

# Tilly's Very Bad Day

# Fast Play Rules for the 30 Years War

# Steven Thomas

I've been on the hunt for a set of wargaming rules for the Thirty Years War for a couple of decades. The hunt has taken so long that I've ended up writing my own.

I've called the rules "Tilly's Very Bad Day" in memory of the Battle of Rain (15 April 1632) where Field Marshal Johann Tserclaes, Count of Tilly, got hit by a Swedish cannonball. He, of course, subsequently died. A very bad day indeed.



## 1. Acknowledgements

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## 4. Introduction

In 2019 Brett Simpson pointed me at a simple set of rules for the English Civil War called <u>Rupert's Very Bad Day: Battle of Marston Moor (1644 AD): Fast Play Rules for Students</u> by Matt Fritz. Rupert's Very Bad Day relies on lots of bases and base removal so isn't very friendly with my big bases and Thirty Years War units with both pike and Shot on the same base. But I liked the simplicity, saw considerable potential, and really liked the name.

So I immediately began writing a version that would suit my pike and shot for the Thirty Years War which are based on big bases (80mm x 40mm). My initial draft started very close to Matt Fritz's work, and I remain heavily indebted to him. However the rules have evolved quite far from the original. The biggest similarity to the original rules is probably the name although even there "Rupert" became "Tilly".

I have introduced more types of stands (Light Horse, Pike+Shot, Rabble), single stand units (hence Pike+Shot), a new concept called "resolve" to replace stand removal, morale rules based on resolve, terrain including the option to allow infantry to "defend the hill", distances based on base width, a more complex interplay of shooting and charging to reflect different national and unit attitudes to these combat options, increased purpose for Commanders, optional troop quality (superior, ordinary, inferior, raw) and hence an optional point system (coins), and probably other things.

Despite these additions, and the complexity they bring, I think the rules still allow "fast play". We find a small game plays through in 2 hours and a big game in 3 hours.

Although I have the Thirty Years War in mind, "Tilly's Very Bad Day" should be applicable to the Eighty Years War and English Civil War.

## 5. Using These Rules

**Game terms** are words or phrases with a special meaning in Tilly's Very Bad Day. Each game term will also be highlighted in bold red when it is defined, which is not necessarily the first time the term appears.

Each major section is a rule, e.g. "15.1 Close combat (Phase 5)". Specific cases of the rule are a subsection e.g. "14.4. Charge (Step 5.4)". Subcases are the next level down e.g. "14.4.1. Conduct charges".

Examples are included throughout the rules. To distinguish examples from normal rules they appear in italics with a grey background.

Designer notes provide some insight into the thinking behind a particular rule. Designer notes appear in blue italics in a different font, again to distinguish them from normal rules.

## 6. Base Width and Tilly Unit of Measure (TUM)

All distances are relative to the base width of an infantry or cavalry unit. The specific base width you use does not matter, but having a consistent base width does.

40mm wide is a common base width for 15mm figures. Personally I use 80mm wide big bases with my 15mm figures. Some folk use 60mm wide bases for 25mm figures. Others put a lot of 15mm figures on a 120mm wide base. Brett uses 100mm wide bases with his 15mm figures. It is entirely up to you.



Figure 1: Base Width and Tilly Unit of Measure (TUM)

The actual unit of measure is one half a base width, called a **Tilly Unit of Measure** or **TUM** for short. This is half the base width of an infantry or cavalry unit.

If you use 40mm wide infantry bases then a TUM is 20mm. For my 80mm wide big bases a TUM is 40mm wide. The game commonly uses measurements of 1, 2, 3, 4, 6, and 8 TUM.

## 7. Your forces

This section describes the figures you need, how to base them, and how to form them into units, commands and an army.

## 7.1. Figures

You can use cast metal, moulded plastic, 3D printed plastic, printed paper, whatever. You can use any scale of figures.

I use 15mm figures but you can use any scale of figures. 2mm, 3mm, 5mm, 6mm, 10mm, 12mm, 15mm, 20mm, 25mm, 30mm and 54mm all work. If you want a quick start then have a look at the paper soldiers on the Junior General website.

## 7.2. Units

Every stand is a **Unit**. A unit is nominally a brigade of about 1-2,000 Pike+Shot, Shot or Rabble. Horse, Dragoons and Light Horse have half that number. Cannon have a few hundred men to man about 8-16 guns. Commanders represent a handful of men.

## 7.2.1. Summary of Unit Attributes

Table 1 lists all the attributes of the various unit types. They are summarised here for those players who want to know everything about a unit type in one place. These attributes are described fully in later sections of the rule.

Unit Type	Starting resolve	Move (TUM)	Charge Move (TUM)	Move in difficult (TUM)	Move backward (TUM)	Range (TUM)	Shooting to hit	Cover in difficult	Melee to hit
Commander	1	8	3	3	-	-	-	-	4-6
Horse	3	6	3	3	3	2	6 (-1d6 in difficult)	-	6 in difficult terrain (and -1d6 melee dice); 5-6 charging Pike+Shot to-front; 4-6 charging in other situations; 5-6 otherwise
Light Horse	3	8	3	3	3	2	6	-	<ul><li>4-6 charging behind-flank or to-rear;</li><li>4-6 charging unit with resolve of 1;</li><li>6 otherwise</li></ul>
Dragoons	3	6	3	3	3	4	6	-1d6	6
Pike+Shot	4	3	3	3	1	4	6	-	6 in difficult terrain; 5-6 in open terrain
Shot	4	3	3	3	1	4	6	-1d6	6
Rabble	2	3	3	3	-	-	-	-	6
Unlimbered Cannon	2	Pivot	0	0	-	Unlimited	6	-	-
Limbered Cannon	2	3	0	0	-	-	-	-	-

#### Table 1: Unit attributes

#### 7.2.2. Unit types There are eight Unit Types:

**Commanders** are, well, Commanders including the overall general and the generals in charge of each subordinate command (battle, wing, or reserve). Commanders coordinate movement of their units. Commanders do not fight independently but may join a unit during a move or charge to help them in Melee; doing so risks becoming a casualty themselves.

**Horse** are the vast majority of cavalry in the period; most are armed with pistols and swords. Some use an arquebus or carbine as their primary weapon. They might wear ¾ armour, just a back and breast, or no armour at all. They use shock or fire power as appropriate. This type also includes the relatively few lancers still in service.

**Light Horse** fight in an Eastern style and focus on skirmishing with pistol while mounted, harassing the enemy flanks, and joining in the pursuit. During the period this class of cavalry were widely known as "Croats" because the first of the type were Croats in Imperial Service, but "Croat" units were as often as not Hungarian Hussars and/or Polish Cossacks.

**Dragoons** are mounted infantry. They ride nags, so move faster than other infantry, but still dismount to skirmish with fire arms.

**Pike+Shot** are the main infantry type. A unit contains men armed with both pike and firearms, and both types of figure appear on the same base.

**Shot** are units containing only men with firearms. These can be specialist Shot units or men detached from the Pike+Shot units for special duties, e.g. Commanded Shot, forlorn hopes, or detached Spanish *manga* (sleeves).

**Rabble** are peasants with improvised weapons, and the most raw of recruits regardless of weapon type

**Cannon** are the big guns generally with a civilian crew. They have considerable distance firepower but, in this period, have limited movement once unlimbered



Figure 2: Unit types

7.2.3. Infantry, cavalry, mounted, formed units, combat units Unit types are classified in a number of ways:

**Infantry**: Pike+Shot, Shot, Dragoons and Rabble are infantry and fight on foot. Dragoons are mounted infantry so move like cavalry although they generally fight on foot.

**Cavalry**: Horse and Light Horse are cavalry and fight mounted.

Mounted: Mounted units include Horse, Light Horse, and Dragoons.

**Formed Units**: Commanders and Cannon differ from other units in a number of key ways so the term formed units is used for Horse, Light Horse, Dragoons, Pike+Shot, Shot, and Rabble.

**Combat Units**: The term combat units is used for formed units and Cannon i.e. all unit types except Commanders.

## 7.2.4. Unit basing

As mentioned above, a TUM is half the base width of a cavalry or infantry unit. So base width is a key choice.

You have lots of options but 40mm is common for 15mm, 60mm is common for 25mm, I use 80mm wide big bases with 15mm figures, and Brett uses even bigger 100mm wide bases.

All units have several figures on a stand. Commanders have 1-3 mounted figures on a square or circular stand 1 TUM in diameter. Cannon have the gun itself and 2-4 crew on a square base 1 TUM across (or if that is too small, try 2 TUM like the infantry and cavalry). All other troops are based on a rectangular stand 2 TUM wide with several figures.

With my armies both infantry and cavalry stands are 80mm wide and 40mm deep. I use 15mm figures and use 12 infantry figures for Pike+Shot and Shot units and 15 figures for Rabble. For Dragoons I use six skirmishing figures on foot, two horses, and two other figures as Horse holders and/or mounted. Horse have six mounted figures and Light Horse four. But, really, you can choose anything that suits you, just like the base width itself.

The depth of the bases doesn't matter.

Common depths for 40mm wide bases are 15mm, 20mm, 30mm. Personally my 80mm wide are 40mm deep for both infantry and cavalry; this is, of course, one TUM which I find kind of elegant. Folk who use 120mm wide bases also use a depth of 40mm. I think Brett has 50mm depth for his 100mm wide bases, so one TUM again. It is up to you.

#### 7.2.5. Defining the location of a unit

There are four rules that define the location of a unit:

- 1. If any part of a unit is in difficult terrain the entire unit is considered in difficult terrain
- 2. The distance between two units is always measured between closest points
- 3. Unit facing and relative position (see section 7.2.6)
- 4. Otherwise the position of a stand is assumed to be the centre point of the stand; this rule is used for line of sight and being uphill of another unit.

#### 7.2.6. Unit facing and position

Figure 3 part (a) illustrates the front zone, four flanks zones, and rear zone of a unit. Part (b) gives the definitions used for the relative position of enemy units (and friendly when it matters). The definitions are:

**To-Front**: If any part of the enemy (or friendly) unit is in the front zone. This is true even if part of the unit is also in any of the flank zones.

**To-Front-Flank**: If the enemy (or friendly) unit is not to-front, and any part of it is in one of the front flank zones. This is true even if part of the unit is also in one of the rear flank zones and/or the rear zone.



**Behind-Flank**: If the enemy (or friendly) unit is neither to-front nor to-front-flank, and any part of it is in one of the rear flank zones. This is true even if part of the unit is also in the rear zone.

**To-Flank**: If the enemy (or friendly) unit is either to-front-flank or behind-flank.

**To-Rear**: If the enemy (or friendly) unit is entirely within the rear zone. So it is neither tofront nor to-flank.



Figure 4: Unit Facing Example

In Figure 4 the unit being considered is the Spanish Shot. The French Pike+Shot is to-front because it is within the front zone of the Shot unit, despite extending into the front flank zone. The Spanish Horse is to-front-flank. The French Horse is also to-front-flank despite extending through the rear flank zone and into the rear zone. The Spanish Cannon are behind-flank. The Spanish Pike+Shot are to-rear. Three units – Spanish Horse, Spanish Cannon and French Horse – are to-flank of the Spanish Shot.

## 7.2.7. Resolve

Units start with a **Resolve** of 1, 2, 3, or 4 depending on their unit type. Resolve is used for shooting (section 12.2), melee (section 14.5), and command checks (section 12.1.2). Each hit inflicted on the unit in shooting or melee weakens the unit's resolve by one. Resolve is also weakened as a result of commander casualties and morale erosion. Resolve can be recovered through heroics and being rallied by a Commander. A unit **Routs** when the unit is reduced to a resolve of zero; remove it from the table.

Figure 5 shows the resolve markers used to record the current resolve of each unit. A unit at full strength does not require a resolve marker. The examples are for a Pike+Shot unit with resolve of 1 and a Shot unit with a resolve of 2.



Figure 5: Resolve markers

#### 7.3. Army

Your **Army** is selected from an army List and is made up of units organised into commands. Unless playing a scenario, the size of opposing armies is based on an agreed number of units.

#### 7.3.1. Number of units

Choose an army size of 10 to 36 units depending on the historical context and game size. Both sides get the same **Number of Units**.

#### 7.3.2. Army List

There is one generic **Army List**. An army:

- Must have one Commander for each command in the army (wing or battle)
- Must have one Cannon and can have up to four Cannon
- Can have up to two Dragoons
- Can have up to two Shot
- **Can** have up to two Rabble

- **Can** have up to two Light Horse (only Spanish outside the peninsular and German Catholic armies)
- **Must** have Pike+Shot and Horse to fill up the numbers, in any proportion that is historically appropriate

## 7.3.3. Commands

Armies are divided into **Commands**, called wings or battles in the period. Each command must include a Commander. Commands contains 3 to 8 units including the compulsory Commander.

## 7.3.4. Example armies

Armies of the period varied enormously but an cavalry heavy army might have contained 9,000 infantry, 9,000 cavalry, and 24 guns. Under these rules, assuming 1,500 men to an infantry unit, 750 for cavalry, and 12 guns for Cannon, this historical army might turn into a game army with the order of battle given in Figure 6 (a). This is a conventional order of battle with the foot in the centre and cavalry and cannon on the flanks. The right wing is bigger only because I decided to weight the attack on that flank. Although a small reserve is held back, the wings and centre would all be likely to deploy in two rows with infantry units in a chequer board formation and cavalry units one behind the other.

## (a) Cavalry heavy army

Right wing (8 Units)			
1 x Commander			
6 x Horse			
1 x Cannon			
Centre (6 Units)			
1 x Commander			
5 x Pike+Shot			
Left wing (6 Units)			
1 x Commander			
4 x Horse			
1 x Cannon			
Reserve (4 Units)			
1 x Commander			
2 x Horse			
1 x Pike+Shot			
24 Units; 8 army breakpoint			

## (b) Infantry heavy army **Right wing (6 Units)** 1 x Commander 4 x Horse 1 x Cannon Centre (7 Units) 1 x Commander 6 x Pike+Shot Left wing (6 Units) 1 x Commander 2 x Horse 1 x Shot 1 x Dragoons 1 x Cannon **Reserve (5 Units)** 1 x Commander 4 x Pike+Shot 24 Units; 8 army breakpoint

Figure 6: Example Armies

The other example army, Figure 6 (b), is an infantry heavy army. Such an army might have contained 11,500 infantry (including dragoons), 3,000 cavalry, and 16 guns. For this army I used 1,000 men to an infantry unit, 500 men to mounted unit, and 8 guns for Cannon. The

Pike+Shot have to deploy in the centre zone of the table, so I've put all in the centre and reserve commands. I've put a Shot unit (commanded shot) and the Dragoons (who are mounted infantry) in the left wing to compensate for the lack of cavalry.

## 7.4. Markers

You will need a bunch of markers to aid game play.

**Resolve Markers**: I use resolve markers to indicate the current resolve of each unit. My resolve markers are 1cm x 1cm counters. Half of them are double side with a "1" on one side and a "2" on the other; the rest have "3" on the front and "4" on the back.

**Shooting Markers**: I use a line of cotton wool for shooting markers simulating gun smoke. These help me remember which units have shot during a turn. Units can only shoot once per turn and if they shoot they cannot charge.

**Moved Markers**: I use the same line of cotton wool for moved markers, but put it behind the unit simulating dust. These markers show which units have made a move that makes charging by formed units impossible. Similarly it also prevents shooting.



Figure 7: Markers

**Charge Declaration Markers**: I use arrows to indicate charge declarations. They get removed once the charge happens.

**Rally Back Markers**: I use the same arrows to help me remember which units must rally back. I remove the marker once the rally back happens.

**Rout Markers**: I use little red skulls for rout markers. They go down when a unit routs and are removed when an enemy unit has benefited from heroics in Morale.

**Commander Casualty Markers**: I use little white skulls for commander casualty markers. They go down when a Commander becomes a casualty from melee or shooting. I remove them when surviving units in the command lose resolve in Morale.

Limbered Markers: I use artillery limbers as limbered markers for my guns.

## 8. The battlefield

The battlefield in the wargaming table and the terrain on top of it.



## 8.1. The wargaming table

A small game is played on a **Small Table**. The suggested wargaming table is square, with 30 TUM to a side. Having said that you should feel free to tweak the table size to something convenient for you – some players like a shallow small table (section 16.8) or Giant Tables (section 16.9). Table 2 lists some common examples of small tables.

TUM Base Width		Small table size (30 x 30 TUM)		
20mm	40mm	60cm x 60cm (2' x 2')		
30mm	60mm	90cm x 90cm (3' x 3')		
40mm	80mm	120cm x 120cm (4' x 4')		
50mm	100mm	150cm x 150cm (5' x 5')		
60mm	120mm	180cm x 180cm (6' x 6')		

For small games, with my 80mm wide bases, a square 30 TUM by 30 TUM table is 4' x 4' (120cm x 120cm).

Play a big game on a **Big Table**. The suggested table size is 45 TUM by 30 TUM. Again, these are just suggestions. Table 3 has some examples.

#### Table 3: Big Wargaming Table

TUM	Base Width	Official Table size (45 TUM x 30 TUM)	More Convenient Table size
20mm	40mm	90cm x 60cm (3' x 2')	90cm x 60cm (3' x 2')
30mm	60mm	135cm x 90cm (4' 6" x 3')	150cm x 90cm (5' x 3')
40mm	80mm	180cm x 120cm (6' x 4')	180cm x 120cm (6' x 4')
50mm	100mm	225cm x 150cm (7' 6" x 5')	240cm x 150cm (8' x 5')
60mm	120mm	270cm x 180cm (9' x 6')	270cm x 180cm (9' x 6')

With my 80mm wide bases I use a 180cm x 120cm (6' x 4') table for big games.

## 8.2. Terrain types

Terrain goes on the table top and includes villages, rough ground, fields, woods, hills, streams, rivers, and roads. Most of the table will be open terrain but some terrain features are difficult terrain or impassable terrain.

**Open Terrain** includes all areas of the table without difficult or impassable terrain. Gentle hills are, for example, open terrain.

**Difficult Terrain** includes villages, rough ground, fields, woods, difficult hills, streams, bridges and fords. Difficult terrain restricts movement to at most 3 TUM and limits the fighting ability of certain unit types. If any part of a unit is in difficult terrain the entire unit is considered in difficult terrain, including for movement, shooting and melee.

**Impassable Terrain** includes rivers and difficult terrain beyond the normal. Very steep hills, very dense woods, water logged fields, or marsh (a watery variant on rough ground) might all be classed as impassable terrain for a particular scenario. For pickup games the only impassable terrain allowed are rivers. No part of a unit can enter impassable terrain.

Hills can be either gentle or difficult. Gentle hills are, well, gentle. Difficult hills have rough ground or woods on top, or steep sides.

Normally you should only place fields on table that are difficult terrain. Difficult fields are either in-season fields and/or enclosed fields. Out-of-season fields, without enclosures, would count as open terrain so are not normally simulated; these can be placed on table for aesthetic reasons but have no game effect.

## Designer Notes: Roads would be useful for marching outside a battle. In a battle they make no difference to units in combat formations except at bridges and fords. So I include roads but largely for aesthetic reasons.

Roads are largely aesthetic as they generally make no difference to the classification of open terrain, difficult terrain or impassable terrain. The classification depends on what is underneath the road. However, roads cross rivers/streams at bridges or fords and this affects the classification at that point.

Streams are difficult terrain for their entire length, including at bridges or fords. Rivers are impassable terrain except at a bridge or ford where they are difficult terrain. Bridges, not fords, are the only way Cannon can cross rivers/streams.

Designer Notes: Bridges and fords are treated as difficult terrain. The rationale is that the bridge/ford is narrow and constrains movement so some parts of a unit will cross by fording the water feature around the bridge/ford and not necessarily on it.

## 8.3. Area terrain features

Area Terrain Features include villages, hills, woods, rough ground, and fields. Villages and fields should be square or rectangular. Hills, woods, and rough ground should be roughly circular or oval.

Area terrain features can be either small, medium or large. Small area terrain features are 4 TUM across but can be as small as 3 TUM on one dimension. Medium area terrain features are 6 TUM across but can be as a small as 4 TUM on one dimension. Large area terrain features are 8 TUM across but can be as small as 6 TUM on one dimension.

- Small: 4 TUM long and 3 to 4 TUM wide
- Medium: 6 TUM long and 4 to 6 TUM wide
- Large: 8 TUM long and 6 to 8 TUM wide



Figure 9: Symbol Catalogue for Tilly's Very Bad Day Terrain

Figure 9 is the symbol catalogue I use for drawing maps for scenarios of Tilly's Very Bad Day. I include it here because it illustrates the relative size of the various types of terrain feature. A medium village could be square, at 6 TUM by 6 TUM, or rectangular, for example 6 TUM by 4 TUM. A large wood must be circular or oval, but still fit within a square or rectangle 8 TUM long and 6 to 8 TUM wide.

With my 80mm wide bases, a TUM is 40mm so I have medium area terrain features with these sizes:

- 6 TUM x 4 TUM i.e. 24cm x 16cm; I use these for villages
- 6 TUM x 6 TUM i.e. 24cm x 24cm; I use these for square fields and circular woods, hills and rough ground

Similarly my large area terrain features are these sizes:

- 8 TUM x 6 TUM i.e. 32cm x 24cm; I use these for rectangular villages and fields, and oval hills
- 8 TUM x 8 TUM i.e. 32cm x 32cm; I use these for circular woods and rough ground

If you want a really big area terrain feature then put several features together.

## 8.4. Linear terrain features

Roads, rivers and streams are Linear Terrain Features. They must stretch, more or less straight, from one table edge to that opposite or from table edge to another terrain feature. Linear terrain features can cross area terrain features but are more likely to avoid them.

Linear terrain features come in different widths:

- Roads: About 1 TUM wide
- Streams: About 0.5 TUM wide
- Rivers: About 2-3 TUM wide

## 9. Sequence of Play

There is a short sequence of play for the actions before the game starts:

Phase 1. Game set-up Step 1.1. Agree game size Step 1.2. Recruit army Step 1.3. Determine attacker Step 1.4. Place Terrain Step 1.5. Scouting Step 1.6. Deployment Step 1.7. Bombardment

Each Game Turn has the following sequence of play:

- Phase 2. Initiative Phase 3. Active player Step 3.1. Active player move Step 3.2. Reactive player shoot Phase 4. Reactive player Step 4.1. Reactive player move Step 4.2. Active player shoot Phase 5. Close Combat Step 5.1. Declare charges Step 5.2. Cancel charges Step 5.3. Evades Step 5.4. Charges Step 5.5. Melee Step 5.6. Rally backs
- Phase 6. Morale
  - Step 6.1. Remove shooting and moved markers
  - Step 6.2. Commander loss
  - Step 6.3. Morale erosion
  - Step 6.4. Unit heroics
  - Step 6.5. Commander rally
  - Step 6.6. Army morale

## 10. Game set up (Phase 1)

This section describes the pre-game steps, including how to determine the attacker/defender, how big a table you need, the terrain to put on table, and deployment.

## 10.1. Agree game size (Step 1.1)

The **Game Size** is either small or big. A **Small Game** will have about 10-18 units a side on a small table. A **Big Game** will have about 19-40 units a side on a big table. Agree the specific size of each army in number of units.

Table 4: Game size

Attribute of Game	Small game	Big game
Table size	Small table	Big table
Number of units per side	10-18	19-40

Designer Notes: As a guideline 15 units per side is a good size for a small game and 25 units for a big game

## 10.2. Recruit armies (Step 1.2)

Each player decides what units to include in their army, up to the maximum number of units, and organises the units into commands (see section 7). Either write your order of battle down, if you want to keep it secret, or place the units off table in their commands.

## 10.3. Determine attacker (Step 1.3)

Designer Notes: During this period most battles were consensual so there is little practical difference between the attacker and defender. So although the rules distinguish the two players the pressure for the attacker to attack is modest, via a generous time allowance.

A scenario will specify which side is the **Attacker** and which the **Defender**. In a pickup game each player rolls a die: the highest scorer becomes the attacker and the low scorer becomes the defender. Re-roll ties. The attacker has precedence in the sequence of play and has a time limit.

Designer Notes: Both small and big games have the same time limit. Play testing showed the big games took the same number of game turns to play but each game turn took 50% longer in real time.

To encourage the attacker to attack there is a time limit of 10 game turns. If the game has not finished before the time limit expires then the attacker loses.

## 10.4. Place Terrain (Step 1.4)

Agree the attacker base edge and the defender base edge. Then place terrain using one of these approaches:

- 1. Place terrain that adheres to a scenario
- 2. Use terrain cards (see advanced rule 16.6)
- 3. Defender places terrain (described here)

Designer Notes: Personally I use terrain cards for pickup games and otherwise scenario maps. The third option, described here, is included for those players who lack these assets.

Unless playing a scenario or using terrain cards, the defender places a number of terrain features chosen from village, town, rough ground, field, woods, hill (gentle or difficult), streams and/or river (impassable). The size of the table limits the number of terrain features the defender can chose:

- Small table: 1-4
- Big table: 2-6

The defender can choose at most:

- Two streams (one of which can be upgraded to a impassable river)
- Two villages
- Three rough ground
- Three fields
- Three hills
- Three woods
- One large area terrain feature
- One small area terrain feature

After placing the other terrain, the defender places roads.

Finally the attacker gets to alter the terrain layout. Choose one, and only one, of these options:

- 1. Remove an area terrain feature \*
- 2. Move an area terrain feature up to 8 TUM in any direction \*
- 3. Swap two on table area terrain features \*
- 4. Reorient a road; it must still pass through any villages/towns it did previously
- 5. Change a hill from difficult to gentle
- 6. Change a hill from gentle to difficult

The first three options (marked with a \*) must result in having less difficult terrain in the centre zone.

For example, the attacker can remove a wood from the centre zone but not a flank. They could also swap a small wood on a flank with a large difficult hill in the centre.

#### 10.5. Scouting (Step 1.5)

Designer Notes: Scouting in the Thirty Years war was delegated to Light Horse and Dragoons. Although Horse could be used for scouting the preference was to reserve them for battlefield duties. I assume any contribution to scouting by the opposing contingents of Horse counter balance each other, so it is only the Light Horse and Dragoons that make a difference.

Light Horse and Dragoons conduct pre-battle scouting. If you achieve scouting advantage you receive scouting benefits.

**Scouting Score**: Each side rolls 1d6 for each Dragoon unit, and 2d6 for each Light Horse unit. All units hit on a 5-6. Count up the hits.

**Scouting Advantage**: The side with the higher scouting score has the scouting advantage. The scale of the scouting advantage is the difference between the higher and lower scouting score. If they are equal neither side has the scouting advantage.

The side with scouting advantage has out scouted the enemy and gets to choose one **Scouting Benefit** for each point of scouting advantage they have. The possible scouting benefits are:

- 1. Organise own army into commands after seeing how the enemy player organises their commands
- 2. Swap two medium terrain cards, if using terrain cards (in addition to any other swaps that might have occurred)
- 3. Delay deploying a command: Pass instead of deploying a particular command and deploy the command later in the command deployment sequence
- 4. Delay deploying a Cannon unit: Pass instead of deploying a particular Cannon unit and deploy the Cannon unit later in the Cannon deployment sequence

It is possible, because of the option to delay deployment of commands/Cannon, that an entire army might deploy after their opponent. Assuming, of course, the army has sufficient scouting units.

## 10.6. Deployment (Step 1.6)

**Deployment** is where units are placed at the start of the game. Deployment is by commands and then Cannon. The deployment sequence is:

- 1. Deploy a command at a time, alternating sides, starting with defender; exclude Cannon from this step and leave the deployment of all Cannon to the end.
- 2. After all other troops are on table, deploy the Cannon one at a time, alternating sides, starting with the attacker.

Each side can deploy anywhere from their base edge to a line 4 TUM from the centre line of the table. That means there is a 8 TUM wide **Neutral Zone** across the table, where neither side can deploy. All Pike+Shot units must deploy in the friendly **Centre Zone**. The centre zone is 16 TUM on a small table and 24 TUM on a big table. Other units can deploy anywhere in the friendly deployment zone, whether the centre, either of the flank zones, or a combination.

Designer Notes: The centre zone is approximately half the width of the table. I just rounded up to an even number and multiple of 8 TUM to match my measuring sticks. Otherwise the centre zones would be 15 TUM (rather than 16 TUM) and 22.5 TUM (rather than 24 TUM).



Figure 10: Deployment zones

## 10.7. Bombardment (Step 1.7)

Unlimbered Cannon can shoot once before the game starts. They cannot move or pivot, just shoot. The defender shoots their Cannon first then the attacker shoots their Cannon. Each Cannon unit either shoots once or doesn't shoot. Place a shooting marker as each Cannon shoots, then remove them all once all Cannon units have shot.

Otherwise normal shooting rules apply (see section 12.2).

## 11. Initiative (Phase 2)

Designer notes: My wargaming group like giving the attacker the initiative every game turn but other groups preferred swapping initiative around each turn.

Each player rolls a die. The highest scorer wins **Initiative** and becomes the **Active Player** in the sequence of play for this game turn with the other becoming the **Reactive Player**. Upon a tie the attacker becomes active player.

## 12. Active player (Phase 3)

The active player phase has only two steps: active player move; reactive player shoot. All the movement and shooting rules are covered in rules for this phase, although they also apply to other phases and steps. The reactive player phase is identical to the active player phase but with the roles reversed.

## 12.1. Active player move (Step 3.1)

This section covers the general move rules. These general rules also apply to charging, evades and rally backs, however, these have specific constraints described in the relevant section.

## 12.1.1. Being "in command"

Units must be **In Command** to move. There are three ways to be in command, so a unit can move if the unit:

- Is a Commander
- Is within 8 TUM of the Commander for that command (the Commander cannot, of course, be a casualty, and other Commanders do not count)
- Makes a command check (necessary when the Commander is a casualty or distant)

## 12.1.2. Command check

If you want a unit to move, but the Commander is far away or a casualty, you have to make a **Command Check**. If a unit wishes to charge in that phase it must check command again. A Light Horse unit also needs a command Check to successfully Evade, irrespective of how far away the commander is.

To make a command check roll 1d6 for each point of the current resolve. Light Horse hit on 4-6 and other units hit on a 6. Scoring any hit means the unit can make a move. No hits means the unit cannot move this step.

#### 12.1.3. Movement allowance

Units have a maximum **Movement Allowance** that they cannot exceed during the current step in the sequence of play.

Charge: All charge moves are at most 3 TUM.

Open terrain: Non-charge moves in open terrain are up to:

- 8 TUM for Commanders and Light Horse
- 6 TUM for Horse and Dragoons
- 3 TUM for Pike+Shot, Shot, Rabble and limbered Cannon
- 0 TUM for unlimbered Cannon; they cannot move but can pivot

**Difficult terrain**: If any part of a move is in difficult terrain the movement allowance drops to 3 TUM. Limbered Cannon cannot enter difficult terrain except streams at a bridge.

**Backward movement**: Regardless of terrain all backward moves are at most 3 TUM for cavalry (Horse, Light Horse) and 1 TUM for infantry (Pike+Shot, Shot, Rabble, Dragoons).

**Impassable terrain**: No units can enter impassable terrain. Rivers are generally impassable but can be crossed at a bridge by any units. Rivers can also be crossed at a ford by any except Cannon.

#### 12.1.4. Movement = change of direction then straight

For both formed units and limbered Cannon movement has two parts:

- 1. An optional change of direction at the start of the move
- 2. Followed by an optional straight line move

Both the change of direction and straight line move are optional. So a unit could do a change of direction and then stop, or do a straight line move with no prior change of direction.

## 12.1.5. Change of direction for formed units

A wheel is the only change of direction allowed for Rabble and any formed units conducting a charge. Other formed units have a number of changes of direction available to them. units can do one, and only one, of these in a move.



Figure 11 illustrates the various changes of direction:

Wheel: At the start of their move units can wheel up to 45°. Pivot on one of the front corners; this becomes the inside corner. Measure the straight line distance covered by the outside corner and deduct this from subsequent movement allowance.

About face: At the start of their move units can about face (180°) to end facing in the opposite direction. No movement penalty.

**Oblique**: Units can advance on an oblique angle, up to 45°. The unit remains facing in the original direction but advances on a diagonal path. No movement penalty.

**Turn**: Replacing their entire movement the unit can turn 90° to end facing sideways.

**Sideways**: Replacing their entire movement the unit can shift directly sideways by 1 TUM, either left or right.

**Backwards**: Replacing their entire movement the unit can move directly backwards. Regardless of terrain all backward moves are at most 3 TUM for cavalry (Horse, Light Horse) and 1 TUM for infantry (Pike+Shot, Shot, Rabble, Dragoons). The unit's facing is unchanged. Units cannot shoot or charge in a game turn in which they move backwards, so place a moved marker.

## 12.1.6. Limbered Cannon movement

Limbered Cannon can move 3 TUM in open terrain. They can do a wheel at the start of movement but not any other change of direction. They can cross rivers/streams at a bridge but otherwise cannot enter difficult terrain. Limbered Cannon cannot shoot.

## 12.1.7. Unlimbering

Instead of moving limbered Cannon can unlimber. Simply remove the limbered marker. But the Cannon cannot shoot in a game turn in which they unlimber, so place a moved marker (cotton wool) next to the unlimbered Cannon.

## 12.1.8. Unlimbered Cannon movement

Unlimbered Cannon cannot move but can pivot on their centre point to get a new arc of fire. Unlimbered Cannon can shoot but cannot both pivot and shoot in the same turn. So put a moved marker (cotton wool) next to a unlimbered Cannon unit that pivots. Unlimbered Cannon cannot limber.

#### 12.1.9. Commander movement

Commanders can move in any direction and make any changes of direction they want during their move as long as the total movement path is within their movement allowance.

If unattached Commanders are in the way of enemy unit's move, then the owning player moves, by the minimum distance, to get the Commander out of the way. This is not a normal move so the Commander cannot attach.

## 12.1.10. Enemy buffer zone

When a unit conducts non-charging movement it may not enter an invisible **Buffer Zone** around enemy combat units. A charging unit ignores the buffer zone of enemy units, as does a unit conducting a rally back.



Figure 12: Buffer Zone and Zone of Control (ZOC)

For a unit that is 1 TUM or more from enemy combat units at the start of non-charging movement, the buffer is 1 TUM. The unit cannot go closer than 1 TUM of any enemy combat unit.

Previous movement, for examples charges or rally backs, can leave a unit within 1 TUM of enemy. For a unit that is already within 1 TUM of any enemy combat unit at the start of non-charging movement, the buffer is the distance to the closest enemy combat unit before the unit moves. At the end of movement no enemy combat unit can be closer than the previously measured buffer.

In all cases measure at the closest two points between units.

## 12.1.11. Zones of Control (ZOC)

Every combat unit has a **Zone Of Control (ZOC)** that prevents enemy units moving across its front. The ZOC is 3 TUM directly in front of the unit. Units inside an enemy ZOC have limited choice of moment, they must do one of the following:

- remain stationary
- move closer to the enemy unit (possibly by charging)
- move directly away from the enemy unit (possibly starting with a change of direction)
- conduct a backwards movement

If a unit is in two enemy ZOCs the unit responds to the ZOC from the closest enemy unit tofront, if any, otherwise the closest enemy.

## 12.1.12. Interpenetration

**Interpenetration** is when a unit moves through another unit. Units cannot interpenetrate enemy. Friendly interpenetration is only possible for certain types of units (see Table 5). Allowable interpenetrations are defined by the moving unit, the type of move, and the interpenetrated unit.

Table 5: Allowable interpenetration

Moving unit	Interpenetrated unit	Allowable interpenetration
Horse, Light Horse or	Horse, Light Horse,	Straight forward or
Dragoons	Dragoons or Shot	backwards
Shot	Any	Straight forward or
		backwards
Any	Cannon	Any
Any	Commander	Any
Commander	Any	Any

In all cases the moving unit must fully clear the far side of the unit being interpenetrated.

There are no additional restrictions on interpenetrations by Commanders and Cannon, nor when they are the subject of interpenetration.

Other interpenetrations, those involving Horse, Light Horse, Dragoons, and Shot, have additional restrictions:

- The units must be facing exactly the same direction or that opposite
- The move must be straight forward or backwards as specified above

A backwards move is a change of direction that replaces the whole move. A straight forward move can be preceded by a wheel, about face or turn but the interpenetration must occur during the straight forward part of the move.

## 12.1.13. Movement while locked in melee

Units that are locked in melee cannot move. There is one exception, as part of normal movement the unit can change facing, if there is space, to increase its strength in melee. Typically this is to face an enemy unit in contact behind-flank or to-rear. The unit must remain in contact with all enemy units it started in contact with.

## 12.2. Reactive player shoot (Step 3.2)

This section covers the general shooting rules. All of the general shooting rules apply equally to both the reactive player shoot step and active player shoot step.

## 12.2.1. Shooting marker

Horse, Light Horse, Dragoons, Shot, Pike+Shot and unlimbered Cannon can shoot once per turn. Place a shooting marker (e.g. cotton wool) near any unit that shoots. Shooting markers are to remind you that these units have Shot and hence cannot shoot again or charge.



## 12.2.2. Shooting criteria

Even if a unit has the general ability to shoot it cannot shoot at a particular moment if any of these conditions apply:

- The shooter already has a shooting marker
- The shooter already has a moved marker
- The shooter is locked in melee
- The target is out of range
- The target is out of arc
- The target is on the far side of blocking terrain.
- The target is on the far side of friends or enemy
- The target is beyond a narrow gap (less than 2 TUM) between units (friendly or enemy) and/or blocking terrain

Note: The shooter cannot be locked in melee but shooting is allowed at enemy that are locked in melee. The normal limitations apply e.g. friends in the arc of fire and shooting through caps.

#### 12.2.3. Blocking terrain

**Blocking Terrain** includes villages, woods, in-season fields, enclosed fields, and hills. Rough ground, roads, rivers and streams are usually not blocking terrain, but might be for a specific scenario.

Units can shoot into or out of blocking terrain but not entirely through blocking terrain. That means an enemy unit on the far side of blocking terrain is not a valid target. Similarly a unit is not a valid target if the unit is beyond a narrow gap (less than 2 TUM) between two blocking terrain features and/or units.

In addition to hills being blocking terrain as a whole, hill crests are also blocking terrain for units on different sides of the crest. A crest is the peak of a hill or defined ridge line. All hills have a peak. Only some hills have a defined ridge line. If any part of a unit is beyond the peak then the whole unit is assumed be beyond the peak. The entire unit must be beyond a ridge line for it to be blocking terrain.

For example, two enemy units on the slopes of a hill can shoot at each other. But enemy units with the peak of a hill between cannot shoot at each other. Nor can units shoot at each other if they are on opposite sides of a defined ridge line.

## 12.2.4. Shooting order

Shooting happens target unit by target unit. The shooting player decides which target unit to shoot at next. Within a shooting step, all shooting at a particular target unit must happen at the same time.

## 12.2.5. Shooting range

Cannon have unlimited range. Horse and Light Horse have a shooting range of 2 TUM. Shot, Pike+Shot and Dragoons can shoot 4 TUM. Range is measured from any part of the unit.

## 12.2.6. Shooting arcs

Units shoot at maximum effect at enemy targets to-front. Cannon can only shoot to-front. Other units can shoot at a target to-flank but flank fire is restricted to 1d6. Units may not fire to-rear at all.

## 12.2.7. Shoot front before flank

If a unit has any friendly units in range to-front, the unit cannot shoot to-front. Otherwise if a unit has any enemy within range to-front, then it must shoot to-front rather than to-flank.

If the unit has no enemy in range to-front, or is prevented from shooting to-front because of friends, then it can shoot at enemy to-flank. However, a unit cannot shoot to either the left/right flank if there are friendly units on that flank.

If there is more than one possible target, shoot at the closest.



Figure 14: Shooting arcs and ranges

## 12.2.8. Shooting dice

Each unit shooting gets a number of **Shooting Dice**. The primary shooter has the most shooting dice (current resolve less modifiers). Shooting at Dragoons or Shot in difficult terrain reduces the shooting dice. Horse in difficult terrain also loses shooting dice. Shooting as a secondary shooter and/or to-flank limits the shooting dice to 1d6.

Shooting dice:

- 1d6 if secondary shooter
- 1d6 if primary shooter at enemy to-flank
- Unit's resolve if primary shooter at enemy to-front. Apply the following modifiers. However the modifiers cannot reduce shooting dice below 1d6. The shooting modifiers are:
  - $\circ$   $\,$  -1d6 modifier when Horse in difficult terrain are shooting
  - $\circ$  -1d6 modifier when shooting at Dragoons or Shot in difficult terrain

## 12.2.9. Shooting to hit

Roll 1D6 for each shooting dice of the unit. When shooting, all units hit on a 6.

## 12.2.10. Shooting hits weaken resolve

Weaken the enemy resolve by 1 for each hit. If the target's resolve reaches zero, the unit routs; place a rout marker and remove the unit from the table.

## 12.2.11. Shooting as primary shooter and secondary shooter

If there are more than one friendly unit shooting at a particular enemy unit, the player must choose the **Primary Shooter**. All other units are **Secondary Shooters**. The primary shooter has the potential to use full resolve for shooting dice. A secondary shooter only gets 1d6 for their shooting dice.

## 12.2.12. Horse shooting in difficult terrain

Horse units shoot with 1 less shooting dice when in difficult terrain.

## Designer Notes: Historically Light Horse operated in difficult terrain and Horse did not. This rule tips the balances towards the Croats.

## 12.2.13. Dragoons and Shot get cover in difficult terrain

Shot and Dragoons get a cover benefit in difficult terrain, but other units do not. Units, regardless of their unit type, roll one less die when shooting at Dragoons or Shot in difficult terrain.

For example, a Horse unit with 3 resolve would throw 2d6 rather than 3d6 when shooting at Dragoons in an enclosed field.

## 12.2.14. Cannon move or shoot

Unlimbered Cannon cannot both move (pivot if unlimbered) and shoot in the same turn. If they moved this turn, then they cannot shoot - they should have a moved marker (cotton wool) next to a cannon to prevent shooting for the remainder of the game turn.

## 12.2.15. Commanders and shooting

Commanders neither shoot nor can be shot at. If attached to a unit that takes hits during shooting a Commander can become a casualty (see Commander casualties).

## 12.2.16. Commander casualties

A Commander attached to a unit that takes hits, from either shooting or melee, can become a casualty. This is the only way that a Commander can be lost.

The enemy player rolls 1d6. The score to hit depends on whether the attached unit was routed or not:

- 5-6 if the attached unit took hits and routed
- 6 if the attached unit took hits but did not rout

If the enemy scores a hit, the commander makes a saving roll (1d6):

- on a 5-6 the commander is unaffected ("it was a mere scratch")
- on a 1-4 the commander is a casualty and removed from the table; place a commander casualty marker as a reminder to apply the morale effects in the Morale phase

## Designer Notes: The rules do not distinguish between a Commander getting killed or wounded or just losing interest in the battle. The net effect of all of these is that the Commander is out of the fight.

## 12.2.17. Shooting example

In Figure 15 the French and their Berhardine allies have just moved, and the Spanish-Imperial units can shoot in response. The dotted lines are to illustrate musketry range. The Spanish-Imperial player can choose which enemy units to target and in which order.

Shooting at the French Pike+Shot: Although in front of the Imperialist Pike+Shot, the French Pike+Shot are not a valid target for that unit because the Spanish Pike+Shot are also in front of the Imperialists and block their fire. The Spanish Pike+Shot could shoot at the French Pike+Shot but instead choses to shoot at its neighbour, the French Horse.

Shooting at the French Horse: Both the Spanish Shot (resolve 3) and Spanish Pike+Shot (resolve 4) shoot at the French Horse. The player choses the Pike+Shot unit as the primary shooter because it has a higher resolve. As primary shooter the Spanish Pike+Shot throw 4d6 (one die per resolve) and the Spanish Shot rolls just 1d6 (secondary shooters always roll one dice). The player rolls all dice at the same time as all shooting requires a six to hit. The dice come up 1, 2, 6, 6 and 6 so get three hits. Three hits is a rout because the French Horse only has three resolve. Place a rout marker (red skull). One of the Spanish units will benefit from unit heroics later in the game turn.

Shooting at the French general: Commanders cannot be Shot at directly. So the French general can only be affected by shooting at the unit he is attached to, in this case the French Horse. That unit took hits and the French general may become a Commander casualty. This normally requires a roll of 6 on 1d6 but as the unit routed it is a 5-6. The Spanish player rolls and gets 5 so the general is at risk. The French player tries to save, throws 1d6, and scores a 1; the general becomes a casualty and a commander casualty marker is placed (white skull).



Figure 15: Shooting example

Shooting at the Berhardine Pike+Shot: The Berhardines are in front of the Imperial Cannon so are a valid target. The player chooses the Cannon as the primary shooter, and this unit rolls 2d6 (one per resolve). The Imperialist Pike+Shot Shot can also shoot at the Berhardines, but they are both shooting to-flank and are a secondary shooter; either condition reduces their shooting to one dice. The Cannon score a 1 and 2, so no hits. The Pike+Shot score a 6, so get one hit. The Berhardines were already at resolve of 2 and after losing resolve go to a 1. Replace (or flip) the "2" resolve marker, with a "1" resolve marker. After shooting all of the Spanish and Imperial units receive a shooting marker to indicate they have used their shooting for the turn.



Figure 16: Shooting example - results

## 13. Reactive player (Phase 4)

The reactive player phase is exactly the same as the active player phase (section 12) except the roles are reversed. It includes:

- Step 4.1. Reactive player move (see section 12.1)
- Step 4.2. Active player shoot (see section 12.2)

## 14. Close combat (Phase 5)

The close combat phase includes charging and the resulting melee. It also includes evades and rally backs.

## 14.1. Declare charges (Step 5.1)

Designer Notes: When two historical units could mutually charge I don't believe a charge by either was a surprise. When one goes, the other could go. So I'm okay with "I'm going to declare a charge if you are". That is, for me, the game simulation of a counter charge.
You have to declare charges before any charges actually happen. Place charge markers (shaped as arrows) next to every unit the player would like to make a charge, and roughly in the direction the charge is likely to wheel. Placing, removing, and moving charge markers is simultaneous by both players and continues until both players are content. All of these declared charges must be legal, but not all of them will happen.



#### 14.1.1. Charge versus other movement

A **Charge** is a move into physical contact with an enemy unit. Units can charge even if they have moved earlier in the turn. All the normal movement rules apply to charges with some additional constraints:

- All charge movement allowance is 3 TUM, regardless of troop type
- The only allowable change of direction within a charge is a wheel at the start of the move; the move is measured in the normal way so the wheel is included in the movement allowance
- Mutually charging units meet half way

#### 14.1.2. Charging criteria

A formed unit may only declare a charge if the unit:

- did not shoot this turn (no shooting marker)
- did not do a backwards move (no moved marker)
- is not locked in melee
- can contact an enemy unit by charging

#### 14.1.3. Charge front before flank

If a unit, other than Commanders, has enemy within charge reach to-front, then it must charge straight ahead, with no change of direction. If the unit has no enemy in reach tofront, then it can wheel to charge an enemy to-flank of itself. If a unit charges to-flank it must do so with the minimum possible move (wheel and straight) to reach the target.

#### 14.1.4. Commander charges

Commanders may charge with a unit they are attached to already, or charge to attach to a unit that has just conducted a charge, or charge to attach to a unit that is locked in melee from a previous turn.

#### 14.2. Cancel charges (Step 5.2)

Certain charge declarations cancel out enemy charge declarations:

- Any charges that the target unit cannot respond to cancel any charge declarations by that target unit (e.g. a charge behind-flank or to-rear or just at an angle the target unit cannot reach)
- Cavalry (Horse, Light Horse) charges cancel charge declarations by target infantry (Pike+Shot, Shot, Rabble, Dragoons)

Remove the charge declaration marker for cancelled charges.

Charges are not cancelled if the target evades. The charge happens even though the target is now outside charge reach.

#### 14.3. Evades (Step 5.3)

An **Evade** is a move to avoid being charged, and is only available to Light Horse. An evade is only possible if all of these conditions apply:

- Before the evade:
  - Unit did not declare a charge this game turn
  - Unit is the target of a charge
  - Unit is entirely in open terrain
- Unit makes a successful command check (see section 12.1.2)
- During the evade
  - Unit remains in open terrain for the entire evade move
  - Unit moves beyond 3 TUM of the all chargers original position
  - Unit ends out of contact with all enemy units

Otherwise normal movement rules apply, including change of direction (Section 12.1.5).

#### 14.4. Charges (Step 5.4)

The charge step is where any remaining charge declarations are executed. Where the charges actually happen.

#### 14.4.1. Conduct charges

Move the charging units in this order:

- 1. Active player cavalry (Horse, Light Horse)
- 2. Reactive player cavalry (Horse, Light Horse)
- 3. Active player infantry (Dragoons, Pike+Shot, Shot, Rabble)
- 4. Reactive player infantry (Dragoons, Pike+Shot, Shot, Rabble)
- 5. Active player Commanders
- 6. Reactive player Commanders

Remember mutually charging units meet half way. So even though the active player charges first, if the reactive player is charging towards them the first charge stops half way.

Remove the marker for charges as they happen.

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14.4.2. Charges to-front, behind-flank and to-rear

The starting position of a charge determines where the charging unit can contact the target unit. A charge starting:

- To-front must contact the target unit to-front
- To-front-flank must contact the target unit to-front-flank or to-front
- Behind-flank must contact the target unit behind-flank or to-front-flank
- To-rear must contact the target unit to-rear or behind-flank



Figure 18: Charge on Front, Flank and Rear

Figure 18 shows examples of charging flank, flank and rear. The French Pike+Shot unit charges straight forward; it starts and finishes to-front of the Spanish Shot unit. The French Horse unit could, theoretically, wheel at the start of the charge and contact the Spanish unit behind-flank. Two things prevent this: (1) as the target unit is straight ahead the French Horse must charge straight ahead: (2) the Horse starts to-front-flank so must finish to-frontflank or to-front. The Berhardine Pike+Shot charges straight ahead; it starts behind-flank and ends behind-flank. Finally the Berhardine Horse starts to-rear, charges straight ahead, and contacts to-rear.

#### 14.4.3. Charge examples

Figure 19 has four examples of charge declarations, and the resulting charges. The French-Berhardine alliance are the active player and the Imperialist-Spanish alliance are the reactive player. In Figure 19 example (A) the Imperialist Horse and Berhardine Horse declare charges on each other. Both charges happen, with the Berhardines as the active player moving first, and the two units meet half way.

In Figure 19 example (B) the French Horse declare a charge on the two Spanish infantry units (Pike+Shot and Shot). The Spanish player did not bother declaring a charge as any infantry charge would be pre-empted by a cavalry charge.

In Figure 19 example (C), the French Pike+Shot unit declares a charge on the Spanish Pike+Shot unit. However, the Spanish Horse unit also declared a charge on the French Pike+Shot unit. The Spanish cavalry charge pre-empts the French infantry unit's charge, and the French charge declaration is cancelled.



Figure 19: Charge examples

In Figure 19 example (D), the Berhardine Pike+Shot declares a charge on the Imperialist Cannon. They cannot declare a charge on the nearby Imperialist Pike+Shot because the Cannon are to-front. However, the Imperialist infantry have no enemy to-front, so can wheel to-flank, hence declare a charge on the Berhardines. This cancels the Berhardine charge and saves the guns. Because of the wheel the Berhardines contact to-front; they could not contact behind-flank.

#### 14.5. Melee (Step 5.5)

Enemy units that are in base to base contact are in **Melee**. This can be as a result of a charge this turn or due to being locked in melee. All units in contact participate in melee, but a particular unit will only try to hit one enemy unit, even if more are in contact.

#### 14.5.1. Choosing which melee to fight

Fight the melees sequentially, from one side of the table to the other. Start on the attacker's right flank.

#### 14.5.2. Melee dice

Each unit in melee with an enemy unit gets a number of **Melee Dice**. Melee as a secondary fighter and/or against an enemy behind-flank reduces the melee dice to 1d6. Melee with enemy to-rear reduces the melee dice to zero. The primary fighter in melee has the most melee dice (current resolve) with three possible modifiers. Melee with infantry in favourable terrain (e.g. uphill) reduces the melee dice by 1d6. Being unsupported also reduces melee dice by 1d6. Finally Horse are disadvantaged in difficult terrain and lose 1d6 from the melee dice.

Melee dice:

- 1d6 if an attached Commander
- Od6 if a combat unit in melee with any enemy to-rear (whether primary fighter or secondary fighter)
- 1d6 if a secondary fighter in melee with any enemy to-front or to-flank (none to-rear)
- 1d6 if primary fighter in melee with any enemy behind-flank (none to-rear)
- Unit's resolve if the primary fighter in melee with enemy to-front or to-front-flank (none behind-flank or to-rear). Apply the following modifiers. However the modifiers cannot reduce melee dice to less than 1d6. The melee modifiers are:
  - -1d6 when Horse in difficult terrain
  - -1d6 when charge at infantry (Dragoons, Pike+Shot, Shot, or Rabble) in favourable terrain (e.g. uphill)
  - -1d6 when unit is unsupported

Roll 1d6 for each melee dice of the unit (as above). Both sides should roll at the same time.

#### 14.5.3. Melee to hit

The score to hit depends on the unit type and context.

Rabble, Shot, and Dragoons always hit on a roll of 6.

Commanders involved in a melee hit on a roll of 4, 5, or 6.

Light Horse hit on:

- 4-6 when charging and
  - either contacting behind-flank or to-rear
  - or target unit has a resolve of 1

• 6 otherwise

Pike+Shot hit on

- 6 when in difficult terrain
- 5 or 6 when in open terrain

Horse hit on:

- 6 when in difficult terrain
- 5 or 6 when in open terrain and charging Pike+Shot to-front
- 4, 5 or 6 when in open terrain and charging in other situations
- 5 or 6 otherwise

Use different coloured dice for each unit that hits with a different value.

#### 14.5.4. Melee as primary fighter and secondary fighter

If there are more than one friendly unit in melee with a particular enemy unit, the player must choose the unit that is the **Primary Fighter**. All other units are **Secondary Fighters**. The primary fighter has the potential to melee with full resolve. Secondary fighters melee with only one melee dice.

#### 14.5.5. Fighting behind-flank or to-rear

A unit's ability to fight is limited when the unit is in melee with enemy behind-flank or torear. A unit in melee with any enemy behind-flank can fight with only 1d6. A unit in melee with any enemy to-rear gets no melee dice (0d6).



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In Figure 20 the Spanish have three units charging. The Spanish player decides the Pike+Shot, to-front of the Dutch, will be the primary fighter. This units gets 3d6 melee dice, because they have 3 resolve, and hits on 5-6. Both the Spanish Horse and Spanish Shot are secondary fighters so contribute 1d6 melee dice each. The Spanish Horse hit on 4-6 and the shot on a 6. The Spanish player chooses not to use the Spanish Horse as primary fighter because they only have a resolve of 1 so would only contribute 1d6 anyway. The Shot were an unattractive primary fighter because they only hit on a 6. The Dutch Pike+Shot, with enemy behind-flank, only has 1d6 melee dice and hits on a 5-6. If the Dutch get a hit they can apply the hit to any of the Spanish units.

14.5.6. Support in melee

Unsupported units suffer a -1d6 modifier in melee. Support depends on the unit type and context.

**Commander Support**: Commanders neither support nor are supported. Commanders assist in melee in other ways.

**Cannon Support**: Cannon always count as supported themselves, regardless of the location of friendly or enemy troops (not that they fight in melee). Cannon do not support other units.

**Infantry Support**: Infantry (Pike+Shot, Shot, Dragoons, Rabble) are supported when both these criteria apply:

- No enemy unit to-rear within 4 TUM
- At least one friendly infantry unit to-rear within 4 TUM

Cavalry Support: Cavalry (Horse, Light horse) are supported when both these criteria apply:

- No enemy unit to-rear within 4 TUM
- At least one friendly cavalry unit to-rear within 4 TUM

#### 14.5.7. Horse in melee in difficult terrain

Horse units melee with -1d6 modifier in melee when in difficult terrain. Melee dice cannot go below 1d6 as a result of modifiers.

#### 14.5.8. Infantry defending favourable terrain (e.g. uphill)

Infantry (Dragoons, Pike+Shot, Shot, and Rabble) have an advantage when defending favourable terrain. Units, regardless of their unit type, roll one less die in melee when charging against such infantry. Being uphill is the only favourable terrain in the basic rules; use the centre of the units involved to determine which unit counts as being uphill.

# For example, a Horse unit with 3 resolve would throw 2d6 rather than 3d6 when charging a Pike+Shot unit defending the crest of a hill.

#### 14.5.9. Commander in melee

A Commander cannot initiate melee and cannot be the target of a melee attack. A Commander can only participate in melee when attached to another unit. In melee a unit

with a Commander attached rolls an extra die for the Commander and the Commander hits on a 4, 5, or 6. Commanders can become casualties (see section 12.2.16).

#### 14.5.10. Cannon in melee

Cannon do not fight in melee. If they are contacted by a charge they are eliminated without a fight. The eliminated Cannon are not treated as routing but are lost.

#### 14.5.11. Melee hits weaken resolve

Weaken the resolve of the target unit by one for each hit. If a unit's resolve reaches zero, the unit routs; place a rout marker and remove the unit from the table.

#### 14.5.12. Player choice in melee

In many cases there is no player choice involved in melee. The relative position of the units in melee has the biggest part to play in determining the melee dice (see section 14.5.2). And the type of unit is usually the determining factor in their to hit score (see section 14.5.3).

In Figure 21 neither play has a choice in melee. The Imperialist Horse have charged the Bernhardine Horse. The Imperialists have 2 resolve and are fighting enemy to-front, so have 2d6 melee dice. Because they are charging the Imperialists hit on 4-6. The Bernhardine Horse are fighting enemy to-front-flank with full resolve (3), so have 3d6 melee dice. The Bernhardine Horse hit on 5-6 because they are not charging. The odds are even.



Figure 21: Melee Example – No choice

However, there are situations in melee where players do have some choices to make.

If the unit has the same score to hit for all enemy units in contact (see section 14.5.3), the player does not have to decide which to try to hit and rolls to hit the enemy in general. Only if any hits are scored, does the player choose how to allocate the hits against the enemy in contact.

In Figure 22 the Spanish and Imperialist units have charged and that player has no choices. Both these units have 4d6 melee dice, based on resolve, and hit on 5-6. The French Pike+Shot unit also has 4d6 melee dice and hits on 5-6. The French player, however, gets to allocate any hits to either the Spanish or Imperialist units, or spread them across the two enemy units.



Figure 22: Melee Example - Allocating hits

If a player has more than one unit in contact with a single enemy unit, then the player must choose which friendly unit is the primary fighter (see section 14.5.4). Other friendly units in contact are secondary.



Figure 23: Melee Example - Choose primary fighter

In Figure 23 the Bavarian player has to decide which of their units is the primary fighter – the Horse or the Pike+Shot. The Pike+Shot would get 4d6 melee dice when fighting enemy tofront, and hit on a 5-6. However, the player chooses to make the Horse the primary fighter as it gives them better odds. As primary fighter the Bavarian Horse get 3d6 melee dice and hit on 4-6. As secondary fighter the Pike+Shot contribute 1d6 melee dice which hits on 5-6. The Saxon Pike+Shot has enemy behind-flank so has 1d6 melee dice. The Saxons hit on 5-6. Only if they hit would the Saxon player have choice about which Bavarian unit to apply any hit to.

In Figure 24 two French units charged the Imperialist. The Imperialist Pike+Shot has enemy to-rear so gets no melee dice (Od6). The French player decides to make the Horse the primary fighter and they get 3d6 melee dice (resolve 3) and hit on 4-6. As secondary fighter it doesn't matter what resolve the French Pike+Shot has as they only get 1d6 melee dice. The Pike+Shot hit on 5-6.



Figure 24: Melee Example - Choose primary fighter - To-front and to-rear

If a unit is in contact with more than one enemy unit, enemy requiring a different score to hit (see section 14.5.3), then the player must decide which enemy unit to try to hit. This choice determines the score to hit and any hits achieved must be allocated to that specific enemy unit.

In Figure 25 Spanish Horse has charged two Dutch units, a Pike+Shot and a Shot unit. Charging the Pike+Shot to-front means the Horse would hit on 5-6, but it would hit the Shot on a 4-6. So the Spanish player chooses to target the Dutch Shot. In either case they would throw 3d6 melee dice based on their resolve. All hits by the Spanish would go on the Dutch Shot unit.



Figure 25: Melee Example - Choice to hit

### 14.6. Rally backs (Step 5.6)

Formed units **Rally Back** if they lose a melee. A rally back is a backward movement (see section 12.1.5). There is one additional restriction. Units conducting a rally back must move their maximum movement allowance, if there is space available:

- 3 TUM for cavalry (Horse and Light Horse)
- 1 TUM for infantry (Dragoons, Pike+Shot, Shot, and Rabble)

#### 14.6.1. Which units must rally back

These criteria govern whether a unit will rally back:

- A unit cannot rally back if it won or drew in melee
- A unit **cannot** rally back if it lost in melee but has enemy in contact behind-flank or to-rear
- A unit **must** rally back if it lost in melee and is only in contact with enemy to-front

A unit has lost a melee if it has suffered more hits than it has inflicted. If it suffered the same number of hits as it inflicted it drew the melee. If it scored more hits than it inflicted then it won the melee.

Units that cannot rally back remain in position and become locked in melee if they remain in contact.



Place a rally back marker when a unit loses in melee and must rally back. Remove the marker once the unit has completed the rally back.

#### 14.6.2. Rally back examples

Figure 27 has two examples of a rally back. In example (A) the French Pike+Shot fought the Spanish Pike+Shot in melee, suffered two hits, inflicted none, so lost the melee. It has to rally back. The French player places a rally back marker. In the rally back the Pike+Shot must attempt a backward movement of 1 TUM. However the Berhardine unit is preventing this so the French go backward as far as possible and stop when they bump into the Berhardine unit.

In example (B) the Berhardine Horse has charged the Imperialist Pike+Shot unit. In the melee the Berhardines inflicted 1 hit and suffered 2 hits, thus losing the melee. They must rally back. The French player places a rally back marker. In the rally back Step the Berhardine Horse moves backward, interpenetrates the French Horse unit behind it, and stops on the far side, 3 TUM from its original position. This leaves French Horse ready to charge.



Figure 27: Rally back examples

#### 14.6.3. Becoming locked in melee

If opposing units survive a melee and remain in contact, these units remain Locked in Melee. Typically these are units that do not rally back. Units that are locked in melee cannot move (except to turn to face enemy in contact) or shoot in the next turn. Units locked in melee will fight again in the next melee step. Units can shoot at enemy units that are locked in melee, however, the normal limitations apply e.g. friends in the arc of fire and shooting through caps.

## 15. Morale (Phase 6)

Commander casualties and routs impact resolve. But Commanders can rally units. And successful units can boost their resolve through heroics. The army morale is what wins or loses the game.

#### 15.1. Remove shooting and moved markers (Step 6.1)

Remove all shooting markers and moved markers (cotton wool) from both attacker and defender.

### 15.2. Commander loss (Step 6.2)

In the game turn a Commander becomes a casualty, weaken the resolve of all surviving units in the command by one. If a unit's resolve reaches zero, the unit routs and is removed from the table. Enemy units do not benefit from this rout via heroics so don't bother with a rout marker. Surviving units will need to make a command check (section 12.1.2) to move in subsequent game turns. There is no further effect on the command.



Figure 28: Commander casualty marker

Use Commander casualty markers to remind yourself to weaken the resolve of the affected command. Place the marker when the Commander becomes a casualty and remove it when the command is affected.

## 15.3. Morale erosion (Step 6.3)

Designer Notes: Although officially Morale erosion (Step 6.3), Unit heroics (Step 6.4), and Commander rally (Step 6.5), and are separate, sequential steps, we often find it convenient to do them together. We go from one side of the table to the other and deal with every routed marker and attached Commander in turn.

For every friendly routed unit, one friendly combat unit (non-Commander) has its resolve weakened by one. The unit must be in the same command. Choose either the unit nearest to the routed unit or nearest to enemy, owner's choice.

Only routs lead to morale erosion. Commander casualties do not, nor do Cannon being eliminated in melee.



Use rout markers to keep track of (1) units that rout, (2) morale erosion and (3) units that have benefited from heroics. Place a rout marker when a unit routs and remove it when a unit benefits from heroics due to the rout.

#### 15.4. Unit heroics (Step 6.4)

For each enemy unit routed this game turn, one friendly unit can strengthen its resolve by 1 point. You can only recover resolve weakened through melee or shooting, and only up to the original total.

There are some rules to select the unit that benefits from heroics:

- The friendly unit must have fought the routed enemy unit this game turn, either in shooting or melee
- If there is a choice between a unit that won in melee against the routed enemy and another that didn't, then you must choose the unit that won in melee

Often the unit(s) that routed an enemy will already be at full resolve. If all friendly units involved in routing the enemy unit are at full resolve then none can benefit from heroics.

Only routs lead to heroics. Commander casualties do not lead to heroics, nor do Cannon being eliminated in melee.

#### 15.5. Commander rally (Step 6.5)

A Commander attached to a unit can strengthen the resolve of that unit by 1 point. You can only recover resolve weakened through melee or shooting, and only up to the original total.

#### 15.6. Army morale (Step 6.6)

The **Army Breakpoint** is <sup>1</sup>/<sub>3</sub> the number of the original units, rounded up. At the end of any turn, a side loses the battle if their total lost units equals or exceeds the army breakpoint. **Lost** units include routed units, Commander casualties, and Cannon eliminated in melee. The other side is the victor. A draw is possible if both sides lose in the same turn.

Put another way, the army breakpoint (1/3) is: 4 units lost in an army of 10-12 units 5 of 13-15 units 6 of 16-18 units 7 of 19-21 units 8 of 22-24 units 9 of 25-27 units 10 of 28-30 units 11 of 31-33 units 12 of 24-36 units 13 of 37-39 units 14 of 40-42 units

For example, a Swedish army has lost 8 units out of an original total of 25 units. The army breakpoint is 1⁄3 of 25, i.e. 8 1⁄3 units rounded up to 9. The 8 lost units is less than the army

breakpoint, so the Swedes have fragile morale but will keep fighting. When the army loses one more unit, taking it to 9 out of 25, the army morale collapses and the Swedes lose. Their Imperialist opponent has 24 units, so the Imperial army breakpoint is 8 units.

If the game has not finished before the game turn time limit expires, then the attacker loses.

# 16. Advanced Rules

The Advanced Rules are to provide additional flavour and/or meet wargamer expectations. Unless the players agree in advance of the game, none of the advanced rules are in use during a game.

#### 16.1. Advanced Rule: Variable army morale (Replaces Step 6.5)

If you want a chance for a losing side to fight on then use the Variable Army Morale rule. At the end of each turn the side with the greatest number of lost units rolls 1d6 and adds the number of lost units (routed, eliminated Cannon, and Commander casualties). If the modified score is ½ of the original number units or more that side loses the battle.

For example, a French army had 25 units at the start of the battle. Half of that is 12 ½ units. In turn 4 their losses had reached 7 units, more than their Spanish opponent. They roll 1d6, scoring 3, and add the 7 lost units, giving a total of 10. This is less than half and the French fight on. In turn 5 the French lose another 3 units routed (making 10 lost in total). They roll again, scoring 4, and add the 10 lost units, making a modified score of 14. This is more than 12.5 so the French army flees the field of battle.

#### 16.2. Advanced Rule: Large Pike+Shot

Large Pike+Shot is a special variation on the Pike+Shot unit type. You will only need this unit type for certain historical scenarios where big brigades coexisted with normal sized units. That means large Pike+Shot units would only be applicable at the lowest level of game representation where one normal Pike+Shot unit is 1,000 men; in that case a large Pike+Shot unit would be 2,000 men. At the highest level, where infantry units are 2,000 men, the bases would already represent large brigades or two regular units - so you don't need a separate unit type. Large Pike+Shot can be used for both the Swedish brigade and Tilly's big tercios.



A Large Pike+Shot unit:

- Has a double depth, perhaps created by putting two normal Pike+Shot bases together
- Counts as two units for Recruiting the army and for unit losses / army morale
- Has a high starting resolve: 8
- If resolve is 4 or more, the unit has 4d6, rather than resolve, for shooting dice as primary shooter and also for melee dice as primary fighter to-front (before combat modifiers)
- If resolve is 2 or more, the unit has 2d6, rather than 1d6, for shooting dice to-flank and melee dice to-flank; in addition their flank will be bigger given the unit is deeper

- Remains a Large Pike+Shot unit even when resolve drops to 4 or below
- Otherwise all other rules apply

Use two resolve markers for a Large Pike+Shot unit. The resolve marker on the front half is used for fighting (shooting, melee) and stays high. Weaken the resolve of the rear resolve marker until it reaches zero (and is removed) then weaken the resolve of the front marker.



#### Figure 31: Large Pike+Shot with Weakened resolve

#### 16.3. Advanced Rule: Unit quality and coins

Historical units ranged from inexperienced recruits to hardened veterans. In the game **Unit Quality** is defined as one of raw, inferior, ordinary, or superior. Ordinary is the default and the only unit quality in the basic game. Superior, inferior and raw units differ in resolve, ability to conduct changes of direction, and unit cost.

**Unit Cost** is measured in **Coins** (whether florins, thalers, riksdalers, ducats, escudos, or livres) and represents the value of the unit relative to other units. Army cost can also be measured in coins.

16.3.1. Unit quality

There are four levels of unit quality:

**Superior**: Superior units were viewed by both themselves and their contemporaries as significantly better quality than others of their troop type e.g. veteran Spanish tercios, veteran German Cuirassiers, and the Swedish Yellow brigade. Being superior is about attitude not equipment. However some superior units would also have had better quality arms and armour than their counterparts. In game terms:

- Increase the starting resolve of superior units by one.
- Superior units cost 5 coins

Ordinary: By default all units are ordinary. Commanders are always ordinary. In game terms:

- Normal starting resolve
- Ordinary units cost 4 coins

**Inferior**: Inferior units are poorly trained troops and/or those affected by adverse campaign conditions. In game terms:

• Deduct one from the resolve of inferior units

- Inferior units can wheel, about face, turn, and rally back as normal
- Inferior units cannot use oblique, sideways, or backwards movement (except to rally back)
- Inferior units cost 3 coins

**Raw**: Rabble and Cannon are raw. Rabble are i.e. peasants with improvised weapons, and the most raw of recruits regardless of weapon type. Cannon were generally manned by civilians with little staying power so considered comparable to the peasants. In game terms:

- They only have 2 resolve
- Changes of direction are restricted to wheel
- They cost 2 coins

#### 16.3.2. Buying an army with coins

Coins are introduced to allow greater balance between opposing armies even when the component units differ in number and quality. An army is purchased with from 40 to 160 coins corresponding to the 10 to 40 units of the basic rules. Use the same generic army List whether using number of units or coins.

Raw units cost 2 coins, inferior units 3 coins, ordinary units 4 coins, and superior units 5 coins.

#### For example:

- An ordinary Shot unit has a resolve of 4 and costs 4 coins
- A veteran Pike+Shot unit would be superior, start with a resolve of 5, and cost 5 coins
- A recently recruited Horse unit would be inferior, start with a resolve of only 2, and cost 3 coins.
- Army lists allowing 60 coins would gain your army 12 superior units, 15 ordinary units, 20 inferior units, or 30 raw units.

Agree the size of each army in coins. Assign each side 40-72 coins in a small game and 73-160 in a big game.

# Designer Notes: If buying units with coins then consider assigning each side 60 coins for a small game and 100 coins for a big game.

#### 16.3.3. Large Pike+Shot and unit quality

The advanced rule for Large Pike+Shot units (section 16.2) assumes these units are ordinary. If you Large Pike+Shot that are inferior or superior then purchase cost in coins, starting resolve and combat dice to front all vary (see Table 6).

Table 6: Large Pike+Shot with unit quality

Unit attribute	Inferior	Ordinary	Superior
Purchased cost	6 coins	8 coins	10 coins
Starting resolve	6	8	10
Maximum shooting dice and melee dice to-front	3d6	4d6	5d6
(before combat modifiers)			

#### 16.4. Advanced Rule: Aggressive attacker

Designer Notes: Having aggressive attackers is a common mechanism in wargames. Basically they need to win fast so get additional troops to make this possible within the time limit. This option is offered here to match expectations of some wargamers and/or because certain scenarios may demand it.

In a pickup game, the player who got attacker can choose to take bonus units at the cost of a shorter time limit. The time limit is of 8 game turns. The bonus units depend on the game size:

- Small game: 2 bonus units (or 8 coins worth)
- Big game: 4 bonus units (or 16 coins worth)

All bonus units must be Pike+Shot and/or Horse. The mix is at the player's choice.

#### 16.5. Advanced Rule: Field fortifications

**Field Fortifications** are man-made terrain, usually a bank and ditch or gabions, and are allowed if the historical scenario allows. Field fortifications are not used in pick-up games. A section of field fortifications is 2 TUM wide (i.e. base width) just like formed units. Field fortifications give the garrison a combat advantage. The garrison counts as in cover against shooting and units attacking across the field fortification count as in difficult terrain when in melee.



Figure 32: Field fortifications - garrisons

#### 16.5.1. Field fortification garrison

Figure 32 shows several possible garrisons for a single field fortification. Normally the garrison of a field fortification is a single unit. Any infantry unit can be a garrison and in (A)

this is a Pike+Shot unit. In (B) the garrison is a single Cannon unit. It is also possible for two Cannon to garrison a single field fortification (C).

In Figure 32 (D) the garrison is both a Cannon unit and an infantry unit (Pike+Shot in this case). Where a Cannon and infantry unit garrison a field fortification together, the infantry unit is always put behind the Cannon. Despite the visual presentation the two units are assumed to overlap so the infantry also man the fortifications alongside the Cannon unit. Treat the infantry unit as overlapping the Cannon for all game purposes. Figure 33 shows the actual position of the infantry unit to the rear of the Cannon (greyed out) and the position used for game play (with diagonal lines).



Figure 33: Field fortifications - Cannon and infantry garrison

Cavalry cannot garrison a field fortification. Commanders can only garrison a field fortification if attached to infantry or Cannon. Although two Cannon can garrison a field fortification and also an infantry unit with a single Cannon unit, it is not possible to have a garrison comprising two Cannon and an infantry unit.

#### 16.5.2. Fortified Line

You can string field fortifications into a line to protect more than one unit. Figure 34 shows a line of three field fortifications garrisoned by two Pike+Shot and a Cannon.



Figure 34: Field fortifications - fortified line

#### 16.5.3. Field fortifications to-flank

You can put two field fortifications together in an L-Shape to provide protection both tofront and to-flank. Similarly three field fortifications in a U-Shape provide protection tofront and to-flank on both left and right. Figure 35 has two examples of L-Shape fortifications (A and B) and two U-Shape (C and D).



#### 16.5.4. Shooting at field fortifications

Field fortifications provide cover for infantry and Cannon if the line of fire crosses the field fortifications. Primary shooting units, regardless of their unit type, roll one less die when shooting at Dragoons, Pike+Shot, Shot, Rabble or Cannon in field fortifications.

For example, a Pike+Shot unit with 4 resolve would throw 3d6 rather than 4d6 when shooting at Cannon garrisoning a field fortification.

#### 16.5.5. Melee with garrisons of field fortifications

Field fortifications count as difficult terrain, thus reducing the melee ability of most troops crossing them.

For example, a Pike+Shot unit with 2 resolve would roll 2d6 when charging across field fortifications, as normal, but being in difficult terrain would only hit on a 6 not a 5-6.

Infantry (Pike+Shot, Shot, Dragoons, Rabble) in field fortifications are supported regardless of the location of friendly or enemy units.

16.5.6. Cost of field fortifications Field fortifications cost 2 coins.

#### 16.6. Advanced Rule: Terrain cards

**Terrain Cards** are physical cards to provide random terrain for a 15 x 15 TUM sector of the table. You will need a set of terrain cards for pickup games. You will need to make a deck of terrain cards (see section 17.1).



Figure 36: Pile of terrain cards

16.6.1. Example using terrain cards

Figure 37 is a worked example to illustrate the terrain card system.

Step 1: The game was to be fought on a big table so the players chose the 3x2 table layout. They randomised the terrain cards, made sure the optional river and bend terrain cards were separated out so they couldn't be selected in the random draw, picked six (one per sector on table layout), and flipped them over. Unusually there were three large features (woods, field, gentle hill) and only two medium (rough ground and stream).

Step 2: The defender has first choice to swap terrain cards with the centre but chose not to; they liked having the large gentle hill in their centre and the other large difficult terrain on the flanks. But the attacker was worried about that large gentle hill in the centre of the defender's deployment zone and swapped it for the open area on the flank.

Step 3: After this the defender could have swapped the two medium features (rough ground and stream) but chose not to as they wanted more open terrain in the attacker's centre.

Step 4: Next the players placed the stream.

Step 5: The players then placed the other terrain shown on the terrain cards: rough ground, gentle hill, field, wood. The stream split the large wood in two.

Step 6: Finally they added a road that had to cross the stream at a bridge or ford. The defender chose a bridge.

16.6.2. Procedure for generating terrain Steps to use terrain cards:

- 1. Defender fills table layout with terrain cards
- 2. Defender and attacker swap centre terrain cards
- 3. Defender swaps terrain cards
- 4. Places any stream on table
- 5. Place other terrain on table
- 6. Defender places the roads on table

Step 1: 3x2 Table Layout									
1	2 Attacker	3							
4	5 Defender	6							





Steps 2-3: Swap terrain cards

Stream

Image: Ground

Open

Image: Ground

Open

Image: Ground

Step 5: Place other terrain

Step 5: Place other terrain

Steps 4: Place streams



Step 6: Place road



Figure 37: Terrain cards Example

16.6.3. Terrain Step 1: Defender fills table layout with terrain cards Make sure the optional river terrain and bend cards are set aside. They are not used in the draw.

Then place the rest of the terrain cards face down on the table. Shuffle them around to randomise. And change the orientation of the cards at the same time.

Terrain is generated, via cards, for each 15 TUM x 15 TUM sector of the table. So a small table has a 2 x 2 table layout (four sections) and a big table has a 3 x 2 (six sectors). The sectors are numbered from top left to bottom right.



Figure 38: Table Layouts for terrain cards

For each 15 TUM x 15 TUM sector of the table, in the order shown in the table layout, randomly select one terrain card and place on the table layout face down.

Flip over all terrain cards on the table layout to reveal the type of terrain and orientation.

16.6.4. Terrain Step 2: Defender and attacker swap centre terrain cards

On a table with a centre (e.g. 3x2 table layout) the defender gets a chance to swap centre terrain cards with a flank terrain card, then the attacker. Players can pass on their chance or swap. A player cannot change the orientation of terrain cards in a swap.

If a player chooses to swap, then do the first of the following options that is possible:

- 1. Swap a large terrain card in the centre for an open terrain card on the flank
- 2. Swap a large terrain card in the centre for an small or medium terrain card on the flank
- 3. Swap a small or medium terrain card in the centre for an open terrain card on the flank

(Swapping centre terrain cards is not allowed on a 2x2 table layout because there is no centre. )

16.6.5. Terrain Step 3: Defender swaps terrain cards **defender can** 

- Either choose two medium or small terrain cards and swap them (without changing orientation)
- Or change orientation of one terrain card.

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#### 16.6.6. Terrain Step 4: Defender places any stream on table

A stream terrain card means there is a stream on table. The terrain card indicates the position and orientation of the stream feature. Streams are not contained within a single table sector but go, more or less, straight across multiple table sectors, flowing through the middle of each table sector. The orientation of a card will indicate whether the feature is parallel to the long table edge or short table edge.

If there are two stream cards the defender replaces one stream terrain card with an open. So only one stream will be on table.

#### 16.6.7. Terrain Step 5: Defender places other terrain on table

Now place the terrain for all of the remaining terrain cards. Adhere to the size, orientation and position of the feature given on the card. If the intended position of a medium feature overlaps a river or stream then move the feature to the side, trying to keep the feature in the correct table sector.

If the intended position of a large feature overlaps a stream then split the large feature into two medium features of the same type, and put the two features on either side of the water feature, trying to keep both features in the correct table sector. Similarly a medium feature split by a stream turns into two small features.

#### 16.6.8. Terrain Step 6: Defender places the roads on table

Every table has at least one road on the assumption armies approached each other along a road. Some tables will demand more than one road, which may join at a junction or fork.

The road network must follow these rules:

- The first road must go from a table edge to that opposite (the edges do not have to be the player's base table edges)
- Every town and village must have a road through it or terminating at it
- Roads can cross any river or stream at a ford or bridge, but not all rivers and streams have to be crossed
- Roads can cross other roads at a junction
- Roads must avoid other terrain

#### 16.7. Advanced Rule: Two streams

Many historical battlefields had two streams (e.g. Lutzen), however, the terrain card system explained in Section 16.6 does not allow two streams on the table. The "Two streams" advanced rule uses the optional bend terrain cards to create interesting stream shapes including many options that leave two streams on table.

When two stream terrain cards are selected, the defender chooses to replace zero, one or both stream terrain cards with a Bend terrain card. Bends can be any orientation the defender wishes. The combination of straights and bends must form one of these shapes:

• "T" shape: two straights at right angles

- "h" shape: one straight and one bend curving towards the straight
- "L" shape: one straight and one bend lined up
- "| (" shape: one straight and one bend curving away from the straight
- ") (" shape: two bends curving away from each other

Figure 39 shows some examples. Other combinations/shapes are possible but not allowed.



#### Figure 39: Two stream terrain cards

#### 16.8. Advanced Rule: Shallow small tables

In version 1 small games were fought on tables the same width as in version 2 but more shallow. This advanced rule is to allow players to continue to use shallow small tables. A **Shallow Small Table** is 30 TUM wide by 20 TUM deep. Table 2 lists some common examples of shallow small tables.

Table 7: Shallow Small Wargaming Table

TUM	Base Width	Shallow small table size (30 x 20 TUM)
20mm	40mm	60cm x 40cm (2' x 1' 4")
30mm	60mm	90cm x 60cm (3' x 2')
40mm	80mm	120cm x 80cm (4' x 2' 8")
50mm	100mm	150cm x 100cm (5' x 3' 4")
60mm	120mm	180cm x 120cm (6' x 4')

Figure 40 shows the size of a shallow small table relative to a normal small table and to a big table.



Figure 40: Shallow small table size

Terrain cards do not work perfectly for a shallow small table (see advanced rule 16.8) because terrain cards assume regular 15 TUM x 15 TUM sections within a table layout and a shallow small table is 30 TUM x 20 TUM. You will have to decide the best approach. Here are two suggestions:

- 1. Select terrain cards for a 2x1 table layout and accept the base edges will be empty.
- 2. Select terrain cards as normal for a 2x2 table layout but then, when placing terrain on table, discard any features that fall off

Figure 41 shows the two table layout options for shallow small tables.

The neutral zone (8 TUM) and centre zone (16 TUM) are identical for a shallow small table and a small table (see ) (see Figure 42).



*Figure 41: Shallow small table Layouts for terrain cards* 



Figure 42: Shallow small table Deployment Zones

#### 16.9. Advanced Rule: Giant Games

If you want an even bigger game, more than in a big game, then go for a giant game. A **Giant Game** will have about 40-60 units a side on a giant table. A giant table is 60 TUM by 30 TUM. The neutral zone is still 8 TUM. The centre zone is 30 TUM.

My giant table is 8'x4' with my 80mm wide bases (1 TUM = 40mm).

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If you have an aggressive attacker (advanced rule 16.4) in a giant game:

• Give the attacker 6 bonus units (or 24 coins worth)

If using terrain cards (advanced rule 16.6) in a giant game:

- A giant table uses a 4x2 Table Layout so uses eight terrain cards
- In Terrain Step 2: Defender and attacker swap centre terrain cards (16.6.4) both defender and attacker get two chances to swap terrain cards in the order: defender, attacker, defender, attacker.
- All other rules are the same.

#### 16.10. Advanced Rule: Command morale

The advance rule replaces the army morale rules described in section 15.6. This advanced rule allows individual commands to break while the rest of the army fights on. Army breakpoint is now based on the number of broken commands in the army. A command breaks depending on the number of units Lost. Victorious mounted units now pursue to allow for cavalry that win against their local opponents to disappear off the battlefield and leave friends to fight alone.

#### 16.10.1. Redefined army breakpoint

This advanced rule redefines the army breakpoint, originally defined in the army morale step (section 15.6). Each army has an **Army Breakpoint** of 2/3 of the number of commands, rounded up. At the end of any turn, a side loses the battle if their total broken commands equals or exceeds the army breakpoint. The other side is the victor. A draw is possible if both sides lose in the same turn.

Put another way, the army breakpoint (2/3) is:

- 1 command broken in an army of 1 command
- 2 of 2-3 Commands
- 3 of 4-5 Commands
- 4 of 6 Commands

If the game has not finished before the game turn time limit expires, then the attacker loses.

#### 16.10.2. Command breakpoint

Each command has a **Command Breakpoint** of ½ of the initial number of units, rounded up. At the end of any game turn a **Broken Command** has lost units equal to or exceeding the command breakpoint. Lost units include routed units, Commander casualties, and Cannon eliminated in melee All remaining units of the broken command immediately rout and are removed from the table.

Put another way, the command breakpoint (1/2) is:

- 1 unit lost in a command of 1-2 units
- 2 of 3-4 units
- 3 of 5-6 units
- 4 of 7-8 units

16.10.3. Cavalry Pursuit *Designer Notes: This rule is brutal.* 

Horse and Light Horse are at risk of pursuing enemy broken commands off table. A command must make a **Pursuit Check** if any part of the command is within 8 TUM of any part of an enemy broken command. First make a Horse pursuit check then, if relevant, a Light Horse pursuit check.

Horse Pursuit Check: If there are any Horse in the command, make a single pursuit check for the Commander, all Horse, all Light Horse, and all Dragoons in the command.

**Light Horse Pursuit Check**: If the Horse pursuit check is successful, then any Light Horse in the command might pursue by themselves. Make a single pursuit check for all Light Horse in the command. Note: Light Horse are always deemed impetuous.

Roll 3d6 for the pursuit check unless modifiers apply. Certain commands are more likely to pursue. A command that has suffered a commander casualty and units without on-table enemy within 8 TUM (after removing the broken command) also receive a negative modifier. Finally a scenario may define the horse of one or both armies as impetuous, and these suffer a negative modifier.

**Pursuit Modifiers:** 

- -1d6 modifier if the Commander is a commander casualty
- -1d6 modifier if Light Horse pursuit check or a scenario specific rule makes the Horse impetuous
- -1d6 modifier if there are no on-table enemy within 8 TUM of any unit within the friendly command

It is possible to have no dice for the pursuit check and automatically fail.

Every 6 rolled is a hit and any hit is a success; no hits is a failure. Success on a pursuit check means those units do not pursue. Failure means all affected units pursue the routing enemy off table and do not return.

# 17. Making Stuff

This section covers how to make the cards and markers necessary to play.

#### 17.1. Making the terrain cards

Terrain cards are physical cards to provide random terrain for a 15 x 15 TUM sector of the table. To make the terrain cards:

- 1. Print out the terrain cards
- 2. Glue them to cardboard
- 3. Cut them out

Open	Open	Open	Open	Open	Open
Woods (S)	Woods	Woods	Woods (L)	Open	Open
638	8638	6538			
Field (S)	Field	Field (L)	Open	Open	Open
Rough Ground (S)	Rough Ground	Rough Ground (1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	Open	Open	Open
Gentle Hill (S)	Difficult Hill	Gentle Hill	Gentle Hill (L)	Difficult Hill (L)	Open
Stream	Stream	Town (L)	Village	Village (S)	Open
River	River	Bend	Bend		

Figure 44: Terrain cards to Print

#### 17.2. Making markers

I've given you some markers to get you going. You don't have to use these markers or, indeed, markers of any kind. There are ways to achieve all of this without cluttering up the table. For example, you could configure the figures on a stand to indicate unit quality e.g. put the pikes ahead of the shot on superior Pike+Shot. I prefer more flexibility since the historical units were pretty much interchangeable in appearance. So I use markers.

These are the instructions to make double sided markers for:

- Resolve with "1/2" and "3/4"
- Unit quality with 1 for inferior ("净") and 3 flags for superior ("净净净")
- Rout / commander casualty with Red / White skulls
- Charge Arrow with the same on front and back

The back markers do not have grid lines you can't notice if the front and back are misaligned when you cut them out.

I have only done superior/inferior for unit quality. Ordinary is assumed for Horse, Light Horse, Dragoons, Pike+Shot, and Shot, unless there is a marker. Raw has no marker on the assumption that the Cannon and Rabble units will be obvious.

Steps:

- 1. Print the markers
- 2. Cut out the front markers from the paper
- 3. Cut out the back markers from the paper
- 4. Glue the front to card board (about 1mm thick). And leave to dry.
- 5. Glue the back to the back of the same card board. And leave to dry.
- 6. Cut out the double sided markers

Front						Back									
1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4
3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4
3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4
3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4
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## 18. Further resources

Check out my website, <u>Steven's Balagan</u>, for additional material on wargaming and Tilly's Very Bad Day:

- <u>Category: Tilly's Very Bad Day</u>
- Download Tilly's Very Bad Day
- Big Bases
- <u>Thirty Years War</u>
- <u>Eighty Years War</u>
- English Civil War
- Pike and Shot big bases
- <u>Terrain Cards Random terrain placement for pick up wargames</u> (<u>https://balagan.info/terrain-cards-random-terrain-placement-for-pick-up-wargames</u>)

## 19. References

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