

## Historical Battle Simulator Unit Statistics

The following document is meant to explain the different components of a unit, and the statistics associated with them.

### Unit Name:

The name of the selected unit. This name should refer to its general name. It can also include adjective such as country or region names to denote what sort of unit it is.

Examples: *Cretan Archers*, *Longbowmen*, *Spartan Hoplites*, *General's Bodyguard*

### Unit Type:

The type of unit being referred to. This is denoted as an integer between 1-5. The values are as follows.

1: **Melee** : Melee units fight in hand to hand combat. They wield weapons such as shields, swords, knives, axes and the like as their primary weapons.

Examples: *Roman Leggionares*, *Germanic Berserker*, *Dismounted Knight*

2: **Ranged**: Ranged units fight from a distance. They wield weapons such as bows, arrows, sling and guns. They typically attempt to keep their distance from their opponents at all costs, as they are typically weaker in direct combat. Siege weapons fall under this category, although they are typically slow moving.

Examples: *Cretan Archers*, *Longbowmen*, *Velites*, *Slingers*, *Ballista*

3: **Cavalry**: Mounted melee units. These units are fast moving, and typically get a bonus to charge as a result of their bonus. They are especially effective against ranged units because of the ranged units typically lower armor.

Examples: *Roman Auxiliary Cavalry*, *Heavy Cavalry*, *Light Cavalry*

4: **Spearmen**: Melee units that wield long pikes of some sort. These units are exceptional at defense typically, and can damage cavalry very effectively by using formations such as 'pike walls' and 'phalanx formation'. These units are most effective in tight formation. However, they move slower and may make easy targets for siege weapons or archers.

Examples: *Spartan Hoplites*, *Colonial Militia Pikeman*, *Barbarian Pikeman*

5: **Other**: Units that do not fit into the traditional schema laid out above. This may include units that are hybrids of the others.

### Attack:

This value refers to the bonus that is given to the soldiers chance of hitting their opponent. It is a bonus meant to be added to a randomly generated integer between 1-20, which compares against the units defense. It is a product of the soldiers expertise and training. For instance, a very precise marksmen would have a high bonus, while a clumsy one would not. A basic way of understanding the bonuses is visible in this table.

Value	Examples
-5	The efficiency of wielding a sword with your bad hand after breaking both your arms.
-4	A very clumsy wielder, perhaps a child who has picked up his fathers sword
-3	Unlikely to hit anyone except the worst defended people.
-2	A dazed warrior, or a novice person attempting to use a weapon they've never used. An untrained peasant might have this bonus
-1	A slightly below average warrior
0	Average
1	A slightly experienced soldier, perhaps a militia trained swordsman

2	A regular of an army would likely have this bonus
3	An attack focused unit, such as a longbowmen might have this bonus
4	The most elite forces of an army may have this bonus
5	The best of the best

### Damage (DMG):

This number refers to the range of which a unit can do damage. In a tabletop game this would refer to the amount and type of dice that would be rolled to determine the damage dealt. The damage dealt will be subtracted directly from the HP of the opponent. This is based mainly on the type of weapon. For brevity's sake, 'dice' refers to the range of numbers that the damage is randomly generated from.

Dice	Weapons
1 to 4	Hand to hand combat, slings, thrown rocks and daggers, small daggers, shuriken
1 to 6	Short swords(Roman Gladius), short bows, one handed axes
1 to 8	Javelins, one handed spears, long bows, bastard swords
1 to 10	Two handed swords, two handed axes, crossbows
1 to 12	Muskets, basic rifles
1 to 18	Ballista shooting flaming bolts, cannonballs

### Damage Bonus:

This number refers to the bonus applied to the characters damage if they get a 'hit'. It is based on components such as the specific make of the weapon they use, or the training and strength. A barbarian axe wielder for example may get a very large bonus here, although their clumsy style may make it harder for them to hit another unit.

Value	Examples
-5	A very weak man attempt to hit something with a very flimsy sword
-4	A weak person or weapon
-3	The weapon is very damaged
-2	A weapon that is damaged, or that the person wielding it does not know how to use.-
-1	A slightly below average warrior
0	Average
1	A militia of the army may have this bonus, if they are equipped with average weapons
2	A regular of an army would likely have this bonus, if equipped sufficiently.
3	An attack focused unit, such as a longbowmen might have this bonus
4	An damage focused unit, such as a berserker might have this bonus, if equipped sufficiently.
5	The best of the best at doing damage, with the best weapon.

### Hit Points(HP):

The amount of health an average character has. This value decreases when the unit takes damage. It is based on the strength and health of the individual person, but on average units usually have approximately 10 health. Since the average weapon does around 6-12 damage, units who sustain any amount of direct hits are likely to be reduced to wounded(a condition that occurs at half health and has negative bonuses on all actions) and killed much quicker. The average values for the main unit types are as follows:

Value	Type
15	Spearmen
12	Cavalry
10	Melee
7	Ranged
5	Peasant

### Armor Class(AC):

This refers to the overall defensive value, or 'armor class' of a unit. It is the number that the attacker is attempting to 'beat' when they attack. It is a constant value, which gets a bonus based on if the unit is

'defending' or in defensible terrain. This is a mixed value, so one unit may have a high AC based on there heavy armor, while another might have one because of their speed and agility making them hard to hit.

Value	Examples
1-5	A prone and vulnerable target.
6	Children, peasants, etc.
7	Armed peasant, no armor
8	Levy spearmen, levy javelin bearer, no armor.
9	Militia(cloth wearing)
10	Armored militia (Some leather), Velite, Bowmen
11	Gallic warrior(leather armored)
12	Persian mercenary (Some chainmail, some leather)
13	Crossbowman (all chain mail), Pikeman
14	Roman soldier (Some chain mail and plate, shield wielding)
15	Hoplite, knight(mostly plate, a shield)
16	Full plated knight
17	Specialty plate
18	Scalemail
19	Modern body armor
20	Batman

#### Defense:

This value is a bonus added when a unit is 'defending'. It gives the unit a higher AC when they get attacked, if they have selected to defend. Units have a much higher defense value if they posses shields.

Value	Type
1	Average (no shield)
2	Buckler
3	Kite shield
4	Square shield
5	Hoplite Shield

#### Speed:

The amount of tiles that a unit can move in a turn. Each tile represents a 5 by 5 foot square. This is the amount of ground that a unit can cover in 5 seconds. The average speed is 5 squares.

When a unit sprints, they expend a stamina point and double their speed for the turn.

Speed	Example
1	Trebuchet
2	Ballista, scorpion, injured soldier, pikeman in formation
3	Soldier in heavy armor, mobile pikeman
4	Soldier in chain or leather
5	Lightly armored soldier
6	A scout or archer or heavy armored soldier
7	An injured mounted unit
8	A sprinting soldier in medium armor
10	A sprinting lightly armored soldier. Slow mounted unit(Elephant)
12	Average mounted unit, sprinting socut
14	Fast mounted unit(light cavalry)
20	Sprinting slow mounted unit
24	Sprinting average mounted unit
28	Sprinting fast mounted unit

#### Range:

This value is the range of which a unit can attack. For melee units, this value is 1, referring to the amount of squares they can reach. For spearmen the value is 1.5 squares, insinuating that they can strike slightly further. For ranged units, this value depends on their weapons and personal training. Some examples are provided below.

Range	Example
1	Average Melee
1.5	Spearmen
3	Javelin(most thrown weapons)
6	Slings, shortbows
8	Average bow, musket
10	Longbow, Ballista
15	Modern rifle
20	Trebuchet
25	Sniper rifle

### Charge Bonus :

This value refers to the bonus applied to a unit's damage when charging. For all units, charging gives them some bonus, but the larger and more inertia a unit has, the higher the charge bonus. Heavy cavalry units typically have the highest charge bonuses(elephants and tanks being the maximum).

Value	Example
1	Ranged Unit, peasants
2	Basic melee unit (basic armored foot soldier), Pikeman
3	Heavily armored foot soldier
4	Berserkers, shock troops
5	Light cavalry
7	Regular Cavalry
10	Heavy Cavalry
15	Elephants or tanks

### Stamina:

This value refers to the amount of stamina a unit has. The more armor a unit is wearing, or the less they are physically conditioned, the less they are able to sprint. The average value, for a medium armored unit is 2. Some units may have higher stamina based on their individual training. This is up to the character designer's discretion.

Value	Example
1	Full plate, heavy chain mail
2	Medium armor
3	No armor or exceptionally trained units in medium
4	Specially trained scouts
5	Chuck Norris

### Morale:

This value refers to the motivation of a unit. A unit's morale reduces as they lose fellow troops around them, or if they encounter a specifically terrifying opposing units. The base morale of a unit is 5, and it can increase or decrease. It is similar to hit points in this regard.

//THIS NEEDS TO BE MODIFIED IN THE GENERAL CODE