Franklin's Sea

In 1792 English explorers made the biggest navigational discovery since the pole star.

Three hundred years earlier the Pinta and the Nina returned to tell of Columbus sailing the Santa Maria off the edge of the world. In his mad obsession to prove the world was a ball he compelled his crew to sail his flagship beyond the vertical drop, where it plummeted untold leagues into nothingness.

The next three hundred years saw the technology of the square-rigged sailing shipped reached its apogee. Copper bottoms prevented worm damage and speed-killing barnacles. Cheap, short carronades provided staggering close in firepower. Hulls convex below the waterline improved stability, and rigging took more lessons from the Arabs. Ultimately, the largest warships grew from a hundred feet, fifty guns, and a thousand tons displacement, to two hundred feet in length, over a hundred guns, two thousand tons displacement, and crews approaching a thousand.

Benjamin Franklin, undistracted by politics, discovered not only the link between lightning and electricity, but probed the secrets of the Earth's magnetic field as well. Decades ahead of his time in his understanding, he described inductive effects that would allow the new, copper-bottomed ships to sail over the edge of the world and return safely, opening up new horizons, literally.

Of course, no one believed him.

So Franklin joined a Royal Scientific Society to the Azores, ostensibly to further his studies of the Earth's magnetic field. By surreptitiously placing magnets on the bridge to fool the ship's compass and making some minor modifications to the captain's sextant (some would call it sabotage), he tricked the captain into sailing over the edge of the world…

…safely arriving in an entirely new ocean: Franklin's Sea.

But Franklin had overlooked the fact that not all aboard the expedition were loyal to King George. In short order the three great maritime powers began a burst of exploration that discovered new continents, strange pagan kingdoms, fantastic spices, and gold in the sort of quantities that leaves monarchs with no choice but to command their beloved subjects to have at each other with fire and steel.

Now you can recreate these epic battles with scale model fighting ships you build yourself, recreating the vertical ocean with the front of your refrigerator. Maneuvering small fleets in this strange new environment requires cunning and forethought, prudence and abandon. Its time to test your mettle!

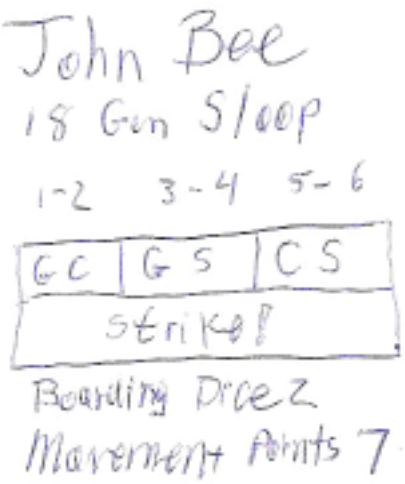
Contents:

Ship Rates, classes, and record sheets

We fight the Battles of Franklin's Sea on any convenient vertical steel surface - the front of your refrigerator is handy, and it gives you an opportunity to clear it off. Each ship is represented by a model built of everyday materials; you can find the construction guide in section 7.

This book includes instructions for building and fighting ships of four common ship classes (future expansions will add more classes). The data card for each class includes historical data about the class (on the left), game data for playing with this class (upper right), and construction plans (lower right).

Before playing the game you will need to make a record sheet for each ship in the class. You can make copies of the record sheets that came with the game, or simply copy the ship's damage chart (the set of boxes), and write down its movement points and boarding dice (because these may be reduced during the game). Also, indicate which model this sheet is for. You should end up with something like this...



Franklin's Sea uses the rating system used by the Royal Navy at the time...

1st Rate	100+ guns on 3 decks	crew 800-900	over 2,000 tons
2nd Rate	80-98 guns on three decks	crew 700-800	around 2,000
3rd Rate	64-80 guns on two decks	crew 490-720	1,300-1,600
4th Rate	50-56 guns on two decks	crew 320-420	around 1,000
5th Rate	32-44 guns on one deck	crew 200-300	700-1200
6th Rate	20-28 guns on one deck	crew 175-200	450-550
Ship Sloop	20-22 guns, three masts	crew 90-140	350-400
Sloop	16-18 guns, two masts	crew 90-100	200-250
Brig	6-14guns, two masts	crew 10-30	100-200

First through third rate ships were considered "Ships of the Line," as they had the firepower and endurance to stand in the line of battle, slugging it out with other battleships Fourth through Sixth raters were Frigates, the eyes of the fleet, commerce raiders, couriers, and the mainstay of smaller navies, such as that of the United States on spherical Earths. Sloops and brigs didn't normally cross oceans, but patrolled the costs, escorted convoys.

Turn Sequence

Each game turn the players will follow these steps:

Ship Movement (in decreasing ship size, by initiative)
Broadsides (in increasing ship size, by initiative)
Boarding Combat
Drifting (all ships move downward one inch)
Victory Check

Movement

Winds and fog, currents and coastlines, difficulty in locating the enemy, and limited ship endurance gave the clever commander room to avoid engaging the enemy or compel the enemy to fight in disadvantageous circumstances. Each scenario will specify one commander that possesses the initiative, and conditions under which this might change.

The scenario will also specify wind direction.

Movement of ships takes place in decreasing order of ship size, then by initiative. Thus the 1st rate ships of the player without initiative will move first, followed by the first rate ships of the player with the initiative, then the second rate ships of the player without initiative, etc.

Each ship will have a number of movement points, determined by its class and possibly reduced by damage it has taken. A ship does not have to use all of its movement points. On movement point is used when moving one inch forward within forty five degrees on either side of the wind. Moving across the wind, from forty five to ninety degrees of the wind each inch uses three quarters of a point (that is, the ship will move one and one

third inches for each movement point). Tacking into the wind from 90 to 135 degrees uses 2 movement points. None of these ships can sail closer than forty five degrees to the wind.

It costs one third of your original movement points to up to turn two points on the compass (we assume a sixteen point compass, so that would be forty five degrees). Most ships may make one such turn per move, at any point during their move. Fifth rate ships and below (smaller frigates, sloops and brigs but no merchantment) turning toward the wind may make two such turns, but they must make one at the beginning and one at the end of their move (spending one third of their points moving straight ahead in between).

A ship with at least one movement point left can always turn forty five degrees or move one full inch. A ship with no movement points left has no sails to catch wind, it may not turn or move, but only drift.

Grappling/Fouling: should two opposing ships come within an inch of each other at the end of movement, or if their movement paths for the turn cross each other either commander may declare the ships grappled (the other commander was either unable to prevent this, unmotivated to prevent it, or inexcusably careless).

The two ships may still fire one last broadside into each other this turn. Neither may fire thereafter until the next turn in which each moves freely.

Following the broadside phase of each turn grappled ships will conduct boarding combat.

Broadsides

Firing of ships' guns takes places in order of increasing ship size and then side initiative. Thus sloops of the player with initiative fire first, then sloops of the side without initiative, then the frigates of the player with initiative, then the frigates of the player without, etc.

Each ship will fire its guns at one target ship to which it can trace a line of sight within forty five degrees of amidships (or it may fire at a ship at which it can claim raking fire, even if that ship is outside the broadside arc during the broadside phase). Measure the distance, then check the ship's data sheet for the number of dice rolled at that distance. Roll this number of six-sided dice, each six scores one hit on the target.

For each hit on a target roll a six sided dice, and mark off the next box down in that column of the ships damage chart. Depending on the letters that appear in the box, the ship may suffer the following adverse effects:

C = Crew hit, the ship loses one quarter (rounding down, minimum one) of its original boarding combat dice. The fifth and following Crew hits not only reduce any boarding combat dice remaining due to rounding, but reduce broadside dice by one quarter (rounding down, minimum one) the original number as if they were Gun hits.

G = Gun hit, the ship will fire one quarter (rounded down, minimum one) less of its original broadside dice. Thus if a particular ship would have rolled five dice at a given range, after suffering one gun hit it would fire four dice at that range.

S = Sail hit, the ship loses one quarter (do not round) of its original movement points.

R = Rudder hit, the linkage between the wheel and the tiller, the tiller, or the rudder itself has been damaged. Roll a die: 1,2,3 = port, 4,5,6 = starboard, the ship will turn 45 degrees at the start of each movement phase, starting next turn, using one third of the original movement points, as usual. After each such move is complete roll a die, and on a six the crew has re-rigged the rudder and regained more-or-less normal control of the ship.

F = Fire - fire was a tremendous danger to fighting ships, in fact most large fires would result in the ship striking its colours. This hit represents a fire that might be brought under control, or which might destroy the ship. Each turn beginning the turn this hit was received, roll one additional hit on this ship. If the column with the Fire box is rolled, the ship does not take a hit and the fire is out. If the result is any other column the ship takes the damage indicated.

X = Explosion: shot has hit the target's powder stores, with the obvious result. The number indicates the number of dice to roll against each ship within 3", measured mainmast to mainmast, with sixes scoring hits on that ship. The exploded ship is considered stricken: it will drift, but will not move on its own, and cannot fire. It may not be boarded and captured, since it is on fire.

D = Dramatic hit: yards are falling, splinters are flying, men are screaming, but there is no appreciable effect on the ship's performance.

You may fire at grappled ships; it would be folly to pretend this kind of warfare can be waged without risk. As a matter of fact, roll and extra die, these ships aren't moving. On the other hand, you could hit a friend - all 1's will be scored as hits on your own ship.

Grappled ships, captured ships, wrecked ships, and ships that have stricken their colours may not fire.

If a ship crossed an opponent's bow or stern within four inches thereof during movement they may declare raking fire. Raking fire gets half as many extra broadside dice, rounding down. It is possible for two ships each to rake the other in the same turn.

Boarding

At this step all ships grappled will determine the number of boarding dice they have remaining and roll these dice. Each five or six will reduce the number of boarding dice the other ship has remaining by one. Boarding combat is simultaneous.

If either ship reaches zero boarding dice while its opponent still has dice, it is captured. The grapple is broken next turn. The captured ship will only drift next turn, but after

that its new owner may determine its movement for the rest of the game. It may not fire. If it is grappled again by its original side assume it has one boarding die.

If both ships reach zero boarding dice and one is two rates larger (lower rating number), the higher rated ship (lower rating number) has captured the smaller ship. Consider unrated ships 7th rate for this purpose. If the rating numbers are equal the grapple is broken and each ship goes on its way.

After boarding combat if either ship has achieved a three-to-one advantage in boarding combat dice over the other that commander may declare the grapple broken. Also, if both captains agree to it the grapple may be declared broken.

On the turn after a grapple is broken both ships may move and fire as normal for their condition.

Drifting and Victory Check

After boarding is resolved move every ship, in whatever condition, straight down one inch. If a ship moves beyond the bottom edge of the refrigerator door for any reason, it is utterly destroyed, its crew lost, and mentioning its name will create an uncomfortable silence in seaport taverns and admiralty chambers.

Then the scenario's victory conditions should be checked, to see if either player has won. If not, either player may offer a draw, or even to leave the field of battle to his opponent if his remaining ships can withdraw safely. If no such agreement be reached, hostilities continue...

Striking

When a ship has received enough damage, of whatever type, to render it unable to defend itself, the captain orders the colours at the rear of the ship lowered, and it is out of the fight. It may no longer fire nor be fired upon. It may only move straight upward. It may not resist if boarded, instead the captor loses one boarding die as a prize crew, and may determine the ship's movement thereafter.

In a campaign game all stricken ships on both sides are recovered by the victor. The winner will roll on the appropriate table to determine how much is salvageable.

Ship Construction

In the age of fighting sail ships had to be self-sufficient. From slaughtering livestock to making sails, it had to be done on board. You can share in this frontier independence by creating your own ship models - not from kits, but from materials you hunt yourself.

You will need to collect the following materials:

- popsicle sticks - the regular 3/8" kind
- toothpicks - square ones are best
- paperclips
- ordinary white glue

paper (ivory if you can find it)
advertising refrigerator magnets (thank you, credit card companies!)
paint (at least black, blue, tan for basic ships)
more paint (yellow, gold if you want to dress up the ships)
even more paint (green and brown, for islands)

You will need the following tools:
Wire cutters
Needle-nose pliers
Tweezers
Sandpaper (better yet, a power sander, but follow all safety instructions!)
Paint brushes
Small hand drill or pin-vise and drill bit
Hobby knife

If you cannot find these materials or don't own these tools, you'll probably be happier with a commercial game where they spoon feed you everything from army composition and paint-by-numbers schemes for your models to friends to play with, all at premium prices.

When the hunter-gatherer phase is complete, take a look at the ship's data card. The construction section will show the parts you need to cut.

The tan shapes are pieces of popsicle stick to cut with the wire cutters. Make sure your cuts are square, and sand them if you like. Glue them together in the order and positions indicated. When the glue dries, sand the hull, tapering it toward the stern. You will be happiest with the model if you sand the underside of the stern and bow (the stern square, the bow rounded). Finally, drill holes for the masts where you see the black dots.

The black line is the ship's prow, bent with the needle-nose pliers from a length of paper clip. Its easiest not to cut the piece first, but to straighten the paper clip, then make a sharp bend 3/4" from the end, squeezing it with the pliers. Holding 1/4" of the bend together, bend the two legs out, then make them round, matching the curve at the end of the popsicle stick. Finally, cut the ends off the new prow, leaving just what you want to glue to the model. Glue to the hull after sanding is complete.

Cut the masts from toothpicks. Leave a bit of the tapered end to fit into the hole on the deck.

Cut the sails from paper.

Glue the sails to the masts as indicated.

Paint the sides of the ship black. Touch up the deck with tan, if necessary.

If you are a skilled painter you could take pride in yellow stripes down the sides with black dots for guns, and maybe dry-brush a little gold on the stern.

Glue the masts into the mast holes.

Finally, cut a base from advertising magnet to the size indicated on the data card. Paint it blue and glue the bottom of the ships hull to the base. White dryer lint can be used to represent waves or wake, if you want to get fancy. Lastly, print either the ship's name or model number, to distinguish it from other models in combat.

You have now built a model a 1:1200 model eighteenth century warship from scratch that will stick to your fridge.

Note that these also make great decorations for your car. Sufficient data has not been collected as to the speed at which they will fly off.

Ship Classes

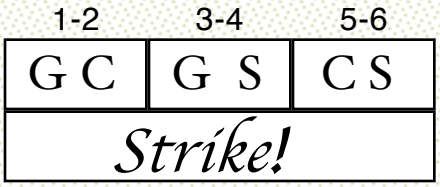
18 Gun Sloop-of-War

Unrated (move as 7th rate)

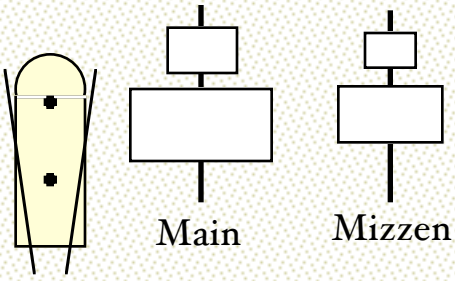
Length: 100'
Width 35'
Crew 100

Quick single-decked ships built to serve as couriers, patrols, and escorts. A sloop could not long stand the punishment dealt out by larger warships, but there's no reason it should have to. Against brigs, merchants, and coasters it was a potent fighter.

This is the type of ship pirates and privateers most often turned to their purposes, as it had the vigor to capture merchants without the staggering cost of a large warship. Pirates had large crews, so double the boarding dice of a pirate sloop.



Broadside Dice: 4 at 6", 3 at 10"
Boarding Dice: 2 (4 as privateer)
Movement Points: 7



Base = 1 1/2 x 3/4"

44 Gun Frigate

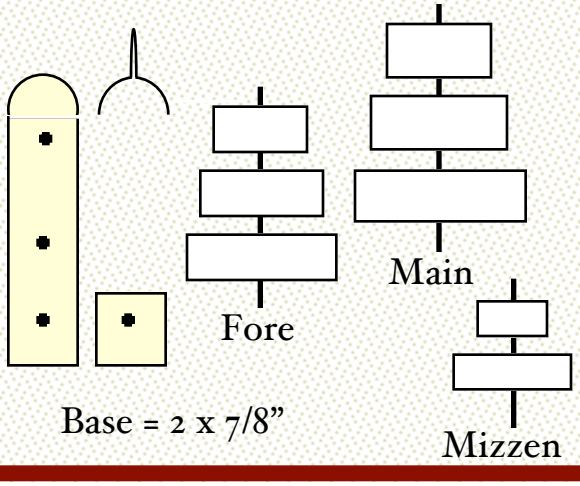
Fourth Rate

Length: 150'
Width 50'
Crew 300

This is the classic frigate, a nimble two decker that can outrun anything it can't out shoot, and out shoot anything it can't outrun. These were potent commerce raiders: many frigate captains declined promotion to larger vessels because prize money declined in larger vessels.

1	2	3	4	5	6
G	C	G	C	S	S
Strike!					

Broadside Dice: 8 at 3", 6 at 8", 3 at 12"
Boarding Dice: 6
Movement Points: 6



Base = 2 x 7/8"

74 Ship-of-the-Line

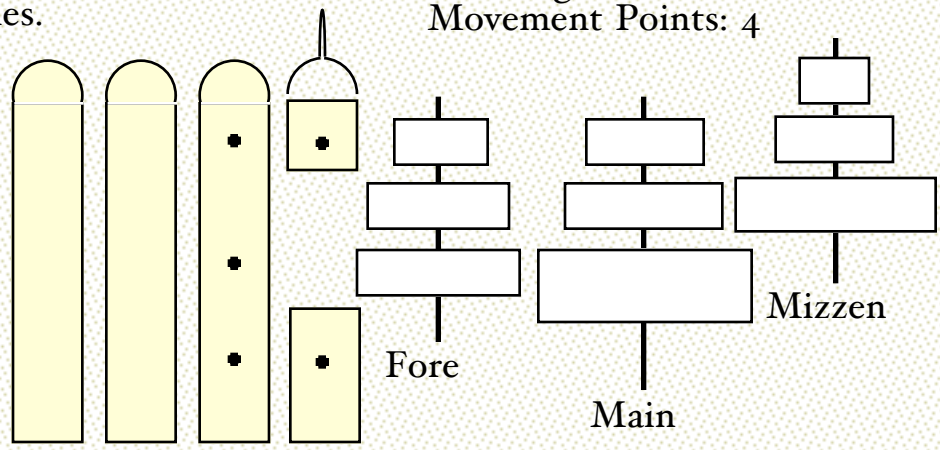
Third Rate

Length: 200'
Width: 50'
Crew: 650

This was most common size battle ship, comprising 85% of the capital ships in the world's major navies.

1	2	3	4	5	6
G	C	G	C	S	S
X3	G	C	S	C	S
Strike!					

Broadside Dice: 12 at 3", 8 at 10", 4 at 14"
Boarding Dice: 10
Movement Points: 4



Base = 2 1/3 x 1 1/8"

500 Ton Merchantman

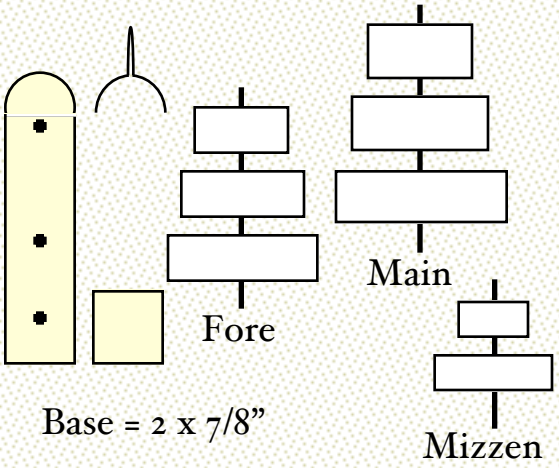
Unrated (move as 1st rate)

Length: 150'
Width 40'
Crew 75

Fitted with a copper bottom to retrieve treasures from beyond the edge of the world, this ship doesn't pack much of a punch, but the contents of its hold could pay for a 74.

1-2	3-4	5-6
G S	C S	C S
Strike!		

Broadside Dice: 4 at 2", 2 at 8"
Boarding Dice: 2
Movement Points: 4



Base = 2 x 7/8"

Scenarios

Situation
Forces and positions
Initiative, wind, islands
Victory Conditions

Ambush!

Three Spanish 74s are returning from a very successful exploration of the edge sea, but they have not gone unseen. Three English frigates are coming to make sure they don't get home cheaply.

Three Spanish 74s start three feet down from the edge, in the center of the playing area.

Three English 38s start right below the edge, directly above the Spanish.

Astute readers will realize that it doesn't matter which player is assigned the initiative.

The wind is blowing at 45 degrees to the right of vertical.

The Spanish win if all three 74s make it back over the edge. The English win if they

can cause one Spanish ship to strike or wreck, whatever the cost to themselves.

Smash the CP!

An English merchantman with valuable cargo has become stranded on an underwater object. Six British sloops seek to protect it until help can arrive, but a Spanish Ship-of-the-Line has arrive to pulverize it.

The Spanish Ship-of-the-Line starts at the top of the playing field. The English merchantman starts three feet down. The sloops may set up anywhere within 12" of the stranded merchantman. The merchantman may not fire, but does have its boarding dice intact; it will not drift. One hit will destroy the merchantman.

The English have initiative, as if it matters.

The wind is blowing at 45 degrees to the left of vertical.

If the Spanish ship is sunk and the merchantman survives, the English are victorious. If the Spanish warship can do at least one point of damage to the merchantman but is then destroyed, that is a modest Spanish victory. If the Spanish ship destroys the merchantman and escapes, the English should be ashamed of themselves. If the Spanish ship boards the merchant ship, captures it (and retrieves the cargo), and escapes, the English player should reread Sun Tzu's Art of War in a quiet place and reflect.

Trafalgar Upended

The French and Spanish have allied to deny Britain control of Franklin's sea, and the only way to do that is to destroy her fleet. Seven French and Spanish 74s have gathered to do battle. The British know a thing or two about naval combat, however, and their five ships have a tactical advantage.

Four French 74s followed by three Spanish 74s start in a horizontal line-ahead on the left side of he playing field, two feet down from the top.

Five British 74s start in Ho

The English have initiative.

The wind is blowing at 90 degrees to the left of vertical (coming from behind the British).

The side that exits the most boarding dice from the top of the field wins. Honour requires engagement. Ships which do not fire twice at the enemy from less than 10" do not count their boarding dice for victory.

Designer's Notes

You could take issue with any portion of these rules, from the symmetrical loss of ship's guns to the physics of sailing perpendicularly to gravity. On the other hand, this game should be playable and fun, and if you don't think those are the real goals, read on.

I'm a firm believer in "design for effect," and while I admire games that truly do simulate various types of conflicts, I think the vast majority of games have very low simulation value. This doesn't mean they're bad games. Its just that when we wargamers say "realistic" we don't mean that the game's outcomes have been scientifically compared to historical outcomes or that we expect the game to be an accurate predictor of future conflicts. We mean that it has rules for gasoline evaporation, shield breakage, and bugler fatigue - in other words, its highly detailed.

Detail is fun, but it slows down the game. So more detail is not necessarily better. We should ask what detail is for, then decide how much we want. Detail is evocative, it stirs the imagination. Detail gives the flavor of the era, differentiating between Egyptian archers and a company of riflemen. Detail gives you an opportunity to seek tactical advantage.

Thus, any extra work created for the players by detail must repay them in flavor or tactics, and if the exchange is not favorable to the players the detail doesn't deserve inclusion.

So my goal here is to evoke Nelsonian naval combat in an exotic environment, and the details I felt were vital were: relative firepower and ruggedness of a wide range of ship sizes, the advantage to be won by cunning use of the wind, and the feeling of bombardment. As a secondary goal, I decided we should play a wargame on the fridge because we can.

If I were to go back over this game, which I probably will, I would like to add rules for crew quality, and characteristics of different nationalities: the penchant for the French to aim at rigging, the large crews of Spanish ships, and the superb sailing of the English. But then I'd have to include the United States, with its superlative crews and its brilliantly designed "super frigates."

If I were to redesign the models the bowsprits have been sadly omitted, with their attendant sails. Also, toothpicks might make a decent representation of the ships boats on the decks of larger ships.

I want to be the first to say that the values for the ships in this edition have received the lightest of playtesting. Fiddle with them if you find you must, and let me know what you find. There will forever be disagreements on specific capabilities of these ships, but my goal was to have small bits of movement interspersed with shooting of limited effectiveness, thus enhancing the flavor of maneuver and the sense of bombardment - prolonged firing, any salvo of which could be devastating, and with some deterioration before striking.