

Days of Iron

Rules for Wargaming the Franco-Prussian War

By

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1. INTRODUCTION

These rules have evolved from the WRG rules 1685-1845 (1978) by Phillip Barker and the Élan Napoleonic rules (2002) by Phillip Jones. I would like to acknowledge both, while stating it was from those experiences I wanted to design something original specifically for the Franco Prussian War period. As with all rules there is a balance between attempting to achieve historical accuracy and developing a simple but fun game. *Days of Iron* may not meet the historical accuracy required by some people nor the simplicity of play for some gamers, but I do hope you enjoy using these rules for what they are rather than what they aren't.

As with all wargaming rules, *Days of Iron* is a collaborative effort and could not have been completed without the significant assistance of a number of people. Accordingly, I would like to express my appreciation for the efforts of the following people over a number of years. All contributions have been warmly appreciated and if I have failed to mention anybody I do humbly apologise. So thank you to Gary Adams, David Angelosante, Bruce Atkinson, Mark Bacon, George Banic, Tomas Ciolek, Steve Daniels, Cory Davis, Dallas Gavan, Andrew Geraghty, Robert Horton, Simon Hughes, Mark Hume, Phillip Jones, Tony Lees, Neil McKenzie, Greg McPherson, Michael Mills, Dennis Misso, Paul Naveau, Mark Newman, Arnaud Ng, David Osbourne, Doug Parrish, Damien Phillips, John Rowley, Brad Smith, Graeme Thorburn, Ian Turton, Andrew Rouen, Warrick Whatman, Peter Willet, David Williams and Matt Williams for all your efforts large and small.

My particular appreciation also goes to Andrew Geraghty for his work in editing the rules and to Michael Mills for his sterling website.

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2. FURTHER INFORMATION

For further information visit the Canister & Grape Wargamers on the web at

<http://home.exetel.com.au/millsy/canister>

Information available in (Adobe Acrobat PDF format) includes:

- A full copy of these rules
- Reference sheets
- Army lists
- Sample orders of battle

3. THE BASICS

3.1. Scales

Days of Iron is a set of rules for 15mm wargaming at the regimental scale. Cavalry and Infantry in *Days of Iron* are represented at a ratio of one stand equals 50 men. Artillery, Engineers and Staff are represented at a ratio of one stand equals 10 men. A single Artillery gun model represents three actual guns. A single limber with horse teams represents the combined limbers for an Artillery battery.

3.2. Terminology:

“1d6” means “one six-sided dice”.

3.3. GETTING STARTED

- Meet your opponent general and agree the terrain and its effects while laying it out.
- For a ‘random match’, one general could set the terrain, then both would agree terrain effects, then the general who did *not* set up gets to choose which side they starts from.
- Agree the wind direction. Mark this with some cardboard marked with a large arrow.
- Prepare your Order of Battle (Orbat). You may have done these days before. It is useful to have a clearly written or typed Orbat so your opponent could, if desired, double check your Orbat calculations.
- Prepare your plan and sketch your deployment.
- Deploy, then start. If there is no defined ‘attacker’, roll to see who moves first.

3.4. Disputed matters

It is always better to resolve a dispute quickly than argue. Rules can’t cover every situation, so that’s where a little common sense pays dividends. Roll 1d6 should resolve situations where players cannot agree on an issue. On a roll of 1-3 the matter is decided as Player A wishes and 4-6 it is as Player B wishes.

3.5. Equipment

Aside from the stands and various terrain pieces, players will require:

- A minimum of four 6 sided dice (d6) with one dice different in colour to the rest;
- Metric measuring tool, a 3m measuring tape is good;
- Balls of cotton wool;
- An angle card with lines marking 45°; and
- Notepad and writing implements.

3.6. Playing area

For most games you will need a 6' x 4' playing area. This will accommodate an average 400-1200 point game comfortably.

4. BASING

The miniatures are fixed onto bases (also called 'stands'). Re-basing your stands to play *Days of Iron* isn't needed if they are already based according to other common rule systems. **However** all opposing forces should use the *same* basing system.

Each unit must have a command stand. The command stand will generally have an Officer, Standard, and Musician stands on it but in any event should be easily identified. The command stand determines which way the unit is facing and all moves are in reference to it.

4.1. Recommended basing

Troop Type	Stand Width x Depth
Mounted General (1 figure)	1" x 1"
Engineer (1 figure)	1" x 1"
Cavalry (2 figures)	1" x 1"
Infantry (3-5 figures)	1" x 1"
Artillery (1 gun and 3-5 crew)	1" x depth of model
Artillery Limber (2 pairs of horses and 2 drivers)	1" x depth of model
Wagon or Similar	1" x depth of model

5. STAND POINT VALUES

Standpoint values ensure each side has an equal point value. Players 'buy' stands by spending points from an agreed total. An average sized game is around 400-1200 points. Point cost per reflect both the quality of the troops and the relative historical proportion of unit types in the army.

5.1. Staff

Figure	Cost
General (representing the player)	Free
Division or Corp General	40
Brigade General	30
Engineer officer, plus 6 pioneers and 1 pontoon bridge and wagon	30

5.2. Guns/Howitzers and Miscellaneous per model

Figure	Cost
Muzzle loaded gun and crew (eg French Napoleon guns)	40
Breech loaded field gun (eg Prussian Krupp guns) or Mitrailleuse and crew	50
Siege gun or howitzer and crew	60
Limbers, Horses and Civilian Train – 4 Horses for foot artillery and 6 horses for Horse Artillery (one limber team per battery)	Free
Pontoons (per 2")	10
Earth works or field defences per 4"	10

5.3. Basic Point Value per stand

Class	Infantry	Cavalry
Class 1	1	4
Class 2	2	6
Class 3	3	8
Class 4	4	10

5.4. Point Modifiers to Class Rating per stand

Add the following modifiers to the cost of each stand in each unit so equipped or specified:

Modifier	Cost per stand
If armed with a Dreyse or Podewils Needle Rifle	+1
If armed with a Chassepot or Werdar Rifle	+2
If Cuirassier	+2
If horse artillery	+10

6. CREATING ORDERS OF BATTLE

An Order of Battle is a complete list of the forces of one player. Its point value total must not exceed the agreed Point Value for the battle. When devising an Order of Battle, players must give units one of the four Class Ratings. These class ratings grade the various units and reflect their different levels of training, experience and morale. All stands in one unit must have the same class rating although you may have different class units within the same Brigades and Divisions. A 1/2/3 on the army lists indicates you may choose the class of the unit from one of these ratings, and pay the stand point value outlined above.

6.1. Unit Size

A unit 12 stands strong represents a fairly standard battalion of line infantry in the period, of some 600 men. Cavalry are generally in units of 6 to 12 stands strong. Mount artillery on bases to enable accurate measuring when determining angles of fire.

To work out the points of a unit you multiply the number of stands in the unit by their class value plus any required modifiers. So, a rifle armed 8 stand Class 3 infantry unit point cost is: 8 (the number of stands) x 4 (Class 3 rating + 1 Dreyse rifle armed per stand) = 32 points.

7. CLASS RATINGS

7.1. Class 1 - Poor troops

These troops are mainly conscripted or pressed into service, and are often poorly motivated, ill equipped and poorly trained.

7.2. Class 2 - Average Troops

These units are trained to a basic efficiency and adequately led. They form the bulk of regular troops in most armies, including a proportion of conscripted troops basically trained and led by a cadre of experienced officers and non commissioned officers.

7.3. Class 3 - Good Troops

These are troops who are combat veterans or very well trained troops led by professional officers.

7.4. Class 4 - Crack Troops

Troops in this class are highly trained and motivated, disciplined and generally experienced.

8. INFANTRY UNITS

8.1. Infantry

Line infantry fights in close order formations, “shoulder to shoulder”. Maintaining close order in their ranks is important for their steadiness and effectiveness of their volleys. Class 2 and above rated infantry may also fight in skirmish order.

9. CAVALRY UNITS

9.1. Cavalry

Cavalry was used principally for scouting, and harassing duties, but was also occasionally used on the battlefield. A Cavalry unit can deploy as skirmishers or may dismount and deploy as skirmishing infantry.

10. ARTILLERY

10.1. Artillery

Artillery has been divided into three types which are breech loaded, muzzle loaded and also include the mitrailleuse. To allow for the greater fire power of the Krupp breech loaded guns and the mitrailleuse they roll 2d6 per gun model when firing. No distinction has been made between the four and six pounder guns. If using limbered artillery (eg an ‘attack on a convoy’ scenario) the following rules apply. A limbered artillery battery is represented by a model with a single horse team and gun; while limbered it is a dense target and when deployed it is a line target. Horse teams and guns are considered one unit when the artillery is limbered. A battery cannot shoot at more than one target in a turn, unless multiple units are charging it.

10.2. Foot Artillery

Artillery crews were generally well trained and tended to stand by their guns when charged although they might evade behind cover or a friendly infantry unit.

10.3. Horse Artillery

Horse Artillery can shoot and limber and move or they can move and deploy (but not fire) in the Movement Phase. Limbered Horse artillery may evade with their guns if charged as long as they are not contacted during the 1st impulse move. A Horse artillery battery limber team will have 6 horse models, up to three riders and a limber. If a Horse battery suffers two limber casualties, or is reduced to four horses, it may only move as limbered foot artillery.

11. ENGINEERS AND PIONEERS

Engineers were specially trained technical officers and their troops were called pioneers. Normally these officers joined armies when fortifications were being built or assaulted. They made field defences and temporary bridging. Engineers can assist when assaulting an urban area, or to demolish a bridge or obstacles.

Engineers and their attached Pioneers can try to destroy bridges. They need three movement phases with no other activity to demolish wooden bridges (six phases for stone bridges). During the 3rd or 6th turn, 1d6 is rolled with 5 or 6 destroying a 1" span of the bridge. Only one attempt may be made to destroy a bridge. To remove an obstacle, such as a roadblock, an Engineer and two Pioneer stands can remove a 1" wide obstacle per Movement Phase with no other activity (no movement, firing or formation change).

12. FORMATIONS

12.1. Columns

Infantry units can form march or manoeuvre columns. No such distinction is made for cavalry or artillery columns. A manoeuvre or assault column is 4 infantry stands wide and is used for manoeuvring around obstacles or to assault urban areas or fortifications. A March column is 1-2 stands wide and is used to may make forced marches.

12.2. Lines

A single rank of stands shoulder-to-shoulder, with the command stand in the centre. Lines can be bent to form angles.

12.3. Skirmish Screens

Skirmish screens are formed with by stands with a 1" wide gap between them. A unit that is in a skirmish line creates a screen the width of its parent unit. A single skirmishing stand creates a screen either side of its width.

A skirmish screen does not prevent artillery fire hitting troops behind it, but any hits must first be on the screen providing dispersed targets can be hit at that range. If skirmishing troops are charged by formed enemy units they may evade or rout into difficult terrain, woods or urban areas. Skirmish screens prevent all small arms from firing directly onto any troops behind them. Skirmishers cannot charge into contact with formed units. They can only charge and perform Close Assaults on routing units, other skirmishers and artillery troops. Friendly units can pass through a screen without any penalty (including charging through them). Units in skirmish order are considered a dispersed target if shot at. Skirmish stands can fire in a 180° direction and may specifically target enemy Staff or Engineers.

13. TARGET DEFINITIONS

Units under fire are classified using a number of different definitions depending on their formation or any cover they have. These definitions also determine the column used on the shooting tables.

13.1. Dispersed

Staff and units skirmishing or units that have gone to ground are classified as dispersed targets.

13.2. Line

Infantry and cavalry units in line formation and deployed artillery batteries are line targets.

13.3. Dense

Infantry in March or Manoeuvre columns, cavalry in column and limbered artillery units are classified as dense targets.

13.4. Fast

Charging cavalry that move over 8" to make a charge, this includes both 1st and 2nd Impulse moves, are classified as fast targets.

13.5. Light Cover

Units in light woods, light urban areas or behind hedges or low walls are classified as being in light cover. Light urban areas are usually timber structures such as houses and mills.

13.6. Heavy Cover

Units in heavy woods, heavy urban areas, behind fortifications or thick stone walls are classified as being in heavy cover. Heavy urban areas usually feature stone, such as stone walls, castles or large farms with continuous walls. Players should agree on what terrain features are light or heavy cover before starting.

14. STAFF

Staff stands are not considered formed troops and therefore have no flanks or rear. They are considered dispersed targets when shot at, unless attached to a unit. Before starting a game and after the battlefield and any objectives have been set, each player must determine their staff quality.

14.1. Staff Quality

To determine staff quality roll 1d6 for each General using the table below. Note the General stand representing the player is **not diced for** and is considered **Capable**. Players can opt to determine the quality of the generals based on national characteristics using the table in the optional rules section.

All Generals	Inept	Capable	Exceptional
General	1	2, 3, 4, 5	6

Sadly, my friends, it was alas more common to find inept generals than exceptional ones!

14.2. The Effects of Staff

All units must come under a General's command unless they are independent units. Every General has a command radius of 16". A unit does not have to see their General to be under command. A more senior general (for example, the Divisional commander near one of its Brigade units) may be used for morale tests if the senior general is within 16" of the testing unit. The testing unit can also choose to use a Divisional or Army commander if within command range.

Generals who attach to a unit no longer exert command and control over any *other* unit while attached. Attaching to a unit requires base to base contact. Units cannot transfer from one General to another during a game. A Cavalry General cannot command or exert influence Infantry units and vice versa. Units that lose their formation commander will act as the player wishes but are 'out of command' until the General is replaced.

14.3. Replacing Generals who are Killed or Wounded

A General that is wounded loses command for a specific number of turns (see the Casualties to Staff Table) counted from the phase of his wounding. To replace the wounded or dead General of a Brigade or Divisional formation, the General representing the player must be within 8" of the formation. After 1 turn a field promotion may take place with the new general's quality determined by the roll of 1d6. On a roll of 1, 2 or 3 the new General is Inept and on a roll of 4, 5 or 6 the new General is Capable.

14.4. Attaching Staff to units

Occasionally, to gain benefits in some morale tests, players can attach a General to a unit. 'Attached' means the general stand must touch some part of the unit. Attached staff stand cannot exert influence on the rest of their command. Eg A Brigade General who is attached to a particular battalion renders remaining units in the Brigade 'out of command'. When the unit suffers any casualties the *opponent* must roll 1d6 to determine (a 6 = hit) if the attached General is also hit. Roll for the effect on the Casualties and Damage to Artillery/Staff/Engineer table. A hit on the General is **not** a 'second hit' on the unit for morale purposes.

14.5. Capturing Staff

Unattached Staff that fail to evade and which enemy units contact are captured. The remaining units in the formation are out of command until the general is replaced. The losing Brigade or Divisional formation can try to replace a lost General in the following turn. A captured General is counted as a *loss* when calculating the points at the end of the game.

15. TERRAIN

Represent terrain with models on a 'what you see is what you get' principle. When preparing a game, players mutually agree on terrain placement, its type and any special characteristics. Define all terrain to each Player before they deploy. The terrain models should reflect the terrain type as best as possible to avoid confusion (eg a low slope should not represent a steep slope). *Optional: for some terrain types it might be handy to use a set of coloured map pins to define the terrain agreement at start which might be forgotten later.*

15.1. Hills

Hills have either *steep* or *gentle* slopes and either *easy* or *difficult* terrain. There are generally two crest lines on a hill, one centrally along the 'spine' of the hill and the other across its widest point. When units are within 1" of a crest line, the player moving them must tell his opponent if they are behind (not visible) or over the crest line (visible). Units can see over the crest of the hill as long as they are within 1" of the crest.

15.2. Roads

Units in column receive a movement bonus. Units on roads in urban areas do not have the benefits of cover.

15.3. Rivers and Streams

A river is a waterway greater than 2" and a stream is equal or less than 2". Players must decide which direction a river is flowing if using boats.

Units, whose initial compulsory rout has taken them into a river, drown, or must surrender or disperse if not at a ford. The unit is removed from play.

15.4. Bridges and Fords

A ford is where a road crosses a river/stream and no bridge exists, or it can be an unmarked ford. A ford will be 2" and is passable to all troops although it will reduce movement. A stream is always fordable at any point. Units may discover a ford in a river by rolling a 6 when they come into contact with the riverbank. Units can test for fords in a river every 4". Units must be in column to cross a ford. Players should specify the locations of known fords when setting up terrain.

15.5. Pontoon Bridges

Pontoon Bridges were specialised equipment, typically kept as part of the Army's supply train under the command of Engineer Officers. A pontoon bridge takes six Movement Phases to deploy and requires an Engineer, four Pioneers and four other foot stands to construct per 2" wide and 4" long span.

15.6. Swamps and marshes

Swamps are impassable to all but infantry and dismounted cavalry units, leading their mounts at foot speed. Swamps reduce movement and units are disordered until they rally beyond the swamp.

15.7. Urban Areas

Urban areas (either *light* or *heavy*) reflect the structures inside. Areas of mostly stone buildings are *heavy* urban areas and those with mostly wooden buildings are *light*. Mark the footprint of the urban area with suitable terrain (eg grey cardboard with some building on it). Walls, doors and windows on the models are meaningless unless the players agree otherwise. The same village can have sections of heavy and light urban areas but they must be easily distinguished.

Damage to urban areas does not degrade the cover provided. Hence a heavy damaged heavy urban area will always provide heavy covers to units in it.

If a unit is partially on an urban area, it is disordered until it moves out of the area. Units in urban areas are deployed either in Column, lines or in a skirmish screen and are deemed to occupy exactly the location they are placed. Although units may be attacked in the rear or flanks they will always benefit from the cover they are in. Hence a battalion in line in heavy cover which is charged in the rear will have negative factors for being charged in the rear *but* will benefit from defending heavy cover.

Players can place as many units in the urban area as will fit. Units in urban areas will have their movement reduced. Urban areas block visibility although units on the crest of a High Hill can see troops 8" beyond the far edge of the urban area unless the urban area is also on a hill.

15.8. Woods

Represent woods with clearly marked terrain and ensure players define them as *light* or *heavy* before starting. Otherwise, when a unit comes within 2" of a wood the moving player can roll for the wood type (1,2,3, *light* or 4,5,6 *heavy*). All units may pass through light woods, but only units on foot, including dismounted cavalry, can pass through heavy woods, unless on a road. Units in woods are disordered. Woods block visibility but units on the crest of a High Hill can see troops 8" beyond the far edge of the wood unless the wood is also on a hill. Units may charge out of light woods but are disordered as they do.

15.9. Fires in urban areas and woods

Rolling an **F** on the Artillery Shooting Chart sets urban areas and woods on fire as can any two stands within the area (on a roll of a 6 on a 1d6) during the Shooting Phase. An **F** result does not cause any casualties to units in the area.

Any troops in an area on fire must leave the area in three turns or are lost from play and removed. Fires spread in the direction that the wind is blowing at a rate of 2" in the Movement Phase. Use cotton wool to denote the spreading fire.

15.10. Obstacles Walls and Fortifications

Walls, fences, hedges, fortifications, earthworks, artillery emplacements and wooden obstructions are all obstacles to movement and for cover purposes and should be placed and defined as *heavy* or *light* before starting. Players wanting field fortifications must buy an Engineer officer. Units crossing these obstacles are considered disordered. Units defending these obstacles will, however, not be disordered unless they have crossed or passed through terrain in order to defend it. Wooden obstacles/walls may catch fire using the same rules for setting fires in urban areas and woods.

15.11. Firing at units in cover

If a unit is within 1" and behind terrain classified as *heavy* or *light* cover, eg a wall or hedge, then it will be classified as a target in heavy or light cover during shooting.

15.12. Wind

Determine wind direction before play. This determines where smoke drifts and fires spread. Determine the direction either by a die roll, or using a clock face, or special direction or scatter die. Place a marker to show the wind direction.

16. DEPLOYMENT

Set up the table terrain by mutual agreement, unless playing a specified scenario. To determine which side of a non-specific scenario to play, roll a 1d6.

16.1. Who deploys first?

Players should quickly sketch a map of the terrain and mark where individual units will deploy. Once the map is complete, show your opponent for verification. Alternatively, roll 1d6 to determine who sets up first. The player with the lowest score sets up one brigade in the deployment zone. The player who scored highest (“has the initiative”) then places a brigade in his deployment zone. This continues until all brigades are deployed. Units should be deployed in order of cavalry, artillery, then infantry in their brigade formation. Brigades kept off table need not be declared until the turn before deploying on the table.

16.2. Deployment zones or areas

Using a standard 6' x 4' table, the deployment zones is the width of the player's baseline and up to 12". You don't need to “cover” the whole area with deployed troops. Any troops which are part of a deployed unit but won't physically fit on table can, by agreement, be held off table (as if they were in column behind the forward units) but the deployment map should clearly show where they are. Players should agree how deployment zones are determined before deploying units on the table.

16.3. Visibility

Maximum visibility is 6'. Visibility is measured by line of sight from a stand of a unit to another stand in another unit. Units have a 180° field of vision. Mounted units and staff can see and be seen over foot troops on the same or lower elevation. Skirmish screens do not block Visibility and a unit's Skirmishers can see for the whole unit. Formed units are visible at 4" in heavy urban areas and woods and at 6" in light urban areas and woods. Skirmishers in urban areas and woods are visible at 2".

16.4. Hidden Units

Some units may be hidden on the tabletop to provide surprises and add some spice to the battles. Hidden units may be in or behind woods, urban areas, walls or crest lines of hills. As the battle develops troops are placed on the table when they shoot or become visible to enemy units. Record and map any troops using hidden deployments before starting the game. Recording the exact location, formation and facing of the hidden unit helps the opposing player check its details are correct when the unit is deployed. Hidden units may not make formation changes or move until the unit is placed on the table.

16.5. Off-Board Units

Players may keep up to a third of their total army points in reserve off the table. These must be brigade level formations. These off-board units may attempt a flanking manoeuvre or act as reserves. The player must notify their opponent in the Morale Phase of the turn that they will be bringing on off-board troops that turn. Normally this notification will be that you will ‘see dust’ on that table edge. Failure to notify your opponent will mean that the units off table cannot arrive.

Place the lead stand of the lead column of the brigade on the table to indicate its position. The brigade formation may move fully onto the table in the Movement Phase. Any units making off-board movements must be placed outside 25" of visible, *but not routing*, enemy units. If enemy unit locations therefore prevent the arrival of flanking units, those units arrive on the owning player's table edge and generally behind their own troops.

17. PHASES OF PLAY

Days of Iron is divided into turns, with each turn having a number of phases. The player with the initiative will go first in each of the phases unless they are simultaneous phases. The Phases are:

- Initiative Phase
- Morale Phase*
- Shooting Phase
- Movement Phase*
- Close Assault Phase

Note in Days of Iron movement may occur in both the Morale and Movement Phases. Movement is broken into two – Impulse Moves and Normal Movement. The 1st Impulse move follows a successful charge declaration in the Morale Phase, the 2nd in the Movement Phase prior to Normal Movement.

17.1. INITIATIVE PHASE

Before starting each turn, both players roll 1d6 to determine who has the initiative for that turn. Draws are re-rolled. The player who has the initiative will go first in all separate phases *except* the simultaneous phases.

17.2. MORALE PHASE

The morale phase features charges and rallying from routing. Each unit *charging, being charged or routing* tests morale (in the order and subject to the conditions on the reference sheets). The initiative player goes first, followed by the non-initiative player. It is in this phase that units can restore order to the ranks ('rally') after being disordered or shaken in the previous turn.

Players test for *making charges, being charged, casualties from shooting, charging home and rally* by adding the various factors on the morale tests table and rolling 1d6 to determine the result. If the die roll is higher than the total factors then the unit passes the test and does what the test results table indicates. Units not in good order *must* try to rally at the first opportunity.

17.2.1. Off-Board Units

The deployment of off-board units must be declared in the Morale Phase if they are to make their appearance in the Movement Phase of the same turn.

17.2.2. The Declared Charge

The initiative player declare charges, starting from one side of the table and proceeding left to right (or vice versa) until he has nominated every unit in his army that will charge. This is announced in the Morale Phase. The non-initiative player can use the same procedure to declare all his charges. Once all charges are declared, the players use the To Charge table to determine whether the declared unit charges. Only one test is required for each declaration even if multiple units are involved, for example a Brigade charge. If a unit does not pass its To Charge Test it cannot move closer towards enemy units.

After each successful To Charge Test, the player moves the charging unit toward its target in what is called the 1st Impulse. After all the 1st Impulse moves are made all the units being charged must make Being Charged Tests and react accordingly.

17.2.3. The 1st Impulse Move

The 1st Impulse allows the charging unit to wheel or change formation and advance to a point that is over a quarter but up to halfway to the target unit. If a unit is charging at an enemy within 2" for infantry or within 6" for cavalry and the charging unit does not change formation the target unit is caught and may not change formation or evade nor is it required to conduct a being charged test.

17.2.4. Infantry and Artillery

Infantry and irregular units can only attempt to charge once a turn. Infantry cannot charge mounted troops. Artillery cannot charge.

17.2.5. Shooting and Charging

A unit that successfully makes a declared charge cannot shoot in the Shooting Phase; however, they may shoot and then make an opportunity charge in the Movement Phase. A unit which fails to charge can nevertheless shoot.

17.2.6. Squadron Charges

Cavalry units may make separate 'squadron charges' of a minimum of 3 stands with the remainder of the unit making a second or opportunity charge in the Movement Phase. The remainder of the unit may only charge into the same Close Assault melee as the other stands in the same unit.

17.2.7. Charging Through Skirmish Screens

Units may charge through skirmish screens if they declare a charge on a unit beyond the skirmishers. The chargers move first, then the skirmishers. The skirmish screen acts as a whole, so if one stand has to evade, then all the stands do. Any enemy skirmishing units within the charging unit's 1st Impulse movement are automatically routed. Skirmishing stands that rout cannot shoot later that turn.

Skirmish screens must evade charging formed units if they can. If the skirmish screen is within a charging unit's 1st Impulse movement in the open (i.e. not in woods or an urban area) then the skirmishing unit automatically routs directly away from the charging unit. Skirmishing infantry contacted by cavalry in the open suffer an automatic major defeat as the combat result.

17.2.8. Disordered and Shaken Units

Units will be in good order, disordered or shaken as a result of a variety of factors that reflect their morale and/or steadiness. Units will be disordered if in urban areas, woods, fords, swamps and difficult ground or if they have made two forced march moves. Other examples include after failing a morale test and routing or pursuing. Units that are shaken will remain so until they make a successful rally test in the morale phase. A unit will automatically recover from disorder if it makes no other actions, i.e. moves or shoots or changes formation, for one turn.

Disordered and shaken units should have a marker placed next to them indicating their status. These markers may be written tabs or blue markers for disordered and red markers for shaken.

17.2.9. Units Gone to Ground

A unit that has gone to ground has effectively been pinned by enemy fire and the troops are considered to be seeking cover. As a consequence a unit that has gone to ground will suffer negative morale factors for morale checks as it is harder for the officers to motivate the men forward. A unit that has gone to ground must make and pass a rally test. Units that have gone to ground are considered dispersed targets when being fired upon. Infantry units may voluntarily go to ground if they choose but must make morale checks to move from this state.

17.2.10. Halted Units

Units halted after failing a reaction to shooting test cannot make any further movement toward enemy units but may move away or change formation as long as they move no closer to the enemy. The halted unit may move normally in the following turn if it passes subsequent morale tests.

17.2.11. Rallying

Units that are routing or pursuing may attempt to rally. If the rally test is passed, the unit making the test may halt and rally in line or column formation facing in the opposite direction to its rout movements. Unless the Generals themselves are routing they can try to rally units will still retain command of their formations.

17.3. SHOOTING PHASE

Firing is simultaneous in Days of Iron. The player with initiative rolls first. All units fire using the number of stands with which they *started* the phase. Casualties are applied at the end of the Phase. For each H on the shooting charts, remove a stand from the target unit. Casualties represent men wounded, killed or running away. Command stands are the last removed from play.

After resolving the number of casualties on each unit all units must make their morale responses on the Morale or Casualties from Shooting or Charge home with Enemy Test. Units must fire at the nearest visible eligible enemy unit. Artillery is the exception to this rule as it may fire at any eligible unit. Shooting units and artillery have 45° firing arcs taken from the front corner of the stand. The Mitrailleuse however has a reduced firing arc of 22 ½°.

Players roll as many 1d6 as stands in the units or per single gun model as specified on the Small Arms and Artillery Charts. The player counts the number of stands or guns he wishes to shoot, and then checks the range to the target and confirms the target unit is within the firing arc of the shooting units. Players must use the multiples of four stands for line infantry firing with the remaining two or three stands using the 2 or 3 tables on the small arms shooting tables.

Units can only shoot once per turn. Players declare all units that are firing at particular targets prior to rolling any dice.

If an enemy unit has passed through a unit's firing arc and within range the previous turn, a shooting unit can elect to shoot at the enemy target as long as the shooting unit has not moved or changed formation. The unit shoots at the same range and target class that the target appeared in the previous phase.

17.3.1. Defensive Fire

Players who suspect that their units may receive an opportunity charge may elect to reserve part of their unit's fire to enable them to fire defensively in the Movement Phase. Defensive fire can only be made by stands that have not fired in the Shooting Phase and can only be directed at enemy at units charging at them.

17.3.2. Friendly Fire and Shooting into a Close Assault

Units cannot intentionally fire into a Close Assault melee. If, however, the melee suffers a hit from artillery bounce through or some other accident, half the casualties inflicted must be on the friendly unit. If only one casualty, then that comes from the *friendly* unit. Units who sustain hits from "friendly fire" must make morale tests as if they received fire from an enemy unit.

17.3.3. Elevated and Dead Ground

Unless using howitzers or sited on a low hill, artillery may not fire at targets on high hills. Artillery on high hills cannot shoot at targets 6" or closer to the front edge of the Artillery stands. Artillery firing from high hills may fire at units over friendly troops. Friendly troops are endangered if they are within 4" of the target unit and are between the target and the firing Artillery. Howitzers can fire common shell at visible enemies in woods, urban areas or units on hills regardless of their elevation and over the heads of friendly troops. Artillery on high hills can engage targets on all terrain providing the above criteria are met.

17.3.4. Endangering Friendly Troops

Units are *Endangered* if any part of their stand crosses a parallel line from the front corners of firing stand to the target. There is a rectangular zone (effectively) between firer and target; this applies to troops both on level and low rise terrain. Stands cannot fire if friendly troops are endangered.

17.3.5. Firing on Artillery, Staff and Engineers

When artillery is hit by shooting, roll on the Damage to Artillery Table. Small arms fire may only kill crew or horses and will not damage the guns themselves. If there are no horses then all casualties are taken on crew.

Only skirmishing stands may deliberately fire at enemy staff. If unattached engineers or staff stands are hit by small arms fire or artillery bounce through, then a 1d6 is rolled to determine the effect for every hit received on the Casualties to Staff Table.

If Staff or engineers are attached to a unit, and that unit comes under fire or is in Close Assault, an extra and separate 1d6 is rolled to determine if there are any casualties to them. If a hit is scored then another roll is taken on the Casualties to Staff Table to determine the effect. Staff or engineers do not test morale for any hits received. However, if they are attached to a unit that routs they will also rout.

17.4. MOVEMENT PHASE

All movement is measured from the front edge of the command stand of a unit. Always place the unit command stands at the front of the unit. Each unit's movement allowance is based on the formation and circumstances in which it starts the Movement Phase. A unit may move less than its full allowance or remain halted with no penalty. A unit is 'halted' if it makes no move towards the enemy. A unit cannot come within 1" of an enemy unit it has not charged. When changing formation, carefully consider the command stand facing as the unit will form up in *that direction*. Units have the movement allowance based on the formation they start the phase in.

17.4.1. Order of Movement

The order of movement of units is: routers, 2nd impulse movements and then normal movements (including 1st impulse movements).

17.4.2. The 2nd Impulse

In the 2nd Impulse, units make the remainder of Declared Charge moves into contact with their targets. A unit needs to make base-to-base contact with 1" or more of an enemy unit to be 'in contact'. 2nd Impulse moves occur before normal movement and no formation changes, wheeling or changing of direction is allowed. If the player decides to not continue a charge, he declares a 'feint charge' and the charging unit moves no further. 2nd Impulse moves may only be up to half the remaining move of the charging unit.

17.4.3. Normal Movement

Use the movement tables on the reference sheets to determine movements. Differing formations move at different rates and suffer differing movement penalties (eg changing formation or crossing obstacles). After a formation change, units may move the balance of their movement. However, the formation with the *lowest movement allowance*, of the two the unit uses, determines how much movement remains.

17.4.4. Effect of Terrain on Movement

Moving over certain types of terrain reduces unit movement. See deductions on the movement tables on the reference sheets. Deduct these distances from the basic movement of the unit.

17.4.5. Forced Marches

Forced marches move units on the battlefield quickly. Units, which must be in march column, can force march distances specified in the movement tables on the reference sheets. Units cannot force march unless their whole brigade makes a forced march. Units forced marching are disordered (until they regain their order, using the normal rules for disordered units). Brigades making forced marches can not move within 12" of a *visible* formed enemy unit.

17.4.6. Wheeling

Units change direction by wheeling. The command base is placed in the centre of an infantry line. Line or column formations can wheel. The unit pivots on one end of the line and the outer side advances in a shallow arc. The amount the unit has wheeled is measured from the outside arc and cost double movement. So, if the outside arc is 2" the total distance moved is regarded as 100mm.

17.4.7. Formation Changes

Units can make only one formation change a turn. If a unit does not move or make a formation change it is considered halted. A unit may change formation in a light wood or urban area but not in a heavy wood. Make movement deductions from the formation the unit starts the turn in. Turning 90° or about 180°, changing from march column to manoeuvre column or line or vice versa, changing from march column to skirmish order or vice versa and changing from line or column to square or vice versa are considered formation changes.

17.4.8. Passing through units

Troops may pass through a deployed artillery battery from front to rear or vice versa without being disordered. This cannot be done through a massed or limbered battery. A unit may charge through a deployed battery in its 1st Impulse movement but will be disordered. A unit charging through a battery causes the gunners to evade the charging unit and the battery *may not fire* until the gunners have returned to the guns in the next movement phase.

17.4.9. Passage of Lines Manoeuvre

Passage of Lines is a manoeuvre to extract engaged or weary units and replace them with fresh units without compromising the battle line. The manoeuvre can only be done in the open or in a light wood by units of Class 2 and above. In effect the replacing unit moves through a line to its immediate front and will suffer a movement penalty as per the movement reference tables. If at the end of the movement the two lines are within 1" of each other then the lead unit is classified as a dense target. Units performing the manoeuvre can not perform a charge in the same turn. Units moving through a shaken unit that is of a higher class rating than itself will be disordered at the end of the movement.

17.4.10. Charge Home Test

After charging units make their 2nd Impulse moves, and their charge targets have conducted any defensive firing, the charging unit must make a Charge Home Test. If the charging unit passes the test, it makes base-to-base contact with the target. If the charging unit fails the test they are halted 2" in front of their intended target and can not make any other movements or formation changes. Routing or evading units who are contacted by a charge can not move until the Close Assault is resolved.

17.4.11. Opportunity Charges

Units that have not declared a charge in the Morale Phase may make an *opportunity charge* in the Movement Phase. The opportunity charging unit must pass the To Charge Test but can only move half its normal movement without any formation changes or wheeling. A unit that has shot in the Shooting Phase may make an opportunity charge if there is an eligible enemy target unit within 2".

17.4.12. Feint Charges

A player whose units Declared Charge has not contacted its target may declare a 'feint charge' after the target has made its Being Charged test. If a feint charge is declared, the unit that declared the charge can not make any further movements during the same turn. Class 1 troops cannot make feint charges.

17.4.13. Counter Charges

A counter charge is a charge at an enemy unit that is charging. A counter charge is generally a declared charge in the Morale Phase by the non-initiative player or an opportunity charge in the Movement Phase. Counter charges follow the rules of declared and opportunity charges. Infantry and artillery units defending obstacles or in cover may choose to not pursue and are not required to make any compulsory advance move. A unit that has been counter charged must make a Being Charged test immediately.

17.4.14. Routing

Units will rout as a result of failing a morale test or as a result of losing a Close Assault engagement. On being forced to rout, units will make an initial rout movement directly away from enemy that caused it to rout in the phase that the rout occurs. The initial rout movement will be half the rout distance as specified on the movement chart. No movement deductions are made for direction or formation changes. Unlimbered artillery batteries are destroyed and limbered artillery batteries will rout with their guns.

After the initial rout the routing unit will make full rout movements, called a continued rout until the unit is either destroyed, goes off the table or is rallied. A unit that has routed off the table will not return. A unit routing will only move to a maximum of one full rout distance per turn ie if a units makes a half initial rout move in the morale phase the distance routed in the movement phase will be the remaining half movement.

17.4.15. Routers passing through units

Routing units whose movement results in them contacting friendly infantry or artillery units in line or skirmishing formation burst through them. The units being burst through by the routing unit will be disordered. Routing units coming into contact with friendly columns or limbered artillery will move around them toward the rear table edge as best as possible. If a routing unit is forced into contacting an enemy unit it will be dispersed and removed from play. Note: if less than 1" base contact, no 'contact' is deemed to take place.

17.4.16. Evading

Units in skirmish formation, artillery crew, and staff may attempt to evade away from charging enemy units. After successfully passing a Being Charged test the evading unit may make a movement up to half of its normal movement for that formation. Infantry, staff and artillery crew evade movement may be into cover or inside infantry in square formations, otherwise all movements must be directly away from the enemy charging units. No formation changes can occur and evading artillery crews leave their guns where they left them. In the event an evade movement results in the unit moving off the table edge the unit may return to the table three turns later in the Movement Phase.

17.5. CLOSE ASSAULT PHASE

Close Assault results depend on the terrain features, the formation and quality of the troops and luck. Players add all the relevant tactical factors for all units involved, add the average troop class of the units involved and add the result of a roll of 1d6. The highest score wins the combat. The difference in score determines the extent of the victory in terms of casualties, the facing of the unit in relation to the enemy and status of morale of the units.

Units in base to base contact with an enemy unit are considered to be in Close Assault combat. All stands of the unit are considered to be involved in the combat except when units are fighting skirmishers. Providing a unit in a melee is in line, it can receive reinforcement from a friendly unit behind it. However, the reinforcing unit must be positioned directly opposite the enemy unit as if the intervening friendly unit was not there.

17.5.1. Compulsory Movement

Compulsory movements must be made in accordance with the close assault result table and units may only change formation to flow through gaps in terrain. No deductions are made for crossing difficult terrain types although pursuing cavalry may halt at the edge of difficult terrain if the compulsory movement would take them into heavy woods or urban areas or swamps or any terrain where they would be disadvantaged. Units whose compulsory rout has taken them into a river drown or must surrender or disperse if they are not at a ford and the unit is removed from play.

17.5.2. Casualties in Close Assault

No matter how many stands are involved in the combat the groupings and results apply. Take the casualties evenly from all units involved in the combat. In the event of a 'spare' casualty, take this off the lowest quality unit involved in the combat or from the unit that has more stands in contact if the quality is same. If quality and number of stands in contact is the same then allot the casualty using a die roll. This will also apply regardless of whether the results involve different troop types eg a multi unit cavalry and infantry Close Assault.

17.5.3. Routers in multi-unit Close Assault

Close Assault combat against routing units must be resolved as a separate combat prior to the rest of the Close Assault phase. The routing units will suffer an Automatic Major Victory against them and make a compulsory movement using the close assault results table. The remaining units in Close Assault combat will ignore the Automatic Major Victory result. The victors will not make any compulsory movement and resolve the remaining Close Assault combat as per normal. The stands of a routing unit do not count for outnumbering troops in the Close Assault.

17.5.4. Break-Through attacks as a result of compulsory movement

Units making moves as a result of Close Assault result tables do not suffer terrain penalties. A compulsory advance movement must be in the direction of the charge or direction of the move of the defeated enemy. Victorious units whose compulsory movement results in contacting a new enemy unit will engage it in Close Assault in the next turn. This is called a Break-Through Attack. The victorious unit is deemed as charging for the Close Assault tactical factors. If defeated units were destroyed as a result of the Close Assault the victorious unit(s) must still advance in the direction of its charge but may wheel up to 45° to confront an enemy unit within range, while paying the movement reduction for any wheel.

The new enemy fighting a Break-Through Attack must make a Being Charged test in the next Morale Phase. If the unit passes the test it may not change formation or evade although it may shoot in the Shooting Phase unless the attacking enemy are in contact with friendly troops (eg pursuing defeated enemy). If the new enemy unit contacted fails its Being Charged test it will rout and the victorious unit will continue to advance the balance of its compulsory movement in the direction of the original unit defeated.

17.5.5. Close Assault in Urban Areas and woods

Close Assault combat in urban areas and woods is abstracted to enable ease of play. Units that have been charged will have to make a Being Charged test but will get benefits for defending either light or heavy urban areas and woods. Although units may be attacked in the rear or flanks they will always benefit from the cover they are in. Hence a line in heavy cover charged in the rear will have negative factors for being charged in the rear but will benefit from defending heavy cover. Units that are Class 2 and above or units with Capable or Exceptional General defending urban areas or cover are not required to make compulsory movements as a result of Close Assault combat if that compulsory movement would take them out of the cover.

17.5.6. Defensive cover

Infantry in line formation may prepare defensive light cover, such as abatis or a barricade, if they are in a wood or urban area. The defensive cover is classified as a light obstacle and is the width of the stand. It takes two Movement Phases with no other activity to construct defensive cover.

17.5.7. Staff and Engineers in Close Assault

While Staff and Engineers can improve the odds in a close assault, it puts them at risk. If Staff and Engineer stands are attached, i.e. in contact with, a unit that is fighting a Close Assault combat, roll a 1d6 to see if they become casualties. On a roll of 6 the Staff or Engineer stands have suffered a casualty and a subsequent roll is made on the Casualties to Staff and Engineers table. If the staff and engineers are contacted when isolated then they *automatically* become casualties.

17.5.8. Shattered Units

When infantry units are reduced to two stands and Cavalry units are reduced to one stand they must be removed from play.

18. ENDING THE GAME

A game may be finished at the end of the non-initiative player's Close Assault Phase.

18.1. Surrendering

Players may choose to surrender their affected units at the end of the Close Assault Phase.

18.2. Calculating the Winner

Once players have agreed to terminate the game they may then determine who has won the battle. Determining who has won the battle depends on what the players decide would be the victory conditions prior to the game. In an objective-driven battle the result will depend on whether the objectives were taken. If both players achieve or do not achieve their objectives the game is a draw. If one player takes their objectives and denies the other player theirs then a win is recorded. Although historically armies would look to withdraw from the battlefield when their casualties reached 25%, these rules do not enforce this. In the author's experience, players like to bring a game to a *decisive* conclusion. However, players are encouraged to occasionally use a percentage of casualties in their armies as a means of ending a game.

Removing a stand of stands does not necessarily represent the 'utter destruction' of that unit. It represents a proportional loss of a unit's fighting capability and includes lightly wounded, dispersed or demoralised soldiers who could rally to the colours later.

For a point-based determination of victory each player counts the number of points lost in the battle. Destroyed or surrendered units or units that have routed off the table top count for full points while routing units or units under half of their starting strength count for half points. The player who has lost the least number of points is the winner. The margin of victory for a standard 800 point game is as follows:

Points Difference	Result
0 to 150	Draw
151 to 250	Minor Victory
251 to 400	Major Victory
401+	Massacre

19. OPTIONAL RULES

Agree, before starting, which optional rules will be used in the game. Generally, this is necessary *before* selecting armies because some rules may influence troop types choices. If there is dispute over which rules to use, roll 1d6 to resolve it.

19.1. Scouting

Scouting gathers information on enemy movement before a battle. Superior use of cavalry, local knowledge and staff work decides which army has the best intelligence regarding the enemy deployment. Scouting points are calculated and Scouting Results determined before Deployment starts. Light Cavalry is used for scouting with the different classes of troops providing scouting points as below.

19.2. Scouting Points Values

Class	Value
For each scouting Class 1 and 2 figure	1pt
For each scouting Class 3 figure	2pt
For each scouting Class 4 figure	3pt

19.3. Scouting Results

After scouting points are determined they are compared. If one player has 15 or more scouting points than their opponent then they have 'out-scouted' that player. The out-scouted player will deploy one brigade on the table 12" from the rear edge of his side of the playing area. After this deployment the players will alternate their deployments brigade by brigade. If neither player is out scouted then players roll 1d6 to determine who places a brigade first.

19.4. Alternative Staff Ratings

Nations Generals	Inept	Capable	Exceptional
Prussian	1	2, 3, 4,	56
French	1,2	2,3,4,5	6
German (Bavaria, Baden, Saxony and Wurttemberg etc)	1,2	3,4,5,6	-

Enjoy your wargaming in a spirit of friendship. It is always possible to marshal a new lead army, but opposing generals are harder to come by.