

War at Sea

Playing Off the Grid

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War at Sea can be played without a grid to produce a more free-form game. To play this way, you'll need an ungridded playing surface (a mottled blue cloth about 4 feet by 6 feet is best) and at least one caliper-style drafting compass that can be set to a fixed length. One compass per player is better. (Rulers can be substituted if compasses aren't available, but they are less convenient.)

Measuring: Distances are measured by compass with a fixed setting of 3 inches. This fixed span is referred to as a "leg." Measurements are taken by "stepping" the compass forward one leg at a time. All measurements are taken from the bow of ships and subs and from the forward-most point on an aircraft's base.

Ship Movement: A move of 1 sector equates to 2 legs of the compass; for example, a ship moving at speed 2 moves 4 legs (12 inches). One point of the compass is placed at the bow of the ship, and measuring begins from there. At the end of the move, the ship's bow is placed touching the furthest point of the compass. It can be placed short of that in order to move less than a full leg.

Stacking: At the end of movement and placement, ships must be more than 1 leg from other friendly ships, subs must be more than 1 leg from other friendly subs, and fighter aircraft that are not in contact with enemy ships must be more than 1 leg from other friendly fighters that are not in contact with enemy ships. Ships classed as Torpedo Boats can be within 1 leg of one other ship.

Optional Heading and Arcs of Fire: This rule is optional; to use it, all players must agree to its use before play begins.

If a ship moves at least 1 leg less than its full speed, you can place it with any heading. If it moves its full speed, then its final heading must align with the compass points; that is, the bow touches or points at the forward tip of the compass and the hull lines up with the rear tip of the compass. For example, a ship with Speed 2 can move 4 legs. If it moves 3 legs or less, it can end the move with any heading. If it moves more than 3 legs, its final heading must align with the compass points.

Ships fire with full effect against targets lying within a 140-degree arc directly to port and starboard. They fire with reduced effect against targets lying outside that arc (within 20 degrees of directly ahead or astern). To determine whether a target is inside the ship's broadside arc, lay a protractor parallel to the ship with its vertex at the bow. Extend that angle to the bow of the target ship to see whether the

target lies inside or outside the arc. If the target is outside the broadside arc, the firing ship takes a -1 penalty on all its gunnery dice. Torpedo, ASW, and AA attacks aren't affected by heading.

Some ships don't have aft-bearing turrets. These are easily identified by looking at the models. If a ship has no aft-bearing turrets, it can't use Main Gunnery attacks against targets in the stern firing arc.

Measuring Attack Range: Attack range is measured similarly to movement but with a different count. Anything within 1 leg is at range 0; beyond range 0, each range band is comprised of 2 legs. Ranges are measured from bow to bow.

Range	0	1	2	3	4	5
Legs	1	2-3	4-5	6-7	8-9	10-11
Inches	3	9	15	21	27	33

Aircraft Placement: Aircraft that will make strafing, bomb, torpedo, or ASW attacks must indicate their intended target at the moment they're placed; position the aircraft piece so its forward tip touches the target ship or sub. Aircraft that will make AA attacks can be placed anywhere, as can aircraft that are Shadowing enemy ships without attacking.

Anti-Aircraft Attacks: AA attacks have two ranges: short (1 leg) and long (2 legs). AA attack ranges are measured as follows:

- AA attack from ship -- measure from the bow of the ship;
- AA attack from aircraft -- measure from the forward-most point of the aircraft's base;
- AA attack against aircraft that is in contact with a friendly ship or sub (i.e., one that has declared a Bomb, Torpedo, ASW, or strafing attack against that ship or sub) -- measure to the bow of the ship or sub that is under attack, not to the attacking aircraft itself;
- AA attack against aircraft that is not in contact with a friendly ship or sub (i.e., one that is making an AA attack or is Shadowing friendly ships) -- measure to the forward-most point of the aircraft's base.

AA attacks at short range are handled normally. Against targets at long range, the attacker has a -1 penalty on each attack die.

Claiming Objectives: A ship must be within 1 leg of an objective marker to claim it.

Islands and Shoals: Only ships with Shallow Draft can move within 1 leg of islands and shoals.

Smoke: When a unit uses the Lay Smoke Screen special ability, it affects an area with a radius of 1 leg. The bow of the ship that created the smoke must touch the outer edge of the circle, and the ship must be inside the smoke. (The easiest way to mark a smoke screen is with a circular template; discarded CDs work nicely, although a CD's diameter is a bit less than 6 inches.)

ASW Threat: Ships with ASW ratings must be within 2 legs of enemy subs in order to penalize the sub's attack.

Special Abilities and Definitions

Some special abilities need modification or clarification under these rules.

Sectors: Where a special ability mentions distance, you must determine whether it is in the context of an attack range or a movement distance, then measure that distance appropriately in legs. In general:

- "In the same sector" or "local" equate to "within 1 leg" (range 0) -- but see the next note and the exceptions below.
- When two friendly ships are required to be "in the same sector," they can be within 2 legs instead.
- "Adjacent" equates to "within 2 legs."
- "Range X" should be measured as attack range, not movement distance.
- "Move X sectors" should be measured as movement distance, not attack range.

The following special abilities are amended as indicated:

Combined Attack: While this unit is attacking the same target as a friendly Dive Bomber, it rolls one extra attack die when making Torpedo attacks.

Close Escort: This unit can be within 1 leg of one friendly ship.

Divide the Defense: Once per game, you can declare you're using Divide the Defense. If you do, the ship that this unit is attacking and all other enemy ships within 2 legs of it get -1 on each attack die when making Anti-air attacks this turn, and this unit gets -1 on each attack die when making Bomb attacks and can't make Torpedo attacks this turn.

Escort: If this unit is within range 0 of an enemy ship that is targeted by a friendly Bomber ...

Guard the Convoy: While this unit is within 2 legs of a friendly auxiliary unit, enemy units can't attack that auxiliary unit until this unit has been attacked at least once in the same phase. Enemy aircraft can't be placed in contact with that auxiliary unit until at least one aircraft has been placed in contact with this unit.

Heavy Anti-air: This unit's Anti-air attack has a short range of 2 legs and a long range of 3 legs.

Slow 1, Slow 2: Instead of rolling a die to determine whether the ship moves at Speed 1 or 2, a Slow ship loses 1 leg from its movement (effectively, it has Speed 1.5). When crippled, it has Speed 1.

Sub Hunter: At the end of the second player's Sea Movement step, you may move this unit 2 legs, if that move places it within range 0 of an enemy submarine.

Designer's Notes

Taking ships and subs off the grid was simple. Playing the game with compasses instead of rulers adds a lot of flavor; you feel like a ship captain stepping off distances on your navigation chart.

Complications arise when aircraft are brought into the picture. I played with several different concepts before settling on this one. Aircraft gain a bit and lose a bit under these rules

The chief loss to aircraft is that they must declare their targets when placed. You no longer get your choice of two targets in the same sector, and if the first torpedo salvo cripples the target with boxcars, you can't redirect the second aircraft against a different ship in the sector.

It's also possible to hit aircraft with a lot of AA fire. A carrier, for example, could be ringed by six support ships, all of which can cover it with flak.

On the plus side for aircraft, all that AA fire is less effective than in the standard game. Because of the Stacking rule, a ship is never within short AA range of another ship. The only time a ship gets full use of its AA rating is against planes that are attacking it. When supporting another ship, it's always at long range and loses 1 pip per die. I ran the numbers on this and determined that two supporting ships at long range are slightly less effective than one ship firing with no penalty.

Also worth noting is that stacking limits apply only to ships, subs, and fighters. There's no limit to the number of bombers that can attack a single ship. With all those factors in place, the net effect is a slight advantage to aircraft, I think.

Allowing fighters to make long-range AA attacks is a way to increase their flexibility. In this case, the range penalty doesn't represent actual long-range combat. Instead, it accounts for the aircraft having less time over the target because they "took the long way 'round."

I find that setting the compass to 3 inches gives the best game. This approximates a grid with 5-inch squares (yes, 5 inches, not 6, thanks to the effect of diagonals) and the distances are visually pleasing. You can go as much larger as you want, but with less than a 2-inch leg, you might as well just play on the printed maps. A 2-inch leg corresponds to a 3.5-inch grid; a 2.25-inch leg corresponds to a 4-inch grid; a 3.3-inch leg corresponds to a 6-inch grid; and a 3.9-inch leg corresponds to a 7-inch grid. (The conversion is: length of grid square x 0.56 = length of corresponding leg.)

Headings were added as an optional rule for those players who want a little something extra. You pay a penalty for turning at the end of your move but not at the beginning. It's unrealistic, but it feels right. I didn't want to deal with turning keys or templates. At this scale of 5 inches = 5,000 yards, battleships should be about a quarter-inch long and can turn 180 degrees in a space as small as a nickel, so the heading rules aren't really necessary for an authentic game.

If you use the firing arcs, here's a convenient trick. Most compasses set to 3 inches form an angle that's close enough to either 20 or 40 degrees that the compass itself can be used to determine firing arcs. At this scale, the exact angle isn't critical, provided it's in the right neighborhood. Using the compass that's already in your hand is more convenient than keeping protractors on the table.