

HAKKAA PÄÄLLE

Wargames rules for the age of Gustavus Adolphus, Tilly, and Koniecpolski Rules modifications for Gå På 2nd edition

By Thomas Årnfelt and Daniel Staberg

Årnfelts förlag 2009

www.arnfelts.com info@arnfelts.com

Table of Contents

INTRODUCTION	4
SET-UP/SCENARIO CHANGES	5
Tactical situation and Set up	5
UNIT TYPES	
Infantry rules	
General infantry rules	7
Tertios and brigades	7
Groups	
CAVALRY RULES	8
General cavalry changes	9
Changes to cavalry fire	9
Artillery rules	
Artillery movement rules	9
Other artillery rules	10
New Special advantage	10
DESIGNER'S NOTES	
APPENDIX I – UNIT DATA TABLES	12
Cavalry Data	12
Infantry Data	
Artillery Data	

Introduction

HP is a combination of rule changes, additions and army lists to allow the Gå På rules to be used for the first half of the 17th century. The focus is on the Thirty Years War, but it is certainly possible to use them for other conflicts as well. Examples of these include, but are not limited to: the English Civil War and the wars between Sweden and Poland. I have intentionally left the late 17th century out, as I feel this period is better covered by the standard rules.

My ambition has been to include enough new/changed elements to produce the right 'period feel'. The game should not feel like a WSS game with different figures. I have tried to do it as I haven't found a set of rules that deal with the 30YW in a way I like, and because I felt that Gå På actually could be used to cover the period – although with some changes needed.

Because of this I have decided to change some of the unit type names, and create new ones as well. My hope is that this doesn't create too much confusion, but instead generates more period feel.

In the 17th century units tended to use deeper formations. The musketeers had a slower rate of fire and the socket bayonet arrived only towards the end of the period. This means they will have to be protected by pike-armed friends to a much larger degree.

Note on versions

These rules are based on the 2nd edition of of Gå På. Later editions might include changes to the rules that will affect the **Hakkaa Päälle** rules. In this case this will be noted in the new core rules.

SET-UP/SCENARIO CHANGES

The following changes are necessary to the pre-battle sequence.

Tactical situation and Set up

Armies deployed differently in the 30 years war than they did later on. Set piece battles, and assaults on fortified positions were more common, and armies generally deployed close to each others in order to have the guns in range from the very beginning.

Tactical situation

The list for determining situation is modified as follows:

- 0-2 Siege Relief
- 3 Rear guard Action
- 4 River Crossing
- 5 Attack
- 6-12 Set-Piece Battle
- 13-14 Meeting Engagement

Set up

The set up distances need to be modified as follows:

Siege relief: The attacker deploys at least 600 paces from the defender's field works.

River crossing: The attacker deploys on his side of the river, at least 200 paces from it.

UNIT TYPES

Many of the unit types are changed to better reflect the armies of the early 17th century:

Infantry

Heavy infantry – HI: Infantry armed with muskets and a fairly large proportion of pikes. Most having body armour as well and/or using very deep formations. They are rather defensive by nature, and the unit type includes special variants as the Imperialist Tercio squadrons, classed as _THI, and the Swedish Brigades, classed as _BHI. Other variants are smaller units of heavily armed infantry, as for example Swedish independent infantry squadrons – i.e. unbrigaded infantry units. The "basic" HI class represents the various variants of infantry deployed 8-10 ranks deep according to the "Dutch model" and the heavy infantry units used by the various protestant states. They lack some of the resilience of the _THI units, but in contrast can be used in more linear formations.

Medium Infantry – MI: Lighter than the heavy infantry and slightly less interested in close combat. They try to decide battles by moving into firing range, and then engaging in a fire duel. This includes the 6-rank battalias of the late 30 years war, as well as units of musketeers.

Cavalry

Cavalry with firearms have had their FP values lowered somewhat as compared to standard types in Gå På. The CC values are also reduced somewhat for certain types as companies represent approximately 100 horses in 3-4 ranks. (While closer to 125 horses in the main 18th century rules).

Heavy Battle Cavalry – HBC: The main battlefield cavalry of the early 30YW-period. They were intended for shock action, but could also caracole – and could revert to doing so if left unattended. Includes most fully armoured cuirassiers, and some other back and breastplate cavalry and arquebusiers. I

Light Battle Cavalry – LBC: Mobile battlefield cavalry, usually in back and breastplate, commonly armed only with pistols and sword. They move up to the enemy, fire a single volley, and then try to break their opponents in close combat. LBC may not charge unless explicitly noted. Examples include Swedish "lätta ryttare" and Royalist cavalry in the ECW.

Harquebusiers - HQ: These represent the various types of cavalry that were used as "support" cavalry, using firepower to break up enemy formations to enable the battle cavalry to finish the job, for example Harquebusiers and Dragoons. Often armoured with back and breast plate and helmet and armed with a harquebus or similar weapon, they were used to break up enemy from distance and support the heavy cavalry.

Eastern Horse - EH: Cavalry with a variety of weapons using slightly less dense formations than their western counterparts. They have high individual skill but sometimes lack discipline. EH have a higher close combat rating in relation to their size than western horse. Most armoured cavalry in Eastern European armies are classed as EH. EH may charge at the gallop, but become disordered while doing so.

Heavy Lancers – HL: Very similar to the lance equipped Shock Horse of the main rules. They are not very common in western Europe, but in Poland and Russia they were still in use.

Light Cavalry - LC: As defined in the Gå På main rules.

Skirmish Cavalry – SC: As defined in the Gå På main rules.

Artillery

Artillery types are the same as in the Gå På rules. However a few changes need to be noted. First of all VLA is not at all as common as in the later period, which means only a very few armies will have them. Second, limbered movement rates have been reduced somewhat, to account for the heavier guns. Third, artillery that unlimbers takes longer to be ready for action. And are not generally able to move to a new position thereafter. Finally, artillery stats have been changed somewhat to reflect slower rate of fire and less standardized canister rounds etc. The FP at short range has been reduced, ranges are generally shorter, and VLA may not fire at long range, as they generally didn't fire on longer ranges as the crew had a really limited supply of cannonballs (note that their short range range is increased somewhat compared with other artillery).

INFANTRY RULES

The infantry of the early 17th century used deeper formations, and employed somewhat different tactics than their later counterparts. A few special rules are needed to deal with the peculiarities of infantry in the period.

General infantry rules

Frontages

The more unwieldy muskets, and complicated drills, required more space to use than in those the early 18th century. Thus frontages have been increased to allow for this.

Unsupported infantry

In the 17th century infantry had weapons with a lower rate of fire, and no bayonets. The combination made them less inclined to take on cavalry, as they were likely to come out second best. The following rules address this:

Infantry not equipped with pikes, or currently in a Group Line with a cavalry unit next to it on either side, nor behind fortifications/field defences or in redoubts, is classed as unsupported.

- Unsupported infantry facing cavalry always check first in close combat with cavalry.
- The TQ of unsupported infantry in close combat with cavalry is lowered by one (cumulative with any other effects).
- Any type of Cavalry unit with unsupported infantry to their front (and no intervening units) may declare a charge against them.

Skirmish

Salvo Fire

HI units capable of salvo firing are marked with an ^s. These have a better chance of deterring cavalry charging them. Being able to Salvo fire adds 1 point to the cost of a HI unit.

Note: The Swedish infantry were drilled in salvo fire to make a short term increase in their volume of fire. This enabled them to better withstand cavalry charges. In an infantry versus infantry fire fight the difference in fire systems would probably have much less effect than the training level of the infantry using the systems.

Tertios and brigades

Tercio Squadrons

This includes all "tercio-style" infantry of the 16th and early 17th century, as for example the huge Spanish tercios and the imperial "mini tercios" of the 30 years war. It also includes most other western infantry of the period that deployed in "square-like" formations, including in some cases where the unit is classed as Levy. Tercios of the 30YW period are around 8-10 ranks deep. Note that the rules for the older version of the Tertio squadron is included mainly for those interested in stretching the period covered further back in time.

Special rules:

- Tercios may only be part of HI groups.
- A Tercio suffering a **Pull Back Result from combat** will remain in place, and become disordered if not already.
- A Tercio suffering a Flee result as a result of combat will make a Pull Back instead, but if this Pull Back
 results in a new Flee (that is if it began close to enemy and the Tercio failed another TQ check) it will flee.
- Tercio squadrons can only use tercio formation or column of march formation and when changing from column they automatically become disordered. When in column of march formation, the combat result modifications do not apply.
- A wheel counts as double the length for a Tercio.
- Tercios do not turn to face enemy when outflanked.
- Tercio squadrons are classed as Independent units this means they do not make orders check as one TQ lower when alone.
- Tercio squadrons may fire from their flanks as well. Split the fire equally between targets, rounding down. However, fire from a single flank may never be more than half the total FP, even if there is only a single target.
- Spanish Style Tercios _{Sp}HI ignore **Disorder results**.

- Spanish Style Tercios _{Sp}HI Fire from both front and flanks. This means that, like a unit in square formation, they may never use more than half their FP on a single target. (The difference is that these tercios must split their fire, later tercios may.
- Spanish Style Tercios SpHI do not have their CC values halved if attacked in flank.
- Spanish Style Tercios _{Sp}HI may use a formation change to switch facing to either flank or rear without becoming disordered.

Note: The older "Spanish style" Tertios are no longer used in the TYW. The rule is included mainly for those interested in experimenting with the rule system for earlier armies...

Brigades

Brigades are early attempts at creating more linear formations that emphasise firepower instead at a slight reduction in stability (depth of formation). They use a semi-triangular formation, but otherwise work very much like the later smaller, and more linear, battalias. They were probably developed to counter the effects of Polish hussars.

Special rules:

- Brigades may only be part of brigade groups.
- Brigades can only use the following formations: Line, Unfinished square, Double line, and column of march formation.
- Brigades are classed as Independent units this means they do not make orders check as one TQ lower when alone.
- When in close combat with cavalry, Brigades not in column of march suffering a **Pull Back Result from combat** will remain in place, and become disordered if not already.

Special Formation:

• **Double Line**: A Brigade may shorten its front down to half the line frontage. Its CC value is halved, rounded down, and the FP is quartered – again rounded down.

Groups

The following groups are available:

HI group

Only HI or Levy infantry may be part of a HI group. In addition up to 2 MI units (usually musketeers) within 50 paces of a HI unit can be included in the group.

To be considered part of a HI group a unit must be within 250 paces of another unit in the group, and facing in the same direction.

HI groups differ from normal groups in that they can be given orders just like normal groups, but when not given orders the individual units check for orders individually.

A HI Group can only be ordered to move straight ahead/backwards, or hold.

Group Line

All units except $_T$ HI and $_B$ HI may be part of a Group Line (note that "regular" HI units can). Otherwise it works just like Group Line in the main rules.

Group Column

All units except THI and BHI may be part of a Group Column. Otherwise it works just like Group Column in the main rules.

☐ Optional Rule: Four squadron Brigades

A single "regular" HI unit can be "attached" to a brigade. Note that $_T$ HI and $_B$ HI do not qualify. The HI unit's centre must be behind the brigade and within 100p. As long as it fulfils these criteria and face in the same direction as the brigade these two count as a group when checking for orders.

Normally a Brigade was made up of three squadrons, and this is what the "standard" Brigade rule reflects. However, the use of a fourth squadron was developed, at least in theory. There is no evidence of it ever being used in the field. The fourth squadron was probably to be use in reserve, with the main purpose of countering outflanks and rear attacks, as well as providing some extra flexibility in attack.

CAVALRY RULES

A few concepts are changed slightly to better reflect the role of cavalry in the period.

General cavalry changes

Cavalry formations

Cavalry can use the following formations:

Line: as main rules.

Deep Line: The squadrons are divided as equally as possible among two or three ranks. No rank may contain more squadrons than the first. FP values are halved when in deep line formation (rounded down) and CC values are halved rounded up. All cavalry except HL may use the Deep Line. Only HBC and HQ units may use the three squadron deep variant, all others may only use the 2 squadron deep version.

Column of march: as main rules.

Changes to cavalry fire

The following rules add some detail to the cavalry fire process of the Thirty Years War

Caracole

Caracole can mean a few different things. The term is sometimes used to cover any type of fire from horseback. However, rules wise a caracole is a continuous fire from cavalry where the front rank fires and then moves to the back of the unit to reload.

Available to: Only HBC and HQ units deployed in line or deep line may caracole. Units in column of march may not. Caracoling units use Line FP in either formation.

A caracoling unit fires in the orders phase instead of moving, not in the fire phase.

Backwards move: After firing it may move up to 50 paces directly backwards. Cavalry moving back from Infantry while doing a caracole are exempt from the 'Moving within an enemy's Assault zone' rule. I.e. they do not risk a flee result. This does not apply against cavalry or artillery though. Moving backwards is a difficult manoeuvre and thus requires a TQ check to avoid disordering the unit.

Closing and other actions: Units doing a caracole **may not close** in the closing phase. They may not do any other movement in the orders phase, nor fire in the fire phase (nor in the closing phase if closed with).

Pistol Cavalry Fire

Pistol armed cavalry in the period tended to fire only at extremely short range, at the initiation of the close combat. In fact many cavalrymen used the pistol as their main close combat weapon. To represent this, cavalry with their range value within brackets, [50p], may not fire in the fire phase (if allowed to caracole they may still perform that manoeuvre though.

Instead HBC and LBC fire in the closing phase, but only if they have successfully closed or been closed with. Resolve this as follows: After making closing attempts, unit that successfully close resolve the fire from any cavalry with range in brackets. Close combat will only be resolved if both units remain in place.

ARTILLERY RULES

The artillery of the early 17th century was extremely heavy, and not at all standardised. Guns were often dismantled for transport, and required large amounts of civilian personnel to be able to move. Thus, they tended to be stuck where they were placed at the beginning of the battle.

Artillery movement rules

Generally the movement rates of all artillery are lowered somewhat. The following rules also apply:

Unlimbering artillery – Limber to Unlimber – [Disordering]

Artillery that unlimber automatically become disordered.

Note: This reflects the extra time needed to get all of the guns ready for action.

Heavier Guns

LA, MA and HA batteries that unlimber, or that start the battle unlimbered may not limber up during the remainder of the battle.

Civilian drivers

After unlimbering, VLA artillery must make a TQ check (counting as disordered). If this fails they lose their drivers, and may not limber up for the remainder of the battle.

Other artillery rules

Artillery and morale

Artillery batteries do not count against army or wing break values in any way.

Note: Batteries were often placed in front of the line. This rule is intended to encourage this.

Brigade artillery

When purchasing VLA batteries, a player with brigades (BHI) in his army may deploy these as either loose batteries or as Brigade artillery. The choice should be made after setting up the terrain and any fortifications, but before setting up any units. Brigade artillery is included in the brigade – it is not a unit in itself. The presence of brigade artillery in a brigade should be depicted with a gun or two attached to the brigade, or something similar.

Having brigade artillery adds 2 in FP to the brigade at ranges up to 150p, and gives the brigade a FP of 3 between 150p and 300p.

Brigade artillery is lost whenever the brigade is forced to flee, passes over terrain impassable to artillery, or sufferers a Pull Back result in close combat.

Brigade artillery does not affect the wing/army break levels in any way.

☐ Optional Rule: Captured artillery

If an artillery unit is eliminated in close combat, roll one dice. On a roll of 1-2 it is instead captured. Crewmen of captured artillery count as Rabble – even if the artillery is later re-captured.

New Special advantage

Mobile artillery, 40pts

The army has spent a lot of time trying to make its artillery lighter and more mobile. When using this option, all non HA makes a TQ check when unlimbering to see if they lose their drivers – just like VLA in the basic rules. HA may still not be limbered again once deployed.

DESIGNER'S NOTES

This project became much larger than I initially intended. My starting ambition was to provide a set of rules modifications to cover the 17th century. I have always been interested in the Thirty Years War, and the Polish Swedish wars, but never found a rules system I liked for the period. However, I didn't feel I would be able to do the necessary research for the different armies – so I was going to go for a rather "quick and dirty" list section – leaving much to the players.

At that time an old friend from the past showed up. Daniel Staberg, whom I got to know when I worked with the original Gå På rules, offered to help out with the research part. And what an effort he put into it. He has supported me with more material than I thought possible. And he has questioned many of my ideas – making my re-think more than once. This of course extended the process, but it has been very enlightening and I also think that the end result shows that it was worth the wait... Although it should be said that if you don't agree with a specific list – it's probably my fault... I'm the one responsible for the interpretations of his work.

Trying to model the Thirty Years War is no easy task. It is very much a period of change. Change in tactics, organisation, and equipment. There are a lot of similarities between the end of the period and the early 18th century. However, the beginning of the war is a different story. Thus you need rules that can cover some very different settings. As I was working from Gå På I sort of had the "end result". I knew where I was going. The hard part was how to get there, and from where.

The question you have to continuously ask yourself when working backward is "why" or put differently "what was it good for". I mean, we all knew that the 8-10 rank formations were a bit more unwieldy than the 6 rank (and later 4 rank etc) formations. That a lot of the firepower was "wasted". It is easy to say that "ok, we have a unit which is slower and less efficient than the later units" and be happy with that. I feel that the better way is to think about the units were formed that way, and what the strengths, as well as the weaknesses, were – and then try to construct the rule from there.

There are also a number of myths to deal with when working with the TYW. Many of these coming from 19th or early 20th century. One such is the galloping Swedish and/or Finnish cavalry. There is as far as I know no good evidence supporting this notion. What GIIA did learn when fighting the Poles was that his cavalry, although very experienced, would always lose a straight fight with the Polish hussars. So what did they do? Well, they seemed to have copied the French cavalry tactics of attacking at the trot, firing pistols and then closing with the enemy. Then, as this clearly wasn't enough against charging lancers on bigger horses, he increased the firepower by adding foot musketeers to the cavalry wings. This was then the tactics that beat the Leaguist cavalry at Breitenfeld. Firepower in combination with

repeated counterattacks. On their own, the Swedish horse would generally come out second against the experienced, well equipped cuirassiers. And they seemed to have been very aware of this.

Then in the middle of the work I decided to update the core rules. This was partly due to the fact that many of the changes I wanted to do in the 30YW version would also improve the basic rules in my view, and I also wanted to modify a few other things. This delayed the project somehow more, but again I think the end result is worth it.

I could go on forever discussing the various ideas that I have had during this creative process. But I think I should let you get on with the serious part – i.e. playing, that is after all what it is all about.

Questions and feedback are of course always welcome. And if you can prove me wrong in some case – don't hesitate to do so. It will only mean I have learned something new...

Thomas

APPENDIX I - UNIT DATA TABLES

Following are the lists of unit stats used for the early 17th century. Some are the same as the ones found in the core rule book, while others are new. Use them by locating the description that best matches the type of Unit you are creating, and then use the "size" column (either number of men for infantry, or number of companies of roughly 80-100 men for cavalry) to find the data for the Unit. Note that in some cases an exact match cannot be made, but then a mix of two tables can often be used instead.

Cavalry Data

Mounted harquebusiers

Cavalry armed with muskets or carbines and probably a sword. Possibly wearing a breastplate and/or helmet. Usually classed as HQ, but may also be LBC, HBC or even Levy C depending on how they act. Companies of roughly 100 men each.

Steps	FP	CC	Range	Frontage
3	7/5/4	18/12/9	100p	12*50p
3	7/5/4	17/11/9	100p	11*50p
3	6/4/3	15/10/8	100p	10*50p
3	5/4/3	14/10/7	100p	9*50p
3	5/4/3	12/8/6	100p	8*50p
2	4/3	11/7	100p	7*50p
2	4/3	9/6	100p	6*50p
2	3/2	8/5	100p	5*50p
2	2/1	6/4	100p	4*50p
1	2	5	100p	3*50p
1	1	3	100p	2*50p
1	1	2	100p	1*50p
	3 3 3 3 3 2 2 2 2 2 1	3 7/5/4 3 7/5/4 3 6/4/3 3 5/4/3 2 4/3 2 4/3 2 3/2 2 2/1 1 2 1 1	3 7/5/4 18/12/9 3 7/5/4 17/11/9 3 6/4/3 15/10/8 3 5/4/3 14/10/7 3 5/4/3 12/8/6 2 4/3 11/7 2 4/3 9/6 2 3/2 8/5 2 2/1 6/4 1 2 5 1 1 3	3 7/5/4 18/12/9 100p 3 7/5/4 17/11/9 100p 3 6/4/3 15/10/8 100p 3 5/4/3 14/10/7 100p 3 5/4/3 12/8/6 100p 2 4/3 11/7 100p 2 4/3 9/6 100p 2 3/2 8/5 100p 2 2/1 6/4 100p 1 2 5 100p 1 1 3 100p

Cuirassiers in 3/4 armour

Heavy cavalry in three quarter plate armour on large horses. Armed with a pair of pistols and a sword. Usually classed as HBC, but may also be HQ or even Levy C. Companies of roughly 100 men each.

Size	Steps	FP/	CC/	Range	Frontage
12	3	5/4/3/2	30/23/20/15	[50p]	12*50p
11	3	4/3/2	28/19/14	[50p]	11*50p
10	3	4/3/2	25/17/13	[50p]	10*50p
9	3	4/2/2	23/15/12	[50p]	9*50p
8	3	3/2/2	20/13/10	[50p]	8*50p
7	2	3/2	18/12	[50p]	7*50p
6	2	2/2	15/10	[50p]	6*50p
5	2	2/1	13/9	[50p]	5*50p
4	2	2/1	10/7	[50p]	4*50p
3	1	1	8	[50p]	3*50p
2	1	1	5	[50p]	2*50p
1	1	<1	3	[50p]	1*50p

Pistol armed cavalry

Western style cavalry with pistol and sword. Often wearing a breastplate, and sometimes a helmet. Usually classed as LBC, but may also be HQ or HBC, even Levy C. Companies of roughly 100 men each.

Size	Steps	FP/	CC/	Range	Frontage
12	3	5/4/3/2	24/18/16/12	[50p]	12*50p
11	3	4/3/2	22/15/11	[50p]	11*50p
10	3	4/3/2	20/13/10	[50p]	10*50p
9	3	4/2/2	18/12/9	[50p]	9*50p
8	3	3/2/2	16/11/8	[50p]	8*50p
7	2	3/2	14/9	[50p]	7*50p
6	2	2/2	12/8	[50p]	6*50p
5	2	2/1	10/7	[50p]	5*50p
4	2	2/1	8/5	[50p]	4*50p
3	1	1	6	[50p]	3*50p
2	1	1	4	[50p]	2*50p
1	1	<1	2	[50p]	1*50p

Heavy lancers

Cavalry equipped with heavy lances employed to charge enemy head on and no firearms. Always SH. Squadrons of roughly 80-100 men each.

Size	Steps	FP	CC	Range	Frontage
11	3	-	39/26/19	-	11*50p
10	3	_	35/24/18	-	10*50p
9	3	_	32/21/16	-	9*50p
8	3	_	28/19/14	-	8*50p
7	2	_	25/16	-	7*50p
6	2	-	21/14	-	6*50p
5	2	-	18/12	-	5*50p
4	2	-	14/9	-	4*50p
3	1	-	11	-	3*50p
2	1	_	7	-	2*50p
1	1	-	4	_	1*50p

Heavy Eastern Horse, with light lances and firearms

E.g. the guard cavalry of the Ottoman Empire, and more heavily armoured non-hussar Polish cavalry. Almost exclusively classed as EH, but can also be classed as Levy Horse. Squadrons of roughly 80-100 men each.

Size	Steps	FP	CC	Range	Frontage
12	4	5/4/3/2	36/27/24/18	50p	12*50p
11	3	4/3/2	33/22/17	50p	11*50p
10	3	4/3/2	30/20/15	50p	10*50p
9	3	4/2/2	27/18/14	50p	9*50p
8	3	3/2/2	24/16/12	50p	8*50p
7	2	3/2	21/14	50p	7*50p
6	2	2/2	18/12	50p	6*50p
5	2	2/1	15/10	50p	5*50p
4	2	2/1	12/8	50p	4*50p
3	1	1	9	50p	3*50p
2	1	1	6	50p	2*50p
1	1	<1	3	50p	1*50p

Heavy Eastern Horse, with light lances but no firearms

See table above, but FP=-.

Medium Eastern Horse

Eastern cavalry with some or no armour, and relatively few lances. This includes the majority of Polish and Ottoman cavalry. These are usually classed as EH or LC, but can also be classed as Levy Horse. Squadrons of roughly 60-80 men each.

Size	Steps	FP	CC	Range	Frontage
12	3	7/5/4	19/13/10	100p	12*50p
11	3	7/5/4	18/12/9	100p	11*50p
10	2	6/4/3	16/11/8	100p	10*50p
9	2	5/4	14/10	100p	9*50p
8	2	5/4	13/9	100p	8*50p
7	2	4/3	11/8	100p	7*50p
6	2	4/3	10/6	100p	6*50p
5	2	3/2	8/5	100p	5*50p
4	1	2	6	100p	4*50p
3	1	2	5	100p	3*50p
2	1	1	3	100p	2*50p
1	1	1	2	100p	1*50p

Light Eastern Horse

Eastern style cavalry with no armour, and mainly firearms or bows. These are usually classed as LC or SC. Squadrons of roughly 60-80 men each.

Size	Steps	FP	CC	Range	Frontage
12	3	7/5/4	14/9/7	100p	12*50p
11	3	7/5/4	12/8/6	100p	11*50p
10	2	6/4	11/7	100p	10*50p
9	2	5/4	10/7	100p	9*50p
8	2	5/4	9/6	100p	8*50p
7	2	4/3	8/6	100p	7*50p
6	2	4/3	7/5	100p	6*50p
5	2	3/2	6/4	100p	5*50p
4	1	2	5	100p	4*50p
3	1	2	3	100p	3*50p
2	1	1	2	100p	2*50p
1	1	1	1	100p	1*50p

Infantry Data

Musket armed 10 rank infantry

Units of musketeers, using the wide spacing between files of the 30YW period. MI, AI or Levy Infantry depending on tactics, training level, and motivation.

Size	Steps	FP	CC	Range	Frontage
800	3	3/2/1	8/5/4	150p	150p
500	2	2/1	5/3	150p	100p
300	1	1	3	150p	50p

Musket armed 6 rank infantry

Units of musketeers, using the wide spacing between files of the 30YW period. MI, AI or Levy Infantry depending on tactics, training level, and motivation.

Size	Steps	FP	CC	Range	Frontage
800	3	5/4/3	8/6/4	150p	300p
500	2	3/2	5/4	150p	200p
300	1	2	3	150p	100p
200	1	1	2	150p	75p

Heavy infantry squadrons 8-10 ranks deep (medium to high proportion of pikes)

Pike and shot formations of the type used at the start of the 30YW, with a relatively high proportion of pike. Most often $_THI^p$ but may also be Levy I^p .

Size	Steps	FP	CC	Range	Frontage
2200	6	4/3/3/2/2/2	32/26/22/19/16/13	150p	350p
1800	5	3/3/2/2/1	26/20/18/13/10	150p	300p
1600	5	3/2/2/2/1	23/17/16/12/9	150p	250p
1300	4	2/2/2/1	19/14/13/9	150p	200p
900	3	1/1/1	12/8/6	150p	150p

Heavy infantry squadrons 8-10 ranks deep (low to medium proportion of pikes)

Pike and shot formations of the type used at the start of the 30YW, with a higher proportion of muskets. Can be the THIP used by the Spanish and imperialists or the HIP formations used by the protestants, or even Levy I if training and/or motivation dictates so.

Size	Steps	FP	CC	Range	Frontage
2200	6	5/4/4/3/3/2	29/23/20/17/14/12	150p	400p
1800	5	4/3/3/2/2	23/18/16/12/9	150p	350p
1600	5	4/3/3/2/2	21/16/14/10/8	150p	300p
1300	4	3/2/2/2	17/13/11/9	150p	250p
900	3	2/1/1	10/7/5	150p	150p

Pike and musket armed 6 rank infantry (apr 15-30% pike)

Pike and shot formations with a relatively low proportion of pike. HIP, MIP, AIP or Levy IP depending on tactics, training level, and motivation.

Size	Steps	FP	CC	Range	Frontage
800	3	4/3/2	9/6/5	150p	250p
500	2	2/2	6/4	150p	150p
300	1	1	4	150p	100p

Pike and musket armed 6 rank infantry (apr 30-45% pike)

Pike and shot formations with a medium proportion of pike. HIP, MIP, AIP or Levy IP depending on tactics, training level, and motivation.

Size	Steps	FP	CC	Range	Frontage
800	3	3/2/2	11/7/6	150p	250p
500	2	2/1	7/5	150p	150p
300	1	1	4	150p	100p

Pike and musket armed 6 rank infantry (more than 50% pike)

Pike and shot formations with a high proportion of pike. HI^p or Levy I^p depending on tactics, training level, and motivation.

Size	Steps	FP	CC	Range	Frontage
500	2	1/1	7/5	150p	150p
300	2	<1	4	150p	75p

Brigade style infantry (Pikes 1:4 or lower)

Large pike and shot formations deployed according to the Swedish "Brigade system" with a relatively low proportion of pike. ${}_{\rm B}{\rm HI^p}$

Size	Steps	FP	CC	Range	Frontage
2200	6	5/5/5/4/3/2	16/16/16/12/11/8	150p	300p
1600	5	5/5/4/3/2	16/16/12/11/8	150p	300p
1300	4	5/4/3/2	16/12/11/8	150p	300p
1100	3	3/2/2	15/10/8	150p	250p
800	3	3/2/2	10/6/5	150p	200p

Brigade style infantry (Pikes 1:2-1:3)

Large pike and shot formations deployed according to the Swedish "Brigade system" with a medium proportion of pike. BHIP

Size	Steps	FP	CC	Range	Frontage
2200	6	4/4/4/3/3/2	18/18/18/14/12/9	150p	300p
1600	5	4/4/3/3/2	18/18/14/12/9	150p	300p
1300	4	4/3/3/2	18/14/12/9	150p	300p
1100	3	3/2/2	15/10/8	150p	250p

Brigade style infantry (Pikes 1:1)

Large pike and shot formations deployed according to the Swedish "Brigade system" with a high proportion of pike. ${}_{B}HI^{p}$

Size	Steps	FP	CC	Range	Frontage
1600	5	3/3/3/2/1	20/18/16/12/10	150p	250p
1300	4	3/3/2/1	20/15/13/10	150p	250p
1100	3	3/2/1	17/11/8	150p	250p

Peasants with improvised weapons

Armed mobs, improvised close combat weapons, no missile weapons. Almost exclusively Levy Infantry.

Size	Steps	FP	CC	Range	Frontage
1000	3	-/-/-	8/6/4	-	250p
900	3	-/-/-	7/5/3	-	225p
800	3	-/-/-	6/4/3	-	200p
700	2	-/-	6/4	-	175p
600	2	-/-	5/3	_	150p
500	2	-/-	4/3	-	125p
400	2	-/-	3/2	_	100p
300	1	-	2	_	75p
200	1	-	2	-	50p

Peasants with hand weapons and missile weapons

Armed mobs, with regular close combat weapons (swords, halberds etc), some missile weapons such as bows or muskets. Levy Infantry, CI, or AI depending on training level and motivation.

Size	Steps	FP	CC	Range	Frontage
1000	3	5/4/3	10/7/5	150p	250p
900	3	4/3/2	9/6/5	150p	225p
800	3	4/3/2	8/5/4	150p	200p
700	2	3/2	7/5	150p	175p
600	2	3/2	6/4	150p	150p
500	2	2/2	5/4	150p	125p
400	2	2/1	4/2	150p	100p
300	1	1	3	150p	75p
200	1	1	2	150p	50p

Irregular swordsmen

Armed mobs, with regular close combat weapons (swords, halberds etc), few if any missile weapons such. Levy Infantry or CI depending on training level and motivation.

As above, but with FP=-.

Light infantry

All with firearms, operating in different types of formations. Always LTI.

Size	Steps	FP	CC	Range	Frontage
500	2	6/4	4/3	150p	150/300p
300	2	4/3	2/1	150p	100/200p
150	1	2	1	150p	50/100p
75	1	1	1	150p	25/50p

Skirmish infantry

Irregular infantry with firearms, only skirmishing. Always SI.

Size	Steps	FP	CC	Range	Frontage
300	2	4/3	2/1	200p	200p
150	1	2	1	200p	100p
75	1	1	1	200p	50p

Sword and buckler infantry, with firearms

Infantry with sword and buckler, or other close combat weapons, and some firearms (roughly 1/3 to half of the unit), operating in close formation, such as e.g. Highland infantry. AI or CI depending on training and motivation.

Size	Steps	FP	CC	Range	Frontage
1000	3	4/3/2	13/9/7	150p	250p
900	3	3/2/2	11/7/6	150p	225p
800	3	3/2/2	10/7/5	150p	200p
700	2	3/2	9/6	150p	175p
600	2	2/2	8/6	150p	150p
500	2	2/2	6/4	150p	125p
400	2	2/2	5/4	150p	100p
300	1	1	4	150p	75p
200	1	1	3	150p	50p

Janissary style infantry, with firearms

Individually skilled infantry, armed with swords and firearms. Approximately 6 ranks deep. Mainly AI but could be Levy Infantry if hastily raised or extremely unmotivated.

Size	Steps	FP	CC	Range	Frontage
1000	3	6/4/3	13/9/7	150p	200p
800	3	5/4/3	10/7/5	150p	150p
600	2	4/3	8/6	150p	125p
500	2	3/2	6/4	150p	100p
400	2	2/1	5/3	150p	75p
200	1	1	3	150p	50p

Artillery Data

With regular close combat weapons (swords, halberds etc), some missile weapons such as bows or muskets, and big guns. Type as per table. Note that these differ from the data tables used for the GNW/WSS period.

Туре	Size	Steps	FP	CC	Range	Frontage
VLA	1bat	1	4/-	1	300p	25-50p
LA	1bat	1	4/2	1	200/700p	50p
MA	1bat	1	4/3	1	200/900p	50p
HA	1bat	1	4/4	1	200/1000p	50-75p

Note that mortar (including some howitzer) batteries have no short range firepower.