# "Mahan" – Solitaire Rules for 'Ironclads' (Version 1.0)

*Overview*

These solitaire rules 'play' play one side of the battle in a game of Ironclads. These rules use simultaneous movement, and fire will occur at a random time during movement. For the sake of simplicity, I have called the artificial intelligence system 'Mahan'. These rules do not require you to make choices for Mahan. Mahan will attempt to close with your force and position its ship(s) to maximise close-range broadsides, or ram where the opportunity arises.

*Extra Pieces*

1 x 10-sided die

16 chits - 14 which are blank, 1 for Player fire, 1 for Mahan fire (I use Union/Confederate chits 1-8 which come with the base game, #1 Chit being the fire chit for each side)

Markers (or scraps of paper) to note manoeuvre orders for ship/formations

Marker (or scraps of paper or dice) to note speed of ship/formations

## Solitaire Sequence of Play Changes

    A. Player Movement Orders Phase
    B. First Mahan Movement Orders Phase
    C. Activity Phase – place all 16 chits into an opaque cup, then:
        a. First move/fire round
        b. Second move/fire round
        c. Third move/fire round
        d. Fourth move/fire round
        e. <u>Second Mahan Movement Orders Phase</u>
        f. Fifth move/fire round
        g. Sixth move/fire round
        h. Seventh move/fire round
        i. Eighth move/fire round

## Player Movement Orders Phase

You do not plot your moves in detail, as in the original game. Instead, a player must plan their general manoeuvre for each ship or formation for the whole turn at the start of the turn. You have five orders to choose from:

    A. Ahead
    B. 60° turn Port or Starboard
    C. 120° turn Port or Starboard
    D. About Port or Starboard
    E. S-turn Port or Starboard

Notes on manoeuvres – the first three are obvious. 'About' requires a sequence of three 60° turns in the direction nominated during the Activity Phase. 'S-turn' is a single 60° turn in the direction nominated, followed by a single 60° turn in the opposite direction. Player turns can be made at ANY time during movement and do NOT need to be nominated to happen in a particular Round. This allows players freedom as to when they turn their ship(s).

Assign an order to each formation (or individual ships if they are not in a formation) by choosing its speed and manoeuvre. You must comply with the regular rules, ie. you cannot allocate a 120° turn to a ship which does not have turning capacity of at least a x/2 at the current speed. Similarly, you cannot allocate an About manoeuvre to a ship which doesn't have a turning capacity of at least x/3 at the current speed.

## Mahan Movement Orders Phase

After the player has allocated ALL manoeuvre orders, Mahan will allocate orders to all its ships. NOTE: Mahan has two Movement Orders Phases each turn, the Player only has one. Use the following procedure(s):

Either:

If there is no visible Player ship within 20 hexes of a Mahan ship(s), the Mahan ship(s) simply move toward the nearest Player ship by the most direct route which avoids land and shoals. If there is more than one ship at the same distance, use the Player ship with the highest Value (found on the top right corner of the ship cards). Also, a retreating Mahan ship will move at the highest possible speed toward the nearest friendly map edge, turning only to avoid collisions.

Or:

If there is a Player ship within 20 hexes of a Mahan ship(s):

1. *Increase Speed*: Increase speed to maximum possible speed for the ship/formation. NOTE: you MUST keep within normal Engine Capacity limits of Mahan ships at this point in time, BUT this designated speed may be reduced automatically in the Assign Headings and Orders phase (below) if a Mahan ship receives a new assigned heading.
2. *Determine Nearest Enemy Ship*: For each Mahan ship/formation, locate the closest Player ship (this will be the 'Player reference ship'). If there is more than one ship at the same distance, use the Player ship with the highest Value (found on the top right corner of the ship cards). The closest Mahan ship to the Player reference ship is the 'Mahan reference ship'. If more than one, chose the Mahan reference ship at random.
3. *Refer to the Battle Movement Display*: Locate the appropriate sector on the display for Mahan reference ship.
4. *Assign Headings and Orders*: Roll the die and consult the Battle Movement Display (BMD) to determine the ship/formation's new heading and the manoeuvre order it receives. Ships <u>immediately</u> turn to the indicated heading (except 180° turns are prohibited) and place and order marker on the ship/formation. If an assigned order would cause any Mahan ship to leave the map edge (except retreating) then roll again.

Mahan orders, unlike player orders, only specify three possible manoeuvres: Ahead, 60° turn, and About. Also, each Mahan order completely defines the ship/formation movement for the four subsequent move/fire Rounds; you make no decisions as to when the Mahan ships/formation will turn.

## Activity Phase

The Activity Phase consists of eight Rounds of movement and the possibility of fire. In each Round, all Mahan ships which can move are moved, then all Player ships which can move are moved, then two chits are drawn. If both chits are blank, fire combat cannot occur. If either (or both) the Union and/or the Confederate Fire chits are drawn, fire combat will take place. After four Rounds, there is a Second Mahan Movement Orders Phase, conducted exactly like the First Mahan Movement Orders Phase.

*Movement*

Ships move during the eight identical move/fire Rounds of the Activity Phase. The speed of a ship/formation determines whether it moves on the game board during a particular move/fire Round. Use the Movement Chart (below) to determine when ships move.

Cross reference the ship/formation's current speed with the number of the move/fire Round; the resulting number is how many hexes (if any) the ship/formation moves that Round.

All ships MUST move in a move/fire Round if the Movement Chart requires them to do so. You can never keep a ship from moving when it is required to do so by the chart.

The Second Mahan Movement Orders Phase occurs between the 4th and 5th move/fire Rounds.

Ignore any regular Turning Capacity for Mahan ships. In this Solitaire game Turning Capacity only applies to the Player's ships.

In either Mahan Movement Orders Phase, if a Mahan ship/formation is required to make a 60° turn to a new assigned heading, immediately reduce its speed by 1. If it is required to make a 120° turn, immediately reduce its speed by 3. Remember that 180° turns in a heading assignment are prohibited (except see below). A ship/formation's speed may never be reduced to less than 1 due to speed reductions via heading assignment.

NOTE: There is one situation where a 180° turn is the only possible manoeuvre that can be undertaken by a Mahan ship/formation, and that is when the Player reference ship and the Mahan reference ship are both behind each other's sterns and sailing in opposite directions. In this case ONLY, the Mahan manoeuvre will always be About (1-5 Port, 6-10 Starboard).

*Mahan Manoeuvre Orders*

**Ahead**: A ship/formation with an Ahead order moves straight ahead in the direction the bow faces. The number of hexes it moves is determined by the Movement Chart.

**60° Turns**: During one of the ensuing four move/fire Rounds, ships make a single 60° turn in the indicated direction (port or starboard). To determine when the ship/formation turns, roll a d10 at the end of the current move/fire Round. If you roll 1-3, the ship/formation immediately turns. If the ship/formation has not turned in the first three move/fire Rounds, it automatically turns at the end of the fourth move/fire Round, ie. no die roll is required. A ship/formation will make this turn even if it did not move in that Round. Once the ship/formation has made its turn, the order marker is removed and it continues Ahead, until it receives a new order.

**About**: This manoeuvre serves to reverse the current course of the ship. Unlike a simple 60° turn (above) Mahan ships with an About order only turn in those move/fire Rounds in which they actually move. If they do not move in a Round, they do not turn. Ships must turn in the direction indicated by the marker (port or starboard). If a ship/formation is eligible to move in a move/fire Round, it moves ahead either one or two hexes (determined by the Movement Chart) and then turns 60° in the required direction. After it has completed its three turns, remove the About marker and it continues Ahead, until it receives a new order.

*Player Manoeuvre Orders*

**Ahead**: A Player ship/formation with an Ahead order moves straight ahead in the direction the bow faces. The number of hexes it moves is determined by the Movement Chart.

**Turns**: A Player ship/formation with any order requiring them to turn (60°, 120°, About, and S-turn) can turn in ANY move/fire Round that you wish, subject to the following:

1. A ship may be turned before or after it moves, but not both.
2. A ship can never make two turns in the same hex, eg, you cannot make a turn after movement in the 8th Round, and then a turn before movement in the 1st Round of the next Game Turn.
3. A ship can only turn if it is allowed to move in that move/fire round, according to the Movement Chart.

**120° Turns**: If the Player's ship has a Turning Capacity of 2/x at the current speed, this may be taken as a single 120° turn in one hex, or two 60° turns in different hexes. If the ship only has a turning capacity of 1/2 or 1/3 at the current speed, this may only be taken a two 60° degree turns in different hexes. For convenience, you may wish to replace the 120° turn marker with a 60° turn markers after the first turn is made.

*How to Use the Battle Movement Display*

1. Orient the Battle Movement Display (BMD) so that the Player reference ship hex on the display (the black arrow in the red hex) points in the same direction as the Player reference ship on the map. Determine which hex on the BMD corresponds to the hex on the map occupied by the Mahan reference ship. NOTE: It is important to stress that you only use the two reference ships when determining Mahan orders. Even though a Mahan force may have ships in different sectors, the only one which matters is the reference ship.

2. Roll a d10. Check the sector on the display containing the Mahan reference ship, and find the hex corresponding to the die roll result.
3. Determine the assigned ship/formation heading. The red triangle points to a particular hexside; this is the direction in which the ship/formation must <u>immediately</u> face. Turn the Mahan ship(s) on the map so that its bow faces this direction. If the ship/formation is already facing that direction there is no speed penalty. If it requires a 60° change, speed is immediately reduced by 1. If it requires a 120° change, speed is immediately reduced by 3. NOTE: In both these instances, Engine Capacity and Turning Capacity is ignored for Mahan ships. A 180° change is prohibited and, if rolled, roll again until you get a new assigned heading.
4. Determine a new manoeuvre order for the ship/formation. In the sector hex with the heading arrows is the order the ship/formation receives: Ahead; or 60° port or starboard; or About port or starboard. Place an appropriate maker on the ship/formation to remind you of the order.

You repeat this procedure for EVERY Mahan ship or formation on the map. Remember that Player reference ships may be different for each Mahan ship/formation, so you may have to perform this procedure a number of times.

NOTE: Although not shown, the outer BMD sectors extend out to 20 hexes, in each direction, from the Player reference ship. Hypothecate the position of the Mahan reference ship, and determine the relevant sector accordingly.

*Fire Combat*

After all Mahan and Player ships have moved, draw two chits from an opaque cup. If both are blank, nothing happens and you move on to the new move/fire Round. If the Player chit is drawn, the Player may elect to fire any or all of their guns. If the Mahan chit is drawn, Mahan will fire all guns which can be brought to bear on the nearest Player ship(s). If there is a choice of nearest, allocate guns to the highest Value Player ship.

Players follow the regular rules for loading, target selection and firing.

Mahan guns which have a ROF of 1/2 only ever fire Solid Shot. Record when guns are reloading (and hence unavailable to fire) normally.

Mahan guns with a ROF of 1/1 will normally fire Solid Shot, but will fire Shell on the following conditions ONLY:

1. Against a WV Player vessel where the Shell PF is 10 or more greater than the highest Hull Armor on that side of the Player vessel.
2. Against any Player vessel where at least two sections of Hull Armor, on that side of the player vessel, have been reduced to zero.

NOTE: You do not select the load for Mahan ships. The load is determined when the rounds hit your ship. Mahan ships never fire Grapeshot, Hotshot, or double or triple loads.

*Ramming*

As was previously noted by many naval wargamers, the Ramming rules in the original Ironclads game were wildly unrealistic. Ramming was used to attack ships at anchor, or to apply the *coup de grace* to heavily damaged ships. In this Solitaire game, there are new restrictions on Ramming for BOTH sides.

To make a ramming attack, the attacking ship must have a Ram bow. Non-Ram Bow attacks are not permitted, and the ordinary Collision rules apply.

The defending ship must be anchored, fouled, drifting, or moving at a powered speed of 2 or less.

Player ships use manoeuvre orders normally. Mahan ships do not follow their Solitaire orders procedure, but increase to the highest speed possible by their Engine Capacity, and move and turn so that they 'aim' for a point 2 hexes in front of the target ship's bow. They may commence this attack run from any point on the board where they have vision of an eligible target ship. If, at any stage, the target ship increases speed beyond 2, the attacking Ram reverts to normal BMD movement.

When within 4 hexes of the target ship, the Mahan ram will move and make any number of 60° turns (if necessary) in such a way as to hit the target. If there is a choice of hexes, choose broadside, then stern, then bow.

*Spar Torpedoes*

Mahan and Player ships with spar torpedoes manoeuvre as per Rams, but the defending ship speed restrictions do NOT apply.

Mahan ships are considered to have lowered their spar torpedoes when they are 4 hexes away from the target ship. They do not suffer the 1/1 Turn Capacity from having a lowered spar torpedo, but may only make one 60° turn when within 4 hexes of a target ship. If they cannot 'hit' their original target because of this, they will either:

A. Immediately target another Player ship which they can hit; or
B. Immediately raise the spar torpedo and revert to BMD movement.

## Line Ahead (Optional)

The Solitaire system presumes that all Mahan formations will turn simultaneously. You may wish to play that where a Mahan formation is steaming in Line Ahead, ie. one ship after another, that they also turn in Line Ahead formation. If this occurs, then the lead ship of the column sets the hex(es) where the remainder of the ships will turn, and so you have a path of ships 'snaking' along behind. *Historical note*: Union ironclads would approach a land fort Line Abreast, then move to Line Ahead as they passed, to maximise their broadsides.

## MOVEMENT CHART

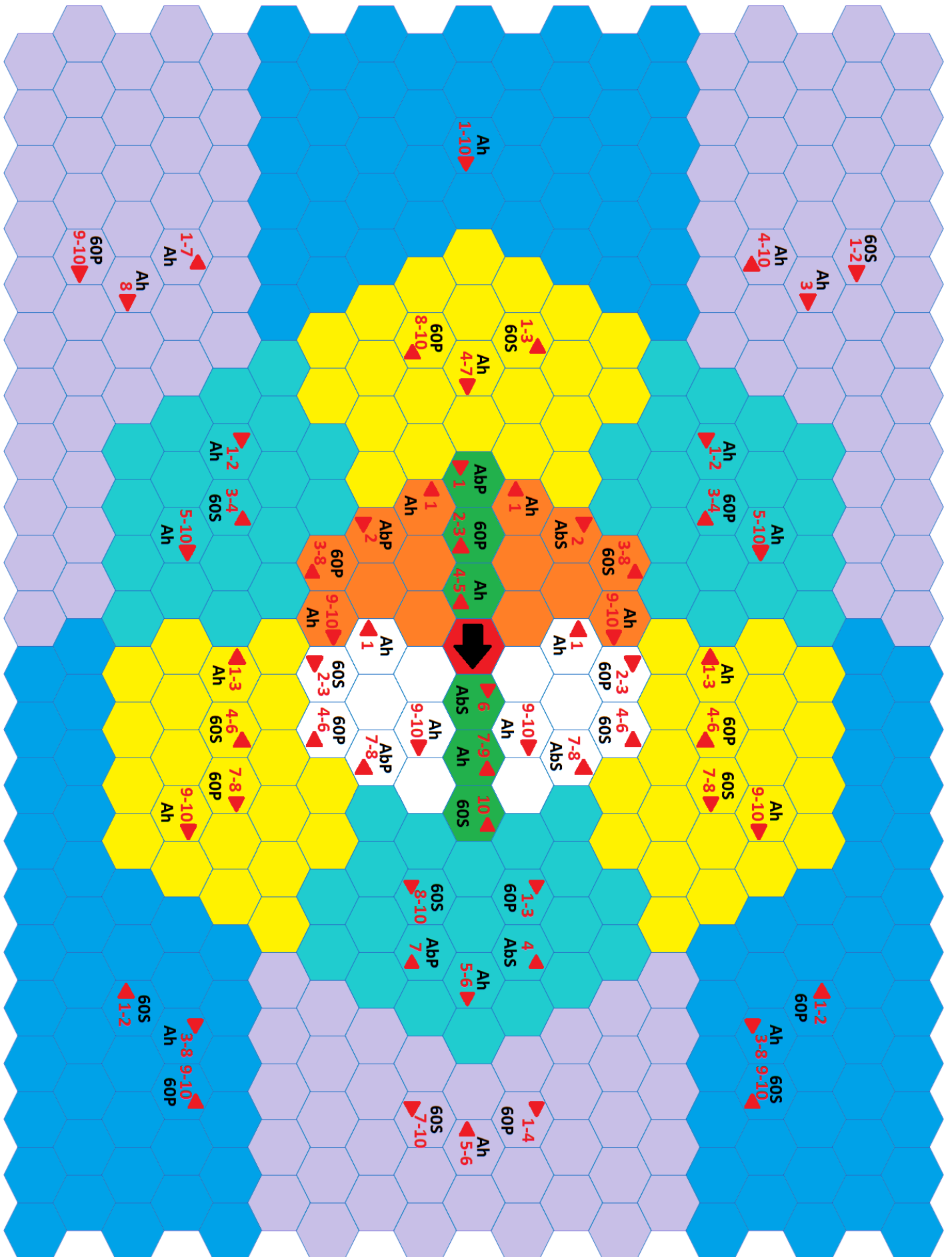| Speed | 1st | 2nd | 3rd | 4th | Mahan | 5th | 6th | 7th | 8th | Speed |
|-------|-----|-----|-----|-----|-------|-----|-----|-----|-----|-------|
| 16 | 2 | 2 | 2 | 2 | M | 2 | 2 | 2 | 2 | 16 |
| 15 | 2 | 2 | 2 | 2 | M | 2 | 2 | 2 | 1 | 15 |
| 14 | 2 | 2 | 2 | 1 | M | 2 | 2 | 2 | 1 | 14 |
| 13 | 2 | 2 | 2 | 1 | M | 2 | 2 | 1 | 1 | 13 |
| | | | | | | | | | | |
| 12 | 2 | 2 | 1 | 1 | M | 2 | 2 | 1 | 1 | 12 |
| 11 | 2 | 2 | 1 | 1 | M | 2 | 1 | 1 | 1 | 11 |
| 10 | 2 | 1 | 1 | 1 | M | 2 | 1 | 1 | 1 | 10 |
| 9 | 2 | 1 | 1 | 1 | M | 1 | 1 | 1 | 1 | 9 |
| | | | | | | | | | | |
| 8 | 1 | 1 | 1 | 1 | M | 1 | 1 | 1 | 1 | 8 |
| 7 | 1 | 1 | 1 | 1 | M | 1 | 1 | 1 | - | 7 |
| 6 | 1 | 1 | 1 | - | M | 1 | 1 | 1 | - | 6 |
| 5 | 1 | 1 | 1 | - | M | 1 | 1 | - | - | 5 |
| | | | | | | | | | | |
| 4 | 1 | 1 | - | - | M | 1 | 1 | - | - | 4 |
| 3 | 1 | 1 | - | - | M | 1 | - | - | - | 3 |
| 2 | 1 | - | - | - | M | 1 | - | - | - | 2 |
| 1 | 1 | - | - | - | M | - | - | - | - | 1 |

Key:

**2 or 1**: The number of hexes moved in this move/fire Round

- : The ships does not move in this move/fire Round

**M**: Just a reminder that after the fourth move/fire Round you have to have to give all Mahan ships new manoeuvre orders.

# BATTLE MOVEMENT DISPLAY