

6MM

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Tabletop and Boardgamers (STaB)

The land where miniature and boardgaming
meet as uneasy bedfellows...



1.0 GENERALITIES

1.1 Unit bases and grid size

All unit bases are 45mm X 45mm. The board is divided into a grid of 50mm squares. 1 unit per square is the maximum permitted. Units and/or terrain are deemed features that occupy all that square. If in doubt (e.g. rivers) if half or more of the square is covered, it is deemed to all be covered, and vice versa.

1.2 Fractions

For all calculations, round all fractions of a half or more up; all others down.

1.3 Diagonal Rule

Half squares along a diagonal line DO COUNT as within range.

With all other diagonals, any moves or ranges along a diagonal *beyond one square* deduct one from distance and/or ranges.

Example – moving or firing to and adjacent square along a diagonal is one square, moving/firing two squares along a diagonal means a maximum move of one square, three squares two squares, and so on.

2.0 UNIT TYPES AND CHARACTERISTICS

2.1 Unit Types

The game is played with stands of the types detailed in Table 1

Table 1 Types of unit

TYPE	CODE	Description
INFANTRY	INF	Close order 'heavy infantry' troops who fight shoulder to shoulder in ranks, mainly with contact weapons.
Sub-types	INF/A	Generally armoured infantry
	INF/U	Generally unarmoured infantry
WARBANDS	WBD	Loose order tribal and irregular style warriors, usually with a fierce charge.
PIKES	PKE	Close order troops who fight shoulder to shoulder in ranks with long pike weapons, and usually some armour protection. For convenience include here war elephants

TYPE	CODE	Description
ARCHERS	ARC	Close order troops who fight shoulder to shoulder in ranks with bows, longbows, crossbows, or pre-bayonet matchlock muskets
MUSKETS	MSK	Close order troops who fight shoulder to shoulder in ranks solely with volley-style bayonet firearms.
SKIRMISHERS	SKI	Open order troops who fight as a swarm, with an assortment of missile weapons and/or firearms, and/or with contact weapons, and who use cover, manoeuvrability and flexibility.
Sub-types	SKI/F	Foot
	SKI/M	Mounted
	SKI/S	Heavy infantry support weapons like HMG and mortars that carry a heavier punch.
CAVALRY	CAV	Close or loose order troops who fight mounted
Sub-types	CAV/A	Armoured 'heavy' horse
	CAV/U	Unarmoured looser troops; including camelry
Note for chariots		Class chariots as CAV or SKI/M as most appropriate
ARTILLERY	ART	Heavy gun weapons and machines; and their transport, including anti-aircraft artillery
TANKS	TNK	Armoured fighting and/or transport vehicles.
AIRCRAFT	AIR	Strike or rotary wing aircraft used in a battlefield context.

Ok, we know what you're going to say. 'What about MSK with their own skirmishers?' 'What about mechanised infantry?' All these issues are factored in, and will be explained later.

You will need duplicate stands in some cases. For example:-

- SKI transported by halftracks will need a 'light' TNK stand when moving, and a SKI/F or SKI/S stand for when dismounted.
- A close order MSK will need 2 X SKI/F stands if able to deploy into open order (and so forth).

Generals are classed as being one of the above types of unit.

- E.g. Alexander the Great would be a CAV/A; Napoleon a SKI/M; Rommel a 'light' TNK. They will also be rated 'Superior', 'Competent', or 'Inferior' (see 3.3.). Our three above are of the first type. Most generals are 'Competent' – McClellan 'Inferior'.

2.2 Unit Strength Points

2.2.1 Working out unit strength points

Units are allocated strength points based upon a combination of their

- Numbers
- Morale
- Training
- Motivation
- Cohesion

and a whole host of other factors (see, I told you we'd mention the built-in skirmishers). Each unit is reckoned to be about a battalion / regiment / battery size; or a company of tanks of flight of aircraft. Let's keep it nebulous, Ok?

Here's how you calculate unit strength points. Take the base strength point from the table below (Table 2) then apply the modifiers in Table 3.

Table 2 Base Strengths of Unit Type

Types of Unit	Base Strength
INF PKE MSK	6 (+1 if INF/A)
WBD ARC CAV	5 (+1 if CAV/A)
ART SKI AIR	4 (see also 8.3 for AIR)
TNK Light Armour	5
TNK Medium Armour	6
TNK Heavy Armour	7
TNK Super Heavy Armour	8

Table 3 Troop Quality additions and deductions.

Troop quality	Adds & deductions to Base Strength
Poor	Deduct 2
Good	Add 2
Elite	Add 3
SKI/F or SKI/S post 1906	Add 2 for superior weapons/motivation
General	Add 1
Elephant	Deduct 1
For player agreed historical characteristics that effect performance above and below the norm	Add / Deduct 1. For example, MSK with skirmishers; the recognised and agreed superior training, equipment or morale of historical prototypes; historically recorded weak performance for similar reasons.

It all cases there is a maximum value of 15 and a minimum points value of 4.

2.1.2 Points System

A points system enables balanced forces to be picked –

- If using the points system add the additional 'hit points' of ART and TNK from their factors to their 'cost' (see 5.2.). For example, a Medium TNK unit with a 75mm gun costs 6 + 3 pts = 9 points.
- Where 'duplicates' are used, take an average cost – e.g. a SKI/F @ 4 points in a TNK @ 5 points = 4.5 points cost.
- Additional 'soft' motor vehicle transport for ART or foot costs 1 point extra. These can be 'dedicated' to units in an army or allocated as required.
- SKI/F or SKI/S equipped with ATGW and/or AAGW cost 1 point extra
- SKI/S costs 1 point extra, as these are more effective.
- ART without transport cost 1 point less.
- Torsion type ART also cost 1 point less.

2.1.3 Paperwork and models.

Draw up a roster for your army. Each unit can be labelled, optionally with distinctive detailing on its 'rear margin', and records kept of paper of changes in strength as the game progresses. E.G. '1st Battalion, The Borsetshire Regiment. MSK, Strength 9'. As the game progresses and the Borsetshire's strength reduces, keep notes on paper. If the battle is part of a campaign, then the paper record can be modified to show reinforcement and/or attrition before subsequent engagements.

2.1.4 Non-Standard Units

Units may need to be non-standardised for play, and this is perfectly acceptable. The aim of these rules is flexibility. For example

- A Tiger tank is a slow speed, heavy TNK. A Sherman Firefly is a medium speed TNK – but because of its superior 17pdr/76.2mm gun is deemed to fire as if a heavier 88mm calibre gun *but only at armoured targets*.
- A Persian 'Immortal' unit could be deemed to function each turn as either an INF/U or ARC, to choice.
- A Viking WBD declared as forming a 'Shieldwall', could instead function as INF/U.
- In the Renaissance period a CAV/A 'knight' unit could switch to SKI/M if acting for a turn as a 'Reiter'.
- A Napoleonic Dragoon unit could function as a CAV/U; or dismount as a SKI/F.
- In a c.19th colonial setting our 1 X MSK lads from the Borsetshires could move out to open order to become 2 X SKI/F.
- 'Horse' artillery can move a square extra (i.e. 3) but fire 1 square less range.

3.0 SEQUENCE OF PLAY

3.1 Set out terrain.

This should conform to the time and place where the game is set.

3.2 Deployment

Decide who sets up their army first, and where. A convenient way of doing this is to dice for 'background initiative'. The winner can place first or allow an opponent to do so.

We recommend no more than 4 squares in from a board edge. In all cases leave 1 x square around the perimeter of the board free of all units. The size of grid map used is up to players.

The first deployer places three of his stands first (no more, no less), then his opponent, and so on, alternating until all stands of both sides have been placed.

3.3 Play Sequence

The play sequence is a modified I-go U-go. Each 'round', roll a D6 for initiative. The highest side has 'initiative' and takes its turn first, then their opponents. A 'Superior' C-in-C adds +1 to his initiative roll, and 'Inferior' deducts -1. 'Competent' have no modifiers.

Each side takes a turn, moving, firing and fighting a 'set' of *three of his stands (no more, no less)* before the sequence passes to his opponent. Any 'set' *less than three* are left until the end. 'Sets' do not have to be adjacent stands. When all units in both armies have taken a turn begin again with a new round.

In each turn each 'set' of three units-

- Checks all units are within command radius of their General
- Moves its units
 - compulsory routs
 - compulsory move of units back into command distance
 - conducts other moves
- Resolves shooting
- Resolves close combat
- Any other business is concluded
 - Rally tests
 - Morale tests
 - AOB

3.4 Conclusion

The game ends when one side quits the field or concedes.

4.0 MOVEMENT

4.1 Command Control and communication

4.1.1 3C

Command, control and communication ('3C') is factored out in these rules as an issue of 'movement'.

4.1.2 The Command Distance

Without a dedicated 'General' or friendly unit adjacent a unit may not move more than two squares from another unit that can trace a continuous line to a friendly General unit (i.e. one square maximum in between). For armies with access to radio communications this distance is extended to four squares (i.e. three squares in between). Those out of command *must* move to establish a new line of communication.

4.2. Move Distances

Table 4 Move distances, penalties and bonus

Unit Type	Move distance in squares
INF, ARC, PKE, MSK, ART using animal transport	2 (ART limbering / unlimbering cost a square each)*
WBD	2 (3 if charging)
Slow speed TNK, Foot SKI	3
Medium speed TNK, Mounted SKI, CAV; ART and Foot using soft motor transport	4 (5 if CAV/U of SKI/M charging) ART limbering and unlimbering cost a square each
Manhandled ART, animal transport	1
Fast speed TNK	6
Rotary AIR	2 to 10
Fixed wing AIR	8 to 24
Animal mounted foot troops	4 (mount or dismount costs 1)
Mechanised foot	Moves at speed of the transport. Mount or dismount costs 1

*See 2.4.4. for 'horse' artillery.

Table 5 The effect of terrain on ground movement

Terrain	Effect
HILLS	Steep slopes deduct 1 square for movement up them.
WOODS	Each square traversed cost double (e.g. counts as two squares), except SKI who simply deduct one square from their turns move and CAV, ART and TNK who can only move a maximum of 1 square through each turn and not shoot or fight while so doing. Impassable to PKE.
BUILT-UP AREAS (BUA)	Maximum move through of 1 square for all units. Impassable to PKE, CAV, ART and TNK except by road.
MARSH	Deduct one square from total, and are impassable to ART, TNK, CAV, PKE and motor transport.
RIVERS	Crossable only at recognised bridges or fords, except for SKI not using motor transport, who can cross at double distance cost (i.e. a river 1 square wide counts as 2 to cross). Some water features may be deemed totally impassable.
ROADS	Add 1 square to move if moving entirely along – double this if TNK or using motor transport. No move bonus given if charging

4.3 Other Movement Rules

- Units can move and shoot or can move and attack in close combat, but not all three (see 6.0.)
- Units can change their direction of facing only once per turn.
- To disengage from Close Combat by movement a unit must move directly away, and may not shoot or initiate a further close combat. It may change facing first and must deduct 1 square from its move.
- Interpenetration.
Only SKI can move through other units, and vice versa. Other units can 'swap' adjacent squares at the cost of two squares movement to each.
- Infantry Backstep.
Instead of turning away Infantry can instead 'backstep' one square, but not diagonally.

In all cases minimum move distance is 1 square.

4.4 Charges (*see also 6.0.*)

A 'charge' is defined as 'a move intended to result in close hand-to-hand combat'. Being adjacent to an enemy unit is not a charge as, by definition, a charge's intention is to force the enemy unit out of a square. Adjacent units may not fight in Close Combat if they have insufficient movement to occupy the square they are attacking.

- Units making a charge must move straight, turning at the very start of the move, no more than one facing.
- Diagonal rule. A charge along a diagonal must end in a flat square edge facing, or it cannot be made
- PKE, TNK, SKI/S, ARC and ART cannot make 'charges'.
- SKI/F and SKI/M being charged can evade back one square when being charged.
- No unit can count as making a charge on the front of ART, PKE or SKI/S; but may instead 'advance into close combat' with them, thereby receiving no charge bonus (see 6.0.). They must have sufficient move to occupy the square they are attacking.

5.0. SHOOTING

5.1. Arcs and Ranges

Only ARC, MSK, ART, SKI, TNK can shoot at a single target within 45° of their facing (including a diagonal square – see 1.3.) AIR shoot at a single target directly to their front, or that they have passed over during their move. TNK like Stug III with fixed arcs may only ever fire directly to their front.

Table 6 Weapon Ranges

Weapons	Range in squares
ARC with bow / crossbow / matchlock musket	1
SKI/F	1
SKI/M	1
MSK	1
ARC with Longbow	2
MSK / SKI/F with rifles	2
SKI/S	3
ART torsion type / all non-ART AAGW	2
ART muzzle loading smoothbore / all ATGW	4*
ART muzzle-loading riflebore	6*
ART breechloading riflebore type to 79mm	7*
ART breechloading riflebore type 80 to 130mm	9
ART breechloading riflebore type above 130mm	12
Rocket ART	Best gun equivalent

*see rule 2.1.4. for 'horse' artillery ranges.

TNK shoot as per comparable ART, minus *three* squares in range (e.g. an 88mm gunned Tiger tank unit shoots 6 squares).

Specialist 'infantry Combat vehicle' TNKs, such as Warrior or BMP, whose SKI remain mounted, can shoot as if SKI/S.

AIR. These 'drop bombs' on a target below or strafe it whilst flying over; rocket-armed can shoot up to 2 squares during or at the end of their move; or as ATGW 'gun equivalent' if so equipped.

5.2 Resolving Shooting

5.2.1 Roll a D6 dice then add / deduct the factors in the tables below to obtain the number of hit points inflicted. These are then deducted from the target strength points. A negative total indicates no hits scored.

Table 7 Additions to shooting score

Additions	Factor
½	of the unit's current strength (e.g. if unit strength is 6 add 3)
2	if firer SKI/F or MSK armed with breechloading rifles (or superior) small arms
3	if firer SKI/S
1	if firer muzzle-loading smoothbore ART
2	if firer muzzle-loading riflebore ART
3	If firer breechloading riflebore ART to 79mm in calibre
4	if firer breechloading riflebore ART 80mm to 130mm in calibre
5	if firer breechloading rifled ART above 130mm in calibre
1	If firer 'guided' (e.g. ATGW or AAGW)
2	if firing on target stand's flank
3	if firing on target stand's rear

Table 8 Deductions to shooting score

Deductions	Factor
2	if target is SKI
2	if firer is SKI
2	if target lightly armoured TNK (e.g. scout cars, APC), or if INF/A and shot at by non-gunpowder weapons
3	if target medium armoured TNK (e.g. Sherman tank)
4	if target heavy armoured TNK (e.g. Tiger tank)
5	if target super heavy armoured TNK (e.g. Challenger)

- NEXT For indirect fire *halve this result* (include as indirect unguided AIR bombs)
- NEXT For cover (woods and BUA) *halve* the remaining number of hit points.
- NEXT Finally, the defending player rolls a D6 as a saving throw, which negates this number of hits suffered.

N.B. TNK shoot as per comparable ART, only minus one point (e.g. an 88mm gunned Tiger tank unit shoots as if having a 75mm gun).

Each AIR 'bombload' counts as if a '1 shot' 130mm calibre ART; strafing AIR as if MSK with rifles. Air-to-ground rockets count as per comparable ART.

6.0. CLOSE COMBAT

- 6.1 Only ground troops can conduct close combat. Units inflict casualties on their 'sets' turn only. Units fight to their front only, and a unit contacted on more than one flank may suffer several attacks. Units may turn to face on their subsequent turn, unless already frontally 'pinned' in a combat
- 6.2 For 'charge' movement and eligibility rules' see 4.4. Once a close combat has begun further charges may not be declared – thus a charge move confers tactical bonus only upon the first turn of contact.
- 6.3. 'Pre-Contact Fire'. Charged units *with a firing range of greater than one square may fire at their chargers before their chargers close, if these chargers are coming from more than one square away*. E.G. Three British SKI/M units of the 'Light Brigade' are charging three Russian smoothbore ART units from three squares away. Each of the Russian guns may fire once before the British cavalry charge home, weakening (or possibly destroying) them before close combat is joined.

6.3 Resolving Close Combat

Roll a D6 dice for each unit in close combat to determine the base number of hits, add and deduct the following factors in the tables below

Table 9 Additions for Close Combat

Additions	Factor
1/2	Of the attacking unit's current strength points e.g. if unit strength is 6 add 3 OR 1/4 of this if attacker is AFV or motorised e.g. 8 becomes add 2.
2	Attacker is INF/A; INF/U; MSK; and/or mounted attacking Foot or ART
1	If foot unit attacking TNK, SKI/S, or PKE 'elephant' stand in the open DOUBLE TO 2 if foot unit attacking TNK, SKI/S, or PKE 'elephant' stand in woods or BUA
1	If attacker is charging and/or if attacker is a General stand
1	Attacker is SKI/F post 1915 and/or charging WBD
2	Attacker is PKE attacking to front

Table 10 Deductions close combat

Deductions	Factor
1	Defender is CAV/A and is being attacked by non-firearms and/or pre c.1700 firearms.
2	Defender is INF/A and is being attacked by non-firearms and/or pre c.1700 firearms.
2	Attacker is SKI

Additional Factors

- NEXT Foot and ART defenders of terrain (including hill crests) *halve hit points suffered*.
- NEXT Attacking the flank or rear of a non-pike unit *doubles* the hits inflicted. Attacking the flank or rear of a PKE unit *trebles* the hits inflicted
- NEXT The defending player rolls 1 X D6 to negate this number of hits.

6.4 Infantry Squares

Infantry Squares can be formed c.1700+ plus by MSK units, for a move penalty of 1 square. These may not move or shoot but count as if PKE if attacked from any angle (i.e. cannot be 'charged' with a bonus). A counter can be used to record this status. Squares have no flanks and count as 'defended terrain' in all close combats, halving hit points suffered (but not if shot at, where casualties are taken as normal).

6.5 Close Combat Results

- The attacked units take strength point losses accordingly.
- If the unit suffers hits *less than half of its current points*, it remains in place, is reduced in strength, and combat continues next turn.
- If the unit loses *more strength points than half of its current points*, it recoils one square away from its primary attacker (the one to its front) as well as losing hit points. If it cannot do this, it is eliminated. The primary attacker *may* then move forward to occupy the vacated square
- Units with no points left are simply eliminated.
- See 4.3. for rules for disengaging from Close Combat.

7.0. MORALE, ROUTS, RALLYING AND ELIMINATION

7.1 Army Morale

As soon as an army has 10% of its units eliminated or left the table, the player rolls a D6. On a 1 it will begin to retreat from the board. If it loses 20% of its units, it will retreat on a 1 or 2; 30% - on a 1 to 3 (and so forth). It is possible both sides may retreat from an engagement. Roll once only each time crossing a casualty threshold.

DEDUCT ONE from the dice score for each General killed that game.

Table 10 Percentage loss of an army unit's vs D6 to retreat

Percentage loss of units	Retreats on a D6 roll of
10	1
20	1 to 2
30	1 to 3
40	1 to 4
50	1 to 5
60	Automatic retreat

7.2 Unit Routs

If a unit is reduced below half of its start of play strength points, it will flee the table for one standard move distance until rallied.

7.3 Unit Rallying

A unit can be rallied back from routing on a roll of 5 or 6. Further hits will again induce further routs, and so on.

7.1 Elimination of units

Units are eliminated when their total of strength points reaches zero.

8.0. OTHER RULES

8.1 Fortifications and field works

Entrenchments and other purpose-built fortifications count as 'double cover'. If used, they cost 2 points per square covered.

8.2 Off board artillery

Off board heavy artillery (above 100m in calibre) can fire ten squares onto the map. If used, they cost as per on table artillery. Deduct 2 extra from their shooting dice to account for their decidedly indirect fire.

8.3 Air attack limitations

AIR make one pass over the board and can fire once only, before leaving to refuel and re-arm, returning only upon a roll of a D6 of 6 after a minimum of five turns. The ordnance they carry in bombs and rockets will need to be set and agreed before play.

Table 11 Suggested ordnance by aircraft and points cost

Aircraft	Shoots as	Extra Ordnance	Cost to arm
Piston-engine fighter	SKI/F	N/A	1 point extra
Piston-engine fighter/bomber	SKI/F	1 X bomb or rockets	2 points extra
Larger bomber		2 X bombs	3 points extra
Jet-engine fighter/bomber	SKI/F	2 X bombs or rockets	4 points extra
Attack helicopters	SKI/S	2 X rockets	5 point extra
Unarmed aircraft	N/A	N/A	N/A

8.4 Chemical weapons

These can be fired by off-board artillery (see 8.2.) or dropped by AIR. Any unit hits lose an additional D6-2 strength points, so may not be especially affected.

8.5 Paradrops and air landings.

These are represented by slips of paper 1" square, if not landed from transport AIR such as helicopters. They are dropped from a height 2' above the table, and where they land is where the units they represent land. They take 1 X D6 – 3 hits in landing. Those out of the '3C' range (see 4.1.) must move into it as soon as possible – and may not shoot until back in control range. Landing and/or take-off by transport aircraft costs 10 squares distance.

8.6 Visibility

Visibility is unlimited in the open. Terrain and units cannot be seen through (except for SKI). Terrain cannot be seen into more than 1 square.

APPENDIX

Some sample points matched fifteen-unit armies

Two 'ancient' armies. Clearly this is more than 15 units for the Britons, but it reflects their poorer quality of troops.

Suetonius' Romans

Numbers	Descriptions	Value
7	INF/A (Legionaries)	8
3	WBD (Auxiliaries)	7
1	ARC (Auxiliaries)	5
2	CAV/U	5
1	CAV/U (General - Average)	6
1	ART (scorpion bolt shooters)	3

TOTAL: 101 points

Boudicca's Britons

Numbers	Descriptions	Value
10	WBD	5
2	CAV/U	5
1	CAV/U General on chariot - Poor)	6
2	CAV/U (chariots)	5
4	SKI/F	4
2	SKI/M	6

TOTAL: 100 points

Two roughly comparable horse and musket armies.

Napoleon's French

Numbers	Descriptions	Value
6	MSK (Line Infantry)	7
2	MSK (Guard Infantry)	10
2	CAV/U value	7
1	1 X CAV/A (cuirassiers)	7
1	SKI/M (General - Superior)	7
2	ART value (smoothbore cannon)	4
1	SKI/M (Light cavalry)	6

TOTAL: 104 points

Wellington's 'British'

Numbers	Description	Value
6	MSK (Line Infantry)	8
6	MSK (Allied Line Infantry)	6
1	MSK (Guard Infantry)	10
1	SKI/F (95th rifles)	8
1	CAV/U	5
1	CAV/A (Scots Greys heavies)	6
1	SKI/M (General - Superior)	7
2	ART (smoothbore cannon)	4
1	SKI/M (Light cavalry)	6

TOTAL: 103 points

Two roughly comparable mechanised armies.

Rommel's Afrika Korps Germans

Numbers	Description	Value
5	SKI/F (Infantry) @ 8 pts in TNK (lightly armoured half-track transports) @ 5 pts = value 6.5;	6.5
1	SKI/S (Infantry) @ 9 pts in TNK (lightly armoured half-track transports) @ 5 pts = value 6.5	6.5
5	TNK (medium Pz IV)	9
1	SKI/F (Infantry General - Average) @ 9 pts in TNK (lightly armoured half-track transports) @ 5 pts = value 7	7
1	AIR (Stuka dive bomber) value 6 points;	6
2	ART (88mm guns with soft transport) value 11	11

Total 120 points

Monty's Desert Rats British

Numbers	Description	Value
5	SKI/F (Infantry) @ 8 pts in TNK (lightly armoured half-track transports) @ 5 pts = value 6.5;	6.5
1	SKI/S (Infantry) @ 9 pts in TNK (lightly armoured half-track transports) @ 5 pts = value 6.5;	6.5
5	TNK (medium Sherman) value 9 pts	9
1	SKI/F (Infantry General - Average) @ 9 pts (in soft motor transport) + 1 pt = value 10;	10
1	AIR (Hurricane fighter bomber) value 6 points	6
2	ART (25pdr guns with soft transport) value 11	11

Total 120 points

SCI-FI & FANTASY

These rules can be used in sci-fi and fantasy battle scenarios by a few simple adaptations; care being taken to not make 'magic' or 'tech' over-powerful.