

# TERRAIN CHART V1.0

Terrain Type		Terrain Defense Bonus D6 Roll Modifiers			Movement cost for each movement type				Vehicle Damage from Terrain		LOS mod	Elevation (LOS relevant)
Shallow Water		-	-	-	2	Blocked	Blocked	Blocked	-	-	-	0
Beach				-	1	2	3	1		-	-	0
Clear				-	1	1	2	1	-	-	-	0
Rocky					1	2	3	2				0
Brush				-	1	1	3	2	-	-		0
Olive & Vine Grove					1	2	Blocked	2	-			0
Light Forest					1	1	2	2	-	-		1*
Heavy Forest					2	2	Blocked	4	-		Blocked	1*
No indirect firing from this hex. *Light and heavy forest: when determining if they hinder LOS.												
Single-storey Buildings (9.6.2.1)					2	2	Blocked	3	-			1*2
*2 when determining if they hinder LOS. Units occupying this hex are considered to be on elevation level 0. No indirect firing from this hex.												
Muti-storey Buildings (9.6.2.2)					2	2	Blocked	4	-			2*2
*2 when determining if they hinder LOS. Infantry units occupying this hex are considered to be on elevation level 1. Artillery and vehicle units on elevation level 0. No indirect firing from this hex.												
Large Building (9.6.2.2)					2	2	Blocked	4	-		Blocked	2*
Large building covers two or more hex of terrain. Indirect firing from this hex is not possible. * when determining if they hinder LOS. Infantry units occupying this hex are considered to be on elevation level 1. Artillery and vehicle units on elevation level 0.												
Bridge					1	2	2	2	-	-		0
Hill: Level 2 Level 1 (9.6.1)					+1*2	+2*3	+2*2	+2*2	-	-	Blocked	1-2
Slope (9.6.5.2)												
* Plus (+) the defense terrain bonus of the hex. *2 For each level of elevation climbed to enter the hex. *3 Artillery units cannot climb two elevation levels during the same activation.												
Covered Trail (9.6.3.3)			-	-	1	Hex*2	Hex*2	Hex*2	-	-	Hex	Hex
*During movement action, if a unit follows the direction of the covered trail, enemies doing a reaction fire get -1 on spotting roll. *2 Artillery and vehicles use the hex movement costs. They receive no benefit from the covered trail.												

# TERRAIN CHART V1.0

Terrain Type	Terrain Defense Bonus D6 Roll Modifiers			Movement cost for each movement type				Vehicle Damage from Terrain		LOS mod	Elevation (LOS relevant)
<b>Narrow Road</b> (9.6.3.2) <b>Urban Alley</b> (9.6.3.2)			-	1	1	1*	1*	-	-	Hex	Hex
*+1 Movement cost for changing direction (any number of vertices) to follow the narrow road path.											
<b>Main Road</b> (9.6.3)			-	1	1	1*	1*	-	-	Hex	Hex
*No movement costs for changing direction.											
<b>Stone Wall</b> (9.6.3.2.1)				-	Blocked <sub>#2</sub>	Blocked <sub>#2</sub>	Hex+1* <sup>2</sup>	-	+	Hex	Hex
*If LOS across the wall and defending units adjacent to stone wall. * <sup>2</sup> If attempting to move across the wall. It is prohibited for artillery or wheeled vehicles.											
<b>Steep Slope</b> (9.6.5.2)			-		Blocked	Blocked	Blocked	-	-	*	Hex
*When firing unit and defending unit are adjacent to the same steep slope. Vehicles and artillery units adjacent to a steep slope can see but not attack units adjacent to the same steep slope.											
<b>Barbed Wire</b> (Obstacle) (9.6.5.3)	-	-	-	Hex+1*	Blocked	Hex+1* <sup>2</sup>	Hex+1* <sup>2</sup>	+	+	Hex	Hex
*If movement across the wire. * <sup>2</sup> Cannot crossed with fast action.											
<b>Tank Barricades</b> (Obstacle) (9.6.5.4)			-	-	Blocked <sub>#2</sub>	Blocked <sub>#2</sub>	Blocked <sub>#2</sub>	-	-	Hex	Hex
*If defender is adjacent to a tank barricade. * <sup>2</sup> Vehicle and artillery units cannot cross a tank barricade.											
<b>Smoke</b>			-	-	-	-	-	-	-		2
*For each smoke marker on the hex. LOS is considered blocked by 3 or more smoke markers.											
<b>River</b>	-	-	-	Blocked	Blocked	Blocked	Blocked	-	-	Hex	Hex
<b>Swampy</b>	-	-	-		Blocked	Blocked	Blocked	-	-	-	0

## CRATERS AND RUINS TERRAIN CHART (12.4.6.2 AND 12.5)

<b>Craters</b>			-	1	2	2	1			-	0
<b>Brush, trees &amp; craters</b>				1	2	3	2				0
<b>Ruins</b>				1	2	Blocked	3				1



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# FORTIFICATION CHART V1.0

Terrain Type Fortification (9.6.4)	Terrain Defense Bonus for fortifications (Inf/Art)	Movement cost for each movement type				Vehicle Damage from Terrain	LOS mod	Elevation (LOS relevant)									
		Front	Flank	Rear	Above				Front	Flank	Rear	Above					
Sandbag Position (9.6.4.1)	<table border="1"> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>									Hex	Hex	Hex+1	Hex	Hex+	Hex	Hex	
* Infantry & artillery units end their movement in the sandbag position; vehicles in the hex terrain.																	
Trench (9.6.4.2)	<table border="1"> <tr> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </table>					-	-	-	-	Hex	Hex+1 *2	Blocked	Hex+1 *2	Blocked	Hex+	Hex	Hex
				-	-	-	-										
* Infantry units end their movement in the trench; vehicles and artillery in the hex terrain. *2 If movement across the trench.																	
Gun Position (9.6.4.3)	<table border="1"> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>									Hex	Hex	Hex+1	Hex+1	Hex	Hex	Hex	Hex
* Infantry & artillery end their movement in the gun position; vehicles in the hex terrain.																	
Bunker (9.6.4.4)	<table border="1"> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>									Hex	Hex+1 *2	Hex+1	Hex+1	Hex	Hex	Hex	Hex
* Infantry units always end their movement in the bunker. Infantry units have 360° arc of fire. Vehicles and artillery units end their movement in the hex terrain. *2 Artillery units can be placed in bunker during setup, only. See 9.6.3.2 for artillery arc of fire.																	
Pillbox (9.6.4.5)	<table border="1"> <tr> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </table>					-	-	-	-	Hex	Hex	+1	+1	Hex	Hex	Hex	Hex
				-	-	-	-										
* Infantry units always end their movement in the pillbox; vehicles and artillery in the hex terrain.																	

## EXPERIENCE LEVELS (4.2.3)

Level	Marker	Effect (cumulated)
Recruit		Attacker gains automatically one "X" symbol when attacking this unit
Regular	No marker	No effects
Hardened		+1 blue defense die
Veteran		+1 blue attack die
Elite		This unit ignores suppressed symbols

## MINEFIELDS (9.6.6)

Scouting Unit	D6 Base Result for Success	D6 Roll Modifying abilities	D6 Roll Modifiers
Infantry	5+	Scout	+1
Artillery / Vehicle	6+	Mine Detection	+2
		Unhidden Minefield	+1
		Command Card Effect	+Effect
		Fallback Action	-1

Unit Inside the Minefield	Minefield Attack Dice	Units Defense
Infantry / Artillery		
Vehicle		

Result of Attack	Effect on Infantry / Artillery	Effect on Vehicles
	+1 Damage*	+1 Damage and Immobilized*
	+1 Damage	+1 Damage and Immobilized
X	Suppressed	Suppressed

# CLOSE COMBAT AID (11.0)

## ATTACK DICE IN CLOSE COMBAT (11.1.2)



Both players get the attack dice in close combat, as listed on the unit card.

The following modifications are applied to the assaulting and defending unit:



**Half-strength:** If the assaulting unit has half-strength, only half success symbols count (10.8.1).



**Special abilities and attributes: (see unit card):** Modifications can also occur because of unit abilities and attributes.



**Unit experience level (4.2.3):** All veteran and elite units gain a blue attack die.



Check **Support Unit (11.1.1.1):** The assaulting unit can re-roll one of his attack dice once if he is supported.



**Immobilized vehicles:** The assaulting unit gains one re-roll in every close combat round. Regardless of their facing, immobilized units are always treated as outflanked. This reflects the greater mobility of their opponents.



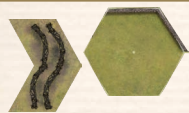
Vehicles do not have a double success roll applied when attacking infantry during close combat. Only the strongest symbol is counted.



**Command cards (8.3):** Command cards will state their effects. Check carefully in case the use of any of those abilities or attributes are conditional.

**Important: Additional modifications for the initial close combat round:**

## ASSAULTING UNITS DICE MODIFICATION



Crossing **barbed wire** or **stone walls:** If a close combat is initiated across obstacles such as barbed wire or stone walls, the assaulting unit loses the weakest attack die in the first round of close combat.



**Outflanked:** If the close combat is initiated against the defending unit from a hex outside its arc of fire (10.6.) the assaulting unit gains one re-roll of one of its attack dice.

## DEFENDING UNITS DICE MODIFICATION



**Action Status Marker:** If the defending unit was already activated, only half success symbols count. If the defending unit was half-strength and already activated, he also loses the weakest attack die.

**Suppressed:** If the defending unit is marked with suppressed, then it cannot attack in the first close combat round.



**Ambush:** If the defending unit is marked with ambush, then it may add one additional green attack die in this initial close combat round.

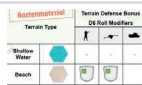
**Note:** The action marker penalty does not apply to units with hide action markers (9.12.1).

## DEFENSE DICE IN CLOSE COMBAT (11.1.3)



Both players get the defense dice in close combat, as listed on the unit card.

The following modifications are applied to the assaulting and defending unit:



**Terrain bonus: (10.9.1):** Both units get the strongest die for the terrain bonus of the target hex.



**Fortifications (secondary terrain, 9.6.4):** If the defending unit is in a fortification such as sandbag position, trench, gun position, bunker or pillbox, both units always receive the strongest terrain defense bonus.



Vehicles get no terrain defense bonus in close combat.



**Special abilities and attributes: (see unit card):** Modifications can also occur because of unit abilities.



**Unit experience level (4.2.3):** All hardened, veteran, and elite units gain a blue defense die.



Check **Support Unit (11.1.1.1):** The defending unit can re-roll one of his attack dice once if he is supported.



**Command cards (8.3):** Command cards will state their effects. Check carefully in case the use of any of those abilities or attributes are conditional.

**Important: Additional modifications for the initial close combat round:**

## DEFENDING UNITS DICE MODIFICATION



**Terrain bonus: (10.9.1):** Both units get the strongest die for the terrain bonus of the target hex.



**Fortifications (9.6.4):** If the defending unit is a fortification such as sandbag position, trench, gun position, bunker or pillbox, the unit always receives the terrain defense bonus of the side from which the assaulting unit is attacking.



**Defending unit's inherent defense dice and the area of impact (10.9.3):** Area of attack: For vehicles, the area of attack must be considered (11.3)

## ASSAULTING UNITS DICE MODIFICATION



**Terrain bonus: (10.9.1):** The assaulting unit gets no dice for the terrain bonus, but instead receives one blue die for its defense.



**Fortifications (9.6.4):** If the defending unit is in a fortification such as sandbag position, trench, gun position, bunker or pillbox, the assaulting unit always receives the strongest die of the terrain defense bonus.



**Action Status Marker:** If the assaulting unit moves into close combat with fast action, it loses the weakest defense die during the first round of close combat.



# TACTICAL AIR SUPPORT (TAS, 12.3)

## TAS Sequence:

Request TAS (12.3.1) --> Timing of TAS (12.3.2) --> ID Target (12.3.3) --> Defense against TAS (12.3.4) --> TAS Defense against AA Fire (12.3.5) --> TAS attack resolution (12.3.6):

- » TAS spotting (12.3.6.1) --> TAS Accuracy (12.3.6.2) --> TAS attack result (12.3.6.3)
- » TAS destroying buildings or terrain (12.3.6.4) --> (12.5)
- » TAS second attack run (12.3.6.5)

## AA UNITS ATTACK (12.3.4)

### Range Factor

Blast	Close	Medium	Long

## AA RESULTS TABLE (12.3.5)

Result	Effect
	TAS crashes and is destroyed. TAS does not attack. Remove the TAS card from the game.
	TAS is damaged. TAS does not attack. Place the TAS card in discard pile.
	TAS is slightly damaged, so TAS attack is inaccurate. Add a -1 to the accuracy roll. Place the TAS card in discard pile after use.
<b>X</b>	TAS turns away. TAS does not attack. Return the TAS to the player's hand after use. Card can be played again from the next turn onwards.

## TAS UNIT SPOTTING (12.3.6.1)

Result	Defending unit is in a hex with...	
	No terrain bonus	Terrain bonus
TAS rolls D6		
1	Accuracy -1	Accuracy -2
2	Success	
3		Accuracy -1
4		Success
5		
6	Accuracy +1	

## TAS UNITS ACCURACY (12.3.6.2)

TAS accuracy roll	Defender unit status					
						Other status
1	+	+	+	+	+	+
2	+	+	+	+	+	+
3	+	+	+	-	+	+
4	+	-	-	-	+	+
5	+	-	-	-		+
6	+	-	-	-	-	-

Chapter 10.5. must be considered.

The only exceptions to this are vehicles in **clear, narrow, main road or in bridge** hexes. They are automatically spotted (10.5.1). Some results on the table will also give a modifier to the accuracy roll that follows so players should make a note on any modifiers received.

## FRIENDLY FIRE:

If the TAS Accuracy roll is a 1 or less, after any relevant modifiers have been applied, and there are one or more friendly units in any hexes adjacent to the hex of the target unit, a friendly fire attack will take place.

After the TAS has rolled its attack dice against the targeted hex, any of those which do not score at least a suppression result are put to one side. These attack dice are then rolled in an attack against one, (only), of the friendly units that are adjacent to the targeted hex. This friendly unit is chosen by the non-active player. This friendly unit receives all the normal defense dice set out in 10.9-10.9.8 except the failed spotting roll 10.9.5.



# OFF-BOARD ARTILLERY SUPPORT (OAS, 12.4)

## OAS Sequence:

**Support phase:** Request OAS (12.4.1) --> Spotting the target hex (12.4.2.1) --> Firing exploratory shells (12.4.2.2)

**Action phase:** Start artillery strike (12.4.3) --> OAS fire mode (12.4.3.1) --> OAS impact area (12.4.3.2) --> Attack result (12.4.3.3):

- » OAS destroying buildings (12.4.3.4 and 12.5)
- » Craters due to OAS attacks (12.4.3.5)

## FIRING EXPLORATORY SHELLS (12.4.2.2)

For this action the player owns the OAS rolls two dice. A green combat die to determine the drift distance to the primary target hex and a D6 to determine the direction of the deviation.

Apply the following results and move the objective marker to the new hex.

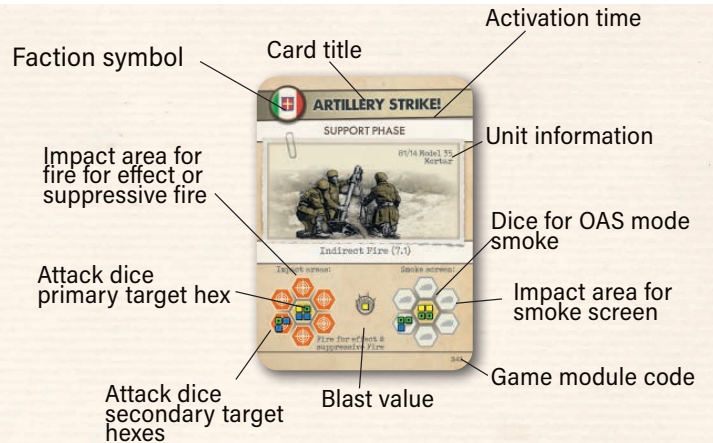
Result of  /	Effect
	Primary target hex confirmed - add a blue attack die for the upcoming attack
	Primary target hex confirmed
<b>X</b>	Primary target hex NOT confirmed - shift objective marker by 1 hex
Blank	Primary target hex NOT confirmed - shift objective marker by 2 hexes

Result of D6	Direction
1	
2	
3	
4	
5	
6	

## OAS FIRE MODES (12.4.3.1)

The three modes of OAS fire are:

- ▶ Smoke Screen (12.4.3.1.1)
- ▶ Suppressive Fire (12.4.3.1.2)
- ▶ Fire For Effect (12.4.3.1.3)



## BLAST VALUES VS BUILDINGS (12.5)

Result	Effect
	Building or fortification collapses - all units inside this hex are eliminated
	Building or fortification collapses - all units inside this hex are flipped to half strength
	Building or fortification collapses - all units inside this hex gain one damage
	Building or fortification not collapsed - all units inside this hex perform a fallback
<b>X</b>	Building or fortification not collapsed - all units inside this hex are suppressed

- ▶ If a **building** collapses, the defending player must take a ruin marker and place it on the hex.
- ▶ If a **bunker, pillbox or gun position** collapses, the defending player must flip the marker of these obstacles to their trench side.
- ▶ If a **trench or sandbag position** collapses, the defending player removes the marker.

## CRATERS DUE TO OAS ATTACKS (12.4.3.5)

In the case of a critical hit that isn't cancelled out during an OAS attack roll a crater marker is placed on that hex. This applies to any hexes which are **roads, tree alleys, clear, light forest, olive & vine groves, or brush terrain**. The active player places a crater marker according to the following illustration. The terrain changes its character due to the crater marker. This hex has now all effects shown in the table below.

Previous Terrain	Examples of Crater Markers

Previous Terrain	Examples of Ruin Markers



# RANGED FIRE AID (10.0)

## MODIFICATIONS TO ATTACK DICE



**Identify Target Type**    and **Range Factor (10.1)**



Check **Line of Sight (LOS, 10.2)**: Check if LOS is clear, hindered or blocked by using the 'Line of Sight Modification' column on the players aid.



Check **Joint Fire (10.8.4)**: Activate 1 adjacent unactivated unit as fire support unit (FSU) and gain one additional attack die.



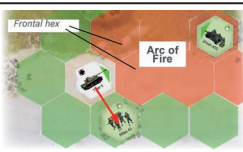
Mark the attacking unit/s with **status marker**:

- ▶ **Firing, Move and Fire or Fire and Move,**
- ▶ **Turret fire** [if firing outside the arc of fire (10.6 and 10.9.4)].
- ▶ Mark **FSU** with firing (10.8.4)



If necessary, perform **Spotting Roll** (10.5 and 10.9.5):

- ▶ Check **Special abilities** and attributes (4.2) Attacker and Defender.
- ▶ Apply **Hide Action, Hidden** or **Ambush** status maker modifiers.



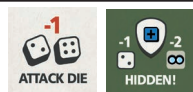
Check **Arc of Fire** (10.6), **Range** (10.1), grab attack dice depending on range (4.2)



**Unit experience level (4.2.3)**: All attacking units with the experience level of veteran or elite gain a blue attack die.



**Unit experience level (4.2.3): Attacks on recruit level** units receive 1 automatic suppression result.



**Attack Die -1, Hidden**: Attacking unit loses its weakest attack die when it has an attack die -1 or hidden status marker.



Attacker with ambush status marker gains **automatically one "X" symbol** (suppression) when firing.



**Special abilities and attributes: (see unit card)**: Unit cards will state any special abilities or attributes for the attacking unit. Check carefully in case the use of any those abilities or attributes are conditional.






**Attacking unit at half-strength: (10.8.1)**: A half-strength attacking unit treats all double success rolls as a single success. They only count the strongest symbol (critical hit/damage/suppressed).



**Command cards (8.3)**: *Command cards will state their effects. Check carefully in case the use of any of those abilities or attributes are conditional.*

## SPOTTING ROLL TABLE (10.5)

Roll 1d6 for spotting


Attacker's Unit Type	Target is in the arc of fire		Target is not in the arc of fire	
	No Terrain bonus	Terrain Bonus	No Terrain Bonus	Terrain Bonus
	-	2+	*	*
	-	2+	3+	4+
	-	4+	4+	5+


- ▶ **Automatically spotted (10.5.1)**: Units marked with any fire status (exception fire and move), **fast action, delayed action**, unit in **adjacent** hexes (except with **hidden or ambush** status) and units in **clear, beach, shallow water or road** hexes. All infantry units have a 360 degree arc of fire, so they never use the last two columns.
- ▶ **Hindered LOS**: Subtract 1 from the result if there are one or more hindering terrain types in the LOS.

## CRITICAL HITS

For each critical hit result that remains after the defense roll by the infantry/artillery unit, the attacking player is given a green die and the defending player is given a blue die. This is used to perform a comparison roll (10.7.2).


## CRITICAL HITS VERSUS INFANTRY AND ARTILLERY UNITS (10.7.5):


 **Critical Hit**: No damage points are applied. The infantry/artillery unit immediately performs a **fallback** (14.3). This will eliminate an artillery unit. If the infantry unit was already marked fallback before resolving the critical hit in 10.7.5, it is also **eliminated**.

 **Damage Point**: No damage points are applied. The infantry/artillery unit is **suppressed**. Mark it suppressed. If it was suppressed before resolving the critical hit in 10.7.5, it immediately performs a **fallback**. This will eliminate an artillery unit.

**X Suppression**: Use exactly the same procedure as if the attacker's strongest symbol was a damage point. (see above).

## CRITICAL HITS VERSUS VEHICLE UNITS (10.7.6):

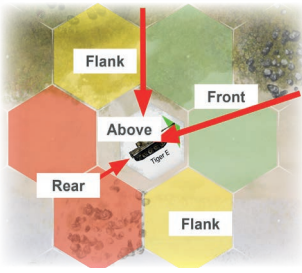
 **Critical Hit**: No damage points are applied. The vehicle is **immobilized**. If the vehicle is already immobilized the unit is eliminated.

 **Damage Point**: No damage points are applied. The vehicle immediately performs a **fallback**. If it is an immobilised vehicle it is eliminated. If it was already marked fallback before resolving the critical hit in 10.7.6, it is **eliminated**.

**X Suppression**: The vehicle is **suppressed**. If it was suppressed before resolving the critical hit in 10.7.6, it immediately performs a **fallback**. If it is an immobilised vehicle it is **eliminated**.

# RANGED FIRE AID (10.0)

## MODIFICATIONS TO DEFENSE DICE



**Defender's Inherent defense dice and the Area of Impact (10.9.3):** The base defense dice gained by a defending unit, (as stated on the unit card 4.2), will depend on the area of impact. Indirect fire always uses above.

Terrain Defense Bonus		D6 Roll Modifiers		
Terrain Type				
Shallow Water		-	-	-
Beach				-

**Terrain: (10.9.1):** Check Terrain Dense Bonus column on the Terrain Chart for the defense dice received by the defending unit for the terrain they occupy. This bonus is specific for each unit type.

**Hindered LOS (10.3):** Check Terrain Chart for the defense dice received by the defending unit for any LOS hindrances between them and the attacking unit when using direct fire. Defense dice for hindrances are cumulative. Up to two hindrances for indirect fire are ignored. However, a third hindrance will completely block LOS and prevent both direct and indirect ranged fire.

**Exception:** If unit uses a spotter for indirect fire.

**Attacking Unit's Fire Status (10.9.4):** The fire status of the attacking unit may cause the defending unit to gain a defense die. This is noted on the first two columns of the Ranged Fire Modifications Chart (10.9.5). The second column applies to vehicles marked with a fast action status marker. The first applies to all other enemy targets.

**(10.9.4):** Defender fired from an ambush with ranged fire loses the weakest terrain defense bonus die. This is cumulative to other defense die modifications.

**Failed Spotting Roll (10.5 and 10.9.5):** Failing to spot an enemy will cause the defending unit to gain a defense die. The strength of this defense die is modified by the fire status of the attacking unit. This is noted on the third and fourth column of the ranged fire modifications chart.



**Digging In (13.2):** Defending unit loses its weakest defense die when it has a digging in status marker. However, they will always retain a minimum of one defense die.



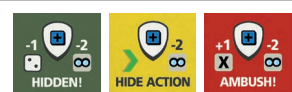
**Dug-in (13.1):** Defending unit gains a green defense die when it has a dug-in status marker.



**Infantry, Artillery and Vehicle Fast Action (13.2):** Defending infantry and artillery units lose their weakest defense die when they have a fast action status marker. However, they will always retain a minimum of one defense die. Vehicles gain 1 die - see Ranged Fire Modification Table.



**Suppressed (13.3):** Defending infantry and artillery units gain a green defense die when suppressed.



**Hidden, Hide Action, Ambush (13.1 or 13.2):** Defending units with status hidden or hide action marker gain a blue defense die.



**Unit experience level (4.2.3):** All defending units with the experience level of hardened, veteran or elite gain a blue defense die.



**Half-Strength Defending Unit (10.8.1):** A half-strength defending unit receives no penalties because it is half-strength.



**Special abilities and attributes: (see unit card):** Unit cards will state any special abilities or attributes for the defending unit. Check carefully in case the use of any those abilities or attributes are conditional.



**Command cards (8.3):** *Command cards will state their effects. Check carefully in case the use of any of those abilities or attributes are conditional.*

## RANGED FIRE MODIFICATION TABLE (10.9.5)

### Defender Status

		Attacker spotting roll failed			
Attacker Status	FIRING!	-	+	+	+
	TURRET FIRE	+	+	+	+
	FIRE & MOVE	+	+	+	+