Fire As She Bears!

Geek Related's Ship Combat Rules

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Ships

Ships come in nearly infinite varieties, from fishing sloops to pleasure barges, plump merchant ships to heavily-armed warships.

In general ships break down into a couple major categories. There are the wide, or "round", ships used for transporting cargo or troops. They are slower but can carry a much larger tonnage of goods. Then there are the "long" ships, more streamlined vessels of greater speed and maneuverability, better suited for exploration and combat.

Ships are propelled by oars, sails, or a mix of the two. Oared ships work well in inland seas where winds are lighter, seas calmer, and more maneuverability is needed. Sailed ships are more suited to the open ocean, being more resistant to inclement weather and requiring less manpower to operate. Sailed ships have any number of masts and sport a wide variety of sail configurations – square sails are better for long-haul speed and require less crew to handle, while the triangular lateen, or "fore-and-aft", sails are better for maneuverability and traveling into the wind but are more complex and require more and better trained crew. Ships may have all of one kind of sails or a mix based on its needs.

Some ships have raised "castles" as a means of defense: aft, fore and aft, or even central in the case of some larger galleys. These provide cover and elevated positions for combatants.

Common Ship Types

- Cog: A wide, single-masted ship with a single large square sail and a flat bottom, used for hauling bulk cargo. Usually only has one deck above the hold or is completely open-decked. Sometimes a cog has castles, often as temporary add-ons, if fitted for war. They typically range from 50 to 80 feet in length, from 15 to 25 feet wide. They are old and relatively inexpensive, and handle like a pig, but can carry 100-200 tons of cargo. They are unsuitable for mounting cannon.
- Caravel: A light sailing ship with 2-3 masts and an aft quarterdeck. They are anywhere from 40 to 80 feet in length with a beam about 1/3 to 1/4 that, and carry from 50 to 150 tons of cargo. They can mount a limited number of light cannon on their upper deck (to a maximum of one 12-pounder per 10' of clear deck on a side).
- Carrack: A large, tall sailing ship with 3-4 masts, up to three decks, and high fore and aft castles. They can be 80 to 200 feet in length, with a beam ⅓ of that and carry up to 300 tons of cargo. Used for naval ships and intercontinental trade. Some carracks have a dedicated gun deck with gunports for increased broadside firepower and can mount a large number of

cannon – one per 10' of available deck length (though these are often spread across multiple decks).

- Galleon: A large, long sailing ship with 3-5 masts and no forecastle for greater speed, stability, and maneuverability. Used for war and valuable cargo. Nearly always armed with a large number of 12 to 24 pound cannon; they can mount one per 10' of length per gun deck, of which they can have several.
- Galley: A rowed ship (sometimes with a mast to help with long voyages). They are smaller but faster and more stable than the carrack. Galleys cannot mount cannon on their sides, but can mount very large front-facing armaments, typically a 32-pounder. They can also mount ballistae or other low-recoil siege engines on their deck and fire in all directions.
- Frigate: A general term used for any purpose-built warship designed for speed.
- Hulk: Like a cog, but larger.
- Sloop: A fast, maneuverable lateen-rigged sailing ship that stays close to shore and has a shallow draft. Used for fishing, coastal trading, and many other uses. Variations are named galeas, ketch, schooner, and many more. Civilian versions are almost never armed.
- Ship's Boat: Different types are called dinghys, jolly boats, launches, and longboats, these are small, usually rowed (though they can be sailed), utility boats carried aboard larger ships to ferry parties to shore and perform away missions. They can range from 10 footers that can only hold 2 comfortably to 30-footers with 10 oars

SAMPLE SHIPS

Ships are infinite in their variety, with no two being exactly the same, but here are some sample models.

Sample Cog (merchant ship)
Size: Length 75', Beam 30', Height 6', Draft 6', Rig height 65', 130 tons cargo
Hull: 14 sections (hardness 5, hp 50)
Masts: 1 (hardness 5, hp 50), mainmast square
Decks: hold, main deck, aftcastle
Crew: 10/5/2
Speed: 5 knots
Maneuverability: -4
Seaworthiness: +0
Armaments: none

Sample Small Caravel (trading ship)
Size: Length 60', Beam 17', Height 5', Draft 7', Rig height 54', 70 tons cargo

Hull: 12 sections (hardness 5, hp 60)
Masts: 2 (hardness 5, hp 50), mainmast lateen, foremast lateen
Decks: hold, main deck, quarterdeck
Crew: 24/12/6
Speed: 8 knots
Maneuverability: +4
Seaworthiness: +2
Armaments: 4 4-pounders (two on each side of the main deck), 2 swivel guns

Sample Large Caravel (explorer ship)
Size: Length 80', Beam 22', Height 6', Draft 7.5', Rig height 70', 90 tons cargo
Hull: 16 sections (hardness 5, hp 70)
Masts: 3 (hardness 5, hp 50), foremast lateen, mainmast square, mizzenmast lateen
Decks: hold, main deck, quarter/poop deck
Crew: 30/15/8
Speed: 9 knots
Maneuverability: +2
Seaworthiness: +4
Armaments: 6 9-pounders (three on each side of the main deck), 4 swivel guns

Sample Carrack (merchant ship)
Size: Length 90', Beam 30', Height 12', Draft 13', Rig height 81', 150 tons cargo
Hull: 18 sections (hardness 5, hp 70)
Masts: 3 (hardness 5, hp 60), foremast square, mainmast square, mizzenmast lateen
Decks: hold, main/gun deck, upper/weather deck, 2-deck forecastle, 2-deck sterncastle
Crew: 40/20/10
Speed: 10 knots
Maneuverability: -2
Seaworthiness: +2
Armaments: 8 18-pounders (four on each side of the gun deck), 1 9-pound aft gun, 2 swivel guns

Sample Large Carrack (heavy warship)
Size: Length 125', Beam 40', Height 12', Draft 16', Rig height 114', 300 tons cargo
Hull: 48 sections (hardness 5, hp 80)
Masts: 4 (hardness 5, hp 60), foremast square, mainmast square, mizzenmast square, bonaventure square
Decks: hold, orlop, main/gun deck, upper/weather deck, 3-deck forecastle, 2-deck sterncastle
Crew: 100/50/25

Speed: 12 knots
Maneuverability: -4
Seaworthiness: +4
Armaments: 20 18-pounders on the gun deck (10 per side), 4 24-pound carronades on the upper deck, 2 9-pound chase guns in the forecastle, 20 swivel guns

Sample Sloop (fishing ship)
Size: Length 40', Beam 10', Height 3', Draft 3', Rig height 35', 10 tons cargo
Hull: 4 sections (hardness 5, hp 40)
Masts: 1 (hardness 5, hp 40), mainmast lateen
Decks: main deck
Crew: 6/3/2
Speed: 8 knots
Maneuverability: +4
Seaworthiness: -4
Armaments: none

Sample Sloop (pirate ship)
Size: Length 60', Beam 15', Height 5', Draft 5', Rig height 53', 100 tons cargo
Hull: 12 sections (hardness 5, hp 60)
Masts: 2 (hardness 5, hp 60), foremast lateen, mainmast lateen
Decks: hold, lower deck, main deck
Crew: 40/20/10
Speed: 11 knots
Maneuverability: +2
Seaworthiness: +2
Armaments: 8 12-pounders (four on each side of the main deck), 1 9-pound chase gun, 8 swivel guns

Sample Small Utility Dinghy
Size: Length 10', Beam 5', Draft 6", .5 tons crew plus cargo
Hull: 1 section (hardness 5, hp 10)
Decks: none
Crew: 3/1/1
Speed: 3 knots
Maneuverability: +4
Seaworthiness: -4
Armaments: none

Sample Naval Longboat
Size: Length 20', Beam 6', Draft 1', 1 ton crew plus cargo
Hull: 2 sections (hardness 5, hp 20)
Decks: none
Crew: 10/5/2
Speed: 5 knots
Maneuverability: +3
Seaworthiness: -3
Armaments: one murder-gun

SHIP STATISTICS

Size: A ship's dimensions are its length, its beam (width at its widest point), its draft (depth), its height (how high the deck rides above the water), and its rig height (size of the largest mast). Proportionately wider ships can carry more cargo but are slower, and proportionately taller ships can carry more men and arms but are less seaworthy. Its cargo tonnage is how much cargo it can carry – cargo can be traded off for up to four passengers per ton (uncomfortably). Weight of armaments counts against the cargo total.

Hull, Masts, and Decks: Earlier and smaller ships like cogs and longboats don't have any deck besides the hull. Larger ships have a variety of decks. Similarly, early and small ships sport only a single mast; larger ships boast more. More masts equals more speed for the same size ship. Different kinds of rigging matter as well – in general, square sails add more speed and lateen sails add maneuverability.

For game purposes, we separate ships into 10'x10'x10' cubic sections of hull and masts, each of which has its own hardness and hit points.

Crew: Three numbers are provided. The first is for the usual full crew complement for a ship of the size. The second is for a single watch – how many skilled seamen are required to operate the ship without penalties. If the ship is manned by a full watch, the average of their Profession: Sailor skill bonuses can be added to ship handling rolls. The third is for a skeleton crew - what the fewest number of sailors is to barely operate the ship. A skeleton crewed ship takes a -4 penalty to all naval rolls including speed and maneuver checks.

Speed: This is the ship's maximum speed, attained when running before a strong wind. That's not a sustained speed of getting where you're going. Speed is 2/3 maximum for a moderate wind and 1/3 for a light wind. For tactical purposes, one knot is roughly equal to 10' per round. A ship can only accelerate or decelerate by one knot per naval round.

Maneuverability: The ship's maneuverability is added to sailing skill checks having to do with its ability to maneuver – naval maneuvers, dodging obstacles, avoiding the clutches of a kraken, and so on.

Seaworthiness: The ship's seaworthiness is added to sailing skill checks having to do with not foundering or being otherwise hindered due to weather and to offset weather-related penalties on other checks.

Armaments: What siege engines or other defenses are mounted on the ship, if the ship is armed. Galleys can not use side-mounted cannon. Rigged ships cannot use catapults effectively. Small craft may have a swivel-gun at most. Larger ships like caravels can fit some side-mounted cannon on their top deck and perhaps a chase gun on the prow and/or the stern. Carracks and other larger ships may have entire gun decks with closable gun ports to mount larger scale broadsides. A ship can mount a maximum of one siege weapon per otherwise unoccupied hull section, per deck suitable for emplacement.

CANNON

See "Geek Related's Gunpowder Weapons of Golarion" for full cannon rules.

Size (shot weight)	Cost	Damage	Weight	Crew	Range	Ready
60 pound bombard	40,000 gp	15d10	10 tons	10	In Sight	10
42 pound serpentine	16,000 gp	12d10	4 tons	6	Long	10
32 pound royal culverin	8,000 gp	10d10	3 tons	5	Long	5
24 pound culverin	6,000 gp	9d10	2.5 tons	5	Long	5
18 pound third culverin	5,000 gp	8d10	2 tons	4	Medium	4
12 pound demi-culverin	4,000 gp	7d10	1.5 tons	4	Medium	4
9 pound long nine	3,500 gp	6d10	1 ton	4	Medium	3
9 pound dragon	3,000 gp	6d10	.5 tons	3	Short	3
4 pound falcon	2,000 gp	4d10	600 lbs.	3	Short	2
Swivel-gun murderer	1,000 gp	2d10/4d6	200 lbs.	2	Close Contact	1

Larger pieces like the 42-pound serpentine and 60 pound cannon exist but cannot be mounted on ships and are used for siege warfare and coastal defense.

The maximum size of cannon a ship can mount is based on the strength of the ship's structure – if a ship is only one section across its beam, it can handle up to a nine pounder; two sections, up to a 12 pounder; three sections, up to an 18 pounder, and four sections, up to a 32 pounder.

Naval Combat

Once a ship comes across an opponent – another ship, or a creature, or other threat – it's time for combat! Because naval combats can be large and complex, with scores of crewmen and dozens of guns, some rules are provided to abstract things a bit.

Step One: Gain The Weather Gage

Make sure you've determined the current weather, as much will depend on it – range of visibility, sailed ship speed, and more.

Wind Effects

Wind Force	Sailed Movement	Seamanship Check	Pitching Penalty
Becalmed	None	-	-
Light Wind	1/3 max speed	-	-2
Moderate Wind	2/3 max speed	-	-4
Strong Wind	Max speed	DC 10/1d6	-6
Severe Wind	Max speed	DC 15/2d6	-8
Windstorm	Max speed	DC 20/3d6	-10

Sailed Movement: The wind force determines what part of the ship's maximum speed it can travel. Ships can accelerate or decelerate one knot per naval round.

Seamanship Check: Heavy winds require a Profession: Sailor skill check for a ship to not receive damage to its rigging. The ship's Seaworthiness is applied to this check. This check is made hourly during normal travel or every round during combat maneuvering. Failure means all rigging sections take the listed amount of damage. If all the rigging is destroyed, then failing another check means the ship founders and begins to sink.

Pitching Penalty: The ship heaves up and down in the sea. This translates into a penalty for missile fire, including cannon fire. This is on top of the normal wind penalties for missile fire, though cannon do not suffer from wind penalties. The craft's Seaworthiness is removed from this penalty (to a maximum of +0).

THE WEATHER GAGE

Then, if either party is a sailed ship, you determine which party has the advantage of the wind. The craft which is upwind (approaching from windward) is said to have the weather gage, which confers a number of advantages. First, it is much easier to maneuver your guns into a firing position, and you have much more leeway in maneuvering. Second, if the other ship does not turn and run in the direction of the wind from you, you have considerable speed and maneuverability advantage and can essentially set the range and position of the engagement with little opposition.

If one of the participants took special care to come upon the other unawares with the benefit of the wind, they automatically gain the weather gage. If two ships (or a ship and a creature) happen to come across each other unawares, roll d20 and consult the following chart.

GAINING THE WEATHER GAGE

1-40: Opponent gains
41-80: Friendly force gains
81-00: Contested, opposed Profession: Sailor check with the Maneuverability of the crafts applied to see who gets it. Flying, swimming, or otherwise propelled participants should use their more relevant skill check instead.

Whoever has the weather gage gains a +2 bonus on speed and maneuver checks while they maintain it and automatically gains initiative.

STEP TWO: CLOSE WITH YOUR OPPONENT

Once a ship gets within encounter range of another ship, the custom of the sea is to hoist one's true colors and fire a shot to declare hostility. Even pirates and other ne'er-do-wells observe this custom, though they often get within encounter range in the first place by flying false colors or otherwise masquerading as a non-hostile ship.

Because of the importance of speed and maneuver, in most cases ships find it most advantageous to run full out ahead of the wind, and the fight takes on the tenor of a chase. This is especially true if one party or the other does not want to fight but is also true for deliberate combat. The chase is reflected by range bands and ships make an opposed Speed check to get closer or get away. The range bands are defined with respect to the ship that is beating away from the other ship and being pursued.

Range Bands

Lost: The fleeing ship is gone. Weather and other local conditions may move "Lost" range and initial encounter range up closer.

In Sight: The leeward ship is in sight but not within weapons range.

Long: The ships are in range for Long range cannon.

Medium: In range for Medium range weapons (Medium cannon, catapults) and Long range spells

Short: In range for Short range weapons (carronade, ballistae), Medium range spells, and long range personal missile weapons (bows and crossbows).

Close Contact: In range for Close range spells and thrown missile weapons, and can ram or grapple.

Speed

Speed Check: This check is made once per naval round and determines which ship gains distance on the other. The ships' captains make opposed Profession: Sailor checks modified by +2 per 5' of movement (remember one knot is about 10' of movement per round, so a ship moving at 3 knots has a +12 to this check) – the side winning this opposed check by 5 or more points may move one range band in the direction of their choice closer to or farther from their opponent. PCs may assist the captain or pilot of their ship with additional Profession: Sailor checks.

Step Three: Seize your Objective

The Naval Combat Round

The naval combat round is equal to six normal melee rounds. This is useful for brevity of a combat because ships close relatively slowly and cannon reload relatively slowly.

Each round consists of several actions. The ship with the weather gage has initiative, or if that is not appropriate, have the ships' captains (and/or creatures) roll initiative normally. Make the Speed check at the beginning of the round to determine the effective range. Then, each craft can choose one of a number of maneuvers. Crew (especially PCs) are welcome to use any of their normal abilities or spells as well, though they have to choose between using those or participating in the maneuvers.

Maneuver Check: Usually opposed, this check is used to determine how skillfully a ship can maneuver into a desired position. It is a Profession: Sailor check performed by the captain or pilot, assisted by PCs who want to spend their action assisting, and modified by the ship's Maneuverability rating.

Naval Combat Maneuvers

A PC may spend their naval combat round performing or assisting one of these shipwide maneuvers.

Sailing Maneuvers

- Dangerous Speed – If the wind force is Strong or higher, the captain can use it to take on additional speed at additional risk. Make a Seamanship check to assist your next Speed check – the normal penalties for failing that check apply.
- Steal Their Wind (weather gage, Short): The pursuer can block the wind with their own craft. Make a Maneuver check to force the other ship to decelerate by a knot.
- Take the Lead (weather gage, Close) – Instead of closing, the pursuer can try to take the lead by going "past" Close – in that case, the pursuer becomes the leader, but the other ship still retains the weather gage.
- Take the Weather Gage (Close): The pursued craft can try to maneuver to get the weather gage. This is a difficult maneuver and the ship attempting it gets a -4 on its opposed Maneuver check.
- Close (or Widen) the Gap: Focusing entirely on fleeing or chasing, make a second speed check versus the other ship as normal.

Firing Maneuvers

- Raking Fire (any range your cannon have): Firing fore or stern guns (chasers) at the other ship lengthwise. This requires an opposed Maneuver check.
- Called Shot (any range your cannon have): Firing at a smaller part of the overall ship, for example "just the rigging," or "the stern part of the hull." Requires an opposed Maneuver check to set up the shot, and only one gun may fire per section targeted – in other words, up to six guns could fire if the called shot was "to any of the six aft hull sections of that caravel."
- Crossing the T (leader, weather gage): cutting in front of the enemy ship to expose them to raking fire from the side-mounted cannons. This requires an opposed Maneuver check. Following ships automatically close a range band.
- Broadside (Short, weather gage): Moving parallel to the enemy ship to fire all side cannons at once. This requires an opposed Maneuver check, unless the other ship wants to slug it out too.

If you have a lot of cannon to deal with, roll once to hit and have an additional shot hit for every 2 points by which the hit roll beat the target's AC.

- Fire As She Bears: Maneuver to get the other ship in line with your weapons and each cannon fires as they have a target. This requires an opposed Maneuver check, and if successful, one cannon can get a good target and fire, plus one for every 2 points the check beats the opponent's.
- Antipersonnel Fire (Close): Once you've drawn near, don't forget to get those swivel guns into action! PCs or crewmen not contributing to other maneuvers may fire swivel guns at opposing crew.

Ramming and Boarding Maneuvers

- Ramming (Close): Mostly for galleys, though very high-castled ships like carracks ram their prow across another ship's deck to commence a boarding action. This requires an opposed Maneuver check.
- Grappling (Close): Grasping hold of an adjacent ship with grappling hooks, boarding pikes, etc. to pull it close and facilitate boarding.
- Boarding (Close, grappled or rammed): Board the enemy ship to engage in melee. At this point it's best to move into normal melee rounds until one side is defeated or somehow gets loose of the ram/grapple.

Other Maneuvers

- Surrender: Strike your colors (take down your flag). When a side strikes its colors, it admits defeat. Hope the victors will be merciful.

- Repair: Damage to rigging and hulls can be fixed by diligent PCs or crewmen. Damage control crews make assisted checks using Profession: Sailor or relevant other Craft or Profession skills. Success fixes 1d8 points of damage, plus one per person on that damage control crew. This check can only be made once per damaged section in a given combat.
- Bailing: If the ship is sinking, make a Profession: Sailor check with a +1 bonus for each sailor assisting. This removes one round from the time spent sinking per 10 points of success.
- Other: Make something plausible up and your DM will set a DC for you!

CANNON FIRE VERSUS SHIPS

A ship's AC is equal to 10 plus its captain's Profession: Sailor skill modified by its Maneuver rating, minus one per every hull or rigging section.

For example, a ship with 12 hull sections and 3 rigging sections, a Maneuver of +2, a Seaworthiness of +2, and a captain with Profession: Sailor +10 has an AC of 10 + 10 (skill ranks) + 2 (maneuverability) – 15 (for 15 ship sections) = 7. Then, of course, pitching, vision, and other penalties apply, including the -4 inaccuracy penalty of all cannon, so on a clear day in a strong wind (-4 pitching, offset by the ship's +2 Seaworthiness) the total penalty to hit would be -6. Per the cannon rules, the gun crew would roll their BAB + Int bonus at -6 versus AC 7 to hit this ship.

Called Shots

A gunner can perform a called shot. Recalculate the AC based on the size of what they want to aim at. For the ship above, if they wanted to just shoot at the rigging, then that's 3 sections instead of 15, for an AC of 10 + 10 + 2 – 3 = 19. Or if they wanted to shoot at one specific hull section, it would be AC 21.

Damage to Ships

Because each ship consists of multiple sections, it is often advisable to block out the hull and rigging sections for ease of reference. Roll randomly for which section is hit and apply damage (after toughness) to that section. If a hull section takes more than half its hit points then it gains the broken condition and the ship takes a -2 penalty on Seamanship, Speed, and Maneuver checks (cumulative). If a hull section takes all its hit points in damage, it is destroyed and the ship is sinking, and the ship is at -4 on all Seamanship, Speed, and Maneuver checks.

Sinking Ships

A mortally wounded ship sinks in about a round for every 10 feet of its length.

Damage to Crew

Refer to the hull and rigging sections defined above and ask PCs where they are stationed. If they are moving around generally, roll randomly to see if they are in an affected section struck by cannon or spell fire. Roughly divide the number of crew by the number of sections (including rigging, as sailors will no doubt be up in there) and when there's an area effect from spell or cannon, apply it to that many crewmen.

Spellcasting at Sea

The sea is a chaotic place, and it's not easy to place spells right on the desired target area when everyone's sailing all out. When lobbing area effect spells at an opposing ship, a caster must make a

Spellcraft check, applying the Pitching penalty (see Wind Effects above), their craft's Seaworthiness bonus, and any other environmental factors (smoke, fog, etc. are frequent). If the check fails, use the splash weapon miss rules to determine where it ends up.

Mass Combat

Often cannon do not decide the battle, boarding actions do. If you have large numbers of sailors involved in a melee, try Geek Related's Pathfinder Mass Combat rules to speed things up.

Ship Repair and Recovery

After a battle, you often want to repair your ship. This takes time. At sea, you can only repair hull hit points equal to half the hit points of that hull section, and that requires supplies. If the ship can be beached or put in a drydock, then the entire amount can be fixed. Repairing costs 10 gp per point of damage repaired in supplies.

Repair crews can make the same repair roll as is done in naval combat, but only one check per crew per day. *make whole* does 3d6 points of repair on a given section. *mending* doesn't help on this scale.