

AUTOSAVE

RTW will autosave after every month and at intervals according to preferences during battles. Thus, if something happens that causes you to exit without saving, game crash, power failure, whatever, you can always reload the latest autosave by selecting the game slot and pressing "Load autosave".

SENDING A SAVED GAME

If you would want to send a saved game for some reason, just zip up the entire folder of your game in the RTW\Save directory, for example RTW\Save\Save1 if you are using game slot 1. All the ship design files are needed to reload a saved game, that is why it is not enough just with the save file. If you encounter a specific serious bug and want to make a bug report, a save is often useful for the developer to track down the bug.

BUILDING YOUR FLEET

DESIGNING SHIPS

The first step in building a ship is designing the ship. In the design window you can design any ship you need in your navy, from destroyers to super dreadnoughts.

You can get to the design window either by clicking the design ship button or by selecting an existing ship, right clicking and selecting 'open design'.

In the design window you determine the characteristics of the ship you want to design. Note that a number of the available technologies and features might need to be researched before they can be used in a ship.

Ships designed will have their ship type checked by the program, and ships will have to keep within the parameters of the ship type or be reclassified as another type. This is to prevent unrealistic ship designs and also because the ship types are used as the basis for decisions by the tactical AI. A 30 000 ton destroyer with 15 in guns would not only be unrealistic, it would confuse the AI. Very unusual designs will be disallowed by the program as illegal ship types.

Ship design - 1939

Ship type: CA - Heavy cruiser
Class name: Goodhope
Displacement: 12500 (2) Build at yard: Local yard (40,000)
Freeboard: Normal Hull and fittings: 2,646 8,661
Speed: 28 (2) Range: Medium
Horsepower: 56,121 Machinery weight: 2,112 10,223
Engine priority: Normal Propulsion: Oil + Turbine End machinery: 1,820
Ball coverage: 0 (2) Magazine loss: 0
Ball extended: 0 (2) Incubated tank: 0
Upper belt: 2 (2) weight: 247
Deck: 1 (2) weight: 1,045
Deck extended: 1 (2) weight: 110
Conning tower: 6 (2) weight: 119
Turrets: 5 (2)
Turret top: 2 (2)
Secondary gun: 1 (2)
Total armor: 3,440 10,320
Armor scheme: All or nothing
Accommodation: Normal Accommodation space: 951
Complement: 895
Cabinets service: 22
Total: 11,309 48,170
Weight remaining: 71
Time, monthly cost: 22 2,190

Guys: Additional armament: Graphics
Topdeck:
Position: Tubes: Weight/height
0: Port broadside (in) 1 25
0: Starboard (in) 1 25
Add mount Delete mount Clear mounts
Topdeck slots (above water tubes)
Mine warfare:
Mines (in) 0 (2)
Minesweeping gear 0 0
Anti-submarine weapons:
Kegons 0 (2) Weight: Cost
ADW water/torpedo 0 0
Increased DC, depth 0 0
Enhanced sonar system 0 0
Towed array sonar 0 0
ADW value: 0
Radio and electronics list:
Radio list 0 (2) Current radio tech: 0
Weight/cost 0 0
Topdeck load and capacity: 1/25 of 125 Topdeck load

Flight installations:
Seaplane/helicopter hangar 0
Flight deck 0
Air capacity 0 (2) weight: 0 0
Top value 0 (2) weight: 0 0
Flight deck armor 0 (2) weight: 0 0
Hangar side armor 0 (2) weight: 0 0
Calculators:
Position: Weight
Add Delete Clear
Missile launchers:
Position: Number/type: Weight
Add Delete Clear
Missile control systems weight/cost: 0 0

Save and load

Ship design - 1917

Ship type: CVL - Light aircraft carrier
Class name: P-10
Displacement: 12500 (2) Build at yard: Local yard (36,000)
Freeboard: Normal Hull and fittings: 3,079 8,442
Speed: 29 (2) Range: Medium
Horsepower: 67,360 Machinery weight: 3,195 16,350
Engine priority: Normal Propulsion: Coal + Turbine End machinery: 577
Ball coverage: 0 (2) Magazine loss: 0
Ball extended: 0 (2) Incubated tank: 0
Upper belt: 0 (2) weight: 0
Deck: 0 (2) weight: 1,471
Deck extended: 0 (2) weight: 0
Conning tower: 0 (2) weight: 0
Turrets: 0 (2)
Turret top: 1 (2)
Secondary gun: 0 (2)
Total armor: 2,048 6,144
Armor scheme: Flat deck on belt
Accommodation: Normal Accommodation space: 958
Complement: 894
Cabinets service: 22
Total: 12,008 42,497
Weight remaining: 52
Time, monthly cost: 25 1,648

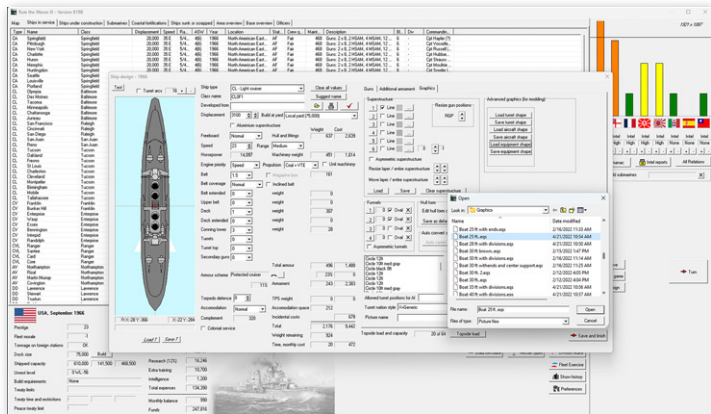
Guys: Additional armament: Graphics
Topdeck:
Position: Tubes: Weight/height
0: Port broadside (in) 1 25
0: Starboard (in) 1 25
Add mount Delete mount Clear mounts
Topdeck slots (above water tubes)
Mine warfare:
Mines (in) 0 (2)
Minesweeping gear 0 0
Anti-submarine weapons:
Kegons 0 (2) Weight: Cost
ADW water/torpedo 0 0
Increased DC, depth 0 0
Enhanced sonar system 0 0
Towed array sonar 0 0
ADW value: 3
Radio and electronics list:
Radio list 0 (2) Current radio tech: 0
Weight/cost 0 0
Topdeck load and capacity: 5 of 104 Topdeck load

Flight installations:
Seaplane/helicopter hangar 0
Flight deck 0
Air capacity 14 (2) weight: 2,100 2,100
Top value 0 (2) weight: 0 0
Flight deck armor 0 (2) weight: 0 0
Hangar side armor 0 (2) weight: 0 0
Calculators:
Position: Weight
Add Delete Clear
Missile launchers:
Position: Number/type: Weight
Add Delete Clear
Missile control systems weight/cost: 0 0

Save and load

The easiest way to design a ship is to select an existing class and open the design screen. You can then alter or modify the existing design and save as a new class. This saves work because most ships tend to be developments from existing classes, and you don't have to enter all the values from scratch.

The development of a new ship class will take time and incur costs. If your new ship class is developed from an existing class and reasonably close to that class, you will get a discount both on time and costs.



stability and flotation, and is usually not cost effective compared to increasing the size of the ship. Its main use is if you have a displacement limitation, for example by a treaty or in dock size.

When you develop a new ship class, there will first be a design study of between 1 and 4 months time and with some cost, depending on the size and complexity of the ship. After that is completed, you can either start construction or adjust the design (adjusting the design might be attractive if a new technology has just been invented during the design study). When a design study is completed, additional ships of the same class can be built without any delay (that is one reason ships are often built many to a class).

A new design that is developed from an existing class will get a discount on the development cost and time. To develop from an existing design, right click on an existing ship in service or in construction and select "open design". When changing the design, you can see the percentage of the development cost you will pay in the top left corner in the "Developed from" box. The more changes you make, the smaller the discount, and if you make big enough changes you will have to pay the full development cost.

Generally the following are the limits for change before it becomes an entirely new design with no discount.

- ▲ Displacement can increase by a maximum of 10% or 1000 tons.
- ▲ Main guns over 6 in cannot be changed.
- ▲ Secondary guns over 6 in can be changed to a limited extent.
- ▲ Speed can be changed by one knot.
- ▲ Vertical armour can be changed by one inch and horizontal armour by half an inch.

See appendix 2 for a fuller explanation of the various values used in designing a ship.

Tip: It can be a good idea to leave a few tons unused on your ships so that there is space for a minor rebuild of for example the fire control system or anti-aircraft armament without making the ship overweight.

MAIN TURRETS

Main turrets are handled individually. Each turret has a fire arc where it can shoot, determined by the gun position (one character). To add turrets, press 'add' and select position and number of guns in the turret. The positions available are determined by your research and the ship type.

You can move main gun mounts by right clicking a main gun mount and selecting 'Position'. You can also reposition main gun mounts by double clicking on the mount. After selecting position mount, click on the new location for the mount. Note that moving the mount is a purely aesthetic function, and will not in any way affect the arc of fire. The arc of fire is determined by the position indicator.

To visualize the fire arcs of the main guns, check the box "Fire arcs" by the top down ship view.

SECONDARY GUNS

Secondary guns are only determined as to the total number. Secondary guns do not have individual fire arcs. A proportion of the secondary guns will be able to fire, depending on the bearing of the target ship.

Secondary guns are assumed to be placed half on each side of the ship. You can have an odd number of secondary guns. The graphics logic can't really handle odd numbers of secondaries, but any odd guns left over are assumed to be on the centreline by the gunnery logic.

You can move secondary guns in the same way as main guns. Secondary gun mounts may also be automatically placed by clicking the auto place button.

Secondary guns do have position designators, which are used to make the guns point at the target during battles.

In contrast to main guns, there is no requirement to have a graphical representation of secondary guns, they will work fine in battle anyway, but the ship will of course look much better with the proper number of secondary mounts in the right places.

If the numbers and graphics of secondary guns on your ship do not match, you will get a reminder in the design screen, but you can disregard this with no ill effects.

TERTIARY GUNS

As with secondary guns, tertiary guns are only determined as to the total number. Tertiary guns do not have individual fire arcs. A proportion of the tertiary guns will be able to fire, depending on the bearing of the target ship.

You can move tertiary guns in the same way as main and secondary guns. Tertiary guns mount graphics are purely decorative. They will not turn with the target in battle. Like secondary guns, a proportion of tertiary guns will be available to fire on the target, depending on the target bearing.

TORPEDO TUBES

This works much as the main turrets. You select the position and the number of tubes for the mount.

VISUAL EXTRAS

These include ships boats, anchors, masts etc. They have no function in the game except to make your ships look better. You can add visual extras from files with common pieces of equipment used on ships, and you can even define your own.

Visual extras are placed in the same way as gun mounts.

Tip: If you reposition visual elements and want something to be on the centreline of the ship, hold down the alt key while placing it.

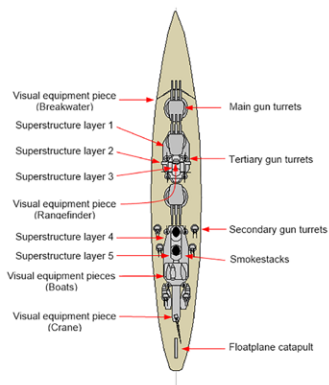
SHIP GRAPHICS

When you design your ship, you can also design how the ship looks in the top down view in the game. This is not necessary, the ship will work just fine without any graphics enhancements at all, but a nice looking ship is of course a source of pride and a morale booster for the player.

If you modify an existing design, or let the computer auto design a ship for you, the ship will already have its graphics done. In some cases you might want to modify the graphics if you increase or reduce the number of guns, displacement or similar.

You should be aware that the AI is somewhat aesthetically challenged, so ship designs by the AI might sometimes have some odd features, like turrets in unexpected places.

In the graphics tab in the design window, there are also functions for designing your own custom equipment to put on your ships, or modding the appearance of aircraft and other game graphics.



SHIP SUPERSTRUCTURE

The superstructure of ships is represented by graphics in six layers. Each layer can be drawn or edited using the controls in the graphics tab. Like equipment, the superstructure graphic has no function in the game except to make your ships look better.

Select if you want a line or a filled polygon. Then click on the button for the layer you want to draw and then add points by left clicking on the ship. Right click when finished. You can only add points on the left side of the ship, but the graphic will be mirrored so that it appears on the right side as well when you are finished. There can be a maximum of 24 points for each superstructure item (12 on each side).

There is an option for asymmetric superstructures, which are found mostly on aircraft carriers.

FUNNELS

You can have funnels generated as black roundels by the game, or you can use funnels provided as visual extras. If using the funnel function, select if you want an oval funnel or round, then click on the button and on the ship. You do not have to worry about clicking on the middle of the ship; the program assumes all funnels are on the centreline, so it only takes account of where you click relative to the length of the ship. There is also an option for asymmetric funnels.

TOPSIDE POINTS

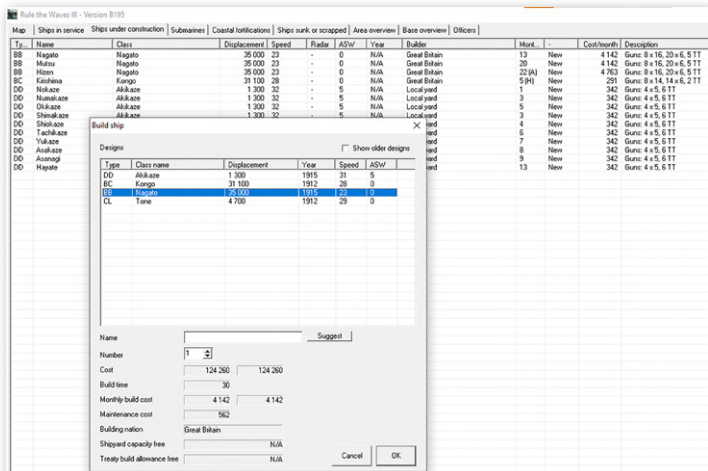
Much equipment in ships had to be relatively high up in the ship, which affects stability. This became especially marked when anti-aircraft guns, radars and other equipment started to proliferate on ships in WW2. To simulate this, all weaponry and radars have a topside point cost. A ship has a maximum number of topside points, based on displacement. This value can be slightly exceeded but may result in the ship being top-heavy, which affects stability.

BUILDING SHIPS

Once the design study is completed, you can start building your new ships.

The time to complete a ship is dependent on the ship type and can be modified by having an efficient or undeveloped shipbuilding industry.

The cost of building a ship is paid in monthly instalments during the build time. If you run into budget problems, it is possible to temporarily halt the construction of one or more ships. Halted ships will cost half of their mothballed maintenance cost.



You can also accelerate the construction of a limited number of ships. This will build them 10% faster, but with a 5% increase in cost. Having many ships in accelerated construction risks causing delays in the construction of other ships.

If a ship under construction is delayed, the monthly build cost will not be deducted, which can lead to lower than expected monthly expenses.

In the build dialog, you order up to 12 ships of the same class laid down. The names will be assigned automatically. This might be very handy when building large numbers of destroyers for example. Note however that you will have to consider if your monthly budget or your shipyard capacity is enough to build that many ships.

REBUILDING SHIPS

You can rebuild existing ships, but there are limitations on what can be rebuilt. The following actions can be taken while rebuilding ships:

You can change the main armament according to certain conditions. Guns can be changed to more modern versions of the same calibre. Triple turrets can be changed to double turrets with larger guns or vice versa if the calibres are compatible. Double

turrets can be changed to single turrets or vice versa if the calibres are compatible. For example, a double 8 in turret can be exchanged for a single 10 in turret or a triple 12 in turret can be exchanged for a double 16 in turret. To see the combinations available during a rebuild, select the turret and press the 'Rebuild?' button under the turret list. Gun rebuilds are generally expensive and take substantial time

You can change the secondary battery if the existing guns are in casemates or in turrets of 6 inches calibre or less. It can be changed to any arrangement of 6 in guns or less. The same with tertiary guns.

You can swap out the machinery for more modern machinery, increasing speed or using the weight gained for other purposes.

Fire control can be improved

You can add bulges, which will increase torpedo protection but will also reduce speed.

You can add one inch of deck armour. You can also remove the conning tower, or change the upper belt armour.

You can also rebuild ships to aircraft carriers (CV or CVL) provided you have researched the technology.

Some rebuilds will change the ship type, most often from something else to CV, but sometimes BC will be reclassified as BB. Sometimes a change of classification will be suggested, other times the change will be mandatory. The game definition of a BC will change over time (the speed requirement will rise), so occasionally when you rebuild a battlecruiser, the game will suggest that it might now be a battleship.

DOCKS

Dock size	77,000	Build
Shipyard capacity	564,000	43,000 521,000

In the game, dock size is used as a limit to the largest ship your nation can build and operate. It is

also used to compute the total capacity of your shipbuilding industry.

You cannot build ships larger than your current dock size. Occasionally it is necessary to increase your maximum dock size. Docks take one year to build. Each building step

will increase your dock size by between 1000 and 2000 tons depending on the time period. Try to plan ahead; waiting an extra year to lay down your new battleship while you enlarge your docks can be very frustrating. Dock size may occasionally increase by itself as a result of development in private shipbuilding.

Dock size is also used with a multiplier to determine your total shipyard capacity, that is, the total tonnage of ships you can have building. Note that submarines under construction are included in this total.

If you cannot build ships at home, you can contract them to foreign yards. You will then be limited by the building nation's dock size. This can have a further advantage if your own nation lacks technology or has an undeveloped shipbuilding industry.

The drawback to building ships abroad is that you risk that your ships will be impounded and not delivered if a war breaks out. The risk of this happening depends on the tension level with the building nation. If you have a treaty with the building nation, they will always be delivered.

An advantage is that you may gain insight into the technology of the building nation.

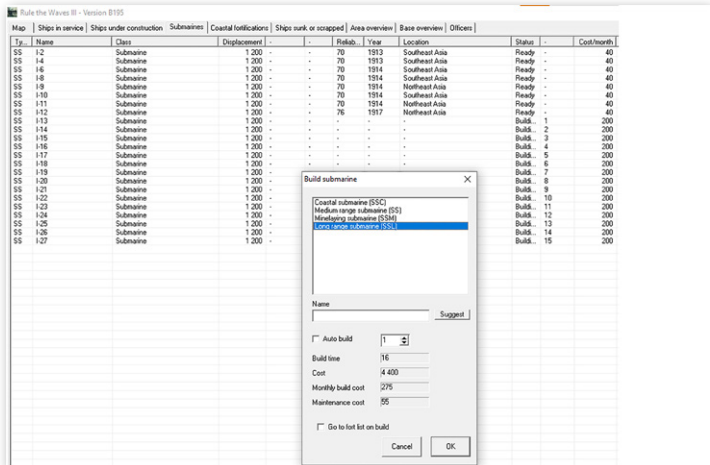
SHIPYARD CAPACITY

Your nation will have a maximum shipyard capacity, which is computed as a multiple of the dock size. The total tonnage of your ships under construction cannot exceed the maximum shipyard capacity. Ships under rebuild do not count, and neither do AMCs and small corvettes (as they are rebuilt from existing ships). Submarines do count towards the limit.

SUBMARINES

You need not design submarines in RTW, they are selected from standardised types. The different types of submarine will be available as a result of your submarine research.

The different submarine types are: Coastal submarines, Medium range submarines, Long range submarines, Minelaying submarines and Missile submarines.



Coastal submarines have shorter operational radius, so will only have full efficiency close to your bases. They have limited torpedo capacity and cannot make strategic moves in wartime.

Medium range submarines are the general run of the mill submarine.

Minelaying submarines are much like medium range submarines, but can also lay mines. On the other hand, they have a reduced torpedo load. They have a smaller risk of causing opprobrium among neutral nations in the period before 1930, as mined merchant ships do not inflame international opinion as much as torpedoed merchant ships.

Long range submarines are better at operating in areas where you do not have a large friendly base capacity. They are slightly more vulnerable to ASW attacks than other submarines.

Missile submarines carry anti-ship missiles and will use them when a suitable target is in range. They also have torpedoes.

Submarines will have an effect in the strategic turns, when they will attack enemy merchant shipping. They will also occasionally torpedo warships. The effectiveness of submarines will depend of the number of enemy ships on trade protection and or the number of destroyers relative to heavy ships on the fleet (see ASW warfare and Trade protection).

Submarines generally operate best in areas where they have friendly bases. They can operate in areas adjacent to areas with friendly bases, but with reduced effectiveness (except for long range submarines).

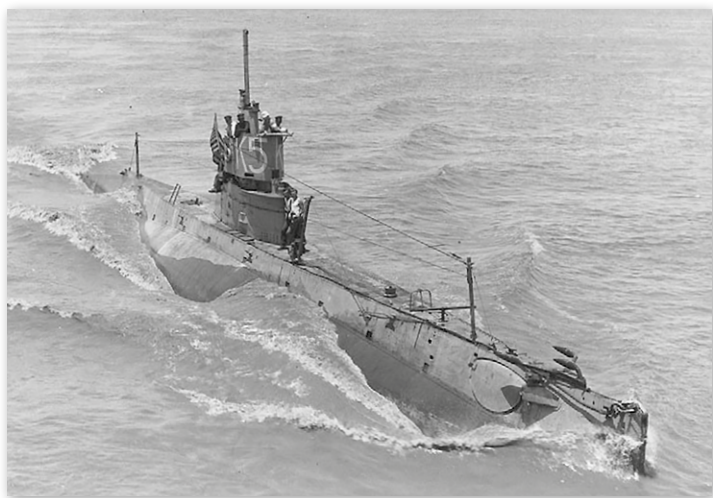
Advances in submarine technology will increase the serviceability and the attack effectiveness of your submarines.

Submarines will also participate randomly in battles, in proportion to the number of submarines available to either side. In battles, submarines can torpedo ships, and will also get an extra after battle attack chance on enemy ships returning to base after the engagement. In this phase, damaged ships are especially at risk.

During wars you have three policy options for your submarines:

Fleet support means that submarines will primarily operate against enemy warships and only attack enemy merchant shipping in very clear cut cases.

Prize rules means that your submarines will attack shipping, attempting to follow prize rules. The occasional incident that will upset neutral nations cannot be avoided. Your submarines will try to strike a balance between supporting the fleet and attacking enemy merchant shipping.



Unrestricted means your submarines will carry out unrestricted submarine warfare against enemy merchant shipping at the expense of operations in support of the fleet. This will increase sinkings of enemy merchant shipping and may cause starvation and higher unrest level for the enemy. However, it will also anger neutral nations and risk bringing in additional enemies against you.

Submarines will have a sharply reduced effect on enemy merchant shipping if you are blockading the enemy (enemy merchant shipping is assumed to have been reduced to a minimum by the blockade).

COASTAL ARTILLERY

You can build coastal artillery batteries in the same way you build ships, except that you do not design them and can only choose between predefined types. Coastal artillery must be built in a specific possession.

Coastal artillery will be assigned randomly in proportion to their numbers to positions on the coast of the possession where they are located, and will be available in battles at that location.

Coastal artillery positions will also increase the number of local minefields in the vicinity of the battery.

With time, coastal artillery emplacements will gain a few anti-aircraft guns.

Late game, you can also install coastal missile batteries.

Designer's note: Why are coastal batteries placed randomly? Why cannot the player build them where they are most needed? The battles in the game are generated from a number of battle templates, but over time, players will learn where battles tend to take place. Allowing players to place coastal artillery exactly where they wanted was found to enable players to take advantage of this knowledge to optimize the placement of coastal artillery.

ALUMINIUM SUPERSTRUCTURE

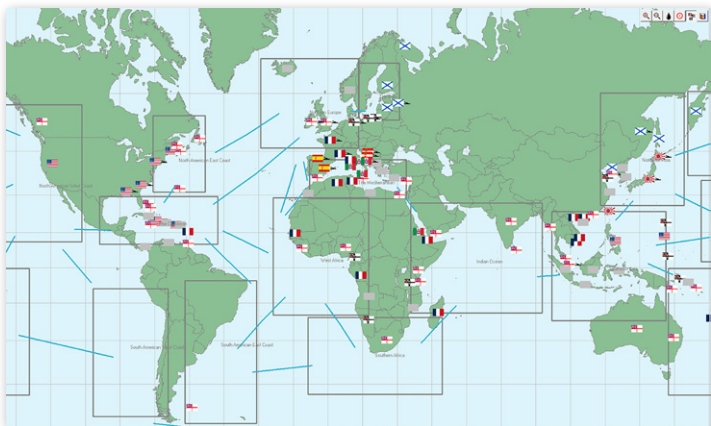
Once you have developed the technology, you can use aluminium superstructure. This saves 10% of the hull weight, but it makes the ship more susceptible to fire damage.

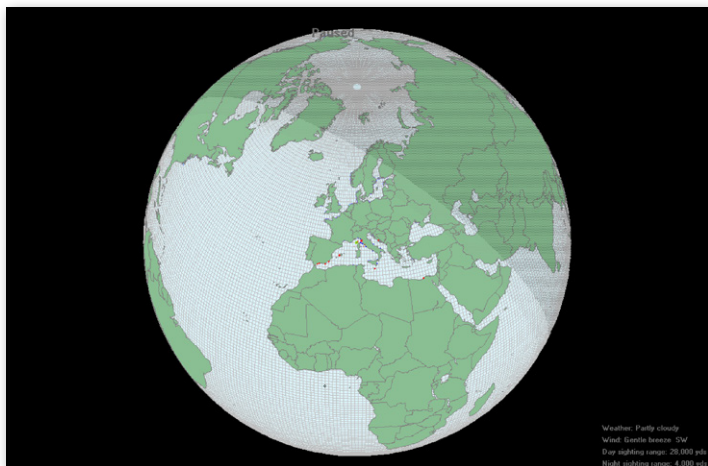
MANAGING YOUR FLEET

STRATEGIC DEPLOYMENT OF SHIPS

Ships are deployed in an area, either a home area or on a foreign station. The number of ships that can be deployed in an area is dependent on the base value of the area. The number can be exceeded, but this may cause ships to suffer from maintenance problems and reduced crew quality. If a nation has no bases in an area, only a very limited number of ships can be deployed, representing single cruisers and the like that coal at bases of friendly or neutral nations.

Base limits are checked at the end of the turn. That means that you can move a fleet into an area where you have insufficient bases and fight a battle before the ships start to suffer from lack of bases.





Nations are required to have a minimum naval presence in each area where they have possessions. This is expressed as a tonnage required in each area, and is dependent on the number and value of the possessions owned by the nation. Only active ships or ships on foreign stations status (see below) count for the purpose of calculating the naval presence in an area. If the required number is not met, player prestige may suffer and it might even lead to revolts in the affected areas.

Ships equipped for colonial service count as 1.5 times their tonnage on foreign stations.

Ships with cramped accommodation and ships with short range are less useful on foreign stations and will count as less than their actual displacement for the purpose of fulfilling this requirement.

Note: you may want to keep more ships than required on foreign stations to be sure of having an adequate force if war should come. During wartime, the deployment requirements at foreign stations are not enforced if you are under blockade.

Fulfilling the requirements for ships at foreign stations can be done either manually by moving ships to the relevant areas, or by simply assigning them to Foreign Station status, whereupon the AI will move the ship to a suitable area. The latter way is quicker if you for some reason need to fulfil sudden foreign service requirements quickly, for example after acquiring territory in a war.

THE SHIP LIST

On the second tab of the main screen you will see a list of all your active ships.

Ship name		Days out of service	Submarine	Count	Lat/lon	Ship work or suspect	Area covered	Base number	Officer	Blockade unit		Commanding officer		
Name	Class	Displacement	Speed	Rate	Altitude	Location	Status	Count	Remarks	Description	Blockade unit	Div		
1	Shelburne	Schlesien (1942)	36,000	20/27	4,400	0 191 03	Northwestern	RAF	Pace	244	Guve 8 11 12, 14, 22, 24, 26, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450, 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478, 480, 482, 484, 486, 488, 490, 492, 494, 496, 498, 500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, 652, 654, 656, 658, 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, 692, 694, 696, 698, 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728, 730, 732, 734, 736, 738, 740, 742, 744, 746, 748, 750, 752, 754, 756, 758, 760, 762, 764, 766, 768, 770, 772, 774, 776, 778, 780, 782, 784, 786, 788, 790, 792, 794, 796, 798, 800, 802, 804, 806, 808, 810, 812, 814, 816, 818, 820, 822, 824, 826, 828, 830, 832, 834, 836, 838, 840, 842, 844, 846, 848, 850, 852, 854, 856, 858, 860, 862, 864, 866, 868, 870, 872, 874, 876, 878, 880, 882, 884, 886, 888, 890, 892, 894, 896, 898, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, 944, 946, 948, 950, 952, 954, 956, 958, 960, 962, 964, 966, 968, 970, 972, 974, 976, 978, 980, 982, 984, 986, 988, 990, 992, 994, 996, 998, 1000, 1002, 1004, 1006, 1008, 1010, 1012, 1014, 1016, 1018, 1020, 1022, 1024, 1026, 1028, 1030, 1032, 1034, 1036, 1038, 1040, 1042, 1044, 1046, 1048, 1050, 1052, 1054, 1056, 1058, 1060, 1062, 1064, 1066, 1068, 1070, 1072, 1074, 1076, 1078, 1080, 1082, 1084, 1086, 1088, 1090, 1092, 1094, 1096, 1098, 1100, 1102, 1104, 1106, 1108, 1110, 1112, 1114, 1116, 1118, 1120, 1122, 1124, 1126, 1128, 1130, 1132, 1134, 1136, 1138, 1140, 1142, 1144, 1146, 1148, 1150, 1152, 1154, 1156, 1158, 1160, 1162, 1164, 1166, 1168, 1170, 1172, 1174, 1176, 1178, 1180, 1182, 1184, 1186, 1188, 1190, 1192, 1194, 1196, 1198, 1200, 1202, 1204, 1206, 1208, 1210, 1212, 1214, 1216, 1218, 1220, 1222, 1224, 1226, 1228, 1230, 1232, 1234, 1236, 1238, 1240, 1242, 1244, 1246, 1248, 1250, 1252, 1254, 1256, 1258, 1260, 1262, 1264, 1266, 1268, 1270, 1272, 1274, 1276, 1278, 1280, 1282, 1284, 1286, 1288, 1290, 1292, 1294, 1296, 1298, 1300, 1302, 1304, 1306, 1308, 1310, 1312, 1314, 1316, 1318, 1320, 1322, 1324, 1326, 1328, 1330, 1332, 1334, 1336, 1338, 1340, 1342, 1344, 1346, 1348, 1350, 1352, 1354, 1356, 1358, 1360, 1362, 1364, 1366, 1368, 1370, 1372, 1374, 1376, 1378, 1380, 1382, 1384, 1386, 1388, 1390, 1392, 1394, 1396, 1398, 1400, 1402, 1404, 1406, 1408, 1410, 1412, 1414, 1416, 1418, 1420, 1422, 1424, 1426, 1428, 1430, 1432, 1434, 1436, 1438, 1440, 1442, 1444, 1446, 1448, 1450, 1452,	4	480 Div	Col Ascher (3 range)
2	Shelburne	Schlesien (1942)	36,000	20/27	4,400	0 191 03	Northwestern	RAF	Pace	244	Guve 8 11 12, 14, 22, 24, 26, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450, 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478, 480, 482, 484, 486, 488, 490, 492, 494, 496, 498, 500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, 652, 654, 656, 658, 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, 692, 694, 696, 698, 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728, 730, 732, 734, 736, 738, 740, 742, 744, 746, 748, 750, 752, 754, 756, 758, 760, 762, 764, 766, 768, 770, 772, 774, 776, 778, 780, 782, 784, 786, 788, 790, 792, 794, 796, 798, 800, 802, 804, 806, 808, 810, 812, 814, 816, 818, 820, 822, 824, 826, 828, 830, 832, 834, 836, 838, 840, 842, 844, 846, 848, 850, 852, 854, 856, 858, 860, 862, 864, 866, 868, 870, 872, 874, 876, 878, 880, 882, 884, 886, 888, 890, 892, 894, 896, 898, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, 944, 946, 948, 950, 952, 954, 956, 958, 960, 962, 964, 966, 968, 970, 972, 974, 976, 978, 980, 982, 984, 986, 988, 990, 992, 994, 996, 998, 1000, 1002, 1004, 1006, 1008, 1010, 1012, 1014, 1016, 1018, 1020, 1022, 1024, 1026, 1028, 1030, 1032, 1034, 1036, 1038, 1040, 1042, 1044, 1046, 1048, 1050, 1052, 1054, 1056, 1058, 1060, 1062, 1064, 1066, 1068, 1070, 1072, 1074, 1076, 1078, 1080, 1082, 1084, 1086, 1088, 1090, 1092, 1094, 1096, 1098, 1100, 1102, 1104, 1106, 1108, 1110, 1112, 1114, 1116, 1118, 1120, 1122, 1124, 1126, 1128, 1130, 1132, 1134, 1136, 1138, 1140, 1142, 1144, 1146, 1148, 1150, 1152, 1154, 1156, 1158, 1160, 1162, 1164, 1166, 1168, 1170, 1172, 1174, 1176, 1178, 1180, 1182, 1184, 1186, 1188, 1190, 1192, 1194, 1196, 1198, 1200, 1202, 1204, 1206, 1208, 1210, 1212, 1214, 1216, 1218, 1220, 1222, 1224, 1226, 1228, 1230, 1232, 1234, 1236, 1238, 1240, 1242, 1244, 1246, 1248, 1250, 1252, 1254, 1256, 1258, 1260, 1262, 1264, 1266, 1268, 1270, 1272, 1274, 1276, 1278, 1280, 1282, 1284, 1286, 1288, 1290, 1292, 1294, 1296, 1298, 1300, 1302, 1304, 1306, 1308, 1310, 1312, 1314, 1316, 1318, 1320, 1322, 1324, 1326, 1328, 1330, 1332, 1334, 1336, 1338, 1340, 1342, 1344, 1346, 1348, 1350, 1352, 1354, 1356, 1358, 1360, 1362, 1364, 1366, 1368, 1370, 1372, 1374, 1376, 1378, 1380, 1382, 1384, 1386, 1388, 1390, 1392, 1394, 1396, 1398, 1400, 1402, 1404, 1406, 1408, 1410, 1412, 1414, 1416, 1418, 1420, 1422, 1424, 1426, 1428, 1430, 1432, 1434, 1436, 1438, 1440, 1442, 1444, 1446, 1448, 1450, 1452,	4	480 Div	Col Ascher (3 range)
3	Shelburne	Schlesien (1942)	36,000	20/27	4,400	0 191 03	Northwestern	RAF	Pace	244	Guve 8 11 12, 14, 22, 24, 26, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450, 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478, 480, 482, 484, 486, 488, 490, 492, 494, 496, 498, 500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, 652, 654, 656, 658, 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, 692, 694, 696, 698, 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728, 730, 732, 734, 736, 738, 740, 742, 744, 746, 748, 750, 752, 754, 756, 758, 760, 762, 764, 766, 768, 770, 772, 774, 776, 778, 780, 782, 784, 786, 788, 790, 792, 794, 796, 798, 800, 802, 804, 806, 808, 810, 812, 814, 816, 818, 820, 822, 824, 826, 828, 830, 832, 834, 836, 838, 840, 842, 844, 846, 848, 850, 852, 854, 856, 858, 860, 862, 864, 866, 868, 870, 872, 874, 876, 878, 880, 882, 884, 886, 888, 890, 892, 894, 896, 898, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, 944, 946, 948, 950, 952, 954, 956, 958, 960, 962, 964, 966, 968, 970, 972, 974, 976, 978, 980, 982, 984, 986, 988, 990, 992, 994, 996, 998, 1000, 1002, 1004, 1006, 1008, 1010, 1012, 1014, 1016, 1018, 1020, 1022, 1024, 1026, 1028, 1030, 1032, 1034, 1036, 1038, 1040, 1042, 1044, 1046, 1048, 1050, 1052, 1054, 1056, 1058, 1060, 1062, 1064, 1066, 1068, 1070, 1072, 1074, 1076, 1078, 1080, 1082, 1084, 1086, 1088, 1090, 1092, 1094, 1096, 1098, 1100, 1102, 1104, 1106, 1108, 1110, 1112, 1114, 1116, 1118, 1120, 1122, 1124, 1126, 1128, 1130, 1132, 1134, 1136, 1138, 1140, 1142, 1144, 1146, 1148, 1150, 1152, 1154, 1156, 1158, 1160, 1162, 1164, 1166, 1168, 1170, 1172, 1174, 1176, 1178, 1180, 1182, 1184, 1186, 1188, 1190, 1192, 1194, 1196, 1198, 1200, 1202, 1204, 1206, 1208, 1210, 1212, 1214, 1216, 1218, 1220, 1222, 1224, 1226, 1228, 1230, 1232, 1234, 1236, 1238, 1240, 1242, 1244, 1246, 1248, 1250, 1252, 1254, 1256, 1258, 1260, 1262, 1264, 1266, 1268, 1270, 1272, 1274, 1276, 1278, 1280, 1282, 1284, 1286, 1288, 1290, 1292, 1294, 1296, 1298, 1300, 1302, 1304, 1306, 1308, 1310, 1312, 1314, 1316, 1318, 1320, 1322, 1324, 1326, 1328, 1330, 1332, 1334, 1336, 1338, 1340, 1342, 1344, 1346, 1348, 1350, 1352, 1354, 1356, 1358, 1360, 1362, 1364, 1366, 1368, 1370, 1372, 1374, 1376, 1378, 1380, 1382, 1384, 1386, 1388, 1390, 1392, 1394, 1396, 1398, 1400, 1402, 1404, 1406, 1408, 1410, 1412, 1414, 1416, 1418, 1420, 1422, 1424, 1426, 1428, 1430, 1432, 1434, 1436, 1438, 1440, 1442, 1444, 1446, 1448, 1450, 1452,	4	480 Div	Col Ascher (3 range)
4	Shelburne	Schlesien (1942)	36,000	20/27	4,400	0 191 03	Northwestern	RAF	Pace	244	Guve 8 11 12, 14, 22, 24, 26, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210,			

Most commands affecting your ships can be made by right clicking a ship in the ship list. Here you can put ships in the reserve fleet or mothball them. You can also open the ship design or define its mission as a raider, and you can order ships to move to other areas.

Many commands work for a number of ships if you multi select ships in the ship list. For example, you can put multiple ships in reserve, or give movement orders to

multiple ships at the same time. When multi selecting, use the normal windows actions like holding down shift or control to select in the list.

In the construction tab you can see your ships under construction. Right clicking ships here will give you choices for halting or speeding up construction.

Explanations for the ship list:

Speed: After the speed in knots there will sometimes be letters denoting:

L = Long range

S = Short range

c = Equipped for colonial service

a = Cramped accommodation

Status: The abbreviations means:

AF = Active fleet

RF = Reserve Fleet

MB = Mothballed

R = Raider

FS = On foreign station

TP = Trade protection

WU = Working Up

A number means the ship is in repair for that number of months

* after the status means the ship needs maintenance and should return to an area with sufficient base capacity.

MOVEMENT

Ships can move to adjacent areas in one strategic turn (one month). You can give orders for ships to move to an area farther away, and the ships will then plot their own course to the ultimate destination area.

Only ships present in an area can take part in battles there. Ships that are moving count as present in their next destination area for battle purposes. Short range ships

cannot move strategically during wartime except between adjacent home areas (e.g. North American East Coast and Caribbean for the USA).

GIVING MOVEMENT ORDERS TO YOUR SHIPS

From an area details dialog. Click on the 'Move ships' button to go to the move ships screen.

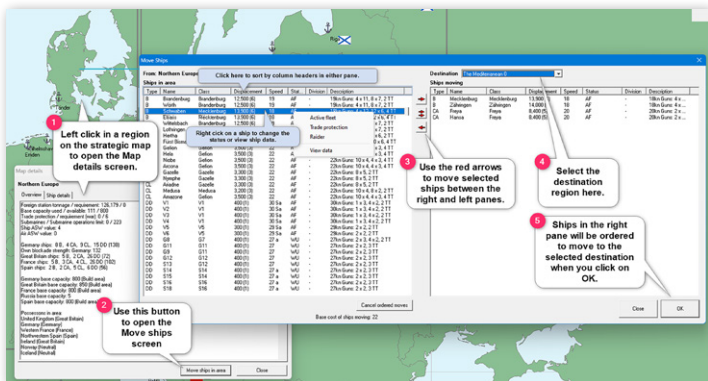
or

From the main window, right click a ship in the ship list and select 'Move ship' to go to the move ship screen with that ship selected.

or

Select one or more ships and press the "m" key. This will show a list of all areas. Click on an area to order the selected ships to move there.

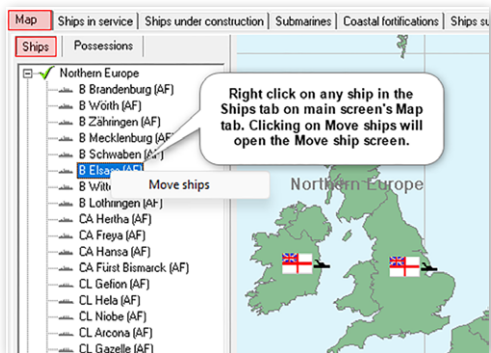
or



On the strategic map hold down the mouse button and drag from one map area to another and release.

Note that you give movement orders to your ships that are actually executed when you press 'Turn'.

Also, if giving orders to move to an area two or more areas away, the ships will pick their own route there, and the destination shown for them will be the next area on their route.



Map Ships in service Ships under construction Submarines Coastal fortifications Ships sunk or scrapped Area overview Base overview Officers 5 ships selected

Type	Name	Class	Displacement	Spe.	Ra.	ASW	Year	Location	Stat.	Crew qual.	Maintenance	Description
B	Brandenburg	Brandenburg	12,500	19	-	0	1899	Northern Europe	AF	Fair	199	Guns: 4 x 11.8 x 7.2
B	Wöhr	Brandenburg	12,500	19	-	0	1899	Northern Europe	AF	Fair	199	Guns: 4 x 11.8 x 7.2
B	Mecklenburg	Mecklenburg	13,900	18	-	0	1899	Northern Europe	AF	Fair	200	Guns: 4 x 12.12 x 6.4
B	Schwaben	Mecklenburg	13,900	18	-	0	1899	Northern Europe	AF	Fair	242	Guns: 4 x 12.12 x 6.4
B	Elsass	Mecklenburg	13,900	18	-	0	1899	Northern Europe > West Africa (South A.	AF	Fair	220	Guns: 4 x 12.12 x 6.4
B	Wilt	Brandenburg	12,500	19	-	0	1899	Northern Europe > West Africa (South A.	AF	Fair	199	Guns: 4 x 11.8 x 7.2
B	Lothringen	Brandenburg	12,500	19	-	0	1899	Northern Europe > West Africa (South A.	AF	Fair	199	Guns: 4 x 11.8 x 7.2
CA	Victoria Louise	Victoria Louise	10,200	21	-	0	1899	Northeast Asia	AF	Good	223	Guns: 4 x 10.10 x 6.4
CA	Freya	Freya	Active Fleet				399	Northern Europe	AF	Fair	147	Guns: 2 x 10.10 x 6.4
CA	Hansa	Freya	Reserve Fleet				399	Northern Europe	AF	Fair	147	Guns: 2 x 10.10 x 6.4
CA	Fürst Bismarck	Freya	mothballed				399	Northern Europe	AF	Fair	147	Guns: 2 x 10.10 x 6.4
CL	Gefion	Gefion					399	Northern Europe	AF	Fair	147	Guns: 10 x 4.4 x 3.4
CL	Hela	Gefion					399	Northern Europe	AF	Fair	147	Guns: 10 x 4.4 x 3.4
CL	Niobe	Gefion	Trade protection				399	Northern Europe	AF	Fair	147	Guns: 10 x 4.4 x 3.4
CL	Thetis	Gefion	To foreign station				399	Northern Europe	AF	Fair	147	Guns: 10 x 4.4 x 3.4
CL	Arcona	Gazelle	Raider				399	Northern Europe	AF	Fair	147	Guns: 8 x 5.21T
CL	Gazelle	Gazelle					399	Northern Europe	AF	Fair	147	Guns: 8 x 5.21T
CL	Nymph	Gazelle					399	Northern Europe	AF	Fair	147	Guns: 8 x 5.21T
CL	Albatros	Gazelle					399	Northern Europe	AF	Fair	147	Guns: 8 x 5.21T
CL	Medusa	Medu	Select division of selected ship				399	Northern Europe	AF	Fair	147	Guns: 10 x 4.4 x 3.4
CL	Amazon	Gefion					399	Northern Europe	AF	Fair	147	Guns: 10 x 4.4 x 3.4
DD	V1	V1	Radar				399	Northern Europe	AF	Fair	147	Guns: 1 x 3.4 x 2.2T
DD	V2	V1					399	Northern Europe	AF	Fair	147	Guns: 1 x 3.4 x 2.2T
DD	V3	V1	Commander and division				399	Northern Europe	AF	Fair	147	Guns: 1 x 3.4 x 2.2T
DD	V4	V1					399	Northern Europe	AF	Fair	147	Guns: 1 x 3.4 x 2.2T
DD	V5	V5	Name and picture				399	Northern Europe	AF	Fair	147	Guns: 2 x 2.2T
DD	V6	V5	Scrap				399	Northern Europe	AF	Fair	147	Guns: 2 x 2.2T
DD	G8	G7					300	Northern Europe	AF	Fair	147	Guns: 2 x 3.4 x 2.2T
DD	G11	G11					300	Northern Europe	AF	Fair	147	Guns: 2 x 2.3T
DD	G9	G11					300	Northern Europe	AF	Fair	147	Guns: 2 x 2.3T
DD	G12	G12	Open design				300	Northern Europe	AF	Fair	147	Guns: 2 x 2.3T
DD	S13	G12	Open design for rebuild				300	Northern Europe	AF	Fair	147	Guns: 2 x 2.3T
DD	S14	S14					300	Northern Europe	AF	Fair	147	Guns: 2 x 2.3T
DD	S15	S14	Rebuild ship				300	Northern Europe	AF	Fair	147	Guns: 2 x 2.3T
DD	S16	S16					300	Northern Europe	AF	Fair	147	Guns: 2 x 2.3T
DD	S18	S16	Manage air group				300	Northern Europe	AF	Fair	147	Guns: 2 x 2.3T

On the Ships in Service tab, select any group of ships you want to move.

Right click on any selected ship and use the Move ships menu item to open the Move ships screen.

You can also just press "M" to open the Move ships screen after selecting your ships.

BLOCKADE AND MOVEMENT

If a nation is blockaded, ships are not allowed to move out of the home port unless as raiders, and these may be intercepted by the blockading nation.

MAINTENANCE AND READINESS

Ships in commission can be put in varying states of readiness, which will affect their maintenance costs, but also their readiness for war.

Ships can be in the active fleet, which have the best trained crews and are immediately available for service.

Ships in the reserve fleet are manned by reservists and will take time to get to full effectiveness.

Ships that are mothballed have poorly trained crews and will take substantial time to get to full effectiveness.

New ships and ships just mobilized will be placed in "Working up" status until they have decent crew quality. They can be changed to another status by the player (but not back). Ships in working up status will not take part in battles.

Ships under repair will cost about 2 times the active maintenance cost. This is to reflect the cost of making the repairs. Ships in Mothballed status will have repair work halted and will not incur the extra cost. This can be useful if repair work causes high costs that crowds out other important ship construction. Ships under repairs that are put in mothballed status will have an H as notification in the ships list, as repairs are halted.

In some situations it might not be worth the cost to repair an old ship, and it might be an attractive option to scrap it instead.

It is a good idea to consider taking the opportunity to rebuild damaged ships, as that will enable some savings and use the repair time to improve the ship.

Map | Ships in service | Ships under construction | Submarines | Coastal fortifications | Ships sunk or scrapped | Area overview | Base overview | Officers | 3 ships selected

Type	Name	Class	Deployment	Size	Fla	AF	RF	Location	AF	Crew qual	Maintenance	Disposition	Blockade	Div	Commanding officer
E	Bundesburg	Bundesburg	12,500	19	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 11, 8 x 7, 2 TT	0	-	Katst Fekken (T)
B	Wulfin	Bundesburg	12,500	19	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 11, 8 x 7, 2 TT	0	-	Katst Langemah (B)
B	Zhangen	Zhangen	14,000	19	0	1000		Northern Europe	AF	Good	200	Gun: 4 x 11, 8 x 6, 6 TT	0	-	Katst Hah (T)
B	Montenbourg	Montenbourg	2,500	13	0	1000		Northern Europe	AF	Good	44	Gun: 4 x 9, 3 x 6, 5 x 4, 1 TT	0	-	Katst Sont (T)
B	Friedrich	Montenbourg	2,500	13	0	1000		Northern Europe	AF	Good	44	Gun: 4 x 9, 3 x 6, 5 x 4, 1 TT	0	-	Katst Sont (T)
B	Linnar	Montenbourg	13,000	19	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 11, 8 x 7, 2 TT	0	-	Katst Sont (T)
B	Vindischbach	Bundesburg	12,500	19	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 11, 8 x 7, 2 TT	0	-	Katst Sont (T)
B	Lufingen	Bundesburg	12,500	19	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 11, 8 x 7, 2 TT	0	-	Katst Sont (T)
CA	Victoria Louise	Victoria Louise	10,700	21	0	1000		Northern Asia	AF	Good	223	Gun: 4 x 8, 10 x 6, 2 TT	0	-	Katst Sont (T)
CA	Hestia	Victoria Louise	10,700	21	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 8, 10 x 6, 2 TT	0	-	Katst Sont (T)
CA	Freya	Freya	8,400	20	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 8, 10 x 6, 2 TT	0	-	Katst Sont (T)
CA	Hansa	Freya	8,400	20	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 8, 10 x 6, 2 TT	0	-	Katst Sont (T)
CA	Flam Bismarck	Freya	8,400	20	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 8, 10 x 6, 2 TT	0	-	Katst Sont (T)
CL	Gefion	Gefion	3,500	22	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 8, 10 x 6, 2 TT	0	-	Katst Sont (T)
CL	Hela	Gefion	3,500	22	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 8, 10 x 6, 2 TT	0	-	Katst Sont (T)
CL	Holm	Gefion	3,500	22	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 8, 10 x 6, 2 TT	0	-	Katst Sont (T)
CL	Thetis	Gefion	3,500	22	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 8, 10 x 6, 2 TT	0	-	Katst Sont (T)
CL	Aegona	Gefion	3,500	22	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 8, 10 x 6, 2 TT	0	-	Katst Sont (T)
CL	Gaule	Gaule	3,500	22	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 8, 10 x 6, 2 TT	0	-	Katst Sont (T)
CL	Rompha	Gaule	3,500	22	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 8, 10 x 6, 2 TT	0	-	Katst Sont (T)
CL	Alabara	Gaule	3,500	22	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 8, 10 x 6, 2 TT	0	-	Katst Sont (T)
CL	Medusa	Medusa	2,200	22	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 8, 10 x 6, 2 TT	0	-	Katst Sont (T)
CL	Ancora	Medusa	2,200	22	0	1000		Northern Europe	AF	Good	100	Gun: 4 x 8, 10 x 6, 2 TT	0	-	Katst Sont (T)
VO	V1	V1	400	20.54	-	320	1000	Northern Europe	AF	Fair	10	Gun: 1 x 3, 4 x 2, 2 TT	0	-	N/A
VO	V2	V1	400	20.54	-	320	1000	Northern Europe	AF	Fair	10	Gun: 1 x 3, 4 x 2, 2 TT	0	-	N/A
VO	V3	V1	400	20.54	-	320	1000	Northern Europe	AF	Good	10	Gun: 1 x 3, 4 x 2, 2 TT	0	-	N/A
VO	V4	V1	400	20.54	-	320	1000	Northern Europe	AF	Fair	10	Gun: 1 x 3, 4 x 2, 2 TT	0	-	N/A
VO	V5	V1	300	20.54	-	250	1000	Northern Europe	AF	Fair	8	Gun: 2 x 2, 2 TT	0	-	N/A

The three selected ships are the same class.
Note how each ship's crew quality and maintenance costs have been modified by the status of the ship, Mothballed (MB), Reserve fleet (RF) or Active Fleet (AF).

Designer's Note: In wartime, maintenance costs will rise sharply. There is a prediction in the main screen of the cost of having all ships in active status. In addition to this, there will be extra wartime maintenance costs. It is not uncommon to be forced to curtail or stop ongoing ship construction during wartime, as was done historically in several cases. You will often have to fight with the fleet you have when war breaks out.

SPECIAL TRAINING

You have the option of setting special training for your crews. This will let you focus on some tactics or aspects of naval warfare that you deem especially important. Your choice of special training should consider the types of ships you build and the type of battle you expect to fight.

Doctrine and training

Training priorities
☐ Gunnery
 ☐ Night fighting
 ☐ Torpedo warfare
 ☐ Damage control

Stop training
 Apply

Various
☐ Use diving shells (applies to AP only)
 ☐ Use diving missiles
 ☐ Use heavy AA shells
 ☐ Elite pilot training
 ☐ Floatplane/helicopter search priority
 ☒ Use scout force

Torpedo usage options
☐ Use oxygen fuelled torpedoes on DD
 ☐ Use oxygen fuelled torpedoes on cruisers
 ☐ Use oxygen fuelled torpedoes on other ships
 ☐ Use magnetic pistols on torpedoes

Naval academy
☒ Run naval academy
 Monthly naval academy cost: 340

Ammunition usage doctrine for target:

Target is capital ship (BB, B, BC)
 Target is CA
 Target is CL

Firing gun calibre 4-6 inches

Short range
 ☐ AP
 ☒ HE
 ☐ SAP

Medium range
 ☐ AP
 ☒ HE
 ☐ SAP

Long range
 ☐ AP
 ☒ HE
 ☐ SAP

Firing gun calibre 7-10 inches

Short range
 ☐ AP
 ☒ HE
 ☐ SAP

Medium range
 ☐ AP
 ☒ HE
 ☐ SAP

Long range
 ☐ AP
 ☒ HE
 ☐ SAP

Firing gun calibre 11 inches +

Short range
 ☒ AP
 ☐ HE
 ☐ SAP

Medium range
 ☒ AP
 ☐ HE
 ☐ SAP

Long range
 ☐ AP
 ☒ HE
 ☐ SAP

☐ Auto ammo selection

Save changes

Ship ammo loadout %:

	AP	HE	SAP
Guns 4-6 inches (sec)	50	50	0
Guns 4-6 inches (main)	75	25	0
Guns 7-10 inches	80	20	0
Guns 11 inches +	90	10	0

Save changes

Close

52

Each special training subject selected will increase maintenance cost for your ships. Once you start training, it will take 12 months to achieve proficiency in a subject. You have to keep on spending on training to keep the benefits. The benefits disappear immediately upon stopping spending on that type of training.

The different kinds of training are:

- ▲ **Gunnery:** Gunnery training will give your ships 10% better accuracy when firing guns. The cost is 30% increase in maintenance.
- ▲ **Night fighting:** This will give your ships a bonus when spotting enemy ships at night, and less chance of hesitating before opening fire at night. It also gives a 10% accuracy bonus at night. It will cost 20% increase in maintenance.
- ▲ **Torpedo tactics:** This will make your light forces more alert when carrying out torpedo attacks, quicker to react on flotilla attack orders and give better hit chances when firing torpedoes. The cost is 20% increase in maintenance.
- ▲ **Damage control:** This will increase the proficiency in damage control of your crews. They will reduce flooding faster and put out fires more effectively. The cost is 20% increase in maintenance.

You can select a maximum of two special training subjects.

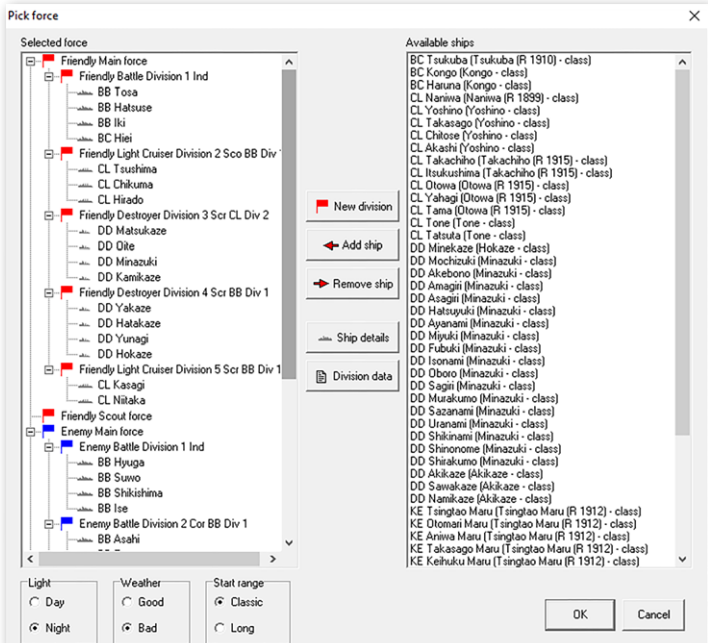
The cost of special training is reduced for Japan.

Designer's Note: This is to simulate that Japanese crews tolerated a harsh training schedule, and Japanese naval training during the time frame of the game emphasized realism over safety concerns.

FLEET EXERCISE

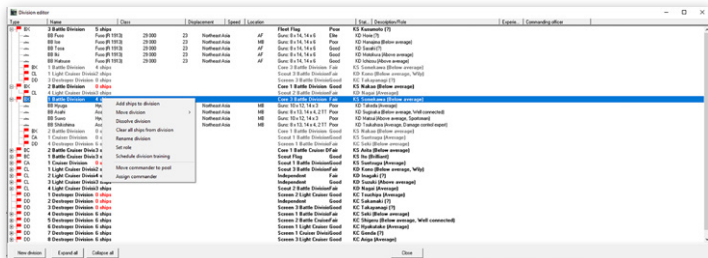
You can hold a fleet exercise once a year with any ships you select from your own fleet. Ships participating in the exercise will cost twice the active maintenance cost and gain some experience. Large fleet exercises can raise tensions. In effect you will play out a battle against a part of your own fleet, with no permanent damage of course.

A fleet exercise is a good way of learning the battle system for first time players, or a way of testing tactics and designs.



PERMANENT DIVISIONS

In RTW3, you can form permanent divisions of ships of similar type. Ships in divisions will most often fight together in the same division in tactical battles.



There is no requirement to put ships in divisions. If there are no permanent divisions, ships will be picked for battles and grouped by the battle generator. However, if you do organise divisions, it is recommended that you organise the majority of your ships in divisions to get the full benefits of your planned organisation.

There is a chance/risk that one or more ships in a division will be detached to perform some other role, or be unavailable for battle due to mechanical failures or other reasons. If ships in the same division are sent to different areas, they will obviously not be able to fight together in battles.

A division can contain from one to five ships except destroyer divisions which can have up to six ships. The ships must be of the same type, except that BB and B can be mixed in battle divisions, and CA can be part of BC-divisions. The recommendation is to keep divisions at least three ships strong, otherwise the battle generator might fill up the divisions with randomly selected ships to get the desired division strength for the scenario. Divisions of one ship are largely meaningless.

In the Division Editor you can assign roles for each division just as you can in a battle. Thus you can assign permanent scouting and screening forces to Carriers and Battleships.

Divisions have an experience rating. In battle, division experience affects signalling, the risk of ships losing contact, fire distribution and spotting. Division experience also has a slight impact on ship crew quality for battle.

Division experience will generally go up over time. Experience will go down when ships in the division are changed, or when the division changes commander.

The first ship in the division is the flagship. Changing the flagship will result in a small decrease in division experience.

In wartime, a division can be scheduled for a division training. Division training will bring up division experience faster, but a division on training will be unavailable for any battles taking place that turn. In contrast to a fleet exercise, this is not played out.

Designer's Note: Why no division training in peacetime? In peacetime, there is no need to hold a unit back from operational service to exercise, so periodic exercises are assumed to be a normal part of peacetime routine.

The ability of the division commander (see Officers below) will affect the rate at which division experience is gained, and have a slight effect on the crew quality of ships in the division.

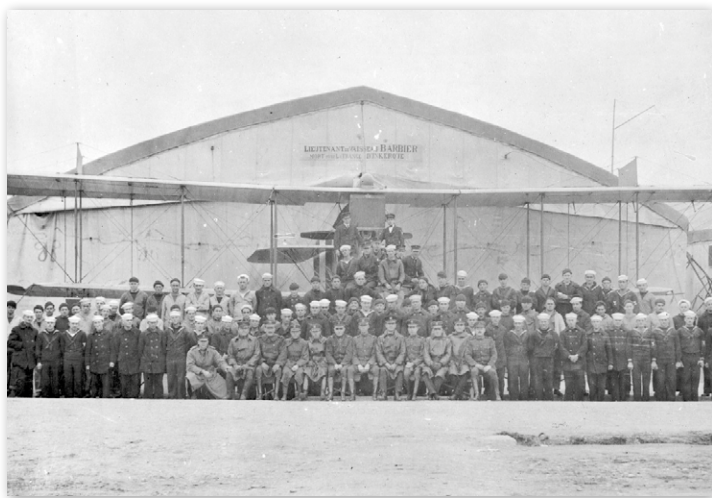
Special abilities of the division commander will have effect in some cases:

A ROF enthusiast will affect the ROF of all ships in the division.

A gunnery expert will improve gunnery in the entire division.

An aggressive or timid commander will affect the tactical behaviour of the division.

A loose cannon can affect any or none of the above. With the loose cannon, you never really know.



OFFICERS

Your ships and divisions will be commanded by officers, who have different abilities and strengths and weaknesses. Officer ranks in the game are: Commander, Captain, Rear Admiral and Admiral.

Designer's Note: A "Commander" would more properly be a Captain Junior Grade in the US and British Navies, and is called so in game if using the option for national officer ranks. Commander is used here for convenience and clarity. Most non-English speaking navies used a term with a literal meaning of Frigate Captain for that rank, like "Fregattenkapitän" or "Capitaine de frigate".

A commander can command a CL or a division of DD. A Captain can command a CA, B, BB, BC, CV, CVL or a division of DD. A rear admiral can command a division of CL or heavier ships.

Designer's Note: There are no Commanding Officers for destroyers. It is assumed that players would find it tedious to handle officers for dozens of destroyers.

Officers are rated by their ability. The possible values are: brilliant, above average, average, below average or incompetent. The ability of an officer is initially unknown, but will be revealed after some years of service. Participating in battles will increase the likelihood of the ability being revealed.

A brilliant or above average officer will give a slight boost to crew quality when crew quality is determined for battle. This can push the crew quality over the edge into the next better bracket. An incompetent or below average officer will cause a slight reduction in crew quality when crew quality is determined for battle. This can push the crew quality over the edge into the next worse bracket.

The quality of division commanders can affect the crew quality of all ships under their command, and affect the risk of misunderstood orders.

Some officers may also have 'characteristics' that can affect their performance during battles. See Appendix 6 for a list and explanation of these characteristics.

After a number of years in a rank, usually around 5, there is a chance of promotion. Promoted officers go into the pool for officers of the new rank. Officers that are promoted run a slight risk of losing their positive attributes, and a slight chance of acquiring a positive attribute.

When an officer is promoted out of his post, the command he occupies will be freed up.

Captains that are promoted will either be promoted to an administrative post and disappear from the pool, or go to the rear admirals pool.

New officers will appear automatically at the lowest rank (commander).

Players can assign officers to free command slots, and officers can be removed from a command at the cost of some prestige. An officer can be manually promoted ahead of his time, but that costs prestige, and carries a higher risk that the officer will lose a positive trait (he is promoted out of his competence area).

Each turn, the player has the opportunity to assign officers from the pool to empty slots. If there should be slots free after the player turn, the AI will fill them up, either by promoting officers into empty slots or by creating new randomized officers. This means that the player can deal with officer assignments in detail if he wants to, but there is no requirement to do so. It is perfectly feasible to let officer assignments run their own course and only remove the occasional idiot now and then.

There are a number of officer events that can happen, often related to the special abilities of officers. These events can create trouble, but may also be opportunities to get rid of below average officers.



Once you have researched naval academy, you have the option (in the doctrine screen) to establish a Naval Academy. That will give you more and slightly better officers to choose from, at a small cost.

POLITICS AND RELATIONS TO OTHER NATIONS

NATIONAL CHARACTERISTICS

The playable nations have a number of national characteristics. Below is a list of those characteristics and their effect.

- ▲ **Efficient shipbuilding industry:** Ships will take 10% shorter time to complete.
- ▲ **Undeveloped shipbuilding industry:** Ships will take 10% longer to complete and are more prone to have unexpected faults, like not reaching their design speed.
- ▲ **Global naval power:** Nation must keep at least 10% of tonnage on foreign stations, cannot have cramped crew quarters. May get automatic budget raise if any other nation has a similar budget.
- ▲ **Cautious:** AI controlled forces will be cautious in battles. Player risks extra prestige loss on losing battles or losing capital ships.
- ▲ **Poor education level:** Affects the quality of ship crews and pilots, and has a slight negative effect on research.
- ▲ **Surprise attack:** The nation has a penchant for starting wars with a surprise attack on the enemy fleet. There will be an 80% chance of a surprise attack on the enemy fleet at the start of a war.
- ▲ **Inconsistent naval policy:** The politicians are more likely to interfere in ship building design and priorities.
- ▲ **Attention to detail:** Ships are less likely to have hidden defects or vulnerabilities.

APPENDIX 1

SHIP TYPE DEFINITIONS USED BY THE GAME

These are the definitions used by the game for defining ship types. Anything falling outside these parameters is considered an illegal ship type. The reason these type definitions must be enforced by the program is that the AI relies heavily on ship type for decision making. It also prevents players from building unrealistic ship designs.

These ship type classifications in the game tend to be somewhat undercut by historical developments in the post WW2 era. In the real world, destroyers become very large after the 1950s. Ships are sometimes classed as light cruisers and sometimes as destroyers, even though they are of similar size. And today we have navies that designate ships that are larger than a predreadnought battleship as destroyers (no names mentioned). Thus, some ships that are classed as destroyers in the real world will be light cruisers in the game.

DESTROYER (DD)



Displacement less than 2000 and speed more than 19 knots. A destroyer must have torpedoes and cannot be armoured. Destroyer maximum displacement will change in game depending on your technological progress. In the late game destroyers can be up to 3800 tons.

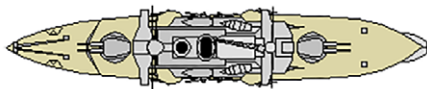
LIGHT CRUISER (CL)



Displacement larger than 2000 and less than 8000. Speed must be more than 16 knots and main gun calibre cannot be larger than 6 inches. (Exception: Protected cruisers can have guns in single mountings up to 8 inches). The maximum displacement of a light cruiser will increase later in the game.

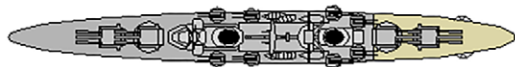
In most of the game light cruisers must have armour, but in the late game with research of the missile cruiser technology, you can build light cruisers without armour.

PREDREADNOUGHT BATTLESHIP (B)



Displacement must be at least 5000 and it must have belt armour at least 6 inches. Main gun calibre must be larger than 6 inches and speed less than 20 knots. It cannot have more than 2 main turrets.

ARMoured CRUISER (CA)



Displacement must be more than 4000 and speed greater than 19 knots. It must have more than 2 inches of belt armour but no more than 12 inches. Main guns must be at least 6 inches calibre and cannot be more than 11 inches.

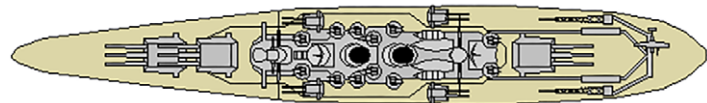
In the 1920s, the Armoured Cruiser will morph into the Heavy Cruiser, using the same CA designation.

BATTLECRUISER (BC)



Must have main gun calibre larger than 10 inches and speed more than 23 knots, or three main gun turrets and speed more than 21 knots. In some borderline cases armour thickness can be the difference between a BC and a BB. Note: The speed requirement for a ship to be defined as a battlecruiser rises with time, as fast battleships develop.

DREADNOUGHT BATTLESHIP (BB)



Must have at least 3 main gun turrets, displacement over 8000 and belt armour of more than 6 inches. Main guns must be more than 10 inches.

CORVETTE (KE)



This definition includes all kinds of minor combatants without torpedoes.

Displacement less than 2500 and belt armour 2 inches or less. Gun calibre can be maximum of 6 inches. Cannot have torpedoes.

Corvettes of 500 tons displacement or smaller are assumed to be civilian trawlers and similar craft impressed for wartime duties, and can only be built during wartime. They can be built quickly if you find that you rapidly need ASW or minesweeping craft. They will be automatically sold off after a war, like AMCs.

ARMED MERCHANT CRUISER (AMC)

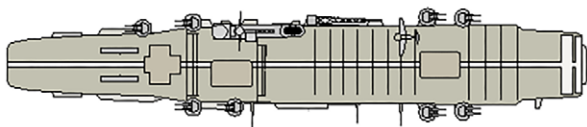


Displacement more than 1700, no armour and gun calibre no more than 6 inches. You may

build up to two armed merchant cruisers in peacetime. This is to simulate auxiliaries, minelayers or civilian ships prepared for rebuilding to warships (carriers or seaplane carriers for example). After a war, all AMCs will be automatically sold off to civilian shipping companies.

In the game, each nation can build up to two fast AMC with speed up to 25 knots. These can be used as fast raiders or as candidates for carrier conversion. The limit of two is set as the number of suitable liners for conversion is assumed to be limited.

AIRCRAFT CARRIER (CV)

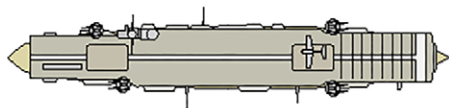


A full size aircraft carrier must have

an aircraft capacity of more than 34 aircraft. The maximum displacement of an aircraft carrier will increase over the game and depends mainly on your technology in shipboard

aircraft operation. The invention of super-carriers (ship design) will substantially increase the maximum size of carriers.

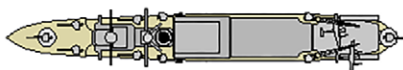
AIRCRAFT CARRIER, LIGHT (CVL)



A light aircraft carrier must have an aircraft capacity of at least 4 aircraft and can carry no more than 34 aircraft. It can

have a maximum displacement of 16 000 tons (this does not apply to conversions of other ships to CVL).

SEAPLANE CARRIER (AV)



Initially, small seaplane carriers are developed. They can carry three or four aircraft and must

be less than 5000 tons displacement. When large seaplane carriers are developed, a seaplane carrier can be up to 14 000 tons.

With the development of helicopters, AV type ships can also be built as helicopter carriers. An AV equipped with a helipad will carry helicopters instead of floatplanes.

APPENDIX 2:

EXPLANATION OF VALUES USED IN SHIP DESIGN

Below is a fuller explanation of how to use the ship designer and the meaning of the different data fields. Note that some features can only be used when researched.

- ▲ **Class name:** A unique name that distinguishes the class. This is used as filename when saving the class.
- ▲ **Enemy class name:** This is the name that the enemy will be told in scenarios. Generated by the program.

- ▲ **Misidentified class name:** This is the name the enemy will be told if they have misidentified the ship generated by the program.
- ▲ **Displacement:** Standard displacement of the ship in tons.
- ▲ **Belt:** Belt armor in inches. Note. The program assumes that the belt is thickest in the center of the ship and at the magazines, and thinner at the ends.
- ▲ **BU:** Upper belt: Upper strakes of belt armour protecting the upper parts of the hull.
- ▲ **BE:** Belt extended: Armour protecting the ends of the ship, steering machinery and boiler uptakes.
- ▲ **D:** Deck: The main armour deck of the ship.
- ▲ **DE:** Deck extended: Corresponds to BE above.
- ▲ **T:** Main gun turret and barbette armour.
- ▲ **TT:** Turret top: Roof of main gun turret.
- ▲ **SEC:** Secondary gun armour.
- ▲ **CT:** Conning tower armour.
- ▲ **Belt coverage:** Can be used to denote narrow belt in classes with narrow belt coverage.
- ▲ **Speed:** is the maximum designed speed of the ship.
- ▲ **Torpedo defence:** The level of torpedo protection the ship has.
- ▲ **Fire control:** The fire control equipment. This is important for the gunnery accuracy of the ship, especially at long range.
- ▲ **Fire control positions:** This is the number of fire control positions on the ship. The reason to have more than one is redundancy. Fire control positions are fragile and can be shot away.
- ▲ **Main gun calibre:** Rounded to inches.
- ▲ **Increased elevation:** Will give extra range to the main guns.
- ▲ **Gun quality:** This is the gun quality of that calibre. It is given by your research and cannot be changed. Gun quality affects range and penetration, and for some older guns, rate of fire. It can vary between -3 (short barrelled old guns, slow to reload) and +2 (an excellent gun with good range and penetration).
- ▲ **Cross deck fire:** Check this if the guns of the wing turrets in positions F, G, K, or J should be capable of cross deck fire, like in for example the historical Indefatigable or Kaiser classes.