, Bazookas, Pzfausts or Pzschreks) issuing defensive fire against open topped armoured vehicles conducting overrun apply a +1 modifier to their Fire roll to simulate the effectiveness of grenades against these targets.

Close Combating Bugged Down Vehicles

Vehicles that are currently bogged down apply -2 versus troops in concealment modifier regardless of whether or not those troops are in concealment or not.

If a unit currently bogged down and in close combat gets a fall back result then it is deemed to have surrendered and is counted as "knocked out" because the target can not fall back.

If a unit not currently bogged down in close combat gets a result requiring it to fall back through terrain requiring it to conduct dog down checks and it bogs down in the first inch of its fall back move then it is deemed to have surrendered and is counted as "knocked out."

Restrictions on Close Combat

Any unit with a Close Combat rating of 0 against the desired target may not initiate close combat unless the target is disadvantaged in comparison to its attacker by being suppressed, disordered or in concealment.