

## NINETEENTH CENTURY RULES

### BASICS

#### SCALES:

Ground scale	1mm = 1 yard
Figure scale	1 figure = 30 men
	1 gunner = 1 gun & crew
Time scale	1 move = 1 minute

#### TROOP TYPES:

The four troop types used in these rules are

- 1) Infantry
- 2) Mounted infantry
- 3) Cavalry
- 4) Artillery

These are further subdivided in terms of MORALE & TRAINING.

#### MORALE:

There are five morale classes

- A = The best, brave, well motivated troops.
- B = Good, dependable and enthusiastic.
- C = Average, usually reliable but more prone to panic than the above.
- D = Below par, often either raw or battle weary.
- E = Poor, lacking in commitment and prone to panic.

#### TRAINING:

There are four training classes

- T1 = Well trained, manoeuvring quickly and using their weapons well.
- T2 = Fairly well trained with some experience.
- T3 = Badly trained with little or no experience.
- I = No formal training or drill.

There is a further training sub type for cavalry

- (E) = Cavalryman (usually European) not properly trained for dismounted action.

### POINTS COSTS

This points system is meant to allow players to pick armies of equal fighting value for use in either friendly or competition games. It is not meant to discourage players from playing games between unequal armies. It also provides a useful summary of the troop and weapon definitions used in the rules.

#### OBJECT

#### VALUE

	TROOPS	
Infantryman		5
Mounted infantryman		6
Light cavalryman (LC)		7
Heavy Cavalryman (HC)		8
A class morale		+2
B class morale		+1
D class morale		-1
E class morale		-2
T1 trained		+1
T3 trained muzzle loader gunner		-3
T3 trained breech loader or MG gunner		-5
OBJECT		VALUE
Other T3 trained		-1

I 'trained' -2  
 T1 - T3 cavalry not trained for dismounted action (E) -2

PERSONAL EQUIPMENT

Matchlock/flintlock musket/rifle (MM/FM/FR)	1
Percussion cap musket or pre minie percussion cap rifle (PM/PR)	2
Early muzzle loading minie style rifle (EML)	3
Muzzle loading rifle (MLR)	4
Early breech loading rifle (EBL)	8
Later breech loading rifle (LBL)	9
Needle Gun (NG)	6
Early repeating rifle (ERR)	11
Later repeating rifle (LRR)	12
Early flintlock or percussion cap carbine (FC/PC)	1
Muzzle loading carbine (MLC)	3
Breech loading carbine (BLC)	5
Repeating carbine (RC)	7
Lance (L)	1
Armour	1
Shield (Sh)	1
Bow (B)	1

ARTILLERY

Light muzzle loading smooth or rifled bore cannon and crew (Lt MLSB or MLRB)	10
Medium muzzle loading smooth or rifled bore cannon and crew (Med MLSB or MLRB)	15
Heavy muzzle loading smooth or rifled bore cannon and crew (Hvy MLSB or MLRB)	18
Light breech loading gun and crew (Lt BLG)	15
Medium breech loading gun and crew (Med BLG)	20
Early machine gun and crew (EMG)	12
Later machine gun and crew (MG)	16

COMMANDERS

Commander for a brigaded unit	10
Commander for an independent, (non brigaded) unit	40
Brigade commander	50
Commander in chief	100

FIELD WORKS (per CO infantry base)

Providing soft cover	1
Providing hard cover	4

BASING FIGURES

All figures should be mounted on bases of standard width and depth as given below. All dimensions are in mm.

	Base width		Base depth	
	15mm	25mm	15mm	25mm
Close order (CO) Infantry	10	15	15	20
Extended order (EO) Infantry	20	30	20	30
Skirmish order (SO) Infantry	40	60	20	30
Close order (CO) Cavalry	15	25	25	40
Extended order (EO) Cavalry	25	40	25	40
Limbered artillery	25	40	120	180
Unlimbered artillery	10	15	40	60

Base depths may be increased slightly to accommodate large figures.

## ARMY ORGANISATION

### UNITS

Figures must be organised into units within the following size limits:

Infantry	5 - 40 figures
Cavalry	2 - 32 figures
Artillery	2 - 12 gunners (2 to 12 gun batteries)

### BRIGADES

Most of an armies infantry and cavalry units must be organised into brigades of 2 to 6 units. Artillery may either be joined together into a brigade consisting solely of artillery or be split as evenly as possible between the other brigades of the army.

### INDEPENDENT (NON BRIGADED) UNITS.

These units must pay more points for command than other units. They do not suffer any minus on morale for not having a brigadier within sight. If not using the army lists at the end of these rules or similar the following units may be independent:

- 1) Up to 1 light cavalry unit.
- 2) Up to 1/2 the artillery in the army.
- 3) Up to 2 light infantry units.

## UNIT FORMATIONS AND ORGANISATION

### PERMITTED FORMATIONS

Artillery always counts as being in close order. Dismounted troops may deploy in close, extended or skirmish order. Light cavalry and mounted infantry may deploy in close or extended order. Heavy and E trained cavalry may only deploy in close order. Troops armed only for hand to hand combat may only deploy in close order. Troops in extended or skirmish order are collectively known as open order troops. An I trained unit must always be entirely either in open order or close order. I trained troops may not use a reserve. Only the formations listed below may be used:

- 1) Column.
- 2) Column plus skirmish screen.
- 3) Line.
- 4) Line plus skirmish screen.
- 5) Line plus reserve.
- 6) Line plus skirmish screen and reserve.
- 7) Skirmish line.
- 8) Skirmish line plus reserve.
- 9) Square.
- 10) Square plus skirmish screen.

### FORMATION DEFINITIONS

**COLUMN:** A close order formation at least 3 ranks deep. Each rank of a column should as far as possible contain the same number of figures. No rank should contain more than 1/4 of the units original strength. All the columns figures face in the same direction.

**SQUARE:** A close order formation with the figures facing outwards in all directions as a square. Each face of the square should as far as possible contain the same number of figures.

**LINE:** Properly a single rank of close order figures but also includes any other close order formation not qualifying as one of the above. Part of a line may turn or wheel to face to a flank but before the line as a whole may move again, except to recoil, pursue, evade or rout all the figures in the line must turn or wheel to face in the same direction.

**SKIRMISHERS:** Any figures in open order. They must be at least 100 yards in front of any friendly close order troops behind them for them not to count as a close

order target to the enemy. They must not approach within 100 yards of advancing enemy close order troops and if necessary must fall back before them to maintain this distance. They may not approach within 50 yards of the front of stationary enemy close order troops. They will always evade if charged by troops of a closer order.

SCREEN: A line of skirmishers deployed between 50 and 400 yards in front of the main (close order) body of their unit to protect it from fire. Such a screen may not include more than 25% of the units strength.

RESERVE: A line of close order troops deployed 50 - 200 yards behind the main body of their unit. Must be at least 20% of the units strength to give it a plus on morale.

SKIRMISH LINE PLUS RESERVE: From 25 - 50% of the unit deployed in open order with the remaining 50 - 75% as a close order reserve behind them. This reserve also counts as the main body of the unit. Putting out or taking in a skirmish line of this strength takes as long as for the whole unit to change order.

HORSEHOLDERS: When mounted troops dismount every fourth figure (rounded up) MUST be left behind to hold the units mounts whilst the other figures form up in front. Horse-holders are close order and may move at infantry line speed. They count as a reserve to the main unit. If the horses are charged or receive 1 casualty per figure from enemy fire they will bolt away from the enemy responsible at rout speed, following a course that as far as possible avoids all other units. They may never rally. If this happens the horse-holders may rejoin the rest of their unit or remain as a normal reserve.

#### UNIT ORGANISATION

Each unit consists of from 1 to 3 sub groups:

- 1) The main body
- 2) A skirmish screen
- 3) A reserve or body of horse-holders

Units always have a main body. Figures within each of a units sub groups must remain in base to base contact with each other. Normally any casualties inflicted on one of a units sub groups are taken as being on the unit as a whole and the whole unit

tests reaction as one. Thus for example casualties inflicted on a skirmish screen can be removed from a units main body. A sub group will record its casualties separately and take separate reaction tests only if one or more of the following applies:

- 1) It is out of sight of the rest of the unit.
- 2) It is more than 200 yards away from the rest of the unit.
- 3) It is in rout/pursuing and the rest of the unit is not.

If the main body routs any other sub group will also do so unless it is testing morale separately at the time. If any other sub group routs its parent unit ONLY will count it as a routing friend (though not if the main body is itself in rout). If a routing sub group later rallies it must try to rejoin the rest of its unit. If only part of a unit charges an enemy only this part of the unit is counted when calculating casualties per figure for the charge. Different sub groups in a unit may make different responses to the same charge even though they take the same reaction test, e.g. a skirmish screen may evade whilst its main body stands or counter charges.

#### SETTING UP A GAME

This procedure is for an even points competition style game. For other games parts of it may not apply:

- 1) Agree the points total for the game and the armies to be used.
- 2) Each player picks his army from the army lists.
- 3) Choose and pick the terrain using the system below.
- 4) Draw a map of your troops deployment at the start of the game.
- 5) Deploy those troops visible from anywhere in your opponents deployment area.
- 6) Write orders.
- 7) Deploy all other troops.

8) Start the game.

TERRAIN

1. Add together the length and width of the table in feet. Divide the result by 3, rounding down. This gives the maximum number of terrain pieces each player may choose.
2. Each player writes down which terrain pieces he wishes to pick. A player may only pick a maximum of 1 linear obstacle of any 1 type and 1 village.

Terrain piece types

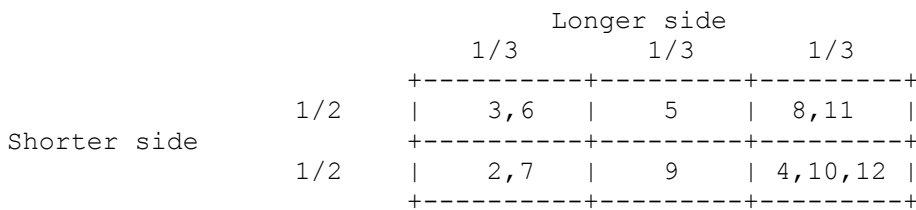
Features (size 100 by 100 yards to 400 by 400 yards)

- |                              |                |
|------------------------------|----------------|
| 1) Steep hill                | 2) Gentle hill |
| 3) Open wood                 | 4) Thick wood  |
| 5) Scrub                     | 6) Marsh       |
| 7) Hedged or fenced field(s) | 8) Village     |

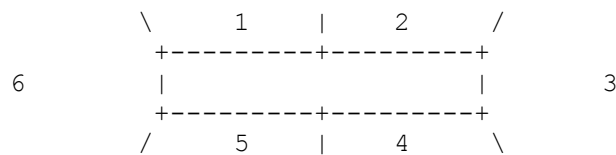
Linear obstacles

- |                 |                        |
|-----------------|------------------------|
| 1) Railway line | 10 yards x ?           |
| 2) Stream       | 10 yards x ?           |
| 3) Road         | 20 yards x ?           |
| 4) River        | 30 yards x Table width |

3. Place any rivers selected. If 2 have been picked they will run down the edges of the two shorter sides of the table, if only one then dice for which side it runs down.
4. The players take it in turns to select and place one of the features chosen. For each one throw 2 normal dice to see which area of the table it is placed in (see diagram below). The player may place the feature anywhere within the chosen area.



5. The players take it in turn to select and place one of the linear obstacles chosen. How each one is placed depends on its type but all use the diagram below:



- Streams:** Throw 2 normal dice. These give the sector(s) from and to which the stream flows. The stream must always be at least 300 yards long. Streams must divert round hills but may cut through other terrain pieces. If 2 streams intersect the second will end where it enters the first.
- Railways & Roads:** If there is a village on the table throw a normal die for each railway or road selected. It will run from that sector of the table edge to the village. If there is no village a railway or road will be placed as would a stream. If there are two villages the route will run from the table edge to the nearer of them.
6. Throw a single die to decide which of the tables longer edges each player will deploy from.

## DEPLOYMENT AREAS AND DEPLOYMENT

Close order foot and artillery may be deployed anywhere in their own 1/2 of the table except from within 300 yards of the centre of the table and 300 yards of the tables edges. Skirmishers may deploy up to 200 yards from the centre of the table. Mounted troops and limbered horse artillery may deploy all the way up to the side edges of the table.

Cavalry who are not I or E trained may choose to deploy dismounted without their horses at the start of the game. No horse-holders should be detached but the unit may not remount during the game. The unit may not deploy in the 300 yards at either side of the table.

## ORDERS

At the beginning of the game each player must give orders to his army. Each order must correspond to one of the order types given below. They are listed in order of aggressiveness, most aggressive first.

- 1) Attack (A)
- 2) Attack & Hold (A/H)
- 3) Engage, Hold (EH)
- 4) Hold (H)
- 5) Engage, Retire (ER)
- 6) Skirmish (S)

## RESTRICTIONS

1. Each brigade must be given a general order of one of the types 1 - 5.
2. Each independent unit must, and any brigaded unit may, be given its own order.
3. Any unit without an individual order is assumed to have the same order as its brigade.
4. No unit may have a more aggressive order than its brigade.
5. At least 1 unit in each brigade must have the same orders as its brigade.
6. Skirmish screens always count as having skirmish orders whatever orders its parent unit has. Close order units can never be given skirmish orders. Open order troops always have skirmish orders.

## CHANGING ORDERS

1. A brigade order may only be changed by the CinC spending at least a full move with the brigadier giving him the new order. The new order must then be passed on to the brigades units as below.
2. Subject to the restrictions above a unit may be given a new order by its brigadier or CinC at any time if he joins it. It will obey the commanders instructions from the moment he joins it but before he leaves the unit again he must spend a full move giving it a new order, even if this merely repeats the previous one.
3. A disordered unit or one which is rallying from disorder may not be given a new order.

## ORDER CODE DEFINITIONS

**ATTACK:** The unit must advance at least 1/2 a move each period until it is within its own charge reach of a close order enemy unit. The unit will move straight forwards unless some other route or target is specified.

**ENGAGE:** Advance at least 1/2 a move each period to a specified distance from the enemy, then halt and fire. There are two types of engage order:

**ENGAGE,HOLD:** The unit will remain in its firing position if approached and continue to fire on the enemy.

**ENGAGE,RETIRE:** The unit should be given 2 engagement distances. When the enemy is inside the further one the unit will halt and fire until the enemy reaches the closer one. It will then start to retire and will continue to do so until it has regained the

further engagement distance from the enemy.

**HOLD:** The unit will remain in its present position and try to defend it.

**ATTACK & HOLD:** The unit counts as having attack orders until it has occupied a named objective. After doing so it counts as having HOLD orders. Any unit which has ATTACK & HOLD or HOLD orders which is driven off the position it was ordered to hold counts as having orders to ATTACK it until it is retaken.

**SKIRMISH:** A unit with skirmish orders will seek to form a screen in front of the other units of its brigade. This screen will operate in open order 100 - 500 yards in front of the other units of the brigade, though it may withdraw behind them if any of the following applies:

- 1) It evades an enemy charge.
- 2) An enemy cavalry unit is capable of charging it.
- 3) There is an close order enemy unit within 300 yards.
- 4) A unit of their own brigade is within 300 yards of an enemy unit it wishes to fire on or charge.

An independent unit with skirmish orders should be given 2 engagement ranges as for a unit with ENGAGE/RETIRE orders. Skirmishers must always evade if charged by a unit in a closer order than themselves. A whole unit which has skirmish orders may charge, counter charge or stand against enemy in the same or more open order. A skirmishing sub group of a unit may not.

#### HALTING BEFORE REACHING AN OBJECTIVE

A unit whose orders would normally force it to advance may halt temporarily if

- 1) An enemy unit charges it and it is prevented from counter charging.
- 2) An enemy unit fires at it from behind its flank or rear. (Units halting for either of the above reasons count as having HOLD orders until given a fresh order by their brigadier or CinC.)
- 3) It has become unformed or disordered and wishes to rally.
- 4) It wishes to change formation. Units must not change formation purely to avoid advancing.

#### UNITS WHICH HAVE RALLIED FROM ROUT

A unit which has rallied from rout counts as having HOLD orders until given a new order by a General.

#### GENERALS

There are 2 types of Generals in these rules, Brigadiers and higher commanders, normally the CinC. They have 2 main functions, the giving and changing of orders and the improving of units morale. A brigadier can only change the orders of units in his own brigade.

#### RISKS TO GENERALS

A general may only be singled out as a target by a sniper or by a unit which has no other target. A general will also be at risk when a unit he is with suffers casualties in melee or from fire. The general is always at risk when the unit is fired on, he is only at risk in a melee if he fights in the front rank or if the unit he is with is routing. If the General is at risk he suffers 1 casualty for each casualty per figure suffered by the unit as a whole if under fire or 1 for each casualty per figure suffered by the front rank if in melee. Do not count the Generals figure as part of the unit when working out the number of casualties per figure the unit has suffered for this or any other purpose. At

the end of each phase in which the General has suffered casualties throw two normal dice. If the number of casualties suffered by the General is equal to or greater than the total of the 2 dice the general is a casualty and is removed from the table. Casualties suffered by a general are in addition to the losses suffered by the unit, not deducted from them. Casualties suffered by a general are not carried forward from one phase in the move to another or from one move to another.

#### MOVE SEQUENCE

Each move in the game follows a standard sequence of 8 phases repeated until the end of the game and which is given below:

1. Throw for any units dicing to return to the table.
2. Each player writes down the names of any of his units which he wishes to declare a charge and the target(s) of each charge. Units which have just successfully diced to return to the table may not charge or be charged.
3. Test the morale of these units. Make a note of the final score achieved by each unit which manages to charge.
4. Test the morale of any unit which needs to do so and did not test to charge.
5. Move all those units which are forced to do so by morale or orders and any others which you wish to and which are able to do so. Inform your opponent of any units which are rallying from being unformed or disordered and note any units which have just become unformed or disordered.
6. Calculate the results of any firing. In particular calculate the number of casualties per figure suffered by each charging or counter-charging unit and move back any repulsed by fire. Note any units unformed or disordered by fire.
7. Work out all melees and their results, including any reaction tests needed. Move all units pushed back or following up. Turn all routing units to face away from the enemy. Note which units have become unformed or disordered.
8. Write down any new orders given to units or brigades.

#### NOTES ON SEQUENCE

1. All units are assumed to move fire etc. simultaneously. If complications arise the move should be broken down into quarters or some other convenient fraction to work out exactly what happens.
2. Reaction tests are taken in phases 3 and 4. All a players tests in a phase are done from right to left across the table. The results of all reaction tests taken in earlier phases of the move are taken into account as are the results for friendly units that have already tested in the current phase. NO account is taken of any enemy tests taken in the same phase. A unit can only take 1 reaction test in 1 move.

#### MOVEMENT

The maximum distance any unit can move in a period is as below:

Troop type	Type of move			
	Normal	Charge	Rout	Double
T1 or I C.O. infantry or any infantry column	120	140	180	150
Other infantry line	100	120	180	130
Any OO Infantry	140	160	200	150
Heavy Cavalry	180	270	350	250
C.O. Light cavalry	240	360	400	350
Other cavalry	300	400	450	350
Foot artillery	120		200	90*
Horse artillery	200		320	150*
Manhandled artillery	30		200#	



- \* = Special artillery double move (see below)
- # = Crew only, the guns are abandoned)

Difficult terrain slows up movement.

Terrain type	CO inf	OO inf	CO cav	EO cav	Art
Steep hill or built up area	-1/2	-1/4	#	-3/4	#
Open wood	-1/4	N	-1/2	-1/2	-3/4
Close wood	-3/4	-1/4	#	#	#
Marsh	-3/4	-1/2	#	#	#
Hedge, wall or fence	-1/2	-1/4	-1/4	-1/4	#
Stream	-1/2	-1/4	-1/4	-1/4	-1/2

N = No delay

# = May not enter/pass through that terrain type

#### CHARGES

To count any bonus for charging a unit must have charged in a straight line for at least 1/4 of a move. A unit may only declare a charge on a unit which is within its charge reach at the beginning of the period. If a unit fails to contact the enemy in its charge it may choose to declare a second charge in the next period (though it will be disordered). It may not do so if its first charge was repulsed by fire.

A unit which contacts its opponent but is then thrown back in the melee may not declare a charge in the following period. It may react normally if charged.

A unit which has declared a charge but which is then charged by a unit on which it has not declared a charge has its own charge cancelled. It tests to charge as normal but instead reacts to the enemy charge. If the enemy unit fails to charge its own charge is reinstated.

#### CHARGE RESPONSES

There are only 3 possible responses to a charge, which one a unit adopts will be limited by its orders. The 3 are:

Counter-charge: Equivalent to a charge and treated as such. It may be delayed for up to 1/2 a move if wished.

Halt: The unit remains in the same position as when charged. It may alter its front or formation but must not do so in such a way as to either increase or decrease the distance between it and the unit charging it.

Evade: Not allowed to close order dismounted units. When charged the unit (or screen) turns, at no cost in time or distance, then moves. A skirmish screen will head back towards its own main body, a complete unit must move directly away from the enemy charging it. The evaders do not have time to fire before moving.

Evaders may change direction by a wheel or a further turn to either avoid or seek shelter in or behind difficult terrain or friendly troops. Any body caught whilst evading breaks automatically, otherwise a screen will stop and start to rally after reaching its parent unit, a complete unit after it has passed behind a close order unit from its own brigade. The evaders will anyway halt and begin to rally at the end of the period. Evaders move at rout speed.

#### MOVING AT THE DOUBLE

Only troops with ATTACK or ATTACK & HOLD orders can be ordered to move at the double. They may only be given orders to do so at the beginning of the game. They will then move at the double to an objective named in their orders. They will become unformed in their second move at the double, disordered in their third. If charged they will stop doubling and react as normal. Otherwise they will only cease doubling either when they reach their objective or when the route to this objective is blocked by an enemy unit which is within their charge reach. In the latter case foot faced by mounted troops may halt. Others must charge facing close order enemy and must either charge open order enemy or push them out of the way by continuing to double forwards.

#### ARTILLERY DOUBLE MOVE

Artillery may not move at the double as described above. T1 gunners may however double into or out of action. They may either make 1/2 a move at the double and then unlimber or limber up and then move off for 1/2 a move. T2 & T3 gunners may make a similar move but only to move out of action. Doing so unforms T2 gunners and disorders T3 ones.

#### MOVING AND FIRING

Artillery may not move and fire. Close order infantry with muzzle loaders and mounted troops may move 1/2 a move and still fire.

Close order foot with breech loaders and open order infantry with muzzle loaders may move 3/4 of a move and fire. Open order foot with breech loaders may move a full move and fire. Troops stepping back may still fire. Open order foot may retire at 1/2 speed facing the enemy and still fire.

#### STEPPING BACK

T1 and T2 close order foot can fall back up to 20 paces a move whilst still facing the enemy. They may fire whilst doing so.

#### CHANGING FRONT

There are 2 ways by which a unit may change its front, turning and wheeling.

Turning: A unit may turn through either 90 or 180 degrees. T1 and I units take 1/4 of a move to turn, T2 and T3 units 1/2 a move. Close order T3 units are unformed by wheeling, close order I units disordered.

Wheeling: When wheeling one end of the unit remains stationary whilst the rest of the unit pivots round like the spoke of a wheel. The distance moved by the unit is taken to be the greatest distance moved by any one figure. T1 units may wheel forwards at full speed, T2 or T3 units at 1/2 speed, I units at 1/4 speed. Close order T3 or I units are unformed by wheeling.

#### CHANGING FRONTAGE

Units may wish to change their frontage whilst maintaining the same basic formation. T3 and I units may do so by 1 figure per 1/4 of a period, T2 and T3 units 1 per 1/2 period. Close order T3 units become unformed, close order I units disordered.

#### CHANGING FORMATION

	T1	T2/I	T3
Column to Line (or v.v.)	1	1.5	2
Line to EO (or v.v.)	1	1.5	2
Column to EO (or v.v.)	2	2.5	3
EO to SO (or v.v.)	0.5	1	1
Put out OO screen or form reserve	0.5	0.5	1
Limber or unlimber	0.5	1	1
Mount or dismount	1	1	1
Lie down	0.25	0.25	0.25
Stand up	0.5	0.5	0.5

#### NOTES

1. A unit may put out a skirmish screen or drop back a reserve at the same time as carrying out some other formation change.
2. Changing formation leaves the unit facing in the same direction unless extra time is spent changing face.
3. A unit carrying out any formation change except lying down or standing up in terrain in which its movement is slowed, or any non I unit which is already disordered, takes 50% longer to carry out the change.
4. Any formation change unforms a close order T3 unit and disorders a close order I unit.

#### INTERPENETRATION

Open order troops and different parts of the same unit can inter-penetrate each other without penalty. Open order troops can inter-penetrate close order troops or v. v. as long as one of the units involved remains stationary. All other inter-penetrations, and any involving unformed or disordered troops disorders all involved.

#### LOSING FORMATION

Units are can be formed, unformed or disordered. Unformed and disordered units are less effective in melee and when firing and take longer to manoeuvre. Units can lose formation in many different ways.

#### MOVING OR CHANGING FORMATION IN DIFFICULT TERRAIN

Terrain type	CO	Inf	OO	Inf	CO	Cav	EO	Cav	Art
Open wood or scrub	U		NA		D		U		D
Close wood or built up area	D		U		-		D		-
Steep hill	D		NA		-		D		-
Marsh	D		U		-		-		-
Stream	D		U		D		D		D
Hedge, wall or fence	U		NA		D		U		-
Railway line	NA		NA		U		U		U

U = Unit becomes unformed                      D = Unit becomes disordered  
NA = Unit is not affected                      - = Unit may not enter

#### OTHER CAUSES OF BECOMING UNFORMED

- 1) Having fought 1 round of melee, unless stationary troops all of whose opponents break off.
- 2) Having evaded.
- 3) Having doubled for more than 1 move.
- 4) T2 artillery having doubled.
- 5) Having suffered at least 3 casualties per figure from fire.
- 6) Being a close order T3 unit which has turned, changed formation, wheeled or expanded formation.
- 7) Being a close order I unit which has wheeled.

#### OTHER CAUSES OF DISORDER

1. Being pushed back or fighting a melee for more than 1 period.
2. Pursuing or having pursued.
3. Routing or having routed.
4. Being contacted by an enemy unit whilst changing formation, turning or prone.
5. Mounted infantry fighting mounted.
6. Having doubled for more than 2 moves.
7. I close order troops who have turned, changed formation or expanded their frontage.
8. Having been repulsed by fire whilst charging or counter-charging.
9. Having been thrown back after losing a melee to a stationary opponent.
10. Infantry contacted by cavalry whilst moving.
11. Having charged without contacting an enemy.
12. T3 artillery having doubled.
13. Being involved in any interpenetration not listed as un-penalised.
14. Having suffered 6 or more casualties per figure from fire.
15. Having suffered at least 1 casualty per figure to fire from the units rear.

#### UNITS AND SUB UNITS

When sub groups of a unit are not in base to base contact one sub group may become unformed or disordered without affecting the rest of the unit. When they join together again however they are all counted as being as ordered as the least ordered sub group.

## RALLYING

Once a unit has become unformed or disordered it will need to rally to regain good order. Units that have ceased to rout must rally immediately. Units ceasing to pursue may retire up to 2 normal moves before rallying but must then rally and may not make any other movement before doing so. All other units may choose whether to rally or not. The time taken to rally is shown below

Cause	T1	T2	T3	I
Having routed	2	2	3	3
Having pursued	1	1	2	2
Being unformed	0.5	0.5	1	1
Being disordered	0.5	1	1.5	2

### Notes

- 1) An A class unit takes 1/2 a move less than normal to rally from rout.
- 2) An E class unit takes 1 move longer than normal to rally from rout.

Some actions are not permitted to a rallying unit.

A rallying unit MAY:

- 1) Fire.
- 2) Retire up to 1/2 a move.
- 3) Change formation.

A rallying unit MAY NOT:

- 1) Declare or respond to a charge.
- 2) Change face.
- 3) Move forward.
- 4) Retire more than 1/2 a move.
- 5) Fight a melee.

## REACTION

Units do not always obey their orders. In certain circumstances they must test their reaction to see whether they do or not.

A unit must test its reaction whenever:

1. It comes under artillery fire for the first time.
2. It is advancing under fire coming from within 300 yards.
3. It is within the charge reach of enemy close order infantry.
4. It suffered 2 or more casualties per figure the previous period.
5. It saw its brigadier or CinC broken or killed within 400 yards.
6. It wishes to charge.
7. It is being charged.
8. It saw a unit from its own brigade routing or retreating within 300 yards either last period or this.
9. It has been fired on from behind its flank or rear.
10. It wishes to rally from a retreat, rout or pursuit reaction. Troops who are retreating or routing may not rally if there are enemy troops within 100 yards. Troops who are pursuing may not rally whilst in contact with the enemy.
11. It saw previously unseen enemy within 300 yards last period.
12. It is forced to do so by a melee result.

## PROCEDURE

Throw 3 dice, average dice for T1 or T2 troops, normal dice for others. Modify this dice throw by the tactical factors listed below. Look up the modified total on the results table to find the units reaction.

TACTICAL FACTORS

Each enemy unit retiring within 300 yards	+1
Each enemy unit routing within 300 yards	+1
Own or friendly unit advancing within 300 yards	+1
Infantry line with supporting reserve from same unit	+2
Other rear support (not if counting +2 for reserve)	+1
Close order testing to charge v's open order only	+2
Winning a melee	+3
Pursuing	+3
Mounted troops testing to charge foot armed with EML or later rifle frontally	-2
Each CO unit from the testers brigade retiring within 300	-2
Each other CO friendly unit retiring within 300	-1
Each unit from the testers brigade in rout within 300	-4
Each other friendly unit in rout within 300 yards	-2
Each unit from the testers brigade earlier seen in rout within 300 yards which is no longer within 300 yards but which has not been seen to rally	-2
Each other similar router seen previously	-1
Own unit demoralised or retreating	-3
Own unit routing	-5
Enemy CO infantry advancing within 300 yards	-1
Each casualty per figure suffered from fire last period	-1
Unfriendly cover within 150 yards	-2
Within the charge distance of advancing enemy CO infantry	-2
Any enemy behind the testers flank and capable of charging	-3
Enemy to rear of testers and in charge reach of them	-4
Other enemy to flank or rear of testers	-2
Each 10% of original strength lost	-1
T3 unit partly in OO or I unit wholly in OO	-1
T3 unit wholly in OO	-2
I unit under artillery or MG fire	-2
Own brigadier or higher CinC killed or in rout within 400	-3
Brigadier out of sight or more than 400 yards away	-3
OO in the open with no CO support within 300 yards of rear	-2
Non I charging or being charged whilst unformed	-2
Non I charging or being charged whilst disordered	-4
Under sniper fire	-2
Losing a melee	-3

OPTIONAL

In soft cover	+/-1
In hard cover	+/-3
CinC within 400 yards	+/-1
CinC with unit	+/-3
Brigadier with unit	+/-1
Each secure flank	+/-1
In square	+/-2

RESULTS

Morale class					Result
A	B	C	D	E	
22+	21+	20+	18+	16+	Uncontrolled
13-21	15-20	18-19	17	13-15	I's Uncontrolled, others Obey Orders
7-12	8-14	9-17	11-16	12-13	Obey Orders
4-6	5-7	7-8	8-10	9-11	Do Not Charge
0-3	2-4	3-6	5-7	6-8	No Advance
<=-1	<=1	<=2	<=4	<=5	Retreat/Rout

## RESULT DEFINITIONS

Uncontrolled: All skirmishers, artillery and troops defending entrenchments Obey Orders, except that artillery must stand if charged. All other troops have their orders changed to Attack, cavalry must charge any enemy within their charge range, infantry must charge any dismounted enemy within reach. Pursuers continue, routers rally. Demoralised troops recover.

ObeY Orders: Carry on with the units orders. Routers and Pursuers all rally. Demoralised troops recover.

Do Not Charge: Chargers and counter chargers halt. Artillery, and dismounted troops over 1/3 of whose unit have firearms must halt and fire back if under fire and in range. Routers continue, Pursuers rally. Demoralised troops remain so.

No Advance: May not move closer to known enemy or the enemy baseline. May not counter-charge if charged. Must retire to cover if there is some available within 1 move apart from dismounted troops with breech loaders who may lie down instead. Break if lost a melee last move. Become demoralised if under 2/3 strength. Demoralised troops remain so. Routers continue, pursuers rally.

Retreat/Rout: Break if any of these conditions apply:

1. The unit is being charged.
2. The unit lost a melee last move.
3. The unit has seen a unit from the same brigade in rout within 300 yards within the last period and have not seen it rally.
4. The unit has been broken through by routing friends in the last period.

If the unit does not rout it becomes demoralised. Dismounted troops with breech loading weapons with no enemy within charge reach may halt and lie down. Troops in cover may halt. Others must retreat at normal speed until one of the following applies:

- 1) They rally after a reaction test.
- 2) They can see no enemy or routing friends within 600 yards.
- 3) They enter cover.

## OTHER DEFINITIONS

COVER: Protection from fire. May be soft or hard.

SOFT COVER includes hedges, woods and some field defences.

HARD COVER includes walls, buildings and other field defences.

UNFRIENDLY COVER: Cover outside a players deployment area which is both not known to be free of enemy and not known to be contested by friends PLUS any cover known to be occupied by enemy and not contested by friends.

RETIRING: Moving away from the enemy. Routers do not also count as retiring.

BEHIND FLANK: An enemy unit counts as being behind a units flank if it is in sight and at least partially behind an imaginary line parallel to the front of the base of the figure of that unit nearest to the enemy unit.

SECURE FLANK: For a unit to count a flank as secure it must not be counting any enemy as being behind that flank or to the rear and in addition must fulfil one of the conditions below:

1. Have a friendly unit which is obeying orders and in close order within 10 paces of the flank.
2. Have a friendly unit able to charge on to the flank and nearer than any enemy,
3. Have no enemy or terrain capable of concealing an enemy within 300 yards of the flank.

A square always counts as having 2 secure flanks.

## NOTES

- 1) Measure all distances from nearest base edge to nearest base edge.
- 2) If a unit should count both of CinC with and CinC within or of enemy to flank and enemy to rear only count the second of either pair.

## FIRING

Each unit may fire each period provided it is eligible. To be able to fire a unit must:

- 1) Have a target which is within range, within sight and within its arc of fire.
- 2) Not have moved too far to shoot.
- 3) Not be disqualified by the restrictions on overhead fire.

#### ARCS OF FIRE

Close order troops and artillery can fire at any target within 22.5 degrees either side of straight ahead of them. Other troops can fire at any target within 45 degrees of straight ahead.

#### FIRING OVERHEAD

Only the first rank of any unit may fire. Troops on foot and artillery may fire overhead if either the firers or their target (or both) are on higher ground than the intervening troops. If the intervening troops are friendly their must be a gap of 150 yards, 250 for artillery, between both the firers and the intervening troops and between the intervening troops and the target.

#### TARGET PRIORITIES

Troops must follow the target priorities listed below.

- 1) Troops charging the firers.
- 2) Troops advancing and within their charge reach of the firers.
- 3) Troops who caused 2 or more casualties per figure on the firers last period.
- 4) Troops advancing in close order within 300 yards of the firers.
- 5) Troops charging or being charged by friendly troops.
- 6) troops firing on the firers.

All priorities only count if the firers can fire on the enemy unit concerned. Priorities are listed in order of importance. Use the lower priorities if 2 units are equally attractive under the higher. If a number of targets remain equally attractive then an artillery battery may concentrate its fire on just one of them, other units must split their fire with each figure firing at the nearest eligible target.

#### FIRING WHILST CHARGING

No figure may fire in a period in which it charges or counter-charges

#### FIRING WHILST BEING CHARGED

Units being charged will only be able to fire for part of the period. However they are assumed to make a special effort to fire faster than normal and therefore suffer a smaller penalty for not being able to fire for the whole period. This lesser deduction only applies to units actually being charged. Other units firing at a charging target suffer the normal minuses. Fire on charging units is calculated at the range midway between the start of the charge and contact.

#### FIRING AT A CHARGING OR MELEEING ENEMY

Enemy figures actually in melee with a friendly unit are not eligible as a firing target. When firing at a charging enemy only those casualties inflicted in the part of the move before it contacts can be used to calculate the number of casualties per figure knocked off its original morale score.

#### FIRING RANGE

Firing at charging troops is covered above. Other fire is normally worked out as taking place at the range at the end of the period but if a unit became ineligible as a target part way through the period the range used is that it was last available as a target.

#### FIRING PROCEDURE

For each unit:

- 1) Measure the range.
- 2) Count the number of figures firing.
- 3) Look up the firing factor on the table.
- 4) Adjust this by the tactical and random factors.
- 5) Cross reference the number of figures firing with their final factor on the casualty table.
- 6) Record the casualties caused on the unit fired on.

After both sides have completed their firing remove any figures killed by the fire.

#### FIRING AT GUNNERS AND LIMBERS

Casualties on gunners and teams are recorded separately. When the battery is unlimbered the teams and the guns are separate targets and may be fired on as such. When the battery is limbered calculate the losses suffered by the battery and split this evenly between teams and gunners. When the battery moves limbered only as many guns (i.e. gunner figures) can be moved as there are surviving teams. Any excess gunner figures must be removed and recorded as casualties.

#### FIRING AT MORE THAN 1 UNIT

If another unit, previously not available as a target, moves in front of the unit's original target the unit may split its fire between the 2, suffering the appropriate deductions in each case. Units may not similarly split their fire if their target is not available for the full period for any other reason.

#### FIRING AT TROOPS WHO CHANGE ORDER

A target which changes its order during the period counts as being in the closer of the 2 orders.

#### FIRST CLOSE ORDER VOLLEY

A unit may only claim this bonus if

1. No more than 25% of the unit has fired earlier in the game.
2. No close order figure from the unit has fired earlier in the game.
3. The firers are armed with flintlock or percussion cap muskets or early minie or later rifles.

#### BOWS

Bowmen can move and fire without penalty.

#### SMALLARMS FACTORS

Weapon	Range							
	50	100	200	300	400	500	600	800
Bow	21	17	13					
Musket	24	20	16					
Early Rifle	20	19	18	15	10			
Early Minie type Rifle	24	22	20	18	12	7		
Muzzle Loading Rifle	24	22	21	20	16	13	9	
Early BL Rifle	28	26	24	22	19	16	13	
Late BL Rifle	29	27	25	23	21	18	16	12
Early Repeating Rifle	31	29	27	24	21	17	14	



Late Repeating Rifle	32	30	28	26	24	20	18	14
Needle Gun	29	27	24	18	13	5		
Early Carbine	23	18	12					
Muzzle Loading Carbine	25	23	20	15	11	4		
Breech Loading Carbine	29	27	22	16	11			
Repeating Carbine	33	30	24	18	11			

SMALLARMS TACTICAL FACTORS

Flintlock	-2
Matchlock	-3
First close order volley for muzzle-loaders	+2
First close order volley for breech-loaders	+1
Target mounted	+1
Target is limbered artillery	+7
Target is in extended order at over 100 yards	-5
Target is in skirmish order at over 100 yards	-8
Target in open order at up to 100 yards	-3
Target is prone	-5
Firing breech-loader whilst prone	-1
Firing muzzle-loader whilst prone	-5
Firing breech-loader whilst mounted	-3
Firing muzzle-loader whilst mounted	-5
Firing bow v's armoured target	-1
Firing bow v's shielded target	-1
Target is in 2 or 3 ranks	+1
Target is in 4 or more ranks	+3
Target is in soft cover	-1
Target is in hard cover	-5
T1 firing at up to 300 yards	+1
T1 firing at over 300 yards	+2
T3 firing at up to 300 yards	-1
T3 firing at over 300 yards	-2
E cav or any I per 100 yards or part to target	-1
Target moved 80+ yards	-1#
Breech-loader v's target moved 150+ yards	-2#
Muzzle-loader v's target moved 150+ yards	-3#
Unformed	-2
Disordered	-4
Demoralised	-3
Moving and firing	-4
Can't fire for 1/8 to 1/4 of the period	-2 (0)
up to 1/2 of the period	-4 (-2)
up to 3/4 of the period	-7 (-4)
more than 3/4 of the period	-9 (-7)

Count the minus in brackets if being charged by the target.

# = No minus if the target is charging the target.

ARTILLERY FACTORS

Weapon	Range								
	150	300	500	800	1200	1600	2000	2500	3000
MLSB: Lt	29	26	19	16	7				
Med	32	29	21	20	16	8	4		
Hvy	33	30	23	21	18	12	8		
MLRB: Lt	27	24	19	18	15	6			
Med	29	26	21	20	18	16	8	4	
Hvy	30	28	23	22	19	18	12	9	4
How: Lt	32	29	18	15	5				
Med	33	30	20	17	10	5			
BLG: Lt	27	23	21	21	21	17	14	12	
Med	29	25	23	23	23	20	17	14	10
MG	26	25	24	22	19	15	10		

ARTILLERY TACTICAL FACTORS

T1 crew	+1
T3 muzzle loader crew	-3
T3 breech loader crew	-5
Unformed	-2
Disordered	-4
Demoralised	-3
Target is in soft cover	-1
Target is in hard cover	-5
For each rank of a machine gun target after the first	+1
Other weapon v's a target which is 2 or 3 ranks deep	+1
Other weapon v's a target which is 4 or more ranks deep	+3
Target is limbered artillery	+7
Target is in extended order	-5
Target is in skirmish order	-8
Target is prone	-5
Firing at a new target at over 300 yards	-2
Each 1/4 period unable to fire	-2
Early machine gun	-4
Firing overhead	-4
Target moves 150+ yards, unless charging firers	-2

RANDOM FACTOR FOR SMALLARMS AND ARTILLERY

Throw 1 normal die and modify the factor according to the score:

1,2	-1
3,4	0
5,6	+1

CHARGES, COUNTERCHARGES AND MELEES

Units may only enter a melee if one unit declares a charge on another. A unit may only charge an enemy which is either blocking or threatening its line of advance or defending a location or objective it is ordered to capture. At the beginning of the period each player writes down which of his units he wishes to charge and the target(s) of each units charge. A unit may only declare a charge on more than one unit if it could hit all its declared targets if they were all to Halt in response. If the charges original target evades or routs however the charge also counts as being declared against any new enemy revealed. The procedure for each charge is as follows:

1. Test the reaction of the charging unit. It needs Obey Orders or better to charge, if it achieves this record the final score achieved which will be needed later.
2. Units which are being charged then test reaction unless they wish to evade which they may do automatically. The response of a unit to a charge will be limited by its orders, what type of unit it is and who is charging it as shown by the table below:

Defenders order type	Defenders type	Attacking troop type	
		Mounted	Dismounted
# ATTACK	Mounted	CC	CC
	Dismounted	Ht	CC
* HOLD	Mounted	CC/Ht	CC
	Dismounted	Ht	Ht
ENGAGE/RETIRE	Mounted	Ev	Ev
	Dismounted	Ht	Ht
SKIRMISH	Any	Ev	Ev

CC = Counter-charge  
Ht = Halt  
Ev = Evade

- # = Includes units with Attack/Hold orders who have not yet seized their objective.
- \* = Includes all other units with Attack/Hold orders and any unit with Engage/Hold orders.
- 3. Units which would normally have to counter-charge may choose to halt instead if counter-charging would unform or disorder them. Units which have successfully tested to counter-charge record their final reaction score as for chargers.
- 4. Move all the units involved during the movement phase. Any evading unit which is contacted by a charge breaks immediately.
- 5. To decide whether a charging or counter-charging unit gets into contact work out how many casualties per figure have been inflicted on the front rank only of the charging unit. If a cavalry unit is charging a square which is not disordered deduct a further 5 from its total. If the units total falls below Obey Orders the units has been halted by the defenders fire and fails to charge into contact. This is the only purpose for which this modified score is used. Any adverse reaction result which would normally apply does not count. A unit, all of whose targets evade or break, can never be halted in this way.
- 6. 6) What happens to a unit which is halted by fire depends on the reaction of its target to its charge. If the chargers target remained halted then the chargers are moved 20 yards back out of contact. If the target successfully (counter)charged the halted unit is left in contact but counts as both stationary and disordered in the melee. If 2 units (counter)charging each other they are both moved back 10 yards from the point where they would otherwise have contacted. Units halted by fire only fight a melee if successfully (counter)charged by another unit.

#### MELEE

Melees take place after firing. The procedure for working out a melee is as follows for each side.

1) Establish the number of figures entitled to fight. To be able to fight a figure must fulfil one of the criteria below:

- A) Have the front of its base in contact with an enemy figure or be an artilleryman whose battery is in base to base contact with the enemy.
- B) Be a figure who would qualify under A but who is separated from the enemy by an earthwork or obstacle it is attacking or defending.
- C) Form an overlap of one figure on the flank of a figure who qualifies under A or B.

2) Work out the units melee factor, modifying its basic factor by the morale, tactical and random factors.

3) Look up the number of casualties the unit has inflicted on its opponent, record these and remove any figures killed.

Adjudicate which side has won (inflicted most casualties) and by what margin.

Look up and apply the relevant result. If a unit is fighting more than 1 enemy work out each melee in turn then calculate the ratio of casualties inflicted to received for each unit and apply the relevant result.

## MELEE FACTORS

### BASIC FACTORS

Gunners	15		Light Cavalry	18
Infantry	16		Heavy Cavalry	22

### MORALE

Morale class	A	B	C	D	E
Melee modifier	+2	+1	0	-1	-2

### TACTICAL FACTORS

I in first charge	+1
General fighting in first rank	+1
Charging down or from a hill	+1
Infantry charging or any following up	+1
Each rank of a charging infantry column (2nd - 5th)	+1
Striking routers	+8
Unformed	-1
Disordered	-2
Demoralised	-3
Enemy halted uphill	-1
Enemy defending minor obstacle	-1
Enemy defending major obstacle	-3
Fighting v's armoured enemy	-1
Fighting v's shielded enemy	-1
<b>CAVALRY ONLY</b>	
Charging	+4
Charging lancer v's infantry	+2
Charging lancer v's non lance armed mounted	+1
Fighting v's disordered infantry	+2
Non lancer v's open order infantry	-3

### RANDOM FACTOR

Add the score of an average die to the factor.

### NOTES

- 1) A general fighting in the front rank is counted as having the same equipment as the other figures in the front rank.
- 2) Troops on foot do not count the minus for mounted opponents having armour or shield.

### MELEE RESULTS

When 2 units (counter) charge each other:

Casualty ratio less than 3:2, A **STANDING MELEE**, both units stay in place and may change formation to bring more figures into the melee. If at any stage 2 consecutive rounds of melee end as standing melees the 2 sides will each fall back a normal move before rallying. If a unit is also in melee with a unit which does not withdraw it will instead stand and fight.

Ratio between 3|2 and 2:1, A **PUSH BACK**, the losers recoil 50 yards. Any unit which is pushed back in 2 consecutive rounds will break. A unit which has been pushed back may only expand frontage to meet the expansion of the unit pushing it back.

Ratio of 2:1 or worse, A **BREAK**, the losers turn and rout.

When 1 unit charges a stationary opponent:

If the defending unit wins or draws overall it will remain halted. All attacking units beaten in the melee are thrown back 50 yards and count as retreating for reaction. Any unit

which did not lose its part of the melee will also be thrown back but will not be disordered and does not count as retreating.

If the attackers win by a ratio of less than 3:2 then the defenders must take a reaction test at the beginning of the following period. If the defenders survive this carry on as above, otherwise the defenders rout.

If the attackers win by a ratio of between 3:2 and 2:1 the defenders are pushed back. The defenders must then test reaction.

If the attackers win by a ratio of 2:1 or more the defenders rout.

If all of a units opponents are pushed back or routed (NOT thrown back) the winners will follow up. If all of a units opponents break then it will pursue them at the double.

#### ROUTERS

When a unit breaks it turns without deduction and moves away at rout speed. A unit which breaks whilst in melee will rout directly away from its opponent for its period in rout. In all other circumstances a routing unit will seek to leave the table via its own baseline by the quickest route avoiding enemy units.

If a unit cannot rout because it is surrounded by enemy units it will surrender and should be removed from the table. No guards are needed to guard these prisoners. Routers will sweep away friends in their path who are in a more open order than themselves, breaking them in turn. Routers will inter-penetrate and disorder other friendly units in their path. Routers will ignore any charge declared upon them and if contacted will not fight back.

A unit which has broken for the second time in a game or which is below 50% strength cannot rally from rout. A unit which does rally from rout then counts as demoralised until it has taken a further reaction test in which it gets an Obey Orders result or better.

#### PURSUERS

These will pursue the unit that they have broken at the double until one of the following conditions is fulfilled:

- 1) They are separated from the routers either by an unbroken enemy unit or more than 300 yards.
- 2) They get a pursuers rally reaction test result.
- 3) They are charged after losing contact with the routers.
- 4) The routers disappear from their sight.
- 5) They leave the table.

If a pursuing unit is charged whilst still in contact with the routers it ignores the charge. If charged after losing contact the pursuers will test their reaction. If they get an Uncontrolled result they will ignore the charge and continue their pursuit otherwise they will react to the charge as normal.

If the pursuers are in contact with a routing unit when it interpenetrates another enemy unit, unless this second unit breaks as a result, the pursuers will enter a melee with them without taking a test or declaring a charge. The pursuers will count as charging but disordered, the enemy as both stationary and disordered.

#### RETURNING FROM OFF TABLE

Troops that rout off table may never return. Units which leave the table whilst retreating, charging, pursuing or evading may return. Each unit that goes off

table gets 3 attempts to return, throwing one normal die at the beginning of each period. Evaders whose pursuers followed them off the table start to dice the period after their pursuers return, others the third period after they left the table. The score that they need to return depends on their training:

T1 4 , T2 5 , T3/I 6

Modify the score needed as below:

- 1 Lead by Brigadier or CinC
  - A or B class (not I if pursued or retreating)
- +1 Demoralised
  - E class
  - D class if evaded or retreated off

A returning unit comes back on to the table at the beginning of the movement section of the period. It will be in good order and in any formation desired. If it was demoralised when it left the table it will still be demoralised when it returns.

#### VISIBILITY

Troops normally have unlimited visibility unless their line of sight is blocked by close order troops or a terrain piece. Generals can be seen over friendly close order troops. Troops can be seen over any troops when looking at or from higher ground. Troops on high ground can also see and be seen over lower intervening terrain. However all woods, towns and hills have an area of dead ground behind them within which nothing can be seen. This is equal to the distance between the troops on the higher ground and the middle of the lower terrain piece minus the difference in height between their position and the lower terrain piece. Woods, towns and 1 hill contour are all assumed to be 20 paces high. Some terrain pieces limit visibility rather than stopping it dead, troops can be seen at the distances shown below:

Terrain type	CO/Art	Open order
Open wood	200	100
Close wood or buildings	100	50
Scrub	1000	250

Troops that fire can be seen at twice the distances given above. The distances above apply to units looking both into and out of cover. Thus a unit 50 yards inside a close wood can see close order troops who are up to 50 yards outside it. Troops lining the edge of a piece of cover can see out of it normally. If they fire they can be seen normally by other troops.

#### END OF GAME PROCEDURE

1. Play to the end of the current period.
2. Take the reaction tests for the next period but no charges may be declared.
3. Tot the points up for each side by modifying the original cost of each army as follows:

#### ADD ON

1. Half the points cost of any prisoners taken.
2. Half the points cost of any equipment or fortifications taken.

#### DEDUCT

1. The full value of any of your troops killed or captured and of any equipment or fortifications lost.
2. The full cost of any troops in rout or who routed off the table.
3. Half the value of any troops under a retreat reaction, on or off table.
4. A quarter of the value of any pursuers, on or off table.

If the modified score of either side is 10% or more higher than that of the other then it has won, otherwise the game is a draw.

CASUALTY TABLE

Number of figures firing or meeleing:

	1	2	3	4	5	6	7	8	9	10	
0	0	0	1	1	1	1	1	2	2	2	
1	0	0	1	1	1	1	2	2	2	2	
2	0	0	1	1	1	1	2	2	2	2	
3	0	1	1	1	1	2	2	2	3	3	
4	0	1	1	1	2	2	2	3	3	3	
5	0	1	1	2	2	2	3	3	3	4	05
6	0	1	1	2	2	3	3	3	4	4	
7	0	1	1	2	2	3	3	4	4	5	
8	1	1	2	2	3	3	4	5	5	6	
9	1	1	2	3	3	4	5	5	6	7	
10	1	2	2	3	4	5	5	6	7	8	10
11	1	2	3	3	4	5	6	7	8	9	
12	1	2	3	4	5	6	7	8	9	10	
13	1	2	3	5	6	7	8	9	10	11	
14	1	3	4	5	7	8	9	10	11	12	
15	2	3	5	6	8	9	11	12	14	15	15
16	2	3	5	7	9	10	12	14	16	17	
17	2	4	6	8	10	12	14	16	18	20	
18	2	5	7	9	11	14	16	18	20	23	
19	3	5	8	10	13	16	18	21	24	26	
20	3	6	9	12	15	18	21	24	27	30	20
21	3	7	10	14	17	21	24	28	31	34	
22	4	8	12	16	20	24	28	32	36	40	
23	5	9	14	18	23	27	32	36	41	45	
24	5	10	16	21	26	31	37	42	47	52	
25	6	12	18	24	30	36	42	48	54	60	25
26	7	14	21	28	34	41	48	55	62	69	
27	8	16	24	32	40	48	55	63	71	79	
28	9	18	27	36	45	55	64	73	82	91	
29	10	21	31	42	52	63	73	84	94	104	
30	12	24	36	48	60	72	84	96	108	120	30
31	14	28	41	55	69	83	96	110	124	138	
32	16	32	48	63	79	95	111	127	143	158	
33	18	36	55	73	91	109	127	146	164	182	
34	21	42	63	84	104	125	146	167	188	209	
35	24	48	72	96	120	144	168	192	216	240	35
36	28	55	83	110	138	165	193	221	248	276	
37	32	63	95	127	158	190	222	253	285	317	
38	36	73	109	146	182	218	255	291	327	364	
39	42	84	125	167	209	251	293	334	376	418	
40	48	96	144	192	240	288	336	384	432	480	40

USING THE TABLE

Cross reference the factor for the men firing or fighting with the number of men doing so. Keep a running total of the number of casualties each unit has suffered. One figure represents 30 men so remove 1 figure for each 30 casualties suffered. Remove figures killed by fire at the end of the shooting phase, i.e. after they have had a chance to fire themselves. Similarly remove those killed in melee at the end of the melee phase.

## NOTES AND ADDITIONS

### CAMELRY

Camels move at the same speed as Heavy Cavalry. Cavalry fighting a melee against camels are unformed. Otherwise camelry are counted as normal Light Cavalry or mounted infantry.

### ROCKETS

Firing Factors:

Range	150	300	500	800	1200	1600
Factor	10	15	18	15	12	8

A cavalry unit which suffers casualties from rockets becomes Unformed. Rocket batteries count as artillery for all purposes. Rockets cost 8 points each (i.e. per crew figure).

### PACK ARTILLERY (PA)

Count as normal Foot Artillery for most purposes but when moving through difficult terrain count as open order foot for movement penalties but as close order foot for disorder. There is no extra points cost.

### SNIPERS

Only ACW and Boer armies may have a sniper. An army may only have 1 sniper figure. Snipers always operate in skirmish order and count as A class. They can fire at any range up to 800 yards at a base factor of 18. They are invisible at a range of over 200 yards and thus cannot be fired on at over this range. They do not count as a unit for morale purposes. They do not have to obey normal target priorities and may also choose to fire at any visible enemy General even if he is in base to base contact with a unit. A sniper costs 30 points.

### ARTILLERY GUN TYPES

Light artillery pieces include Prussian 4pdr Breech Loaders, ACW 12pdr Howitzers and Muzzle Loaders of up to 6pdr.

Medium guns include Prussian 6pdr Breech Loaders, ACW 12pdr smooth-bores and 3" rifles and 24pdr Howitzers.

Heavy guns are mainly siege pieces seldom seen on the battlefield.

Many early breech loading cannon were no more effective than muzzle loaders and should be counted as such (as they are in the lists).