

FORNOVO TO SEDGEMOOR
Rules for Tabletop Wargames AD 1450-1700
By Wes Rogers



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INTRODUCTION

This is a set of rules for playing tabletop wargames set in the Pike and Shot era of European history; from the end of the Wars of the Roses to the introduction of platoon firing under Marlborough. This is roughly from AD 1450 to 1700. Many of the game mechanics are based on those introduced in the *Wargames Research Group 1685-1845* rules. A typical game will have 6-12 units per side and take about four hours to play.

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1 GAME BASICS AND TROOPS

1.1 Scales

The ground scale is 1 inch = 10 paces (about 25 feet) when using 25-30mm size figures and 1 inch = 13 paces (about 32 feet) when using 15-20mm size figures.

One model soldier represents 20 actual men. One cannon limber or wagon model represents 4 actual guns or wagons.

One move represents an undefined and variable amount of time. A typical game lasts 8-12 turns.

1.2 Bases

Mount troops on bases using the following suggested widths and depths per figure. The 25-30mm size bases are listed first, then the bases for 15-20mm size figures.

Infantry in close order:	15-20mm X 20-25mm	(10-12mm X 12-15mm)
Infantry skirmishing:	30mm X 20mm	(15-20mm X 12-15mm)
Cavalry in close order:	20-25mm X 40-50mm	(12-15mm X 20-25mm)
Cavalry skirmishing:	30mm X 40-50mm	(20mm X 20-25mm)
Artillery, wagon or limber model:	at least 50mm X as needed	(40mm X as needed)

1.3 Dice

The dice used in the game are the six-sided (D6) type. A dozen or so will be handy.

1.4 Measuring Damage to Units

Units in a game suffer damage in terms of “hits”, where each hit removes one figure from play. A hit represents both dead and wounded men plus those who desert or are too confused and frightened to be of further use.

You can record hits either with a roster, by removing singly-based figures as they are hit, with loss rings placed on dead figures, etc.

1.5 Types of Troops

Troops have two basic properties, their type and their morale grade.

1.5.1 Type: Regular or Irregular

Regular (R)	Men belonging to standing units serving under professional officers and trained to respond to standard orders.
Irregular (I)	Men in a tribal band or feudal levee fighting mainly as individuals.

1.5.2 Morale Grades

Grade A – elite veterans	Grade C – average troops
Grade B – crack troops	Grade D – poor quality troops

1.6 Other Troop Classifications

1.6.1 Infantry

Infantry (foot) are men fighting on foot; some infantry such as dragoons may be mounted but fight badly when on horseback. Gun crews are usually considered a type of infantry.

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1.6.2 Cavalry

Cavalry (horse) are men fighting on horseback. When the rules refer to cavalry they mean true cavalry; the term mounted refers to both true cavalry and mounted infantry.

1.6.3 Artillery (Guns)

These units contain cannons of many types plus the limbers, gunners and crews that serve them.

1.6.4 Armor and Weapons

This era includes a large number of armor classes and weapon types due to the extreme variation found in numerous armies across 250 years:

Armor Class:

- Light infantry or cavalry (LI/LC) wearing little or no armor
- Medium infantry or cavalry (MI/MC) usually wearing leather armor
- Heavy infantry or cavalry (HI/HC) usually wearing leather plus metal body armor
- Armored infantry or cavalry (AI/AC) wearing metal body armor plus plate metal armor for their arms and legs

Combat Weapons:

- Pikes: Massed spears, 12-24 feet in length
- Heavy lances: European lances 12-16 feet long
- Heavy weapons: Two-handed swords, polearms, etc. Men armed with swords and shields count as heavy weapon-armed in melee but not on impact or for weapon length class
- Long spears (also light lances and half-pikes) usually 8-12 feet long
- Handarms: Swords, spears, clubbed muskets, etc.

Missile Weapons:

- Javelins
- Slings and light self-bows
- Longbows
- Composite bows
- Crossbows
- Pistols
- Arquebuses
- Matchlock or firelock muskets

Artillery:

- Very light guns firing shot up to 1-1/2# weight
- Light guns firing shot up to 4# weight
- Medium guns firing shot up to 20# weight
- Heavy guns firing shot over 20# weight
- Organ guns, small multi-barreled cannons
- Artillery is divided into two periods, 1485-1585 and 1585-1685.

2 Units

You must group your figures into units for the game. A unit is a group of figures acting as one body. A unit may contain 4-100 infantry figures, 4-50 cavalry figures or 1-4 gun models. You must pay command points for each unit. All the figures in a unit must have the same type and grade.

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The figures in a unit must be arranged in rows of equal length except that the last row may contain fewer figures than the others. The figures must all face the same direction unless the unit is occupying buildings or works or the unit is arranged in an outward-facing square.

2.1 Ranks and Depth

A row of figures in a unit is considered a rank if it is the same size as the front row; however the unit's rear row still counts as a rank as long as it is more than half the size of the first rank. So if the front row has 12 figures each other row must have 12 except the rearmost row. This row counts as a rank as long as it has 7 or more figures. Ranks are important because they count toward depth in combat.

By default infantry must form up in 3 or more ranks and cavalry in 2 or more ranks unless points are paid to let the unit use a shallower formation. A unit formed up in fewer ranks than allowed becomes disordered unless occupying buildings or works. This restriction does not apply to skirmishers or guns.

2.2 Close Order and Skirmish Order Units

- Infantry and cavalry units must be formed in either close order or skirmish order.
- Close order troops are standing as near to each other as weapon use will permit.
- Skirmishers are spread out in a hard-to-control cloud.
- Units must be formed in one order or the other at the start of the game and may not change order.

2.3 Large Units

A unit is "large" if it begins the game with 40 or more figures.

2.4 Trot-Charging vs. Gallop-Charging Cavalry Units

Regular cavalry must be bought either as trot-charge or gallop-charge. Irregular cavalry must always gallop-charge.

Gallop-charging cavalry gets more impetus but is harder to rally from pursuit.

Trot-charging cavalry may not use charge bonus movement but still gets impetus if it moves the minimum required impetus distance.

2.5 Salvee Fire Training

To use salvee fire (massed volley fire) the unit must be Grade A-C regulars. Salvee fire is available only to the Swedish army from 1620-1640 but to all nations thereafter.

2.6 Sniper

An army after 1630 may have one sniper. The sniper figure is an independent skirmishing unit. It may only be shot at by other snipers.

Roll one die to shoot with the sniper. Use the steady A-C musketry factor but far range = 32 (24)". It may target enemy generals in its line of sight either attached to units or standing alone. It may also target normal units if desired.

If the general's figure is hit, the sniper's player rolls again. On a 6 the general is hit and killed.

If an enemy unit contacts the sniper roll a die: On a 4-6 he evades the attack; on a 1-3 he is killed.

2.7 Organ Guns

An organ gun moves like a light gun. It reloads like a heavy gun and fires hailshot like a heavy gun. It cannot fire ballshot.

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2.8 Unsupplied Troops

An unsupplied unit is treated as one morale grade lower for all purposes. If Grade D then it is treated as “D minus”: Grade D with an extra -1 on reaction tests.

2.9 Unpaid Troops

Unpaid troops may mutiny at the start of the game or if the enemy charges them. After setup roll a die for each unpaid unit. On a score of 1 it mutinies and is removed from play. Each time the enemy charges an unpaid unit or it is ordered to charge roll for mutiny as above. In addition unpaid troops will not rally from rout or pursuit.

2.10 War Wagons (*Gulay Gorod*)

A war wagon is a wheeled platform resistant to most small arms and cavalry. A war wagon moves at the same rate as a normal wagon. A war wagon occupies an area 40 (30) mm wide X 80 (60) mm long. It takes half a move to hitch or unhitch the horse team and set up the wagon. Each wagon can hold up to 4 defenders plus a light gun. It gives soft cover from shooting. 2 cumulative hits from any ballshot will wreck the wagon. In combat it is disordering terrain vs. foot and blocks attacks from mounted troops.

2.11 Archer’s Stakes

It requires half a turn to pound in and sharpen a line of archer’s stakes. Troops carrying stakes move 2(1.5)” slower and lose them if they charge, countercharge, or evade. Once planted it takes a full turn to retrieve them. Troops take 2(1.5)” to filter through the stakes. They block mounted impetus.

2.12 Bayonets

Plug-type bayonets became available in Western European armies in the 1660s and ring-style in the 1680s. Bayonets may only be used by regular firelock-armed infantry. When troops have their bayonets fixed they are treated as pike-supported for reaction test purposes if the entire front rank of the unit has them fixed (obviously pike-armed figures count toward this status as well).

It costs half a move to insert or remove plug bayonets. Troops with bayonets plugged cannot fire. It is legal to have the front-rank of a unit with plugged bayonets and the second rank unplugged and able to fire. Ring-style bayonets are assumed to always be fixed or take only an instant to fix. They do not interfere with fire.

2.13 Bill-and-Bow Training

A unit with bill-and-bow training may contain both halberd-armed figures and close-order longbow-armed figures. More TBD – how were these units deployed?

2.14 Pike-and-Shot Training

A unit with pike and shot training may contain both pike-armed figures and close-order missile-armed figures. The missile troops may have crossbows, arquebuses or muskets.

1. The missile troops must form two equal wings or sleeves on the flanks of the pikemen.
2. The pikemen may be in a deeper formation than the missile troops.
3. The pikemen may also have heavier armor than the missile troops.
4. If the missile sleeves are 4 or more ranks deep and the unit is stationary the missile troops may shoot all around (but not through the pikemen).
5. Prior to 1580 the missile sleeves may be no more than 3 figures wide and total 50% or less of the troops in the unit.

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2.15 Naked and Pike-Supported Units

A pike and shot unit will be either "naked" or "pike-supported" depending on the proportion of pikes to other missile troops in the unit. This status may change during the course of the game.

A unit is considered pike supported if at least 1/4 of its front-rank figures are pike-armed. Other units are naked. They suffer penalties in combat and morale vs. cavalry and pike-supported units.

2.16 False Rout

Some Eastern style light cavalry are capable of this maneuver. After evading a charge they may about-face at no cost and countercharge. Roll for this; a score of 4-6 is necessary. They may make their countercharge after the enemy has become disordered.

2.17 Wagon Laager

Some armies such as the Cossacks used laagers or normal wagons or war wagons. Such troops may move through their own wagons at a cost of 2(1.5)". This includes cavalry. A laager stops cavalry attacks and disorders infantry who assault the wagons.

3 Generals and Subgenerals

A general is either a Commander-in-Chief (C/C), or a Sub-general (S/G). Each side may have one C/C, who may influence any unit on his side. An army may have any number of S/G's, who may only influence the units they are assigned at the start of the game. A unit may not be under the command of more than one S/G. In an allied army each ally may have its own C/C. Generals have no shooting or combat ability.

3.1.1 Command Distance

A commander-in-chief level general has a **Command Distance** (CD) of 12(9)". A subgeneral has a command distance of 8(6)". CD to irregulars is half these values.

Measure the distance from the general figure's head to the nearest point of the target unit. CD may be traced around enemy units, but not through them. CD may not be traced across impassable terrain.

3.1.2 Influence of Generals

If a general is attached to a unit, that unit receives a reaction test bonus. Generals may only attach and detach from units during the movement phase. An attached general may not influence other units. A general may not be attached to more than one unit at a time.

3.1.3 Danger to Generals

If a general is attached to a unit that suffers two or more hits in a given phase, roll a die at once: On a "1" the general is disabled and removed from play.

4 POINT VALUES

Use the cost point value charts below to buy armies of equal fighting value.

The basic figure cost includes a sword or other basic handarm. The minimum cost for a foot figure is 2 points. The minimum cost for a cavalry figure is 5 points.

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Infantry			
Grade A/B/C/D:	8/6/4/2	Other weapon besides the above:	+1
Light /Medium/Heavy/Armored:	+0/+1/+2/+3	Salvee fire (must be Grade A-C regulars):	+2
Gunner (must be LI):	+4	Irregular infantry:	-1
Longbow, composite bow:	+3	Pike-and-shot or bill-and-bow training:	+1
Musket:	+2	Infantry or artillery unit command:	10
Cavalry			
Grade A/B/C/D:	20/15/10/5	Barded (must be heavy or armored):	+2
Light /Medium/Heavy/Armored:	+0/+1/+3/+4	Irregular cavalry:	-2
Nobles (must be Grade A-C):	+2	False rout (must be irregular LC or MC):	+1
Heavy lance or pistols:	+2	Cavalry unit command:	20
Other weapon besides the above:	+1		
Other			
Commander-in Chief (C/C):	200	Heavy gun:	100
Subgeneral (S/G):	100	Limber:	10
Horse to mount infantry:	3	Unpaid (must be by entire unit):	-2
Sniper (one per army):	25	Unsupplied (must be by entire army):	-2
Archer's stakes to cover 6 figures:	5	Ditch per 4(3)" length:	5
Bayonet for musket:	1	Light fieldworks per 4(3)" section:	10
Very light gun (may be wagon-mounted):	25	Heavy fieldworks per 4(3)" section:	20
Light gun:	50	Wagon:	10
Medium gun or organ gun:	75	War wagon (<i>gulay gorod</i>):	20

5 STEADINESS AND ORDER

A unit is either "steady" or "unsteady". Unsteady units suffer various penalties. To be steady, a unit must meet these rules:

- It must be regular infantry or regular cavalry (not gunners)
- It must not be disordered
- It must be in close order
- It must be in good or halted morale

5.1 Disorder

A unit may become disordered under various circumstances:

- Due to terrain effects
- Due to maneuver effects
- If a unit is in an illegal formation (see legal formations below)
- If a regular unit is more than 16 figures wide or if an irregular unit is more than 12 figures wide.
- Upon entering rout or pursuit
- After two rounds of combat with enemy units totaling at least 1/4 its strength.

5.2 Exhausted Units

When a unit has suffered 50% losses it is exhausted. An exhausted unit becomes permanently disordered and cannot reform. Calculate using the unit's original strength in figures.

5.3 Shattered Units

When a unit has 75% losses it is shattered and routs at the end of the current phase. Calculate using the unit's original strength in figures.

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5.4 Recovering from Halted, Shaken or Disordered Status

To recover from halted, shaken and/or disordered status a unit must act as below:

- Halted: The unit may not advance but otherwise may act normally and still recover.
- Shaken or disordered: The unit may not move, shoot or be in combat.

6 TURN SEQUENCE

The game is played in a series of turns. Follow the sequence below each turn.

Rally	<ol style="list-style-type: none"> 1. Each side rolls 1D6 for initiative. The high-scoring side chooses to be Side A or Side B. 2. Both sides make recoil moves from last turn. 3. Both sides test to rally eligible routers and halt eligible pursuers, then move unrallied routing and pursuing units. 4. Both sides test to see if off-table units return.
Move	<ol style="list-style-type: none"> 1. Side A makes charge moves. Side B announces counter-charges where eligible; make counter-charges simultaneously with charge moves. Side B also makes any evade moves in response to charges. 2. Side B makes charge moves with Side A responding as above. 3. Side A makes all normal moves followed by Side B.
Shoot	<ol style="list-style-type: none"> 1. Both sides do all shooting; the effects are simultaneous. 2. Both sides test reaction vs. shooting, or to charge home, Units meeting charges test vs. successful charges. Routed units make half a rout move at once. 3. Chargers test to halt where targets have evaded or routed if eligible and complete charge moves where required
Combat	<ol style="list-style-type: none"> 1. Both sides conduct one round of combat (effects are simultaneous). 2. Losing units test reaction. Mark recoiling moves and routed units but do not move them. 3. Both sides test reaction vs. friends who routed this turn. 4. Recover eligible disordered, halted or shaken units.

7 MOVEMENT

The table below lists the maximum distances which troops may move in clear terrain. Terrain obstructions and maneuver costs may slow actual moves.

Movement Table (Inches)

Troop Type	Normal or Limbered Move	Charge Bonus or Manhandled Move
Armored infantry	4 (3)	+2 (1.5)
Heavy infantry	6 (4.5)	+2 (1.5)
Medium or light infantry	8 (6)	+2 (1.5)
Armored cavalry	10 (7.5)	+6 (4.5)
Heavy cavalry	12 (9)	+8 (6)
Medium or light cavalry	16 (12)	+8 (6)
Very light guns	8 (6)	6 (4.5)
Light guns or organ guns or wagons	6 (4.5)	4 (3)
Medium guns	4 (3)	2 (1.5)
Heavy guns	2 (1.5)	Turn in place 45°
Generals and subgenerals	24 (18)	N/A

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Movement notes:

1. When it is your phase to move you may move any or all of your units up to their maximum allowed distance. Some units such as routers and pursuers however may not be moved voluntarily.
2. Cavalry on barded horses deduct 2 inches from their move
3. Trot-charging cavalry may not use charge bonus movement.
4. Heavy guns may not move if unlimbered but may rotate in place up to 45°.
5. Rout, evasion, and pursuit movement does not apply to gun or wagon models. In any of these situations, the gunners abandon their guns and move like skirmishing infantry.

7.1 Gunners Needed to Move and Fire Artillery

The table below summarizes the minimum number of gunner figures needed to perform various actions with an artillery model.

Type	Unlimber	Manhandle	Fire
Very light gun	1	1	1
Light gun	2	2	2
Medium or Organ gun	2	3	2
Heavy gun	3	4	3

7.2 Routing Units

Historically when a unit panicked and ran from the fight the men threw away every piece of armor and any weapon that might slow them down. So even if by some miracle they rallied they would have been useless. The rules assume that a routing unit does not reach this final state until it leaves the game table. Therefore a routing unit may rally even when in contact with the enemy.

7.2.1 Rout Moves

A routing unit moves at charge speed. Routers move in phase one of each turn. The unit must swerve each turn up to 45° until it is facing back toward its own baseline. It may also swerve up to 45° to avoid enemy units, but must then bear back toward its baseline.

A routing unit may flow around or past other units or impassable terrain if there is a gap equal in width to at least half its frontage overlapping its path of rout. In other cases, it does a burst-through against friends or is eliminated if it encounters enemy units or impassable terrain

If a routing unit encounters friends overlapping at least 1/4 of its frontage on its initial rout move it does a burst-through against them. If it encounters enemy units it surrenders at once and is removed from play. Squares and units in hard cover or buildings never suffer burst-throughs. When a unit suffers a burst-thru it becomes disordered.

7.3 Moving Pursuing Units

A pursuer follows the target of its pursuit until the target is dispersed or enters terrain impassable to the pursuer. The pursuer also stops if it crashes into a fresh enemy or into impassable terrain. Pursuers move at charge speed.

If a unit routs several enemy units on the same turn, it pursues the one with whom it had the most figures in contact; if there is a tie, it may choose which to follow.

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7.4 Leaving and Returning to the Game Table

If the pursuer cannot rally before its target leaves the table the pursuer also leaves the table. It must then wait one more full turn before it can test to return to the game table. So if it leaves the table during turn 3 it can test starting turn 5. If it passes it re-appears in good order on the table edge as near as possible to where it left. It may act normally that turn.

7.5 Burst-Throughs and Flowing Around Obstacles

A burst-through move happens when a routing unit cannot flow around another unit. The routers move through the friend at full speed. The friend becomes disordered.

If a router flows around another unit any pursuers also flow around. If a router bursts thru friends, any pursuers crash into the new target and fight a combat. Both units are disordered and therefore without impetus. Neither unit may shoot. Both units test reaction as if in a normal charge situation.

7.6 Charging, Countercharging and Impetus

In order to contact the enemy (voluntarily) and engage in combat, a unit must charge.

In order to declare a charge the target of the charge must be visible when the charge is declared and must be reachable in a single charge move. When charging, you must bring as many of the unit's figures into contact with the enemy as spacing and movement allow. If several units charge the same target, space them as evenly as possible.

7.6.1 Restrictions on Charging

Certain units are forbidden from charging:

- Infantry may not charge mounted troops unless at least 2/3 pike-armed.
- Gunners may not charge.
- Skirmishers may not charge close-order troops unless in woods.
- A unit must be in good morale charge.

7.6.2 Maneuvering During a Charge

A charging unit may maneuver during the normal-move part of its charge but charge bonus movement must be straight ahead.

7.6.3 Shooting During a Charge

Units capable of salvee fire may shoot during their charge, as may trot-charging cavalry with pistols. Such units may not use charge speed. They are assumed to halt just before contact, fire and then close. This shooting is done at the same time that the defending unit does its defensive fire.

7.7 Impetus

Impetus is a combat bonus given to units which charge "at speed" straight into the enemy. A unit with impetus gets a bonus to its combat points.

7.7.1 Impetus Distance

A foot unit must charge its final 2(1.5)" straight ahead to contact to claim impetus. For mounted units the distance is 4(3)".

A unit may claim straight-ahead movement from the end of its previous move toward impetus in the current turn, if it just keeps moving straight ahead the whole time.

7.7.2 Restrictions on Impetus

Certain units do not have impetus when they charge:

- Shaken or disordered units.

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- Mounted infantry.
- Mounted troops or "naked" foot charging steady pike-supported foot frontally.
- Troops charging at or into or across disordering terrain.
- Troops who shoot while charging.

7.8 Countercharges

A countercharge is a charge made to meet an enemy charge. It is made as a simultaneous move, as soon as the target unit is aware of the enemy charge. Troops may only countercharge in their own defense. All the other rules and restrictions of charging and impetus apply to countercharging.

7.9 Evading a Charge

Skirmishers, gunners, and light cavalry in one or two ranks may evade a charge. Make the evade move after the enemy charges to contact but before shooting. The enemy may then try to halt at that point or continue its charge in a straight line into the next target in line. If it fails to halt it will continue its charge at the evading troops. If it fails to reach them it ends the move disordered.

The evade move must be made away from the charge, at an angle of up to 45° to either side of the line of the charge.

The evading unit must move at least half a normal move, but may then halt if the enemy can no longer reach it.

7.10 Interpenetration

Interpenetration is when one unit moves through another.

- Unlimbered guns and skirmishers are not obstacles to interpenetration.
- Units four or more ranks deep may not be interpenetrated or interpenetrate. Treat them like impassable terrain.
- In other cases, one unit must stand still while the other moves through at half speed. If either unit is unsteady or regulars not trained to form in 1-2 ranks then both units become disordered.

7.11 Skirmish Movement

Skirmishing figures may move and face freely in any direction but must remain within 8(6)" of their unit command figure.

7.12 Recoil Moves

A recoil move, as forced by combat or reaction results, must be straight back, except a swerve as small as possible of up 45° is allowed to avoid other units. The recoiling unit remains facing forward. If a recoiling unit cannot avoid an enemy unit, it panics and routs. A recoil move causes burst-throughs against friends if there are friends in the path of the recoil.

7.13 Unlimbering Guns

It costs 1/2 move to unlimber a very light or light gun, and a full move to unlimber a medium gun or heavy gun. Once the guns are unlimbered, remove the limber models from play. An unlimbered gun may not limber up again.

7.14 Mounting and Dismounting Dragoons

It costs dragoons 1/2 turn to dismount and a full turn to mount up again. 1/10 (rounded down to a 1-figure minimum) of the figures must be used as horse-holders. The horses must be represented somehow

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on the table. They may not move. If an enemy unit touches them, they are dispersed and removed from play at once.

7.15 Open and Protected Flanks

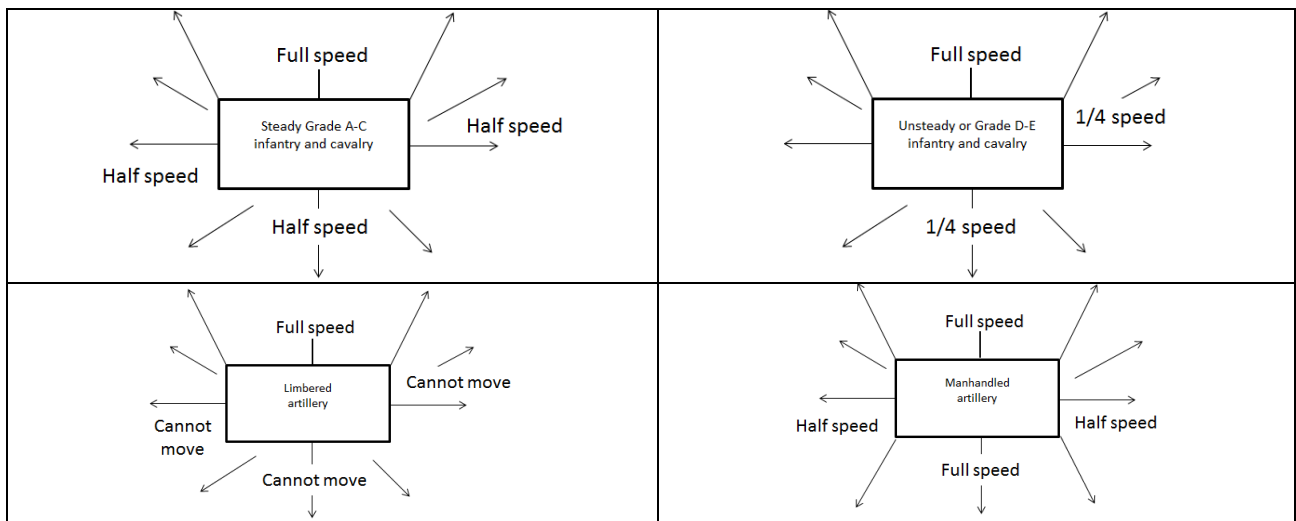
A unit's flank is open unless it has a friend (non-routing) within 6(4.5)" of its flank, or the flank is within 6(4.5)" of terrain known to be clear of enemies which would disorder an enemy unit (or is plain impassable). Flanks that are not open are protected. A friendly unit within 6(4.5)" to the rear can protect only one flank of a given unit, not both. Artillery can protect a unit's flank, as can skirmishers and shaken units.

7.16 Movement Debt

If it costs more than one move to complete a maneuver, place the unit into its new position and mark it as shaken. It remains shaken until it has spent enough full active movement phases to pay off the debt. It may not move or fire until this is done.

7.17 Maneuvers and Formation Change Chart

Type of Maneuver	Steady Grade A-C Regulars
Change the unit's facing	This costs 1/2 move. It is made about the unit's center of mass.
Changing Frontage	2(1.5)" per figure of frontage changed.
Wheel: Must be forward about one front corner	Pike-armed figures at half speed. Others at full speed.
Narrow oblique movement (up to a 22.5° angle forward off the unit's front facing)	Full speed.
Sidestep or a wide oblique move at more than 22.5° off the unit's front facing	Oblique forwards, move sideways or retire at 1/2 speed.
Form or reform from square	1/2 move; 1/4 move if in four or more ranks of figures. The unit may form in response to a charge if it has time.
Other troops: Maneuver at 1/2 the listed rates or pay double the listed costs.	



Forward and sideways movement

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8 MORALE AND REACTION

Morale is the basic willingness of a unit to keep fighting. A unit's morale state is decided by taking reaction tests when various conditions occur.

8.1 Morale States

Morale states (highest to lowest) are **good**, **halted**, **shaken**, and **routed**. Units usually begin the game in good morale.

- A unit in good morale carries on normally.
- A halted unit acts normally but may not advance on its next move.
- A shaken unit may not advance, is not steady, and suffers penalties to all its actions.
- A routed unit turns and runs from the enemy until rallied.

8.2 Outgunned in Artillery

Artillery was ineffective compared to later periods of history but still had a profound moral effect because of the noise and terror of its barrages. If one army has less than 2/3 of the artillery weight of its opponent it is "outgunned" and suffers penalties to some of its reaction tests.

Count each light gun model as 1 weight point, each medium gun as 2 and each heavy gun as 3. Add up each army's artillery weight with a minimum of six points needed to have an effect on the enemy. Very light guns are worth zero points.

For example if an army contains four light guns, two medium guns and two heavy guns its artillery weight equals 14. The enemy would be outgunned unless it had a weight of 10 or more.

8.3 Reaction Tests

Morale is determined by taking reaction tests at various times during the turn. To take a reaction test, roll 1D6 for the unit, and modify it as listed for the test. If the final score is **greater than 0**, the unit passes. Otherwise it fails.

8.4 Reaction to Rally from Rout

To be eligible to rally from rout, the unit must have made at least one rout move. The unit must not be exhausted. If the unit passes its reaction test, it halts in disorder. It may do a free about face. If it fails it keeps routing.

Reaction to Rally from Rout

Grade A/B/C/D:	-2/-3/-4/-6
General with Unit:	+1
No visible enemies within 12(9)":	+2
In contact with the enemy:	-1
Irregulars:	-1
The army is outgunned:	-1
Pass: Unit halts disordered; may do a free about face.	
Fail: Unit keeps routing	

8.5 Reaction to Halt Pursuit or Return to the Game Table

To be eligible to rally from pursuit the unit must have made its initial pursuit move if mounted but foot may test before even beginning their pursuit. If the target is more than 12(9)" away the pursuers halt automatically; they are disordered as below. If the unit passes this reaction test it halts in disorder. It may do a free about face. It is in line of battle formation. If it fails it keeps pursuing.

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The unit's player may always order his unit to enter pursuit or follow up a recoiling enemy. In this case however it is harder to stop them later.

Reaction to Halt Pursuit or Return to the Table

Grade A/B/C/D:	-1/-1/-2/-3
General with Unit:	+1
Testing to return to the table; in cover:	+2
Irregular troops, or any cavalry that charged at the gallop:	-2
Other mounted troops, or any exhausted unit:	-1
Pursuit or follow-up was allowed:	-1
Pass: Unit halts disordered; may do a free about face. Fail: Unit keeps pursuing	

8.6 Reaction vs. Shooting Hits

Take this test if a unit which was not involved in a charge situation suffered any shooting hits this turn. The shooters must total at least 1/4 the testing unit's strength or be artillery to trigger the test.

Reaction vs. Shooting Hits

Grade A/B/C/D:	+2/+1/+0/-1
General with Unit:	+1
Each 2 hits from gunpowder or 3 hits from other shooting (40+ figures: each 3 / 4 hits):	-1
Shot at from flank/rear:	-1
Shaken:	-1
Hit by heavy artillery or steady salvee fire:	-1
The army is outgunned:	-1
Pass: Unit carries on in current state Fail: If the unit advanced 2(1.5)" this turn it is halted. Otherwise it becomes shaken. If already shaken it routs..	

8.7 Reaction to Charge to Contact or Meet a Charge

Take this test if a unit is charging or counter-charging to contact or meeting an enemy charge. In a mutual charge situation counter-chargers test first and if unclear Side B units test first. Units meeting a charge do not test unless the enemy passes its test to charge home.

Reaction to Charge to Contact or Meet a Charge

Grade A/B/C/D:	+2/+1/+0/-1
General with Unit/No general in CD:	+1/-1
Nobles:	+1
Charging a flank/rear and/or a shaken or routing target:	+4
Cavalry with impetus charging at the gallop:	+2
Each 2 gunpowder hits suffered this turn; large unit 40+ figures, each 3 hits:	-1
Shaken, or charged on the flank/rear:	-2
Mounted vs. steady pike-supported foot frontally:	-3
Naked foot more than half missile troops:	-2
Pass: Charging or counter-charging units charge to contact. Others meet the charge in their current morale state. Fail: charging or counter-charging units recoil half the distance charged, shaken. A unit meeting a successful charge routs.	

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8.8 Reaction vs. losing a Combat

Take this test if a unit in a combat suffered more hits than it inflicted.

Reaction vs. Losing a Combat

Grade A/B/C/D:	+2/+1/+0/-2
General with Unit:	+1
Each 2 hits suffered; large units 40+ figures, each 3 hits suffered:	-1
Under flank/rear attack:	-1
The unit is more than half missile-armed foot:	-2
Shaken:	-2
Each successive round lost past the first:	-1
Pass:	Mounted troops recoil 8(6)"; foot units recoil 4(3)". The unit fights on in its current state.
Fail:	Unit routs at once

8.9 Reaction vs. Friend Routing within 12(9)"

Take this test if a visible friend routed within 12(9)" this turn. Note that this test may trigger a "chain reaction" if it causes fresh units to rout. However, once a unit has taken this test, it need not take it again in the same turn, even if fresh units rout. The player concerned may take the test(s) in any desired order of units (generally you want to test with your best units first). Regulars ignore routs by gunners and skirmishers. A-Grade troops ignore routs by D-Grade troops. Nobles ignore routs by lower-grade troops.

Reaction vs. Routing Friend in 12(9)"

Grade A/B/C/D:	+2/+1/+0/-1
General with Unit:	+1
In square; in hard cover:	+1
Each routing friend visible in 12(9)":	-1
Shaken:	-1
The unit has two open flanks:	-1
The testing unit suffered a burst-through this turn:	-2
Pass:	Unit carries on in current state
Fail:	Unit routs at once

9 SHOOTING

9.1 Procedure

To conduct shooting count the number of shooting figures in range and arc of fire to the intended target and see how many dice to roll. Then cross-index the type of fire with the target class on the small arms or artillery shooting chart to see the score needed per die to cause hits. A routing unit may not shoot.

Measure the range and arc of fire of each figure from its front middle. A unit may not split its fire unless some of the figures cannot hit the first target selected. The others may then shoot at another target as close as possible to the one first selected. Fire from a square or building may be directed independently by each face of the square or building.

9.1.1 Dice Rolled when Shooting

- For infantry roll one die per four shooting figures. Round up a final remainder of three figures.
- Mounted troops roll one die per three figures. Round up a two-figure remainder.

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- For heavy guns and organ guns roll one die per two gunners up to a maximum of two dice per model. Drop a one-figure remainder. For other artillery roll one die per four gunners up to a maximum of one die per model; round up a three-figure remainder.

9.2 Arc of Fire

- In most cases the arc of fire is 22.5° to either side of each figure's front center.
- Mounted figures may shoot up to 180° behind themselves.
- Regular foot in a stationary tercio may shoot all around.

9.3 Ranks able to shoot

- In most cases two ranks of figures may shoot.
- Four ranks of steady regular trot-charging cavalry with firearms may shoot.

9.4 Defensive Shooting

A unit may always shoot in its own defense vs. a charge (if eligible to fire at all) unless it is suffering a "crash-into" effect from an enemy which was pursuing some other target. Unless using salvee fire the unit inflicts half hits rounded down if contacted at under half a full charge move.

9.5 Saving Throws from Shooting Hits

Target figures may make saving throws based on their armor class vs. each initial hit. The best saving throw allowed is 2-6. Roll 1D6 per hit to see if the hit is negated.

There are some modifiers to saving throws; these may allow a figure to achieve a saving score of 7 or better. The shielded modifier only applies to non-gunpowder hits, and only if the hits came from the unit's front or left-hand flank.

9.6 Types of targets

A target will fall into one or more of the classes below. If a target fits multiple classes (e.g. skirmishers in soft cover) use the one best for the target. If a target is partly in one class and partly in another choose the one best for the shooter, even if some hits must go against figures in the other class.

Normal	A close-order or artillery unit in the open is a normal target.
Dense	A dense target is a close-order unit in 3 or more ranks of figures or enfiladed onto its flank at an angle of 22.5° or less.
Skirmishing	A skirmishing target is a unit in skirmish order.
Soft Cover	A soft-cover target is a unit in soft cover relative to the shooter.
Hard Cover	A hard-cover target is a unit in hard cover relative to the shooter

9.7 Defensive Shooting

Missile-armed troops may fire in their own defense when charged. The hits they inflict count as combat losses in the impact round. See Combat below for details.

9.8 Shooting at Mixed Units

Spread shooting hits evenly among all the troop types in a mixed target unit's nearest two ranks; the defending player allocates any remainder hits. If any saving throws apply, make these after all hits have been allocated.

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9.9 Timing of Fire

If the unit is stationary it may shoot at any enemy units which passed through its "fire zone" (range and arc of fire) that turn. To shoot at an enemy that charged to contact with some other unit, the enemy must have taken more than half a full charge move to reach its charge target. If the firing unit moved, it may only fire at targets still in its fire zone at the end of movement. A unit may always be shot at by the target of its charge unless making a flank or rear charge.

9.10 Priority of Fire

1. An enemy charging at the shooter.
2. If a general is within 2(1.5)", any target desired.
3. If artillery, enemy artillery firing on them last turn.
4. In other cases, the nearest target or another target within 4(3)" of the nearest.

9.11 Shooting Over Obstacles

To shoot over an obstacle the distance from the shooter to the far edge of the friend must be half or less of the distance from the shooter to the near edge of the target. These rules also apply when shooting up contour levels. You may never shoot through a friendly unit or another part of your own unit. A unit in the game is treated as a one-contour obstacle. This applies to skirmishers and artillery as well as close order units.

9.12 Shooting Through Gaps

A number of figures may shoot through a gap equal to the width of the gap in 1(3/4)" increments. For example if there is a 4" gap (in a 25mm scale game) then four figures could shoot through it. One gun model per 4(3)" gap may shoot through. Different units may not "share" a gap.

9.13 Artillery Danger Zones

Ballshot has a danger zone equal to the width of the firing model. Hail shot has a danger zone equal to the model's width plus 2(1.5)" to either side. Any friends in the danger zone must be shot at first; any dice that miss may then be rolled against the intended target.

9.14 Moving and Firing

- Steady Grade A-C infantry with firearms or crossbows may advance or retire 2 (1.5)" and fire at no penalty. This is termed rotation fire.
- Troops trained to salvee fire may move full including charging and fire at no penalty if they did not move or fire or fight in combat on their last move.
- Other infantry and very light guns may move up to half and shoot at half effect rounded down.
- Mounted troops may move full speed and shoot normally.
- Other artillery may not move (including unlimbering or turning in place) and shoot.

9.15 Hits against Artillery

Roll 1D6 for each hit scored against an artillery unit: 1-3 = limber destroyed if present, otherwise a miss. 4-5 = gunner hit. 6 = gun model destroyed if hit by light, medium or heavy ballshot; otherwise gunner.

9.16 Reloading Guns

Some guns need to reload one or two turns between shots. This is denoted with R1 or R2.

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9.17 Salvee Fire

To use salvee (massed volley) fire a unit must be steady Grade A-C regulars with muskets. The firing figures must not have moved or fired last turn. Such units may fire by rank, one rank per turn, so as to have some figures always able to fire.

9.18 Shooting from a Square

Fire shooting out of a square is considered to be unsteady.

9.19 The shooting table

The shooting table shows the chance to cause a hit on different classes of targets with each shooting die rolled. An H means one hit, HH means two hits. So if a table cell reads 34H 56HH this is a miss on a 1-2, one hit on a 3-4 and two hits on a 5-6.

Cross-index the type of shooting with the class of target to see the to-hit score. If more than one class applies to a target use the one best for the target. For example arquebus fire at skirmishers in soft cover uses the skirmisher class target, not soft cover.

The target unit's player makes any saving throws after all initial shooting hits have been allocated.

Shooting Table – Small Arms

Type of Fire	Range	Normal	Skirmish	Soft Cover	Hard Cover
Steady Grade A-C Musketry	6 (4.5) 20 (9)	45H 6HH 56H	6H NIL	56H 6H	6H NIL
Arquebus, Other musketry	6 (4.5) 16 (12)	456H 6H	6H NIL	56H 6H	6H NIL
Pistols	4 (3)	56H	6H	6H	NIL
Javelin (close only), Self-bow, sling	6 (4.5) 12 (9)	456H 56H	56H 6H	56H 6H	6H NIL
Crossbow	12 (9) 24 (18)	5H6HH 56H	56H 6H	56H 6H	6H NIL
Longbow or heavy composite bow	12 (9) 24 (18)	3456H 56H	456H 6H	56H 6H	6H NIL
Self-bows shot from horseback: Shooters shaken: Infantry moving when not using rotation fire: Foot contacted under 1/2 charge move (not using salvee): Mounted fire except self-bows and pistols:				Range X1/2 Hits X1/2 rounded down Hits X1/2 rounded down Hits X1/2 rounded down Hits X1/2 rounded down	

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Shooting Tables – Artillery

Artillery 1485-1585	Range	Normal	Skirmish	Soft Cover	Hard Cover
Light hailshot (R1)	4 (3)				
Medium hailshot (R1)	6 (4.5)	5H 6HH	6H	6H	NIL
Heavy hailshot (R2)	8 (6)				
Very light gun close	12 (9)			6H	NIL
Light ballshot close (R1)	16 (12)	56H	NIL	6H	NIL
Medium ballshot close (R1)	24 (16)			56H	6H
Heavy ballshot close (R2)	36 (24)			56H	56H
Very light gun far	24 (18)			NIL	NIL
Light ballshot far (R1)	32 (24)	6H	NIL	NIL	NIL
Medium ballshot far (R1)	48 (36)			6H	NIL
Heavy ballshot far (R2)	72 (54)			6H	6H
Artillery 1585-1685	Range	Normal	Skirmish	Soft Cover	Hard Cover
Light hailshot	6 (4.5)				
Medium hailshot	8 (6)	45H 6HH	56H	56H	NIL
Heavy hailshot (R1)	10 (7.5)				
Very light gun close	12 (9)			6H	NIL
Light ballshot close	20 (15)	56H 7HH	NIL	6H	NIL
Medium ballshot close	36 (27)			56H	6H
Heavy ballshot close (R1)	48 (36)			56H	56H
Very light gun far	24 (18)			NIL	NIL
Light ballshot far	40 (30)	67H	NIL	NIL	NIL
Medium ballshot far	72 (54)			6H	NIL
Heavy ballshot far (R1)	96 (72)			6H	6H
Ballshot vs. a dense target:		+1 on the dice scores			

Saving Throws vs. Shooting (a 1 is always a failure)

Weapon	Light	Medium	Heavy	Armored	Modifiers
Crossbow	7	-	6	5-6	Barded vs non-gp: +1
Longbow		6	5-6	4-6	Grade A: +2
Other non-gunpowder		5-6	4-6	3-6	Grade B: +1
Gunpowder (gp)	7				Shield vs non-gp: +1

10 COMBAT

Combat is physical contact and hand-to-hand fighting.

10.1 Impact and Melee

There are two types of combat rounds, impact and melee.

- An impact round is when one or both units involved have charged to contact this turn, or when a pike-supported unit inflicted more losses on the prior round than it suffered.
- Other combats are melee rounds.

It is possible for a unit to be fighting an impact against one opponent and a melee against another.

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10.2 Ranks in Combat and Dice per Figure

- Routing units may not strike in combat. For other units all the figures in its front 2 ranks may strike. However the figures in those ranks overlapping or “hanging” more than four away from any enemy in contact with the unit may not strike.
- Pike-armed figures may strike with their front 4 ranks. If formed up behind other troops they may strike with 3 ranks though one rank of other troops in their unit.
- Units under flank/rear attack also use their front-rank figures as described above. We assume the unit is actually turning its men as best it can to meet the attack.
- Roll one die per 2 cavalry figures. Do not round up any remainder.
- Roll one die per 3 figures armed with pikes or heavy weapons. Round up a remainder of 2 figures.
- Roll one die per 4 figures of other troop types. Round up a remainder of 3 figures.

A pike or heavy-armed figure may help fill out a remainder group in a mixed unit.

If a unit is fighting multiple enemies divide its dice evenly between all of them; the owning player decides how to allocate any remainder dice, but they must be allocated as evenly as possible.

A unit in combat may not turn figures to face the enemy, bring up figures or wrap around enemy units.

10.3 Weapon Length

Combat weapons have a length factor that gives longer weapons an advantage on impact. There are four weapon length classes from longest to shortest as follows:

1. Pikes
2. Heavy lances
3. Long spears and heavy weapons at least 6 feet long
4. Other weapons

10.4 Combat Points and the Chance to Hit

The Combat Chart lists the "combat points" each unit may count against its opponent. Each player adds up the relevant combat points for his units and compares them, for opposing units. If one unit has more combat points than the other, it will have a better chance to hit when it strikes. For example, if one unit has 3 points, and its target unit has 2, then the first unit has a 1-point advantage.

After determining the combat point difference, use the Combat Point Difference table to see what your chance of hitting is. For example, if your unit has a 2-point advantage yours is the “higher” unit, and it hits on a 45H6HH. The other is the “lower” unit and hits on a 56H. If both units were cavalry your unit would hit on a 456H and the enemy would hit on a 6H.

10.5 Distributing Hits on Mixed Units

When attacking a mixed unit distribute hits evenly among the troop types on the side of the unit with which the attacker is in contact.

Remember to make applicable saving throws after all hits have been allocated.

10.6 Losing a Combat

If a unit suffers more losses than it inflicts in the current round it has lost and must test reaction.

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10.7 Shooting During a Charge

Certain missile-armed troops may fire during a charge:

- Trot-charging cavalry with pistols either charging or charged frontally
- Salvee-fire-trained infantry either charging or charged frontally
- Javelin-armed troops either charging or charged frontally
- Other missile-armed troops charged frontally

The target does not test vs. shooting hits. The hits they suffer count as combat losses that turn. The shooting unit may not claim impetus; it is assumed to halt briefly to throw or fire then close for the fight. The shooting figures may not use special weapons in the combat; it is assumed they are unable to switch weapons and must use clubbed muskets or handarms. The losses suffered are removed before the combat begins. Two ranks of troops may shoot in a charge situation.

10.8 Exchanging Ranks in Combat

A mixed unit of regulars may exchange its striking ranks with ranks of another troop type from the rear or center of the unit. For example a tercio might exchange its pike ranks with rear ranks of halberdiers in a melee. Exchange ranks during the movement phase of a melee combat turn. The unit must be in good morale to exchange ranks.

10.9 Switching Weapons in Combat

Some troops carry multiple weapons; for example lancers with swords or Muscovites with matchlocks and bardiches. It costs nothing for a unit to drop its current weapon and switch to another. However once this is done the initial weapons are abandoned for the rest of the game if the unit is mounted. Foot troops abandon their initial weapon if they leave their current position on the game table.

10.10 Skirmishers and Gunners in Combat

Skirmishers and gunners fight against each other normally. If they are contacted successfully by close-order troops any figures the close-order enemy encounters during its move are simply eliminated. This sort of "overrun" does not apply if the skirmishers or gunners are in a building, fieldworks, hard cover, or if skirmishers are in woods. In this case, they are treated as close-order troops for combat purposes.

10.11 Combat Saving Throws

Target figures may receive saving throws based on their armor class vs. each initial hit. Roll 1D6 per hit to see if the hit is negated. A score of 1 is always a failure. If the unit has shields and is attacked on its front or left-hand flank it receives a +1 on its saving throw except vs. heavy weapons.

10.12 Combat Tables

Combat Points

Cavalry galloping with impetus:	3	Making flank/rear attack:	2
Others charging with impetus:	1	Cav vs. naked foot in the open:	1
Longer weapon on impact, in the open:	1	Enemy shaken or routing:	2
Attacking up steep slope, on impact:	-1	The unit lost the prior round:	-1
HC or AC vs. MC or LC on impact:	1	General attached:	1
Per morale grade above enemy:	1	The unit is disordered:	-1
Cav. vs. foot in the open, per foot unit's open flank:	1	Attacking a target in soft cover:	-1
		Attacking a target in hard cover:	-2

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Combat Point Difference

Combat Point Difference	Higher (Cav. vs. cav.)		Lower (Cav. vs. cav.)	
0	456H	(56H)	456H	(56H)
1	456H	(56H)	56H	(6H)
2	45H 6HH	(456H)	56H	(6H)
3+	34H 56HH	(45H 6HH)	6H	(6H)

Combat Saving Throws

Weapon	Light	Medium	Heavy	Armored
Heavy weapon	-	6	6	5
Other weapon	7	6	5	4

11 TERRAIN EFFECTS

11.1 Hills

Hills may be either gentle or steep. Hills have one or more crestlines running along them. It is helpful to mark these with small bits of unobtrusive duff.

Gentle hill slopes have no effects other than to block sighting past their crestlines.

Steep hill slopes cut movement up or across them by half. In addition, mounted troops and guns move downslope at half speed. Steep slopes also block charge impetus up or across them, and block it downslope for mounted troops as well. A unit up or across a steep slope from mounted troops is not "in the open".

11.2 Streams

Some streams may have steep banks that impose extra movement penalties. In general, however, all troops cross streams at half speed (1" extra cost minimum), and lose impetus if charging. A unit divided by a stream is disordered.

11.3 Visibility

Visibility is 100 (75)" across clear ground. Units are assumed to be able to see all around themselves. A unit is a one-contour height obstacle (see hills below); this includes skirmishers and artillery. However a unit within 6(4.5)" of a friendly unit can "see" through it for purposes of charging. Assume that the friend sends word to the charging unit to tell its leaders of the presence of the enemy.

11.4 Rough Ground

This is an area of heavy brush, rocks, scattered trees, etc. Any unit moving more than half speed in rough ground becomes disordered, as do pikemen entering rough ground. Rough ground blocks impetus. Visibility and shooting is normal in rough ground, except that ballshot treats it like soft cover.

11.5 Woods

A unit inside a wood is visible from outside at a range of 8(6)" or less, unless it reveals itself by shooting. A revealed unit is visible as if in the open until it retreats back into the woods. The unit must be within 1" of the edge to be seen from outside. A unit more than 1" inside a wood may not see out.

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A wood may be either light or heavy. If not already determined, roll the first time a unit tries to enter: On a 5-6, the woods are heavy.

Woods are disordering terrain that blocks impetus. Any unit entering or charging the edge of a wood becomes disordered upon contact with the edge of the woods. Woods give soft cover vs. shooting, but none in combat. Pikemen may not enter or attack woods.

11.5.1 Light Woods

Skirmishers move through light woods at full speed. Routing and pursuing infantry also move at full speed. All other troops move at half speed, and guns must be prolonged.

11.5.2 Heavy Woods

Skirmishers move through heavy woods at half speed. Other infantry move through at 1/4 speed. Mounted troops and guns may not enter or charge at heavy woods -- this is impassable terrain to them. If forced into heavy woods, they are disperse and eliminated from play as if they had routed off the table. Visibility and shooting range in heavy woods is 2".

11.6 Fences, Walls, and Hedgerows

Fences and low walls are minor obstacles which block impetus. Those which are about waist high cost a unit 2(1.5)" per rank of figures to cross (that is, a column 3 ranks deep takes an extra 6(4.5)" to cross), and give no cover in shooting or combat. A unit divided by a low wall or fence is disordered. A unit charging at a low wall or fence is not disordered, but loses impetus

High walls (chest high or higher) cost a unit 2(1.5)" per rank to cross. They are impassable to mounted troops or guns. They give soft cover vs. shooting or combat and block impetus.

Hedgerows are impassable unless broken down. It costs a unit 2 full turns to clear its frontage. It then counts as a low wall. Troops may take 1 turn to "loophole" them so they can shoot through. Hedgerows give soft cover vs. shooting.

11.7 Rivers

Rivers are usually impassable, except at fords or bridges. Treat a ford like a stream in all respects. Units must cross bridges in columns no more than 3 figures wide. The unit crosses at half speed, and it is disordered while any part of it is on the bridge. Bridges do not prevent charges.

11.8 Town Blocks

Rather than trying to show individual houses in towns or villages, the game uses "blocks" of buildings. It is usual to represent a block with a piece of felt or cloth, usually rectangular and about 6(4.5)" X 8(6)". Place on it one or two model buildings to show the relative strength of the block. For example a very strong block might have models of brick or stone structures, while a weak village might get wattle hut models. Blocks usually hold 24-48 figures and are 1-2 contours high.

It costs nothing to enter a block but half a move to emerge.

Units in or attacking blocks become disordered and remain disordered when they emerge.

11.8.1 Protection inside Town Blocks

Cover for troops in town blocks can vary. Define it carefully at the start of the game. Most town blocks give soft cover against medium or heavy ballshot and hard cover vs. other fire or in combat. But a block representing a mere cluster of huts might provide no cover vs ballshot and soft cover in combat.

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11.8.2 Town Blocks and Shooting

The garrison can shoot from inside a block. It can fire from any or all sides with one die per 2(1.5)" inches of frontage, up to its total dice.

11.8.3 Town Blocks and Combat

In combat the entire garrison fights, dividing its dice among all attacking units. The attacker may attack each side of the block with figures equal to twice the maximum garrison size of the block, in any number of ranks. For example if the attackers are in a column six ranks deep, all six ranks may attack.

You may not split a unit among blocks. The attacker may occupy the block if all the defenders are forced out. Cavalry may not attack town blocks.

11.8.4 Strongpoints and Walled Enclosures

Some town blocks may represent walled enclosures or large single structures. In a case like this only the first two ranks of an attacking unit may strike, and only figures overlapping the structure by two to either side.

11.8.5 Ruined Blocks

Four hits from medium or heavy ballshot will wreck a typical town block. You may adjust this number up or down depending on the relative size and strength of a particular block. You may also wish to have "wrecked" versions of model buildings to represent ruined blocks. A ruined block provides one level of cover less than normal, with soft cover becoming an obstacle.

11.9 Ditches

A ditch costs 2(1.5)" to cross. It disorders mounted troops who cross it. Foot troops are disordered on a 1D6 roll of 1-3 when they cross or charge troops defending the far side. Troops inside the ditch are disordered. They receive hard cover protection from shooting. If charged they become shaken.

11.10 Fieldworks

Fieldworks cost 2(1.5)" to cross, and are passable only to infantry. Troops entering or attacking fieldworks become disordered. Define a "disorder zone" behind or inside the works 4(3)" deep. Troops in this zone move like skirmishers, but at half speed and are disordered. There are two types of works, light and heavy. Light fieldworks provide hard cover from small arms or hailshot and soft cover vs. ballshot or in combat. Heavy fieldworks provide hard cover for all purposes.

11.10.1 Destroying Fieldworks

Two hits from medium or heavy ballshot will destroy a 4(3)" inch section of light works. It requires six hits from heavy ballshot to destroy the same size section of heavy works. Wrecked works provide one level of cover less than normal; reduced soft cover is still treated as soft cover vs. small arms or hailshot but no cover vs. ballshot.

Fornovo To Sedgemoor Playsheet: 25-30mm Figures

Turn Sequence, Movement, Maneuver

Turn Sequence	Troops	Move	Charge	Maneuver	Steady A-C
Rally: Initiative. Recoil moves.	AI/HI	4/6	+2	Change facing	1/2 move per 12 figures
Rally/move routers/ pursuers.	MI/LI	8	+2	Change width	2" per figure
Move: A charges; B reacts. B	AC/HC	10/12	+6/+8	Sidestep	1/4 speed (2R 1/2)
charges; A reacts. A does	MC/LC	16	+8	Wheel	Full; pikes @ 1/2 rate
normal moves then B.	VL/Lt gun	8/6	6/4	Backstep	1/4 speed (2R @ 1/2)
Shoot: Shooting, test vs. hits and	M/H gun	4/2	2/0	Oblique	1/4 speed (2R @ 1/2)
to complete charges.	Generals	24	N/A	Square	1/2 move (1/4 if 4-rank)
Combat: Fight one round.	Barded	-2		Not steady A-C?	2X costs above

Reaction Tests (1D6, beat a modified 0 to pass)

Rally from Rout		Resist or Halt Pursuit or Return to Table	
Grade A/B/C/D:	-2/-3/-4/-6	Grade A/B/C/D:	+1/-1/-2/-3
General with Unit:	+1	General with Unit:	+1
No visible enemies within 12":	+2	Testing to return; in cover:	+1
In contact with the enemy:	-1	Irregulars; cavalry that gallop-charged:	-2
Irregulars:	-1	Other mounted troops:	-1
The army is outgunned:	-1	Pursuit or follow-up was allowed:	-1
Pass: Halt disordered; may about-face		Pass: Halt disordered; may about-face	
Fail: Unit keeps routing		Fail: Enter pursuit or keep pursuing	
Vs. Shooting (1/4 size or arty)		Losing a Combat	
Grade A/B/C/D:	+2/+1/+0/-1	Grade A/B/C/D:	+2/+1/+0/-2
General with Unit:	+1	General with Unit:	+1
The army is outgunned:	-1	Each 2 hits suffered (40+ each 3):	-1
Each 2 gunpowder or 3 other hits (40+ each 3 / 4):	-1	Under flank/rear attack:	-1
Shot at from flank/rear:	-1	Unit is more than half missile-armed foot:	-2
Shaken:	-1	Shaken:	-2
Hit by heavy guns or steady salvee:	-1	Each successive round lost:	-1
Pass: Unit carries on in current state		Pass: Mounted troops recoil 8"; foot recoil 4"	
Fail: Halted if adv; else shaken. If shaken, rout		Fail: Unit routs	
Vs. Routing Friend in 12"		Charge Home or Meet Successful Charge	
Grade A/B/C/D:	+2/+1/+0/-1	Grade A/B/C/D:	+2/+1/+0/-1
General with Unit:	+1	General with Unit/No general in CD:	+1/-1
In square; in hard cover:	+1	Nobles:	+1
Each routing friend visible in 12":	-1	Vs. flank/rear and/or shaken/routing target:	+4
Shaken:	-1	Cavalry with impetus charging at the gallop:	+2
Two open flanks:	-1	Each 2 gunpowder hits (40+ each 3):	-1
Suffered a burst-through this turn:	-2	Shaken or vs. flank/rear charge:	-2
		Mounted vs. steady pike-supported foot frontally:	-3
		Naked foot more than half missile troops:	-2
Pass: Unit carries on in current state		Pass: Charge to contact or meet charge	
Fail: Unit routs		Fail: Chargers recoil 1/2 distance; others rout	

Fornovo To Sedgemoor Playsheet: 25-30mm Figures

Shooting Table – Small Arms: 1D6 per 2 mounted or 4 foot

Type of Fire	Range	Normal	Skirmish	Soft Cover	Hard Cover
Steady Grade A-C	6	45H 6HH	6H	56H	6H
Musketry	20	56H	NIL	6H	NIL
Arquebuses or other musketry	6 16	456H 6H	6H NIL	56H 6H	6H NIL
Pistols	4	6HH	6H	6H	NIL
Javelins (close only), Light self-bows, slings	6 12	456H 56H	56H 6H	56H 6H	6H NIL
Crossbows	12 24	5H 6HH 56H	56H 6H	56H 6H	6H NIL
Longbows, Composite bows	12 24	3456H 56H	456H 6H	56H 6H	6H NIL
Foot moving when not using rotation fire:		Hits X1/2	Shooters shaken:		Hits X1/2
Foot contacted under 1/2 charge (not salvee):		Hits X1/2	Ballshot vs. dense target:		+1
Self-bows shot from horseback:		Range X1/2	Mounted except pistols:		Hits X1/2

Artillery: 1D6 per 4 gunners; hvly/organ guns 1D6 per 2 gunners. The /-marks = early/late period

Type of Fire	Range	Normal	Skirmish	Soft Cover	Hard Cover
Light hailshot (R1)/(-)	4/6				
Medium hailshot (R1)/(-)	6/8	5H 6HH / 45H 6HH	6H / 56H	6H / 56H	NIL / 6H
Heavy hailshot (R2)/(R1)	8/10				
Very light gun close (-)/(-)	12			6H	NIL
Light ball close (R1)/(-)	16/24	56H / 56H 7HH	6H / 56H	6H	NIL
Medium ball close (R1)/(-)	24/36			56H	6H
Heavy ball close (R2)/(R1)	36/48			56H	56H
Very light gun far (-)/(-)	24			NIL	NIL
Light ball far (R1)/(-)	32/48	6H / 67H	NIL	NIL	NIL
Medium ball far (R1)/(-)	48/72			6H	NIL
Heavy ball far (R2)/(R1)	72/96			6H	6H

Saving Throw Vs	Light	Medium	Heavy	Armored	Save Modifiers
Crossbow	7	7	6	5	Barded vs. non-gp: +1
Longbow		6	5	4	Grade A: +2
Other non-gunpowder		5	4	3	Grade B: +1
Firearms and artillery	7				Shield vs. non-gp: +1

Combat: Combat points, chance to hit and saving throws

Impact: Cavalry gallop-charging with impetus:	3	Making flank/rear attack:	2
Impact: Others charging with impetus:	1	Cavalry vs. naked foot in the open:	1
Impact: Longer weapon, in the open:	1	Enemy shaken or routing:	2
Impact: Attacking up steep slope:	-1	C/C or S/G attached:	1
Impact: HC or AC vs. MC or LC:	1	Unit lost the prior round of combat:	-1
Cav. vs. foot in the open, per foot open flank:	1	Vs. soft cover / hard cover:	-1 / -2
Per morale grade above enemy:	1	Disordered:	-1

Dice rolled in combat: 1D6 per 2 cavalry, per 3 pikes or heavy weapons, or per 4 others.

CP Diff.	Higher (Cav. vs. cav.)	Lower	Saving Throw Vs	Lt	Med	Hvy	Ar m
0	456H (56H)	456H (56H)	Heavy weapons	-	6	6	5
1	456H (56H)	56H (6H)	Other (+1 if shielded)	7	6	5	4
2	45H 6HH (456H)	56H (6H)	Length: Pikes → heavy lances → long spears & heavy weapons → other weapons				
3+	34H 56HH (45H 6HH)	6H (6H)					

Fornovo to Sedgemoor Playsheet: 15-20mm Figures

Turn Sequence, Movement, Maneuver

Turn Sequence	Troops	Move	Charge	Maneuver	Steady A-C
Rally: Initiative. Recoil moves.	AI/HI	3/4.5	+1.5	Change facing	1/2 move per 12 figures
Rally/move routers/ pursuers.	MI/LI	6	+1.5	Change width	1.5" per figure
Move: A charges; B reacts. B	AC/HC	7.5/9	+4.5/6	Sidestep	1/4 speed (2R 1/2)
charges; A reacts. A does	MC/LC	12	+6	Wheel	Full; pikes @ 1/2 rate
normal moves then B.	VL/Lt gun	6/4.5	4.5/3	Backstep	1/4 speed (2R @ 1/2)
Shoot: Shooting, test vs. hits and	M/H gun	3/1,5	1.5/0	Oblique	1/4 speed (2R @ 1/2)
to complete charges.	Generals	18	N/A	Square	1/2 move (1/4 if 4-rank)
Combat: Fight one round.	Barded	-1.5		Not steady A-C?	2X costs above

Reaction Tests (1D6, beat a modified 0 to pass)

Rally from Rout		Resist or Halt Pursuit or Return to Table	
Grade A/B/C/D:	-2/-3/-4/-6	Grade A/B/C/D:	+1/-1/-2/-3
General with Unit:	+1	General with Unit:	+1
No visible enemies within 9":	+2	Testing to return; in cover:	+1
In contact with the enemy:	-1	Irregulars; cavalry that gallop-charged:	-2
Irregulars:	-1	Other mounted troops:	-1
The army is outgunned:	-1	Pursuit or follow-up was allowed:	-1
Pass: Halt disordered; may about-face		Pass: Halt disordered; may about-face	
Fail: Unit keeps routing		Fail: Enter pursuit or keep pursuing	
Vs. Shooting (1/4 size or arty)		Losing a Combat	
Grade A/B/C/D:	+2/+1/+0/-1	Grade A/B/C/D:	+2/+1/+0/-2
General with Unit:	+1	General with Unit:	+1
The army is outgunned:	-1	Each 2 hits suffered (40+ each 3):	-1
Each 2 gunpowder or 3 other hits (40+ each 3 / 4):	-1	Under flank/rear attack:	-1
Shot at from flank/rear:	-1	Unit is more than half missile-armed foot:	-2
Shaken:	-1	Shaken:	-2
Hit by heavy guns or steady salvee:	-1	Each successive round lost:	-1
Pass: Unit carries on in current state		Pass: Mounted troops recoil 6"; foot recoil 3"	
Fail: Halted if adv; else shaken. If shaken, rout		Fail: Unit routs	
Vs. Routing Friend in 9"		Charge Home or Meet Successful Charge	
Grade A/B/C/D:	+2/+1/+0/-1	Grade A/B/C/D:	+2/+1/+0/-1
General with Unit:	+1	General with Unit/No general in CD:	+1/-1
In square; in hard cover:	+1	Nobles:	+1
Each routing friend visible in 9":	-1	Vs. flank/rear and/or shaken/routing target:	+4
Shaken:	-1	Cavalry with impetus charging at the gallop:	+2
Two open flanks:	-1	Each 2 gunpowder hits (40+ each 3):	-1
Suffered a burst-through this turn:	-2	Shaken or vs. flank/rear charge:	-2
		Mounted vs. steady pike-supported foot frontally:	-3
		Naked foot more than half missile troops:	-2
Pass: Unit carries on in current state		Pass: Charge to contact or meet charge	
Fail: Unit routs		Fail: Chargers recoil 1/2 distance; others rout	

Fornovo to Sedgemoor Playsheet: 15-20mm Figures
Shooting Table – Small Arms: 1D6 per 2 mounted or 4 foot

Type of Fire	Range	Normal	Skirmish	Soft Cover	Hard Cover
Steady Grade A-C	4.5	45H 6HH	6H	56H	6H
Musketry	15	56H	NIL	6H	NIL
Arquebuses or other musketry	4.5 12	456H 6H	6H NIL	56H 6H	6H NIL
Pistols	3	6HH	6H	6H	NIL
Javelins (close only), Light self-bows, slings	4.5 9	456H 56H	56H 6H	56H 6H	6H NIL
Crossbows	9 18	5H 6HH 56H	56H 6H	56H 6H	6H NIL
Longbows, Composite bows	9 18	3456H 56H	456H 6H	56H 6H	6H NIL
rotation fire:		Hits X1/2	Shooters shaken:		Hits X1/2
Foot contacted under 1/2 charge (not salvee):		Hits X1/2	Ballshot vs. dense target:		+1
Self-bows shot from horseback:		Range X1/2	Mounted except pistols:		Hits X1/2
Artillery: 1D6 per 4 gunners; hvly/organ guns 1D6 per 2 gunners. The /-marks = early/late period					
Type of Fire	Range	Normal	Skirmish	Soft Cover	Hard Cover
Light hailshot (R1)/(-)	3/4.5				
Medium hailshot (R1)/(-)	4.5/6	5H 6HH / 45H 6HH	6H / 56H	6H / 56H	NIL / 6H
Heavy hailshot (R2)/(R1)	6/7.5				
Very light gun close (-)/(-)	9			6H	NIL
Light ball close (R1)/(-)	12/18	56H / 56H 7HH	6H / 56H	6H	NIL
Medium ball close (R1)/(-)	18/27			56H	6H
Heavy ball close (R2)/(R1)	27/36			56H	56H
Very light gun far (-)/(-)	18			NIL	NIL
Light ball far (R1)/(-)	24/36	6H / 67H	NIL	NIL	NIL
Medium ball far (R1)/(-)	36/54			6H	NIL
Heavy ball far (R2)/(R1)	54/72			6H	6H

Saving Throw Vs	Light	Medium	Heavy	Armored	Save Modifiers
Crossbow	7	7	6	5	Barded vs. non-gp: +1
Longbow		6	5	4	Grade A: +2
Other non-gunpowder		5	4	3	Grade B: +1
Firearms and artillery	7				Shield vs. non-gp: +1

Combat: Combat points, chance to hit and saving throws

Impact: Cavalry gallop-charging with impetus:	3	Making flank/rear attack:	2
Impact: Others charging with impetus:	1	Cavalry vs. naked foot in the open:	1
Impact: Longer weapon, in the open:	1	Enemy shaken or routing:	2
Impact: Attacking up steep slope:	-1	C/C or S/G attached:	1
Impact: HC or AC vs. MC or LC:	1	Unit lost the prior round of combat:	-1
Cav. vs. foot in the open, per foot open flank:	1	Vs. soft cover / hard cover:	-1 / -2
Per morale grade above enemy:	1	Disordered:	-1

Dice rolled in combat: 1D6 per 2 cavalry, per 3 pikes or heavy weapons, or per 4 others.

CP Diff.	Higher (Cav. vs. cav.)	Lower	Saving Throw Vs	Lt	Med	Hvy	Ar m
0	456H (56H)	456H (56H)	Heavy weapons	-	6	6	5
1	456H (56H)	56H (6H)	Other (+1 if shielded)	7	6	5	4
2	45H 6HH (456H)	56H (6H)	Length: Pikes → heavy lances → long spears & heavy weapons → other weapons				
3+	34H 56HH (45H 6HH)	6H (6H)					