

A Quick Guide to the CORE Naval Mod

One of the first questions that gets asked on the forum is “What has changed from Vanilla HoI?” I am always giving the simple answer of “Everything!” Basically, the naval mod for CORE makes the naval units and technology more historically accurate. This is done by adding almost 50 new models of submarines, cruisers and of course battleships. The tech trees for submarines, naval technology and naval doctrines. You lose those classic 150mm Battleships from Vanilla HoI as well as those Basic Cruisers.

This guide will take you through the different types of warships that are present in the game so you can intelligently choose warships which will help you achieve your goal of world domination. It will also look at the techs that will help you build a major nation's technology in order to keep up with the AI.

I hope you enjoy.

Battleships

History

Battleships are the largest and most heavily armored surface warships. Prior to the invention of the atomic bomb, battleships were the measuring stick for a country's military power.

Similar to the treaties which limit nuclear weapons, battleships were limited in size and number by international treaties. The 1922 Washington Naval Limitation treaty limited new battleships to a displacement of 35,000 standard tons and 406mm (16 inch) main battery guns. The treaty also imposed a building holiday on building new battleships. This treaty was first set to expire in 1930, but a conference in London extended the effects to 1936. In late 1935, the Japanese suggested the complete elimination of battleships. When this wasn't accepted by the treaty nations, the Japanese announced their intention to withdraw from the treaty. A new treaty was signed in 1936 without the Japanese. This treaty included clauses allowing for increases in the size and main battery of battleships if it became evident that the Japanese were building battleships which exceeded the treaty limits.

The United States used these escalator clauses to build the *Iowa*-class battleships and design the *Montana*-class. At this time the United States believed that the newest Japanese battleships only displaced 45,000 tons and had 406mm (16") guns. This determined the size of the newest US battleships. No one knew that the *Yamato*-class battleships displaced 62,000 tons and had 460mm (18") guns.

On the other side of the world, the Germans were building the infamous *Bismarck*-class battleships. These battleships were larger versions of the *Bayern*-class battleships that Germany built at the end of the First World War. They had 380mm (15") guns and the extensive sub-division that made German battleships able to withstand damage that would sink any other ship.

The British were building the *King George V*-class battleships. The British had suggested a limit of 356mm (14") guns at the 1936 treaty conference. Their new battleships were designed with this limit in mind. The British were the only country that had experience with building battleships which conformed to the treaty limits. They had built the *Nelson*-class battleships in 1924 as counters to the US *Colorado*-class and Japanese *Nagato*-class battleships. The *Nelson* was faster than many of the battleships that were extant at the time, but compared to the treaty battleships that were built shortly before the beginning of the war, she was slower.

The expiration of the battleship building holiday on 31 December, 1936 started a building race as the major powers started building battleships to replace older battleships. The United States started the *North Carolina* and *Washington*. The British were building the *King George V* and the *Prince of Wales*. These new ships matched ships being built in France, Italy and Germany.

The war in Europe saw little change in the way that battleships were deployed and utilized. The most well known combat between two battleships that occurred during the war was the Battle of Denmark Strait. The new German battleship *Bismarck* was intercepted while breaking into the Atlantic with the heavy cruiser *Prinz Eugen*. They were intercepted by the British battleships *Prince of Wales* and *Hood*. The *Prince of Wales* was a new battleship fresh from the builder. The *Hood* was a battlecruiser

completed in 1920. The British ships approached the Germans from the east. The *Prince of Wales* was having problems with her main battery turrets and shipyard technicians were aboard to fix the problems. Shortly after the British changed heading to allow all of their turrets to fire at the Germans, a 15" shell from the *Bismarck* struck the *Hood* resulting in her exploding. The *Prince of Wales* managed to hit the *Bismarck* with a shell forward which pierced her fuel tanks before withdrawing. Although this hit did not effect the *Bismarck's* combat effectiveness, it did reduce the fuel that she had available forcing her to head to France without attacking North Atlantic convoys. A torpedo from a British Swordfish torpedo bomber jammed her rudder allowing the British Home Fleet to catch and sink her.

In the Pacific, the aircraft carrier was the main tool for naval combat. This forced the battleship into a supporting role. The Japanese attack on Pearl Harbor sunk the US battleships of the Pacific Fleet. This forced the US to rely on their aircraft carriers to provide their striking strength. The Japanese made another example of the ineffectiveness of battleships in the face of aircraft by sinking the British battleships *Prince of Wales* and *Repulse* three days later.

Battleships in CORE

Because of the mechanics that HoI uses, battleships are the most effective naval weapons. They are also the most expensive naval units. The least effective battleship will take over a year to build. Most modern battleships will take two years to build. This forces the player to start building battleships before the war begins.

Because of the game mechanics, battleships are among the last ships within the fleet to receive damage. With sufficient destroyer protection your battleships can stand off and destroy enemy cruisers and destroyers while receiving little or damage in return.

Although there is no tactical reason to build fast battleship designs, the benefit of carrier escort will be a strategic benefit. Your carrier groups will be able to steam at full speed without being slowed by their battleship escorts. This will allow your carriers to move in and strike without worrying about pursuit by enemy battleship groups.

Battleships are effective anti-carrier weapons... at night. The superior firepower of a battleship will be able to sink an enemy's carriers. If the attack doesn't happen at night, you had better have some air cover of your own, because your battleships are vulnerable to air attacks.

Only the major countries have the ability to build battleships. The operation of battleships by a nation doesn't give them the ability to build them. This is question of having the technology to build the engines, guns, and armor. This will require a dedicated program to acquire this technology to build battleships. These technologies at the top of the tech tree are heavy armor, and heavy gun construction. With these techs, a nation will be able to construct the Coast Defense Battleship. With further gun research (305mm), the pre-dreadnaught battleship will be available. The pre-dreadnaught is able to consistently beat enemy cruisers in combat, but will not fair well against the modern battleships built by the major naval powers.

Battleship Models

	Model #	Cost	Build Time	Total Cost	Manpower	Max Speed	Surface Detection	Air Detection	Sub Detection	Visibility	Sea Attack	Sea Defense	Air Attack	Air Defense	Sub Attack	Shore Bombardment	Range	Supply Consumption	Fuel Consumption	Aircraft Capacity
Coast Defense Battleship	0	6	970	5820	2	14	1	1	1	20	7	10	1	1	1	2	2500	1	3	
Pre-Dreadnaught	1	7	950	6650	2	16	1	1	1	22	10	12	1	2	1	3	8000	1	3	
Battlecruiser	2	9	1030	9270	3	28	2	1	1	28	12	10	1	2	1	4	8000	1	5	
Dreadnaught	3	8	980	7840	3	20	1	1	1	26	14	20	1	3	1	4	10000	1	4	
Small Treaty Battlecruiser	4	11	1050	11550	3	32	2	1	1	30	14	20	2	2	1	4	12000	1	4	
Large Battlecruiser	5	13	1120	14560	4	34	2	1	1	34	16	20	2	2	1	5	8000	1	6	
Super Dreadnaught	6	11	1030	11330	3	20	1	1	1	28	16	26	1	5	1	5	10000	1	4	
Fast Dreadnaught	7	13	1050	13650	3	25	1	1	1	30	16	22	1	4	1	5	8000	1	5	
Treaty Battleship	8	16	1080	17280	3	28	1	1	1	32	20	32	2	8	1	6	12000	1	5	
Fast Battleship	9	16	1150	18400	3	32	2	1	1	34	20	32	2	8	1	6	12000	1	6	
Post-Treaty Battleship	10	18	1100	19800	4	28	1	1	1	35	14	36	2	10	1	6	12000	1	5	
Super Battleship	11	21	1230	25830	5	28	1	1	1	40	25	45	2	12	1	7	14000	1	6	
Guided Missile Battleship	12	17	1130	19210	3	32	1	2	1	36	20	30	4	16	1	5	14000	2	5	
Nuclear Super Battleship	13	20	1250	25000	5	28	1	1	1	38	25	45	2	12	1	7	200000	2	0	
Nuclear Guided Missile Battleship	14	18	1170	21060	4	34	1	2	1	35	20	30	4	16	1	5	200000	2	0	

Battleship Classes

	Coast Defense Battleship	Pre- Dreadnaug ht Battleship	Battlecruis er	Dreadnaug ht Battleship	Small Treaty Battlecruis er	Large Battlecruis er	Super Dreadnaug ht Battleship	Fast Super Dreadnaug ht Battleship
France	Bouvines-class BB	Danton-class BB	Lyon-class BC	Courbet-class BB	Dunkerque- class BC		Bretange-class BB	Normandie-class BB
Germany	Braunschweig- class BB	Deutschland- class BB	Derfflinger- class BC	König-class BB	Scharnhorst- class BC	Mackensen- class BC	Bayern-class BB	Ersatz Yorck- class BB
Italy	Faa' Di Bruno- class MON	Regina Elena- class BB	Caio Duilio- class BC	Dante Aligheri- class BB			Andrea Doria- class BB	Giulio Cesare- class BB
Japan	Shikishima-class BB	Kashima-class BB	Kongo-class BC	Fuso-class BB		Amagi-class BC	Ise-class BB	Nagato-class BB
Soviet Union	Chesma-class BB	Respublika- class BB	Borodino-class BC	Marat-class BB		Kronshtadt- class BC	Demokratiya- class BB	
United Kingdom	Roberts-class MON	Lord Nelson- class BB	Tiger-class BC	Iron Duke-class BB	Courageous- class BC	Hood-class BC	Revenge-class BB	Queen Elizabeth-class BB
United States	Ozark-class MON	Connecticut- class BB		Arkansas-class BB		Lexington-class BC	Colorado-class BB	
	Treaty Battleship	Fast Battleship	Post-Treaty Battleship	Super Battleship	Guided Missile Battleship	Nuclear Super Battleship	Nuclear Guided Missile Battleship	
France	Richelieu-class BB							
Germany		Bismarck-class BB	H(39)-class BB	H(42)-class BB				
Italy	Littorio-class BB							
Japan				Yamato-class BB				
Soviet Union		Sovyetskiy Soyuz-class BB						
United Kingdom	King George V- class BB	Vanguard-class BB	Lion-class BB					
United States	North Carolina- class BB	Iowa-class BB	Montana-class BB					

Aircraft Carriers

History

The first flight of an airplane off a warship occurred in 1910 when Eugene Ely took off in a seaplane from the US cruiser *Birmingham*. The British and the Americans experimented with the use of aircraft for scouting purposes. The British used aircraft in combat during the First World War in attacks on the Dardanelles and German Zeppelin sheds.

These first experiments and operations with aircraft provided the basis for carrier operations throughout the Second World War. The British were the first navy to gain extensive operational experience with operating aircraft off of specially converted vessels. The British seaplane carrier *Engadine* was present at the Battle of Jutland providing aerial reconnaissance. The Chilean battleship *Almirante Cochrane* was converted into the carrier *Eagle* and the battlecruisers *Furious*, *Courageous*, and *Glorious* were converted as well. These experiments with carriers allowed the British to develop the characteristics which would be necessary for future purpose built carriers.

The Washington Naval Conference in 1922 stopped the construction of battleships as countries complied with the provisions of the treaty. This freed up hulls for conversion into large carriers. The United States converted two of their large battlecruisers into the carriers *Lexington* and *Saratoga*. The Japanese converted two of their capital ships into the carriers *Akagi* and *Kaga*.

These carriers had large gun armaments to prevent them getting caught with aircraft on the deck in attacks by surface warships. The potential of carrier based aircraft was tested in exercises within the fleets between the wars.

The first major attack by carrier aircraft on surface warships was performed by the British. They had fallen behind in carrier technology because of the consolidation of the Fleet Air Arm with the Royal Air Force. The British attacked the Italian battleships anchored in Taranto with obsolete Swordfish torpedo bombers. Three of the six Italian battleships anchored in the harbor were sunk. This was the first example of the superiority of aircraft over battleships.

The Japanese used the lessons from Taranto to plan their attack on Pearl Harbor. This attack resulted in the effective elimination of the Pacific Fleet battleships as a fighting force. This resulted in the US carriers being forced to carry the burden of the counterattacks against the Japanese.

The first naval battle where neither side's surface ships saw one another was the Battle of the Coral Sea in 1942. The Japanese advance in the South Pacific was blunted by two US carriers.

This was a prelude to the pivotal carrier battle between the US and Japan at Midway. The Japanese plan was for a diversionary attack into the Aleutian Islands to draw the US carriers north. Once the American carriers were drawn out, they would be attacked by the aircraft from four large carriers that were accompanying the Midway invasion force.

Signal intelligence by the US Navy allowed them to anticipate the Japanese plan enabling them to have their carriers waiting northeast of Midway where they could ambush the Japanese carriers. The American aircraft caught the Japanese carriers while they were rearming their aircraft following the initial strikes against Midway. Following

the first strike by the American aircraft, three of the Japanese carriers were on fire and sinking. But the carrier *Hiryu* was still lurking, hidden by the clouds. She launched a counterstrike which caught the *Yorktown*. The *Yorktown* had been damaged at the Battle of the Coral Sea and was hastily repaired, but now she was crippled and being towed back to Pearl Harbor. The *Enterprise* and *Hornet* launched air attacks which sunk the *Hiryu* and then withdrew from the risk of a night attack by Japanese battleships. This battle ended the Japanese drive across the Pacific.

The United States was now receiving new carriers of the *Essex*-class. This combined with the diminishing of the Japanese pilot pool allowed the Americans to drive across the Pacific to Japan itself. Massive carrier strikes on the Home Islands combined with the use of the atomic bombs at Nagasaki and Hiroshima forced the Japanese to surrender in 1945.

Following the World War II, the aircraft carrier became the focus of naval power within the US Navy. These carriers carried airgroups which were larger than many of the world's air forces.

Carriers in CORE

Aircraft carriers are useless without their aircraft. Whenever you build a carrier within HoI, don't forget to complete the CAG units which will make them effective. Research into new technologies in the light aircraft tree will allow your CAG units to be upgraded.

The newer carriers often carry more aircraft than their predecessors. Check the capacity of the carrier before building your CAGs. This will allow you to field the most effective carrier task forces possible.

Don't forget to include escorts with your carriers. This often means cruisers, or new battleships (treaty battleships or later). These ships can keep up with the carriers which allows them to maintain their mobility. Cruisers and battleships keep your carriers from being sunk in attacks at night. The attacking task force will destroy your destroyers, cruisers, and battleships first (or be destroyed by your escorts). This will protect your carriers. If you don't have large escorts, the attack will be focused on your carriers. If the attack happens at night, your carrier aircraft will be useless and your carrier(s) sunk.

Carriers have no anti-submarine capability (unless they are escort carriers or ASW carriers). This means that destroyers are needed to detect and destroy enemy submarines before they can attack and sink your carriers.

Carrier Models

	Model #	Cost	Build Time	Total Cost	Manpower	Max Speed	Surface Detection	Air Detection	Sub Detection	Visibility	Sea Attack	Sea Defense	Air Attack	Air Defense	Sub Attack	Shore Bombardment	Range	Supply Consumption	Fuel Consumption	Aircraft Capacity
Conversion	0	5	560	2800	2	24	1	1	1	26	0	15	1	1	0	0	8000	2	2	1
Escort Carrier	1	4	480	1920	2	18	1	1	2	24	0	8	1	1	1	0	10000	2	1	1
Aviation Cruiser	2	6	610	3660	2	34	1	1	1	20	4	10	1	2	0	0	8000	2	2	1
ASW Support Carrier	3	9	640	5760	2	30	2	1	5	27	0	24	1	2	3	0	10000	2	2	1
Small Carrier	4	11	700	7700	2	30	1	2	1	28	0	20	1	2	0	0	9000	2	2	2
Light Carrier	5	9	580	5220	3	32	1	2	1	30	0	22	2	2	0	0	8000	2	2	2
Cruiser Conversion	6	13	680	8840	3	30	1	2	1	34	2	35	2	4	0	0	10000	3	4	2
Armored Deck Fleet Carrier	7	15	730	10950	4	32	1	2	1	32	0	30	3	5	0	0	8000	2	3	2
Fleet Carrier	8	14	710	9940	4	33	1	2	1	32	0	25	3	3	0	0	12000	2	3	3
Armored Deck Post-Treaty Carrier	9	16	760	12160	4	32	1	2	1	34	0	35	4	6	0	0	14000	2	3	2
Post-Treaty Fleet Carrier	10	15	740	11100	4	33	1	2	1	34	0	30	4	4	0	0	10000	2	3	3
Large Carrier	11	17	810	13770	4	34	1	2	1	37	0	40	5	5	0	0	12000	3	4	4
Super Carrier	12	18	1200	21600	4	34	1	3	1	41	0	45	6	10	0	0	15000	4	5	5
Nuclear Super Carrier	13	19	1250	23750	5	35	1	3	1	42	0	45	6	10	0	0	20000	4	0	5

Carrier Classes

	Conversion	Escort Carrier	Aviation Cruiser	ASW Support Carrier	Small Carrier	Light Carrier	Cruiser Conversion
France	Béarn-class CV	Dixmude-class CVE		Jeanne D'Arc-class CVH	Commandant Teste-class CV	Arromanches-class CVL	
Germany	Stuttgart-class CV				Weser-class CV	Seydlitz-class CVL	De Grasse-class CV
Italy	Aquila-class CV			Vittorio Veneto-class CVH		Sparviero-class CVL	
Japan	Hosho-class CV	Shinyo-class CVE			Zuiho-class CV	Chitose-class CVL	Akagi-class CV
Soviet Union				Krechyet-class CVH		Baku-class CLV	
United Kingdom	Eagle-class CV	Attacker-class CVE		Bulwark-class CVH	Colossus-class CV	Majestic-class CVL	Courageous-class CV
United States	Langley-class CV	Casablanca-class CVE			Wasp-class Carrier	Independence-class CVL	Lexington-class CV
	Armored Deck Fleet Carrier	Fleet Carrier	Armored Deck Post-Treaty Carrier	Post-Treaty Fleet Carrier	Large Carrier	Super Carrier	Nuclear Super Carrier
France		Joffre-class CV				Foch-class CV	
Germany		Graf Zeppelin-class CV					
Italy							
Japan	Taiho-class CV	Shokaku-class CV		Unryu-class CV	Shinano-class CV		
Soviet Union							Ulyanovsk-class CVN
United Kingdom	Illustrious-class CV	Ark Royal-class CV	Implacable-class CV	Malta-class CV			
United States		Yorktown-class CV		Essex-class CV	Midway-class CV	Forrestal-class CV	Enterprise-class CVN

Cruisers

History

The history of the cruiser within navies is a long one. They are evolved from the frigates of the Napoleonic Wars. These ships are designed for commerce protection and raiding and battleline support. The different strategies required for these differing tasks requires a great variety of designs. This variety makes itself apparent when you see the difference between the heavily armed cruisers designed to penetrate enemy screens and determine enemy strength and compare them to the lightly armed sloops for colonial defense.

The modern cruiser evolved prior to and during the First World War. The early cruisers were rated as protected or unprotected. As their names denote, the difference was the level of armor protection rather than differences in gun calibers and numbers. The British preferred small, unarmored cruisers for commerce protection and colony defense. The United States preferred heavy armed and armored semi-capital ships. During the First World War, the standard cruiser was armed with 152mm (6") guns and displaced around 5000 tons. As the war progressed, the ship batteries increased and the ships became larger to enable them to fight in larger seas. These ships were supplemented by slower, armored cruisers armed with 203mm (8") or 254mm (10") guns which operated with the battle fleet or independently.

The 1922 Washington Naval Treaty limited cruisers to 203mm (8") guns and a standard displacement of 10,000 tons. These treaty cruisers typically had heavy main batteries and extremely thin armor. The heavy weight of the 203mm gun turrets meant that limited weight was available for armor if high speeds were retained.

The 1930 London Naval Treaty was an extension of the 1922 Treaty. With the building holiday on battleships, the major powers started a building race on cruisers. The 1930 treaty limited the total tonnage for cruisers and also limited the main battery guns to 152mm (6"). This limitation of the guns meant that more armor could be provided on the limited tonnage due to the lighter weight of the 152mm guns. The United States still preferred 203mm guns due to their greater hitting power, but was unable to build these cruisers due to the treaty. The solution adopted by the Japanese and the Americans was to incorporate extremely heavy 152mm batteries into their new ships. Both the Japanese *Mogami*-class and US *Brooklyn*-class heavy cruisers had main batteries of 15 152mm guns arranged in five triple targets.

The Germans were limited to cruisers or battleships of 10,000 tons by the Treaty of Versailles. This was an effort to prevent the Germans from building a significant naval force. The Germans circumvented these limitations with the *Deutschland*-class "Pocket Battleships." These ships were designed to outgun the faster British cruisers which were limited by the Washington Treaty, and outrun the slow battleships in the British fleet. Their revolutionary diesel main engines allowed them to cruiser long distances on commerce raiding missions.

The British were still looking to limit cruiser size so they could provide cruisers for foreign stations. The state of the British economy prevented them from building the numbers of large cruisers to match the Japanese and American cruisers in the Pacific. To solve this dilemma, the British got a 7,000 ton limit for cruisers incorporated into the

1936 London Treaty. These limitations resulted in the US *Atlanta*-class anti-aircraft cruisers and the British *Arethusa*-class cruisers.

The beginning of World War II found the British cruisers spread across the globe in colonial ports. They spent the beginning of the war hunting German commerce raiders and convoying merchant ships to Britain. The German pocket battleships were sent to sea to destroy British commerce. The *Graf Spee* was cornered in the South Atlantic by three British cruisers. By forcing the *Graf Spee* to split her fire, the three British cruisers were able to damage the *Graf Spee* to seek refuge in Montevideo, Uruguay. When German intelligence reported British battlecruisers waiting off the coast waiting to finish the *Graf Spee* off, she was scuttled in the channel leading out of the harbor.

In the Pacific, US and Japanese cruisers met in between the islands of the Solomon chain in a series of violent battles. The Japanese use of long range torpedoes and superior optics allowed them to get the early advantage in night battles. The slow firing 203mm (8") guns of the US heavy cruisers were unable to hit the fast maneuvering targets of the Japanese cruisers.

The development of radar allowed the American cruisers to even up the battles but they were never able to completely overcome the Japanese advantages in tactics and equipment.

Following the battles around Guadalcanal, the US cruisers were primarily used as escorts for the carrier task forces which were roaming the Pacific. In this role, their anti-aircraft batteries were increased and they were operating in close company of the carriers. This limited their opportunities for surface combat.

The other role that the US cruisers found themselves filling was fire support vessel. The slow firing 203mm (8") gun was ideal for this role. Targets on shore were unable to maneuver and the heavier shell was superior for penetrating bunkers and gun emplacements.

By the end of the war, the US was building cruisers with semi-automatic 203mm guns. These turrets were developed from the dual-purpose 152mm turrets that were begin designed for anti-aircraft cruisers. The high rate of fire possible with the new turret allowed the 203mm gun to be useful in surface combat once again.

Following the war, the primary duty of cruisers became anti-aircraft screening. The size of the cruisers allowed the large anti-aircraft missile system to be mounted. The missile systems replaced the large gun systems which made the ships valuable for surface combat and shore bombardment. There were cruiser designs which eliminated guns altogether, but some guns were eventually added later for surface defense.

Cruisers in CORE

Cruisers are the most useful vessels available within the game. They are large enough to be survivable in combat and can overwhelm enemy battleships when grouped together.

All countries can build cruisers from the beginning of the game. These ships are the general purpose sloops which are limited in value. They are expensive to build because they represent the low technology which would be used by minor nations during construction. These ships are more for show or combat against other sloops due to their limited firepower and durability.

Light cruisers are cruisers armed with 152mm while a heavy cruiser is armed with 203mm guns. These cruisers are a choice between heavier firepower and better durability. The light cruiser has better armor because of her lighter main battery guns.

The super cruisers of the *Alaska*-class are classified as cruisers not battleships. This is because of their design origins and design philosophy. They are evolved from the *Wichita*-class heavy cruiser which shows in the arrangement of her secondary battery and machinery. The height of her main battery directors limits the range of her 305mm (12") guns to the same range as a standard heavy cruiser without radar or spotting aircraft. These characteristics all show her cruiser origins. If you look at true US battlecruisers (*Lexington*-class) the design characteristics are scaled down battleships. The *Lexington* was scaled down in armor protection from the *Colorado*-class and lengthened to provide the necessary speed.

Cruiser Models

	Model #	Cost	Build Time	Total Cost	Max Power	Max Speed	Surface Detection	Air Detection	Sub Detection	Visibility	Sea Attack	Sea Defense	Air Attack	Air Defense	Sub Attack	Shore Bombardment	Range	Supply Consumption	Fuel Consumption	Aircraft Capacity
Sloop	0	5	490	2450	1	24	1	1	1	10	1	1	0	1	0	0	3000	1	1	
Protected Cruiser	1	4	410	1640	1	26	2	1	1	12	4	2	0	1	0	0	5000	1	1	
Armored Cruiser	2	8	830	6640	2	22	1	1	1	22	8	8	1	1	0	2	6000	1	2	
Light Cruiser	3	5	430	2150	1	30	2	1	1	14	6	2	1	1	0	1	8000	1	1	
Pocket Battleship	4	7	690	4830	3	28	2	1	1	19	9	6	1	2	0	2	12000	1	0.8	
Treaty Sloop	5	4	410	1640	1	20	1	1	1	10	4	2	1	1	0	0	6000	1	1	
Small Treaty Light Cruiser	6	6	425	2550	1	33	2	1	1	14	5	3	1	2	0	0	8000	1	1	
Treaty Light Cruiser	7	6	470	2820	2	33	2	1	1	17	7	4	1	2	0	1	8000	1	1	
Treaty Heavy Cruiser	8	6	480	2880	2	32	2	1	1	17	8	3	1	2	0	2	8000	1	1	
AA Light Cruiser	9	5	430	2150	1	34	2	2	2	14	4	3	3	1	1	0	8000	1	1	
Large AA Light Cruiser	10	7	510	3570	2	32	2	2	1	21	7	6	4	3	0	1	12000	1	1	
Super Cruiser	11	10	870	8700	3	32	2	1	1	29	14	12	2	3	0	3	12000	1	2	
Post-Treaty Light Cruiser	12	7	510	3570	2	33	2	1	1	20	7	5	2	3	0	1	10000	1	1	
Post-Treaty Heavy Cruiser	13	7	520	3640	2	32	2	1	1	20	8	5	2	3	0	2	10000	1	1	
Semi-Modern Heavy Cruiser	14	8	580	4640	2	32	2	2	1	22	11	6	2	3	0	2	10000	1	1	
Nuclear Super Cruiser	15	11	910	10010	4	33	2	1	1	28	14	12	2	3	0	3	200000	1	0	
Nuclear Light Cruiser	16	8	540	4320	3	34	2	1	1	19	7	5	2	3	0	1	200000	1	0	
Nuclear Heavy Cruiser	17	8	550	4400	3	33	2	1	1	19	8	5	2	3	0	2	200000	1	0	
Guided Missile Cruiser	18	6	530	3180	2	34	2	2	1	17	5	4	5	3	1	0	10000	2	2.5	
Nuclear Guided Missile Cruiser	19	7	550	3850	3	35	1	2	1	16	5	4	5	3	1	0	200000	2	0	

Cruiser Classes

	Sloop	Protected Cruiser	Armored Cruiser	Light Cruiser	Pocket Battleship	Treaty Sloop	Small Treaty Light Cruiser
France	Ville d'Ys-class Sloop	Lavoisier-class CL	Waldeck Rousseau-class ACR	Lamotte Picquet-class CL		Bougainville-class Sloop	Emile Bertin-class CL
Germany	Bremse-class Sloop	Gazelle-class CL	Roon-class ACR	Emden-class CL	Lützow-class CA	Brummer-class Sloop	Königsberg-class CL
Italy	Diana-class Sloop	Bixio-class CL	San Georgio-class ACR	Taranto-class CL		Eritrea-class Sloop	Cadorna-class CL
Japan		Yubari-class CL	Izumo-class ACR	Sendai-class CL		Tsukushi-class Survey Ship	Katori-class CL
Soviet Union	Yastreb-class Guardship	Muravev Amurski-class CL	Rurik-class ACR	Profintern-class CL			Krazni Kavkaz-class CA
United Kingdom	Shoreham-class Sloop	Pathfinder-class CL	Minotaur-class ACR	Enterprise-class CL		Bittern-class Sloop	Arethusia-class CL
United States	Treasury-class Coast Guard Cutter	Chester-class CL	Tennessee-class ACR	Omaha-class CL		Eire-class PG	
	Treaty Light Cruiser	Treaty Heavy Cruiser	AA Light Cruiser	Large AA Light Cruiser	Super Cruiser	Post-Treaty Light Cruiser	Post-Treaty Heavy Cruiser
France	La Galissonnière-class CL	Algérie-class CA				De Grasse-class CL	
Germany		Admiral Hipper-class CA	Frauenlob-class CLAA		P-class BC	M-class CL	Improved Admiral Hipper-class CA
Italy	Abuzzi-class CL	Bolzano-class CA	Capitani Romani-class CLAA			Costanzo Ciano-class CL	
Japan	Mogami-class CL	Tone-class CA	Oyodo-class CLAA		B64 Type-class BC	Itsukushima-class Minelayer	
Soviet Union	Chapayev-class CL	Kirov-class CA				Sverdlov-class CL	
United Kingdom	Southampton-class CL	Norfolk-class CA	Dido-class CLAA	Tiger-class CLAA		Fiji-class CL	
United States	Brooklyn-class CL	New Orleans-class CA	Atlanta-class CLAA	Worcester-class CLAA	Alaska-class CB	Cleveland-class CL	Baltimore-class CA
	Semi-Modern Heavy Cruiser	Nuclear Super Cruiser	Nuclear Light Cruiser	Nuclear Heavy Cruiser	Guided Missile Cruiser	Nuclear Guided Missile Cruiser	
France					Colbert-class CG		
Germany							
Italy					Garibaldi-class CG		
Japan							
Soviet Union					Dzerzhinskiy-class CG		
United Kingdom					Tiger-class CG		
United States	Oregon City-class CA				Albany-class CG	Long Beach-class CGN	

Destroyers

History

Destroyers evolved from torpedo boats around the turn of the century. Early torpedoes were large, heavy weapons which required a specialized vessel to carry. These torpedo boats were designed to defend coastal areas against large fleets. The battleships and cruisers carried small weapons to defend against the torpedo boats, but as the efficiency of torpedoes improved, the guns required to defend against the torpedo boats required more weight. This resulted in the development of specialized ships to intercept the torpedo boats while they were still away from the fleet. The size of these torpedo boat destroyers grew so they were able to accompany the fleet out of coastal waters. When this happened, the role of destroyer changed from defender to attacker as they were expected to press home torpedo attacks on the enemy fleet. Torpedo armament became more important than gun armament.

During the First World War, attacks by submarines forced the destroyer back into the role of defender. The destroyer's high speed and good maneuverability was well suited to the attacks on submarines which were only spotted after they fired their torpedoes. The destroyer was able to race to the point where the submarine had fired the torpedo and drop depth charges before the submarine could dive or evade.

Following the First World War, the world's major navies had numerous destroyers which had been built for ASW work during the war. These destroyers typically displaced 1,000 tons and were armed with two or three light guns, torpedoes and anti-submarine weapons. The surplus of destroyers meant that new destroyers weren't necessary in the limited interwar naval budgets.

The 1922 Washington Treaty which limited battleship and cruiser sizes also limited the size of destroyers. There were two classes of destroyers. The standard destroyer was limited to 1,500 tons while the larger flotilla leaders were limited to 1,850 tons. Torpedo range increased the lethality of torpedo attacks, so large torpedo batteries were incorporated into the designs. New high pressure steam power plants freed up weight for heavier gun batteries. Most nations preferred to build smaller destroyers to get numbers in place of individual unit capability, but the French and Italians both built large destroyers which were almost as large as small cruisers.

Throughout World War II destroyers were used to escort convoys and task forces against submarine attacks. The development of sonar (ASDIC), allowed submarines to be detected before they could make their attacks. This meant that speed wasn't as important for anti-submarine combat as it was before. This allowed the development of specialized ASW escorts with lower top speeds. This enabled the mass production of convoy escorts with non-warship machinery. These specialized designs sacrificed guns for additional ASW weapons making them less capable against surface raiders.

Destroyer size continued to grow throughout the war. With this increase in size came increased armament and survivability. Dual-purpose guns allowed the destroyer to screen larger capital ships against air attacks. The number of anti-aircraft guns on the later destroyer designs made the construction of specialized anti-aircraft cruisers impractical and the destroyer became an essential part of the anti-aircraft screen. This state of affairs lasted until the development of long range surface-to-air missiles extended the anti-aircraft battle beyond the range of destroyer weapons. When this happened, the

destroyer was forced into the role of anti-submarine warfare. The development of towed sonar arrays and shipboard helicopters extended the reach of anti-submarine weapons beyond the edge of the task force or convoy.

Destroyers in CORE

Build lots of destroyers. Destroyer type warships are your fleet's only protection against submarines. Submarines are a deadly weapon. They aren't as deadly as in earlier versions of CORE and especially not as deadly as in Vanilla HoI. Destroyers get the benefit of all of the ASW techs that are developed. Early in the war your destroyers will have more trouble detecting submarines and making a successful attack. As weapons and tactics are developed, it will become harder for the submarines to make a successful attack without technological development. If the submarines get ahead in the technological race, they will be able to operate against your warships easily.

If yours is a country that hasn't developed dual-purpose weapons, develop them as soon as possible. They make your destroyers effective against air attacks. This allows you to focus more of your construction on destroyers which are less expensive and require less manpower.

Early destroyers have very short range. This means that operations far from a base or combat while transiting between two bases which are far apart will leave you at a disadvantage. Torpedo boat squadrons and 500 ton destroyer flotillas can't travel more than one or two sea zones without exceeding their range rating. Check your task force's range rating before making long trips.

Destroyers protect your more expensive units from getting damaged during naval combat. Because the destroyer screens are fighting back and forth between the two fleets, they tend to absorb more damage. If you have more destroyers than your opponent, you will be able to damage their capital ships and receive less damage in return.

Cheap destroyers make good escorts. One destroyer flotilla will get you 5 escorts if you assign them to the escort pool. The program doesn't look at the type or capability of the destroyers assigned, so a torpedo boat squadron is just as effective in this role as a 2000 ton destroyer. I would recommend 500 ton destroyers until you can build corvettes. They are your cheapest alternative for plentiful escorts. This isn't realistic, but effective.

Destroyer Models

	Model #	Cost	Build Time	Total Cost	Manpower	Max Speed	Surface Detection	Air Detection	Sub Detection	Visibility	Sea Attack	Sea Defense	Air Attack	Air Defense	Sub Attack	Shore Bombardment	Range	Supply Consumption	Fuel Consumption	Aircraft Capacity
Motor Torpedo Boat	0	3	120	360	1	40	1	0	0	9	2	0	0	1	0	0	100	1	2	
500 Ton Destroyer	1	3	210	630	1	28	1	1	1	11	2	1	2	0	2	0	1000	1	1	
1000 Ton Destroyer	2	3	230	690	1	32	1	1	5	12	2	2	2	1	3	0	2500	1	1	
Escort Sloop	3	3	190	570	1	18	1	1	5	13	1	1	3	1	4	0	7000	1	1	
Corvette	4	2	180	360	1	24	1	1	8	12	1	1	2	1	4	0	5000	1	0.8	
Frigate	5	3	210	630	1	28	1	1	8	13	2	2	3	1	4	0	5000	1	0.8	
1500 Ton Destroyer	6	3	250	750	1	34	1	2	6	13	4	2	3	1	3	0	3000	1	1	
2000 Ton Destroyer	7	4	260	1040	1	36	1	2	6	14	5	3	3	1	3	0	4000	1	1	
Large Destroyer	8	4	300	1200	1	36	2	1	6	15	6	3	3	1	3	0	4500	1	1	
2500 Ton Destroyer	9	4	290	1160	1	38	1	2	6	15	6	4	5	1	3	0	4500	1	1	
3000 Ton Destroyer	10	5	300	1500	1	40	1	2	6	16	6	5	6	1	3	0	5000	1	1	
Guided Missile Destroyer	11	5	280	1400	2	38	1	4	7	15	4	4	7	2	4	0	5000	2	1	

Destroyer Classes

	Motor Torpedo Boat Squadron	500 Ton Destroyer Flotilla	1000 Ton Destroyer Flotilla	Escort Sloop Flotilla	Corvette Flotilla	Frigate Flotilla
France	La Melmomène-class Torpedo Boats	Le Fier-class Torpedo Boat	Enseigne Roux-class DD	Élan-class Sloop	La Bastiase-class DE	L'Aventure-class FF
Germany	S-Boat Squadron	Raubvogel-class PC	T 1937-class DD	1935/1939 (Mob) Type Minesweeper	F-class DE	Typ 40-class DE
Italy	MAS Torpedo Boat Squadron	Spica-class Torpedo Boat	Sauro-class DD	Pegaso-class DE	Gabbiano-class DE	Ariete-class FF
Japan	T1-class Torpedo Boat Squadron	Momo-class DD	Minekaze-class DD	Hashidate-class PG	Matsu-class DE	Tachibana-class FF
Soviet Union	G5 Type Torpedo Boat Squadron	Uragan-class PG	Navik-class DD	Vladimir Polukhin-class Minesweeper	EK 1-class DE	Riga-class FF
United Kingdom	Vosper Boat Squadron	Basset-class ASW Trawler	V-Class DD	Grimsby-class Sloop	Hunt-class DE	River-class FF
United States	PT Boat Squadron	Bird-class Minesweeper	Clemson-class DD	Tacoma-class FF	Everts-class DE	Claude Jones-class FF
	1500 Ton Destroyer Flotilla	2000 Ton Destroyer Flotilla	Large (Leader) Destroyer Flotilla	2500 Ton Destroyer Flotilla	3000 Ton Destroyer Flotilla	Guided Missile Destroyer Flotilla
France	Bourrasque-class DD	Le Hardi-class DD	Mogador-class DD			Suffern-class DDG
Germany	Typ 34/A-class DD	Typ 36/A-class DD		Typ 36/B-class DD	Typ 36/C-class DD	Typ 44-class DDG
Italy	Navigatori-class DD		Mirabello-class Leader			
Japan	Mutsuki-class DD	Kagero-class DD	Fubuki-class DD	Shimikaze-class DD	Akitsuki-class DD	Tachikaze-class DDG
Soviet Union	Gnevnyi-class DD	Storozhevoy-class DD	Leningrad-class Leader	Ognevoi-class DD	Skoryi-class DD	Kotlin-class DDG
United Kingdom	A-Class DD	Tribal-class DD	A-Class Leader	Battle-class DD	Daring-class DD	Bristol-class DDG
United States	Farragut-class DD	Fletcher-class DD	Porter-class DD	Allen M Sumner-class DD	Forrest F Sherman-class DD	Charles F Adams-class DDG

Submarines

History

Compared to the surface ship, the submarine is a relatively new weapon system. The submarine has been an effective weapon only since the turn of the century and wasn't used effectively until the First World War. Early submarines weren't effective because of the lack of a weapon to use while submerged. They were limited to setting contact mines on a stationary ships hull. The development of a self propelled torpedo gave the submarine a weapon that could be used against targets underway. This was combined with a submarine which was able to effectively control it's depth and heading. These first generation submarines were limited to coastal defense by their slow speed and short range.

During the First World War the Germans demonstrated that submarines could be used as an effective weapon against commerce. Although they used their submarines against naval targets in support of the High Seas Fleet at the beginning of the war, the blockade forced the Germans to use their submarines against British merchant ships. Once they were released from following the rules of war which dated from the Napoleonic Wars, they became effective commerce raiders.

The British were forced to come up with tactics to protect their shipping. Although numerous plans were devised, the one that was most effective was convoying. This was a tactic from the Napoleonic Wars when attacks by commerce raiders forced the merchant vessels to stay together under the protection of a group of warships. This forced the submarines to come where the warships were, it also made it more difficult to detect the convoys.

Following the war the German commanders looked at the reasons for the failure of the submarine campaign. They discovered that the concentration of warships around a convoy prevented individual submarines from making effective attacks. New tactics were developed where a submarine which makes a sighting serves as a beacon for a group of attacking submarines. The group of submarines would make their attacks at night while running on the surface. The higher surface speed allowed the submarines to penetrate the destroyer screen and also allowed them to evade detection by sonar systems.

The war started early which prevented the Germans from having the number of submarines available for attacking convoys which was necessary to cut off Britain's lifeline. Even with the reduced number of submarines the Germans were able to interdict enough British trade to threaten their survival. The new wolfpack tactics were able to penetrate the enemy destroyer screens and sink the valuable merchant vessels. New long range submarines were able to attack convoys while they were farther out to sea, out beyond the range where aircraft could cover the convoys.

The British were forced to build large numbers of escorts to cover convoys and free up destroyers for covering task forces. The entry of the United States into the war provided additional ships for covering convoys, but it also opened up new hunting grounds for the wolfpacks. Attacks against the shipping along the US coast stretched the inexperienced US ASW teams, and resulted in a second time where the U-Boats were running wild on Allied shipping.

This second "Happy Time" for the German U-Boats didn't last for long. The Germans were falling behind the technological curve. This combined with Allied signal

intelligence resulted in more submarines being sunk than were being built for the first time in the war. As Allied ASW technology increased, it became impossible for German submarines to attack targets in the North Atlantic where aircraft could cover the convoys and escorts were concentrated. This forced the submarines farther from Europe. Eventually, the combination of signal intelligence and superiority was too much no matter where the submarines operated. The Allies had won the Battle of the Atlantic.

The war in the Pacific was a war of contrasting styles when it came to submarine warfare. The Japanese submariners were trained to support the Japanese fleet through scouting and attacking the enemy fleet. The American submariners were trained to concentrate on cutting the Japanese seaborne lines of communication. Like Britain, Japan was forced to import raw materials and fuel by sea. This made them vulnerable to attacks by submarines on their merchant shipping.

The Japanese submarines by focusing on anti-warship warfare were limited in their effectiveness. They were squandered in attacks on heavily protected task forces and special operations. The Japanese believed that submarines were useful for special operations. They built submarines which could launch aircraft and carry supplies for cut off troops. This is how a majority of their submarines were used throughout the war.

The American submarines utilized the German wolfpack techniques against Japanese merchant shipping. This was combined with superior signals intelligence to devastate their convoys. By the end of the war, US submarines were operating in the Inland Sea attacking Japan's interior lines of communication. The Americans were able to capitalize on superior signals intelligence and a lack of anti-submarine technology.

Submarines in CORE

Submarines in CORE aren't as effective as they once were, but they are still effective weapons if used correctly. The first thing to look at is the range of your submarines. If you are sending your submarines on missions beyond their range, they will be at a severe disadvantage.

Watch your organization. Submarines have a limited amount of organization. When your submarines are engaged in combat, watch their org. If it gets to zero, your submarines will be ineffective and suffer more damage. Pull those submarines out and send in another group.

The Germans were only able to keep 1/3 of their submarines on patrol at any particular time. There was always a third being trained or refitted and a third in transit to the patrol zone. This is effective in CORE as well. Always try to maintain a submarine force three times larger than the force you want on patrol at any one time. This will allow you to rotate your submarines in the warzone and prevent needless casualties.

Submarines are designed for hit and run attacks. Use this. It requires more micro-management, but send in your submarines, get a couple of good blows in and withdraw them. They are more effective at night, so use that as well. If the enemy concentrates a large force near your submarines, withdraw and attack where there are fewer destroyers.

Place your submarines along the enemy's convoy lanes. Once you find a convoy route, place your submarines laterally along the route. This will allow you to get multiple attacks on each convoy.

The more submarines that you have in a single sea zone, the more likely that you are going to be able to detect and attack ships within the zone. The attacks by the multiple groups will be more effective as well.

Submarines are not good at killing other submarines until you get to the later models. The nuclear submarines were designed to hunt and kill other submarines so they have the sensors necessary to detect other submarines.

If you are Germany, submarines are your friend. You can prevent the British from reinforcing the French and sink their transports. You have to have enough submarines to prevent the British Home Fleet from swooping down and breaking your blockade. You only need to maintain the blockade long enough to allow your army to capture the channel coast. With luck, you will be able to bottle up the British fleet long enough to allow your transports to cross the Channel with your invasion force.

Any country can build Coast Defense submarines. If you are playing one of the minor nations, build some submarines to protect your coast if you are expecting an amphibious attack. You might be able to cause enough casualties if they aren't escorted sufficiently to cause them to abort the attack.

Submarine Models

	Model #	Cost	Built Time	Total Cost	Manpower	Max Speed	Surface Detection	Air Detection	Sub Detection	Visibility	Sea Attack	Sea Defense	Air Attack	Air Defense	Sub Attack	Shore Bombardment	Range	Supply Consumption	Fuel Consumption	Aircraft Capacity
Coast Defense Submarine	0	4	180	720	1	8	1	1	1	50	1	1	0	0	0	0	500	1	1	
Aviation Submarine	1	6	300	1800	2	14	5	1	1	60	3	1	0	1	0	0	5000	2	1.5	
Basic Short Range Submarine	2	3	200	600	1	12	3	1	1	45	2	1	0	0	0	0	1000	1	1	
Basic Medium Range Submarine	3	4	210	840	2	12	3	1	1	45	2	1	0	0	0	0	3000	1	1	
Cruiser Submarine	4	5	290	1450	2	10	3	1	1	55	3	1	0	1	0	0	8000	1	1.5	
Improved Short Range Submarine	5	4	220	880	1	14	4	1	1	40	3	2	0	1	1	0	1500	1	1	
Basic Long Range Submarine	6	5	220	1100	2	12	3	1	1	45	2	1	0	0	0	0	6000	1	1	
Improved Medium Range Submarine	7	5	230	1150	2	14	4	1	1	40	3	2	0	1	1	0	4000	1	1	
Advanced Short Range Submarine	8	5	240	1200	1	18	5	1	2	35	4	3	0	2	1	0	2000	1	1	
Improved Long Range Submarine	9	6	240	1440	2	14	4	1	1	40	3	2	0	1	1	0	8000	1	1	
Advanced Medium Range Submarine	10	6	250	1500	2	18	5	1	2	35	4	3	0	2	1	0	5000	1	1	
Semi-Modern Short Range Submarine	11	6	260	1560	1	20	6	1	2	30	5	4	0	2	2	0	3000	1	1	
Advanced Long Range Submarine	12	7	260	1820	2	18	5	1	2	35	4	3	0	2	1	0	10000	1	1	
Semi-Modern Medium Range Submarine	13	7	270	1890	2	20	6	1	2	30	5	4	0	2	2	0	6000	1	1	
Basic Closed Cycle Short Range Submarine	14	6	260	1560	2	18	5	1	2	35	4	3	0	2	1	0	1500	2	1	
Basic Walter Engine Short Range Submarine	15	6	260	1560	2	24	5	1	2	35	4	3	0	2	1	0	1500	1	2	
Basic Closed Cycle Medium Range Submarine	16	7	270	1890	2	18	5	1	2	35	4	3	0	2	1	0	3500	2	1	
Basic Walter Engine Medium Range Submarine	17	7	270	1890	2	24	5	1	2	35	4	3	0	2	1	0	3500	1	2	
Basic Closed Cycle Long Range Submarine	18	8	280	2240	2	18	5	1	2	35	4	3	0	2	1	0	7000	2	1	
Basic Walter Engine Long Range Submarine	19	8	280	2240	2	25	5	1	2	35	4	3	0	2	1	0	7000	1	2	
Improved Closed Cycle Short Range Submarine	20	7	270	1890	2	18	6	1	2	30	5	4	0	2	2	0	2000	2	1	
Improved Walter Engine Short Range Submarine	21	7	270	1890	2	24	6	1	2	30	5	4	0	2	2	0	2000	1	2	
Improved Closed Cycle Medium Range Submarine	22	8	280	2240	2	18	6	1	2	30	5	4	0	2	2	0	6000	2	1	
Improved Walter Engine Medium Range Submarine	23	8	280	2240	2	24	6	1	2	30	5	4	0	2	2	0	6000	1	2	
Improved Closed Cycle Long Range Submarine	24	9	290	2610	2	20	6	1	2	30	5	4	0	2	2	0	8000	2	1	
Improved Walter Engine Long Range Submarine	25	9	290	2610	2	24	6	1	2	30	5	4	0	2	2	0	8000	1	2	
Semi-Modern Long Range Submarine	26	8	280	2240	2	22	6	1	2	30	5	4	0	2	2	0	12000 20000	1	1	
Basic Nuclear Submarine	27	10	300	3000	3	28	6	1	2	25	7	5	0	3	3	0		1	0	

Transports

History

The merchant vessel has been around as long as people have been working on the sea. Trade across the water is the most efficient way to get raw materials and finished goods from place to place.

In the time period of HoI, the most significant change in the technology was the development of the Liberty ship. These ships were designed from the outset to be easily produced. This would allow them to be built more quickly than they could be sunk. This was one of the significant tools in defeating the U-Boats in the Battle of the Atlantic. The German's strategy of attrition would be spoiled by an inexhaustible supply of cheap merchant ships.

Transports in CORE

Transports are the key to making amphibious attacks. Without available transports, you won't be able to transport troops overseas to reinforce friendly units or to make attacks on enemy shores.

Always make sure that you have a sufficient reserve of transports available for convoys. If the enemy makes a focused effort to cut your convoy routes, those transports could disappear quickly starving your industry of vital resources or worse, starving your troops.

If you are able, build a large liner. They are an advantage that a human player has over the AI. They are useful for fast reinforcement over long distances because of their high speed and long range.

Use amphibious attacks to exploit exposed positions. If the Germans leave a beach exposed, land a couple of divisions. This will force the German player or AI to divert divisions to force you off. This could help Poland survive until winter, or help a Soviet offensive. If you keep your transports right off the beach, it will give your troops a place to retreat to.

Always check your convoys when you get notified of a successful attack against one of your convoys. If your convoy goes beneath the minimum level, no resources will be transported.

Transport Models

	M od el #	Co st	Buil d Tim e	Total Cost	Ma np ow er	Ma x Spee d	Su rfa ce De tec tio n	Air De tec tio n	Su b De tec tio n	Vi sib ilit y	Se a Att ack	Se a De fence	Air Att ack	Air De fence	Su b Att ack	Sh ore Bo mb ard ment	Range	Su ppl y Co ns um ption	Fuel Co ns um ption	Air craf t Cap acit y
Coastal Cargo Ship	0	4	210	840	1	11	1	0	0	40	0	0	0	0	0	0	5000	1	0.5	
Small Passenger Liner	1	6	640	3840	1	18	1	0	0	40	0	0	0	0	0	0	10000	1	1	
Medium Passenger Liner	2	7	680	4760	1	22	1	0	0	45	0	1	0	0	0	0	12000	1	2	
Large Passenger Liner	3	9	720	6480	1	30	1	0	0	50	1	2	0	2	0	0	14000	1	3	
Auxillary Cruiser	4	7	510	3570	1	24	1	1	0	45	4	2	0	1	0	0	14000	1	2	
Small Tramp Steamer	5	5	250	1250	1	12	1	0	0	40	0	0	0	0	0	0	8000	1	1	
Small Tramp Freighter	6	5	260	1300	1	11	1	0	0	40	0	0	0	0	0	0	10000	1	0.8	
Medium Steamer	7	6	260	1560	1	14	1	0	0	45	0	0	0	0	0	0	10000	1	1	
Medium Frieghter	8	6	270	1620	1	13	1	0	0	45	0	0	0	0	0	0	12000	1	0.8	
Fast Steamer	9	8	300	2400	2	22	1	0	0	50	0	0	0	0	0	0	10000	1	1.5	
Attack Transport	10	7	290	2030	2	18	1	0	0	50	0	0	0	0	0	0	10000	1	1	
Nuclear Merchant Vessel	11	8	310	2480	2	24	1	0	0	45	0	0	0	0	0	0	20000 0	1	0	
Mass Produced Steamer	12	5	220	1100	1	14	1	0	0	45	0	0	0	0	0	0	8000	1	1	

General Recommendations and Tactics

Always upgrade your naval technology. Most of the naval techs are inexpensive, but time consuming. This means that you can be working on several at the same time. This is especially important early in the game when you have to research the 720 day techs which are necessary for later developments. Don't forget that many of your electronics techs have pre-requisites from the electronics tree. It is easy to discover that you need that radar tech that was overlooked while developing tanks and fighters.

It is easy to fall behind in the anti-submarine technology battle. The German AI is programmed to research submarines techs heavily and build the latest models of submarines. German submarines operating from the French coast can cut the British lifeline.

Always operate heavy ships with your carriers. Heavy cruisers or battleships can protect your carriers against surprise attacks by other surface warfare task forces.

Destroyers are the ONLY weapon that you have against submarines. They can be built quickly in time of need so focus your resources on heavy warships until eight or nine months before the war starts, then build enough destroyers to have two or three flotillas with each of your task forces.

Many British and French convoys run through the Windward Passage between Cuba and Hispaniola. It is a good place to place submarines or surface raiders.

Seal the Royal Navy in the Mediterranean by taking the Suez Canal. Once they are cut off from supply, even the Italian Navy can beat them.

If you are fighting the US, take the Panama Canal. This will prevent the US from reinforcing between oceans.

Use shore based aircraft to cut large task forces down to size before attacking with your naval forces. This will help prevent excessive losses and make the enemy more vulnerable.

Never operate with more than twelve units in a sea zone. This will prevent you from being hit with a -75% penalty. It will make it easier to destroy those mega-task forces that the AI will be using.