

# WARGAME RULES FOR THE LATE 19<sup>th</sup> CENTURY

## LAND COMBAT

### Unit Strength Points (SP)

Type of Unit	Strength Point Value
Infantry	4
Dismounted cavalry	3
Mounted cavalry	3
Machine guns	2
Artillery	2
Horse-drawn transport	1
Commanders	1

#### Rules

- Units are allocated a Strength Point value (SP) before the battle begins, although these may be adjusted in order to take into account the unit's strength, equipment, and training.
- Units lose Strength Points as a result of enemy action, and these reductions must be recorded (i.e. on a roster, by the use of markers, or by the removal of individual figures).
- When a unit's Strength Point value is reduced to 0, the unit is destroyed, and is removed from the battlefield.

### Turn Sequence

- At the start of each turn a playing card tile is picked out of the bag and placed FACE DOWN next to each unit on the tabletop.
- Artillery Fire Phase takes place.
- Any artillery units that fire in the Artillery Fire Phase of the Turn Sequence have their playing card tile removed.
- Once the Artillery Fire Phase is completed, the playing card tiles are turned over and units are activated in turn. The order of activation is in ascending numerical/face value and suit order precedence (i.e. Ace, 2, 3, 4, 5, 6, 7, 8, 9, 10, Jack, Queen, and King being the numerical/face values, and Hearts, Clubs, Diamonds, and Spades the suit order precedence).
- Once both sides have activated, moved, fired, and/or conducted Close Combats with each of their units in turn – subject to any restrictions laid down in the rules – both sides check to see if they have reached their Exhaustion Point. Once that has been done, the turn is complete and the next turn can commence.

### Artillery Fire Phase

Type of Artillery	Range
Heavy artillery	12 hexes
Medium artillery	10 hexes
Field artillery	8 hexes
Mountain artillery	6 hexes

#### Rules

- Artillery fire is simultaneous, and the effect of artillery fire upon targets is determined after all artillery units have fired.
- All ranges are measured through the edges of the hexes, not the corners.
- Each artillery unit may fire only once each turn, and if it fires it may not move.
- Artillery units fire have an arc of fire that is forward of the direction in which they are facing. This must be directly into the adjacent hex, widening out as the range increases but never exceeding 30° on either side of the direction in which the artillery unit is facing when it fires.
- Artillery units can fire into woods, built-up areas, and fortifications.
- Artillery units can fire out of woods, built-up areas, and fortifications if they are in a hex that is on the edge of the woods, built-up areas, or fortifications (i.e. the adjacent hex in the direction they are firing does not contain woods, built-up areas or fortifications).
- If a target cannot be seen by the artillery unit that is firing at it (i.e. there is a no direct line-of-sight between the target and the artillery unit firing at it), the artillery fire is indirect fire.
- If a target can be seen by the artillery unit that is firing at it (i.e. there is a direct line-of-sight between the target and the artillery unit firing at it), the artillery fire is direct fire.
- The target hex is identified. Roll a D6 die for each unit firing and add or subtract any relevant modifiers –
  - Die score = 5 or more: Artillery fire lands on the target hex.
  - Die score = 2 or 4: Artillery fire lands in the hex immediately in front of the target hex.
  - Die score = 1 or 3: Artillery fire lands in the hex immediately behind the target hex.
  - Die score = Less than 1: Artillery fire has been totally ineffective.
    - Reduce the D6 die roll score by 1 if the target is in cover or fortifications.
    - Increase the D6 die score by 2 if the artillery unit has a direct line-of-sight to the target hex.
    - Increase the D6 die roll score by 1 if the artillery unit has fired at the same target during the previous turn.
    - Increase the D6 die roll score by 1 if a friendly Commander is in the same hex as the firing unit or in a hex that is adjacent to the firing unit.

Any unit or units in the hex that the artillery fire lands in are hit, and a D6 die is rolled for each to determine the effectiveness of the artillery fire upon each unit. (See RESOLVING HITS ON UNITS or – in the case of land-based artillery against ships – RESOLVING HITS ON SHIPS)

## Movement

Type of Unit	Movement	Rules
Infantry	2 hexes	a) All movement is measured through the edges of the hexes <u>not the corners</u> .
Dismounted cavalry	2 hexes	b) A unit may be moved only once each turn.
Mounted cavalry	3 hexes	c) A unit that is firing (or has fired) this turn reduces its movement by 1 hex.
Machine guns	2 hexes	d) A unit may change its direction of movement any number of times during its move but <u>must</u> end its move facing the edge of the hex <u>not the corner</u> .
Artillery	2 hexes	e) With the exception of a horse-drawn transport unit and commanders, a unit <u>may not</u> start or end its move in the same hex as a friendly unit.
Horse-drawn transport	2 hexes	f) No unit may start or end its move in the same hex as an enemy unit.
Commanders	3 hexes	g) A unit <u>must</u> stop as soon as it enters a hex that is adjacent to the front, flank or rear of enemy unit, and <u>must</u> turn to face the enemy unit <u>at once</u> .
		h) If a unit is being faced by an enemy unit that is in an adjacent hex <u>and</u> the unit has not yet moved this turn, it <u>may</u> move (i.e. it may withdraw to away from the enemy unit) providing that it does not move into a hex that is adjacent to the front of another enemy unit.

## Fire Phase

Type of Weapon	Range	Rules
Rifles & Carbines	3 hexes	a) All ranges are measured through the edges of the hexes <u>not the corners</u> .
Machine guns	3 hexes	b) Each unit <u>may</u> fire only once each turn.
		c) units have an arc of fire that is forward of the direction in which they are facing. This must be directly into the adjacent hex, widening out as the range increases but never exceeding 60° on either side of the direction in which the unit is facing when it fires.
		d) Units may only fire at targets that are in direct line-of-sight.
		e) Units can fire 1 hex <u>into</u> woods, built-up areas, and fortifications.
		f) Units can fire <u>out</u> of woods, built-up areas, and fortifications <u>if</u> they are in a hex that is on the edge of the woods, built-up areas, or fortifications (i.e. the adjacent hex in the direction they are firing <u>does not</u> contain woods, built-up areas or fortifications).
		g) The target hex is identified. Roll one D6 die for each unit firing <u>except</u> for Machine Gun units, which roll three D6 dice, and add or subtract any relevant modifiers – Die score = 5 or more: A hit on all enemy units that are in the target hex. (See RESOLVING HITS ON UNITS) <ul style="list-style-type: none"> <li>• Reduce the D6 die roll score by 1 if the target is in cover or fortifications.</li> <li>• Increase the D6 die roll score by 1 if the firing unit has not moved this turn.</li> <li>• Increase the D6 die roll score by 1 if a friendly Commander is in the same hex as the firing unit <u>or</u> in a hex that is adjacent to the firing unit.</li> </ul>

## Close Combat

Type of Unit	Modified score required to hit the enemy	Rules
Infantry	5 or more	a) A unit must stop if it enters a hex that is adjacent to one occupied by an enemy unit, and turn to face the enemy unit.
Dismounted cavalry	5 or more	b) A rear or flank attack is one made directly on the side or rear of an enemy unit.
Mounted cavalry	4 or more	c) Both sides roll a D6 die <u>for their unit</u> involved in a Close Combat, add or subtract any relevant modifiers, and read the result from the appropriate row (i.e. the type of unit <u>they</u> are throwing for). <ul style="list-style-type: none"> <li>• Increase the D6 die roll by 1 if the attack is being made against the rear or flank of an enemy unit.</li> <li>• Increase the D6 die roll score by 1 if a friendly Commander is in the same hex as the unit for which the D6 die is being thrown <u>or</u> in a hex that is adjacent to that unit.</li> <li>• Reduce the D6 die roll score by 1 if the unit is being attacked in the flank or rear by an enemy unit.</li> <li>• Reduce the D6 die roll score by 1 if the enemy unit is uphill, in cover or in fortifications.</li> </ul>
Machine guns	5 or more	
Artillery	5 or more	
Horse-drawn transport	6 or more	
Commanders	5 or more	d) Infantry and cavalry units that win a Close Combat (i.e. because the enemy unit has been destroyed <u>or</u> has retreated 1 hex) may move forward and occupy the hex that was occupied by the enemy unit and may conduct further Close Combats if this makes them adjacent to a hex occupied by an enemy unit.

## Resolving hits on Units

Unit Status	Results	Rules
Elite units	Die score = 3, 4, 5, or 6: Unit survives but must retreat 1 hex <u>or</u> lose 1 SP.	a) Any unit that is hit throws a D6 die to resolve what happens.
Average units	Die score = 4, 5, or 6: Unit survives but must retreat 1 hex <u>or</u> lose 1 SP.	b) Any unit unable or unwilling to retreat 1 hex loses 1 SP.
Poor units	Die score = 5 or 6: Unit survives but must retreat 1 hex <u>or</u> lose 1 SP.	

## Special Rules

Exhaustion Point	<p>Before the battle begins, both sides calculate their Exhaustion Point. This is one half of the side's total initial Strength Points, rounded up.</p> <p>When a side has lost that proportion of initial Strength Points, it has reached its Exhaustion Point.</p> <p>A side that has reached its Exhaustion Point must immediately stop taking aggressive action (i.e. it will continue to fight to defend its existing position, but will not continue any movement towards the enemy).</p> <p>When both sides have reached their Exhaustion Point, the battle ends.</p>
Transport	<p>A horse-drawn transport unit may tow an artillery unit.</p> <p>It takes one turn to limber or unlimber an artillery unit. During that turn both units must be in the same hex.</p> <p>Horse-drawn transport units that are towing artillery units move at their normal movement rate.</p> <p>Any hit on a horse-drawn transport unit is also deemed to be a hit on any unit that it might be carrying or towing.</p>
Roads	<p>Units on roads move at normal movement rate, <u>plus</u> 1 hex if the <u>entire</u> move is made along a road.</p>
Hills	<p>In Close Combat a unit that is attacking uphill against an enemy unit reduces the D6 die score they throw by 1.</p>
Rivers	<p>When using a ford in a river a unit moves into the river on turn A and stops, then moves 1 hex out of the river on turn B.</p> <p>Units in rivers may not fire.</p> <p>In Close Combat a unit that is in a river reduces the D6 die score they throw by 1.</p>
Woods	<p>A unit must stop as soon as it enters a wood.</p> <p>A unit moving through a wood has a maximum movement rate of 1 hex per turn.</p> <p>The range of all weapons fired <u>within</u> a wood is reduced to 1 hex.</p> <p>In Close Combat a unit that is in a wood increases the D6 die score they throw by 1.</p>
Barbed wire	<p>A unit can lay barbed wire in a hex by remaining in the hex for 1 turn.</p> <p>A unit can remove barbed wire from a hex by remaining in the hex for 1 turn.</p> <p>All units <u>must</u> stop and remove the barbed wire next turn <u>or</u> stop and not resume their movement until the next turn.</p>
Trenches	<p>When crossing a trench a unit moves into the trench on turn A and stops, then moves 1 hex out of the trench on turn B.</p> <p>Units crossing trenches may not fire.</p> <p>In Close Combat a unit that is crossing a trench reduces the D6 die score they throw by 1.</p>

## Definitions

Adjacent	<p>Any hex that touches the side of another hex is defined as being adjacent to it.</p>
Cover	<p>Cover is any natural or man-made terrain feature that can hide or obscure a target from view.</p>
Direct line of sight	<p>Direct line-of-sight is a straight line from the centre of one hex to the centre of another that is not obscured by cover or a vertical or horizontal obstacle.</p>
Fortifications	<p>Fortifications are any man-made defences built to strengthen a position. They include bunkers, dugouts, trenches, and fieldworks.</p>
Line-of-sight	<p>Line-of-sight is a straight line from the centre of one hex to the centre of another.</p>
Retreat	<p>A retreating unit may withdraw into an adjacent empty hex that is not adjacent to a hex occupied by an enemy unit. If it is unwilling or unable to do so, it loses 1 SP.</p>

# WARGAME RULES FOR THE LATE 19<sup>th</sup> CENTURY

## NAVAL COMBAT

### Ship Flotation Values (FV)

Ship Type	Flotation Point Value	Critical Point	Rules
Battleship	20 points	10 points	a) All hits are cumulative.
Ironclad/Coastal Defence Battleship	16 points	8 points	b) When a ship's Flotation Points (FP) are reduced to the Critical Point, the ship must break off from battle.
Armoured Cruiser	14 points	7 points	c) When a ship's Flotation Points reaches 0, it sinks.
Protected Cruiser	12 points	6 points	d) When engaged in Ground and Naval Combat, 1 SP = 1 FP (and vice versa).
Torpedo Boat	4 points	2 points	
Gunboat	6 points	3 points	

### Turn Sequence (Naval Combat only)

- Both sides fire their guns.
- Both sides fire their torpedoes.  
(N.B. Firing guns and firing torpedoes is deemed to be simultaneous, and a ship that has been hit and sunk may fire its guns and/or torpedoes that turn – as it sinks – if a suitable target is in range.)
- Both sides throw a D6 die. The side with the lowest score moves its ships first that turn.
- Once the first side has moved its ships, the other side moves theirs.
- Once both sides have had the opportunity to fire and move, the turn is complete and the next turn can commence.

### Turn Sequence (Ground and Naval Combat)

The Turn Sequence laid down for Ground Combat is used with the following additions:

- Each ship is treated as a unit.
- The Naval Combat Phase takes place concurrently with the Artillery Fire Phase.
- Naval guns are subject to the rules laid down for land-based artillery except that ships may move after firing their guns..

### Naval Combat: Firing Guns

Gun Type	Gun Range	Rules
Super heavy guns	14 hexes	a) All ranges are measured through the edges of the hexes <u>not the corners</u> .
Heavy guns	12 hexes	b) No ship may fire its main armament at more than one target each turn.
Medium guns	10 hexes	c) No ship may fire its secondary armament at more than one target each turn.
Light guns	8 hexes	d) No ship may fire its guns <u>at a ship</u> that is not in direct line-of-sight.
Very light guns	6 hexes	e) A ship may only fire with those guns that can bear on the target.
		f) The target hex is identified. Roll a D6 die for each gun firing (up to a maximum of 4 guns) and add or subtract any relevant modifiers – Die score = 5 or more: Ship's gunfire lands on the target hex. Die score = 2 or 4: Ship's gunfire lands in the hex immediately in front of the target hex. Die score = 1 or 3: Ship's gunfire lands in the hex immediately behind the target hex. Die score = Less than 1: Ship's gunfire has been totally ineffective.

- Reduce the D6 die roll score by 1 if the target is in cover or fortifications.
- Increase the D6 die score by 2 if the firing ship has a direct line-of-sight to the target hex.
- Increase the D6 die roll score by 1 if the firing ship has fired at the same target during the previous turn.
- Increase the D6 die roll score by 1 if the firing ship has not moved this turn.

Any targets in the hex that the ship's gunfire lands in are hit, and a D6 die is rolled for each to determine the effectiveness of the ship's gunfire upon each target. (See RESOLVING HITS ON SHIPS or – in the case of naval gunfire against land-based targets – RESOLVING HITS ON UNITS)

### Naval Combat: Firing Torpedoes

#### Rules

- Torpedoes have a range of 3 hexes.
- All ranges are measured through the edges of the hexes not the corners.
- A torpedo hits any ship that is in a hex that the torpedo passes through. At that point the torpedo has run its course and does not continue to move.
- If a torpedo does not hit a ship, it sinks and is not recoverable.
- Only ships equipped to fire torpedoes may do so.
- No ship may fire more than 1 torpedo each turn and a maximum of 4 torpedoes during a battle.
- Ships larger than torpedo boats are only able to fire torpedoes directly ahead, astern, or abeam (i.e. at 90° to the ship's side).
- Torpedo boats with trainable torpedo tubes are allowed to fire at targets that are anywhere that is abeam of them.
- Roll 3 D6 dice if a ship is in a hex that the torpedo passes through.  
A 4, 5, or 6 is a hit on a ship that is in the target hex. (See RESOLVING HITS ON SHIPS)

## Movement

Ship Type	Movement	Rules
Battleship	3 hexes	a) Movement is measured in hexes.
Ironclad/Coastal Defence Battleship	2 hexes	b) A ship may change its direction of movement any number of times during its move but <u>must</u> end its move facing the edge of the hex not the corner.
Armoured Cruiser	3 hexes	c) Ships may turn 60° after moving forward one hex, the turn 'costing' one hex of movement.
Protected Cruiser	4 hexes	
Torpedo Boat	5 hexes	
Gunboat	2 hexes	

## Resolving hits on Ships

Gun Type	Results of hits on a:		
	Pre-Dreadnought Battleship	Ironclad/Coastal Defence Battleship	Armoured Cruiser
Super heavy guns	Die score = 6: Ship loses 2 FP. Die score = 4 or 5: Ship loses 1 FP. Die score = 1, 2, or 3: Minor damage.	Die score = 5 or 6: Ship loses 2 FP. Die score = 3 or 4: Ship loses 1 FP. Die score = 1 or 2: Minor damage.	Die score = 4, 5 or 6: Ship loses 2 FP. Die score = 2 or 3: Ship loses 1 FP. Die score = 1: Minor damage.
Heavy guns	Die score = 5 or 6: Ship loses 1 FP. Die score = 1, 2, 3 or 4: Minor damage.	Die score = 6: Ship loses 2 FP. Die score = 4 or 5: Ship loses 1 FP. Die score = 1, 2, or 3: Minor damage.	Die score = 5 or 6: Ship loses 2 FP. Die score = 3 or 4: Ship loses 1 FP. Die score = 1 or 2: Minor damage.
Medium guns	Die score = 6: Ship loses 1 FP. Die score = 1, 2, 3, 4, or 5: Minor damage.	Die score = 5 or 6: Ship loses 1 FP. Die score = 1, 2, 3 or 4: Minor damage.	Die score = 6: Ship loses 2 FP. Die score = 4 or 5: Ship loses 1 FP. Die score = 1, 2, or 3: Minor damage.
Light guns	Any die score = Minor damage.	Die score = 6: Ship loses 1 FP. Die score = 1, 2, 3, 4, or 5: Minor damage.	Die score = 5 or 6: Ship loses 1 FP. Die score = 1, 2, 3 or 4: Minor damage.
Very light guns	Any die score = Minor damage.	Any die score = Minor damage.	Die score = 6: Ship loses 1 FP. Die score = 1, 2, 3, 4, or 5: Minor damage.
Torpedoes	Die score = 5 or 6: Ship loses 2 FP. Die score = 3 or 4: Ship loses 1 FP. Die score = 1 or 2: Minor damage.	Die score = 4, 5 or 6: Ship loses 2 FP. Die score = 2 or 3: Ship loses 1 FP. Die score = 1: Minor damage.	Die score = 3, 4, 5 or 6: Ship loses 2 FP. Die score = 1 or 2: Ship loses 1 FP.

Gun Type	Results of hits on a:		
	Protected Cruiser	Torpedo Boat	Gunboat
Super heavy guns	Die score = 3, 4, 5 or 6: Ship loses 2 FP. Die score = 1 or 2: Ship loses 1 FP.	Die score = 2, 3, 4, 5 or 6: Ship loses 2 FP. Die score = 1: Ship loses 1 FP.	Die score = 3, 4, 5 or 6: Ship loses 2 FP. Die score = 1 or 2: Ship loses 1 FP.
Heavy guns	Die score = 4, 5 or 6: Ship loses 2 FP. Die score = 2 or 3: Ship loses 1 FP. Die score = 1: Minor damage.	Die score = 3, 4, 5 or 6: Ship loses 2 FP. Die score = 1 or 2: Ship loses 1 FP.	Die score = 4, 5 or 6: Ship loses 2 FP. Die score = 2 or 3: Ship loses 1 FP. Die score = 1: Minor damage.
Medium guns	Die score = 5 or 6: Ship loses 2 FP. Die score = 3 or 4: Ship loses 1 FP. Die score = 1 or 2: Minor damage.	Die score = 4, 5 or 6: Ship loses 2 FP. Die score = 2 or 3: Ship loses 1 FP. Die score = 1: Minor damage.	Die score = 5 or 6: Ship loses 2 FP. Die score = 3 or 4: Ship loses 1 FP. Die score = 1 or 2: Minor damage.
Light guns	Die score = 6: Ship loses 2 FP. Die score = 4 or 5: Ship loses 1 FP. Die score = 1, 2, or 3: Minor damage.	Die score = 5 or 6: Ship loses 2 FP. Die score = 3 or 4: Ship loses 1 FP. Die score = 1 or 2: Minor damage.	Die score = 6: Ship loses 2 FP. Die score = 4 or 5: Ship loses 1 FP. Die score = 1, 2, or 3: Minor damage.
Very light guns	Die score = 5 or 6: Ship loses 1 FP. Die score = 1, 2, 3 or 4: Minor damage.	Die score = 6: Ship loses 2 FP. Die score = 4 or 5: Ship loses 1 FP. Die score = 1, 2, or 3: Minor damage.	Die score = 5 or 6: Ship loses 1 FP. Die score = 1, 2, 3 or 4: Minor damage.
Torpedoes	Die score = 2, 3, 4, 5 or 6: Ship loses 2 FP. Die score = 1: Ship loses 1 FP.	Any die score = Ship loses 2 FP.	Die score = 2, 3, 4, 5 or 6: Ship loses 2 FP. Die score = 1: Ship loses 1 FP.

### Rule

- Any ship that is hit as a result of naval gunfire, land-based artillery, or torpedoes rolls a D6 die to resolve what happens.
- Ships may 'trade off' the loss of Flotation Points by reducing their movement and/or armament:
  - 1 FP = 1 hex of movement
  - 1 FP = 1 main armament gun
  - 1 FP = 2 secondary armament guns

Once the 'trade off' has been made it cannot be rescinded during the battle.

## Special Rules

Minefields	A ship may move through a minefield without stopping, but in doing so it is automatically hit. (See RESOLVING HITS ON SHIPS) A mine is the equivalent of a torpedo.
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## Definitions

Direct line of sight	Direct line-of-sight is a straight line from the centre of one hex to the centre of another that is not obscured by cover or a vertical or horizontal obstacle.
Heavy guns	The main armament of Ironclads/Coastal Defence Battleships.
Light guns	The main armament of Protected Cruisers and Gunboats. The secondary armament of Ironclads/Coastal Defence Battleships and Armoured Cruisers.
Line-of-sight	Line-of-sight is a straight line from the centre of one hex to the centre of another.
Medium guns	The main armament of Armoured Cruisers. The secondary armament of Battleships.
Super heavy guns	The main armament of Battleships.
Very light guns	The main armament of Torpedo Boats. The secondary armament of Protected Cruisers and Gunboats.