

**THE COMPLETE**  
**GREAT**  
**NAVAL**  
**BATTLES™**  
*The Final Fury*

**VOLUME V: *DEMISE OF THE***  
***DREADNAUGHTS***  
***1914-1918***

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## INTRODUCTION

GREAT NAVAL BATTLES V (GNB5) completes the scope of SSI's acclaimed line of naval simulators to include naval actions from the first World War. From the frigid North Sea to the Atlantic and the Falklands, the British can be pitted against German forces in one-day battle scenarios or longer campaigns.

In addition to increasing the scope of the game, several new features and improvements have been added:

- ◆ The GREAT NAVAL BATTLES VOL. V Customizer allows alterations in game variables to reflect the preferences of the Commander-in-Chief.
- ◆ A tactical view panel on the Flagbridge and Ship Bridge stations shows the action as it happens.
- ◆ The types of ships for both the British and German sides have been expanded.
- ◆ The addition of a Random Battle Generator, with ten orders of battle for each side, means that many random scenarios can now be fought.
- ◆ The level of realism has been increased by adding structural damage ratings for all ships.

## PLAYER'S GUIDE

This section contains the information you need to play GREAT NAVAL BATTLES VOL. V. It is written for a mouse-equipped machine, but you can also use keyboard equivalents for most of the game functions.

If this is your first experience with a Great Naval Battles series game, start with the tutorial scenario included in this Manual. In order to become familiar with many of the options and commands, we recommend that you play this scenario at least once before trying one of the historical scenarios.

## SELECTING GAME OPTIONS

GREAT NAVAL BATTLES VOL. V includes a variety of scenarios and game features. As you begin a new game, you are given the opportunity to select from the available options in a series of menus. Each menu presents one basic choice, and the menus progress in logical order, reflecting the choices you make.

## **Game Options Menu**

This menu enables you to choose the game that you want to play. GREAT NAVAL BATTLES VOL. V offers the choice of historical scenarios, scenarios that you create using the GNB5 SCENARIO EDITOR, or a random scenario. You may also load a saved game or exit to DOS. If you decide to change your choices, left-click on the CANCEL button on the current screen to return to the game options menu.

### ***Difficulty Levels***

Once you make a scenario selection, you are offered a choice of difficulty levels: BEGINNER, INTERMEDIATE, ADVANCED, and EXPERT. The harder you set the level, the more the computer opponent receives an advantage in material, rate of fire, and accuracy.

#### ***Beginner***

All enemy ships are visible on the map panel, even before your task forces, ships, submarines, or partisans make contact. They appear as gray task forces or ships. Your side's spotting ability is at the highest setting. Play at this setting for a while until you can familiarize yourself with the controls.

#### ***Intermediate***

Enemy ships do not appear on the map panel until contact is made. Spotting ability is equal for both sides and contact with the enemy is more easily broken. This makes for an even fight.

#### ***Advanced***

Spotting ranges for your side are decreased and contact is more difficult to maintain once the enemy has been spotted. The artificial intelligence (AI) for the enemy side is enhanced. This should be challenging.

#### ***Expert***

Contact range is decreased even more, contact is broken easily, but the enemy's ability to see your forces is increased. The enemy's AI, accuracy, rate of fire, and resupply levels are at their highest levels. Good luck, you'll need it.

#### ***Select Side***

Select the side you want to play, either British or German.

## SCENARIOS

The scenarios that are included in GREAT NAVAL BATTLES VOL. V give you the full spectrum of naval warfare in the Atlantic and North Sea theaters.

### ♦ *The Battle of Coronel*

**TIME:** Nov 1, 1914 **LOCATION:** South Pacific

**GERMAN FORCES:** CA Gneisenau, Shcarnhorst, Nurnberg, Dresden

**BRITISH FORCES:** CA Good Hope, Monmouth, Glasgow

Admiral Maximilian von Spee, commander of Germany's China Squadron, gathered his forces to raid South America and to harass British bases and shipping in the South Atlantic. Admiral Cradock's British Squadron finds Spee off the Chilean coast. Although hopelessly outgunned, Cradock does not hesitate to engage.

### ♦ *The Battle of Falkland Islands*

**TIME:** Dec 8, 1914 **LOCATION:** South Atlantic

**LOCATION:** Off the Atlantic coast of South America, near the Falkland Islands

**GERMAN FORCES:** CA Gneisenau, Shcarnhorst, Leipzig, Nurnberg, Dresden

**BRITISH FORCES:** BB Inflexible, CA Cornwall, Kent, Carnarvon, Glasgow

Admiral Spee is trapped by superior British forces intent on avenging the recent defeat at Coronel.

### ♦ *The Battle of Dogger Bank*

**TIME:** Jan 24, 1915 **LOCATION:** North Sea

**GERMAN FORCES:** BB Moltke, Derfflinger, Seydlitz, Blucher

**BRITISH FORCES:** BB Lion, Princess Royal, Tiger, New Zealand, Indomitable

German Battlecruisers, under Rear Admiral Hipper, raid the Dogger Bank. The British, having broken the German radio code, send a superior Battlecruiser force to intercept.

### ♦ *Jutland: the Battlecruiser Action*

**TIME:** May 31, 1916 **LOCATION:** North Sea

**GERMAN FORCES:** Hipper's Battlecruiser Squadron, The High Seas Fleet

**BRITISH FORCES:** Beatty's Battlecruiser Squadron, The Grand Fleet

The opening action of a simplified Jutland. Battlecruiser forces meet and engage as the Main fleets converge.

#### ♦ *Jutland*

**TIME:** May 31, 1916   **LOCATION:** North Sea

**GERMAN FORCES:** Hipper's Battlecruiser Squadron, The High Seas Fleet

**BRITISH FORCES:** Beatty's Battlecruiser Squadron, The Grand Fleet

The British Fleet waited for the German Fleet to venture into the North Sea. The Germans were waiting for the British to make a move. Finally, both moved; to Jutland.

#### COMMON DISPLAY FEATURES

Two display bars are shown at most stations, one at the top of the screen and one at the bottom. They contain general purpose information and controls that are not specific to any particular station. There is also a menu bar which allows access to many important game controls (see the menu bar section below). There are a variety of displays shown throughout the game which are controlled using a variety of buttons and mouse commands.

#### STATUS BAR

The Status Bar appears at the top of the Flagbridge and Ship Bridge stations. It shows the name of the current station, the date, the time of sunrise and sunset, and the wind and visibility conditions.

#### MESSAGE BAR

The Message Bar is at the bottom of the Flagbridge, Ship Bridge, Main Gun Control, Secondary Gun Control, Torpedo, Damage, and Lookout stations. It features displays which show the last message received, the name of the currently selected task force or of the currently selected ship, and the current time. The "x1" button opens a window for changing the game speed setting. The red STOP button pauses and the green GO button resumes the game. Messages are controlled by the scroll arrows at the left end of the display area. The next display is the currently selected task force (TF) which can be changed with the scroll arrows. The speed of play and pause status can be accessed by left-clicking on them.

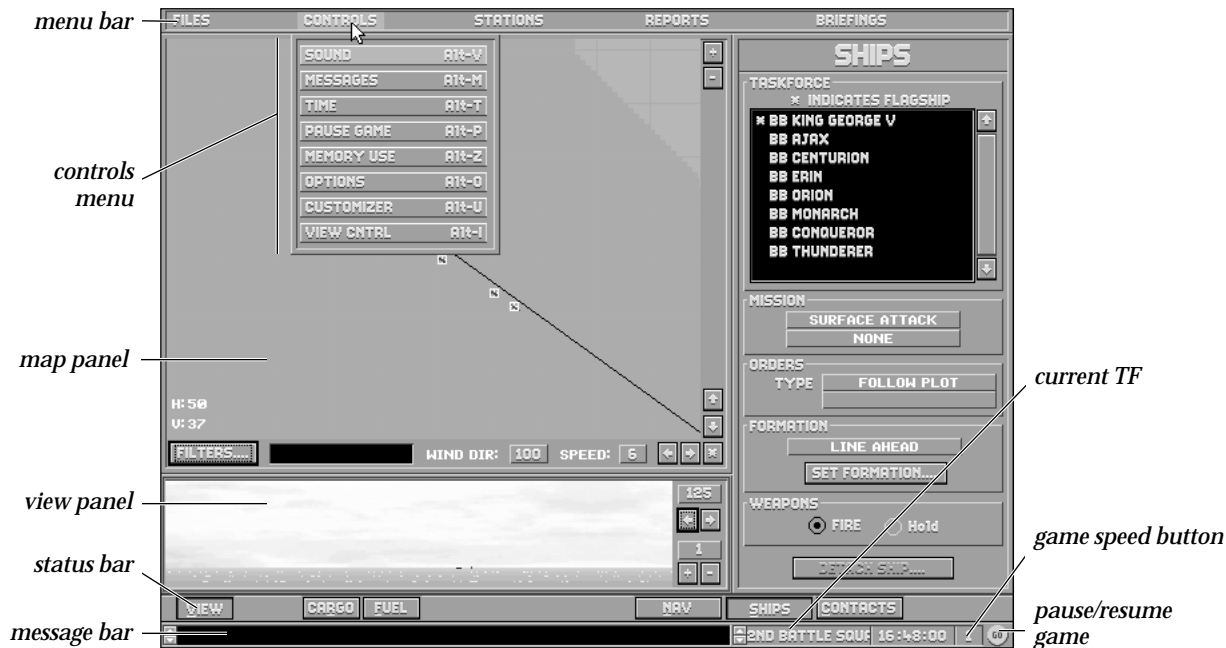
#### BUTTONS, PANELS, SCREENS AND WINDOWS

Many functions in GREAT NAVAL BATTLES VOL. V and the GNB5 SCENARIO EDITOR utilize radio buttons, which usually toggle items, and larger rectangular buttons, which frequently open up windows. Many windows have two buttons, OK and CANCEL, which complete the current operation or abort the current operation and return to the previous screen.

A *screen* is a full-sized change, a *panel* is a discreet area within a screen (which may change when a button is left-clicked), a *control* is an area within a panel and a *window* is something that pops up in response to a command or pressing a button.

## USING THE MOUSE

The mouse buttons can be used three different ways: *Left-Click* - This means moving the cursor over something on the screen and pressing the left mouse button once. This is how most buttons, both radio and rectangular, are used. *Double Left-Click* - This means moving the cursor over something on the screen and pressing the left mouse button twice quickly. This is how most items on lists are selected. *Right-Click* - This toggles the menu bar on and off.



## MENU BAR

The menu bar gives you quick access to a variety of game functions. It appears at the top of the screen when you right-click or press Esc and can be closed by right-clicking or pressing Esc a second time. **Note:** While the menu bar is active, all other game controls are inactive until the menu bar is closed.



## FILES MENU

The options on the FILES menu mostly deal with issues that are external to the game such as saving games, quitting a scenario and exiting to the operating system.

### **Credits (Alt-C)**

This option provides you with the game credits and current version number.

### **Save Game (Alt-S)**

This option enables you to save a game in progress so that you can quit and resume it later. Each saved game uses at least 390K of disk space.

### **Quit (Alt-Q)**

This option enables you to leave the current scenario. **Note::** The game does not return directly to DOS, but instead gives you a victory report and an opportunity to start another game or load a saved game if you desire.

### **Exit to DOS (Alt-X)**

This option enables you to leave the game completely and return to the operating system.

## CONTROLS MENU

The CONTROLS menu offers options that affect the overall play of the game such as sound, message delay, game speed and the Customizer.

### **Sound (Alt-V)**

This option controls the game sound. You can turn the sound, music, or voice controls on or off.

### **Messages (Alt-M)**

This option enables you to select whether messages are accompanied by sounds, and whether the game automatically pauses or simply delays briefly to give you time to read them. You can set the delay time from 1 – 9 seconds.

### **Time (Alt-T)**

This option enables you to specify the pace at which the action happens, with “1” being real time and the other values being accelerated time (“2”, “3”, or “A”; “A” being the highest speed your microprocessor can run the game). Some controls or views may not display any changes at higher time levels. There is a button in the lower right-hand corner which displays “1” through “A” that can also access this function by left-clicking on it.

### **Pause Game (Alt-P)**

This option enables you to suspend and restart the game. Its effect is to toggle the game clock on and off.

**Note:** All game controls continue to function during the pause, so you can pause, input orders, and then resume. The red STOP and green GO buttons in the lower right-hand corner serve the same purpose.

### **Memory Use (Alt-z)**

This displays the status of your computer’s random access memory. It is useful to the SSI Technical Support Staff if you experience difficulties running the game. There are no user selected controls on this screen.

### **Options (Alt-O)**

This window contains four different “reality level” settings, which can be toggled on or off by using radio buttons. The Aground and Collision buttons control whether or not ships can hit submerged portions of coastline or each other. Auto Combat lets the computer run the battle for you at a greatly accelerated pace.

### **Customizer (Alt-U)**

The Customizer is a powerful tool for controlling the values used by GREAT NAVAL BATTLES VOL. V to reflect variable levels of historical accuracy for either side during an engagement or campaign. Settings for each side, German or British, are changed using the Choose Side control. Four different groups of settings can be changed by the buttons on the Modes control to change values for Campaign, Tactical, and Weapons customization. These buttons are constant while the Customizer screen is active.

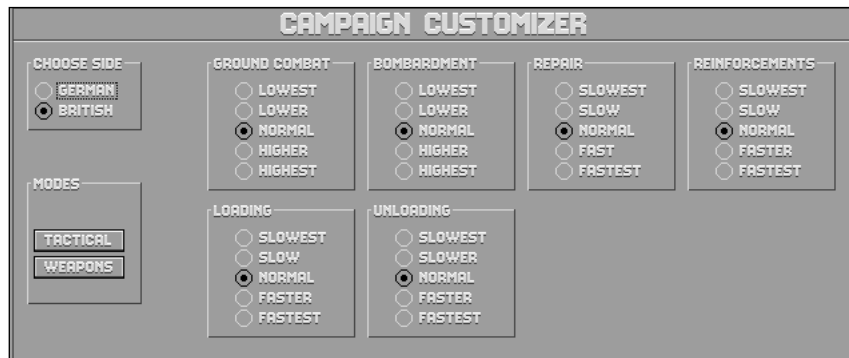
Settings can be saved by using the SAVE button, and entering a name for that group of settings on the SAVE CUSTOM menu that appears. There is also a LOAD button which calls up the list of saved settings. Double left-click, or highlight and press Enter, on the name of the group of settings to be loaded. Once a group of settings has been chosen or loaded, left-click on the OK button to activate those settings and return to the game.



### ***Weapons***

The Weapons screen is the initial screen which appears when the Customizer is activated. The nine panels on this screen control Gun Accuracy, Gun Damage, Torpedo Damage, and Torp Dud Rate. The damage and accuracy panels have a range of five steps, from LOWEST to HIGHEST. A lower setting means less accurate and effective fire, higher means more accurate and devastating torpedoes and guns.

The torp dud rate panels range from NONE, meaning a 100% explosion rate, to HIGHEST, meaning that most of the torpedoes dropped by that side fail to explode. **Note:** Some torpedoes may still fail to explode because they missed or did not actually hit the target, even if they appear to do so.



### ***Campaign***

The Campaign Customizer screen has seven panels: Ground Combat, Bombardment, Repair, Reinforcements, Loading, and Unloading.

**GROUND COMBAT:** Settings on this panel range from LOWEST to HIGHEST indicating the effectiveness of all non-naval forces.

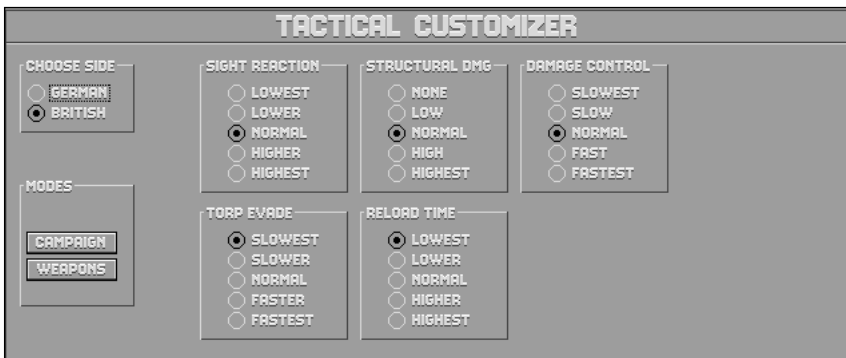
**BOMBARDMENT:** This panel controls the damage and accuracy of naval bombardment. The range is from LOWEST to HIGHEST.

**REPAIR:** Ships damaged during long scenarios may be repaired at a rate ranging from SLOWEST to FASTEST.

**REINFORCEMENTS:** This controls how quickly reinforcements become available during a scenario, from SLOWEST to FASTEST.

**LOADING:** This controls how quickly troops and cargo are placed aboard ships, from SLOWEST to FASTEST.

**UNLOADING:** This setting controls how quickly troops and cargo exit ships, from SLOWEST to FASTEST.



### ***Tactical***

On the Tactical Customizer screen, six panels affect aspects of surface engagements between ships: Radar, Sight Reaction, Structural Damage, Damage Control, Torp Evade, and Reload Time.

**SIGHT REACTION:** This setting controls the probability for visual spotting of enemy ships, planes, and torpedoes. The range is from LOWEST to HIGHEST.

**STRUCTURAL DAMAGE:** Repeated hits by enemy fire can weaken the structural integrity of a warship. This control adjusts the severity of the effect of structural damage, ranging from NONE to HIGHEST.

**DAMAGE CONTROL:** The damage control crews' ability to repair damage in combat can mean the difference between victory and defeat. This panel controls the speed at which the crews work, from SLOWEST to FASTEST.

**TORP EVADE:** When incoming torpedoes have been spotted a ship turns into their path in order to minimize the chance of impact. The effectiveness of this maneuver ranges from LOWEST to HIGHEST.

**RELOAD TIME:** Most crews were not trained to reload torpedoes in combat. For hypothetical games, crews can be given the ability to do so by setting this control at any setting except SLOWEST.

## STATIONS MENU

## REPORTS MENU

### **View Control (Alt-I)**

The view control window has two sets of radio buttons labeled Events and Target.

**EVENTS:** With the Events control on, the View panel on the Flagbridge and Ship bridge stations shows the first hit from gunfire, all torpedo hits, and the sinking of target vessels.

**TARGET:** With the Target control on, the View panel centers on the current target of the active ship.

The Stations pull-down menu allows movement between the screens where command of the task force or vessel really happens. The options on this menu can also be selected using function keys F1 to F9. See the section “Commanding Task Forces and Ships” on page 13 for more detailed information about each station.

This menu enables you to get a variety of summary reports. Left-click on an item in one of these reports to get more details about it.

### **Statistics (Alt-F1)**

This window shows the number of rounds fired from main and secondary batteries and the number of torpedoes fired. The number of hits and the percentage of hits from rounds fired is also indicated.

### **Victory (Alt-F2)**

This window lists the ships and bases in the current scenario, their status, and victory point value. Each side’s list can be accessed by left-clicking on the flag or button on the right side, and each side’s total victory points are calculated at the bottom. At the end of the scenario the level of victory for the player’s side is shown on a bar above the CONTINUE button. These results are based on damage inflicted, but not casualties taken, until the scenario is ended.

**Visibility (Alt-F3)**

Destroyers, cruisers, and battleships have observation towers of different heights. The ranges at which the different sized ships can spot each of the other sizes of ships are shown here.

**Reinforcements (Alt-F4)**

This window lists upcoming reinforcements if specified as part of the scenario.

This menu enables you to get background information on the vessels and weapons systems in use in the Atlantic Theater.

**Ships (Ctrl-F1)**

This screen shows a waterline view of the selected ship in the top third and an overhead view in the lower third. The center panel shows statistics pertinent to the class of vessel. The control bar at the very bottom has buttons that control the selection of what is shown. The NEXT and PREVIOUS buttons cycle through the list of vessels. The LIST button opens a window with a list of all the ships available to either side. The left and right arrow keys rotate the top view around the ship's axis, while the "+" and "-" keys zoom the view in and out. CHANGE SKY alters the apparent light level and changes the cloudscape.

**Guns (Ctrl-F3)**

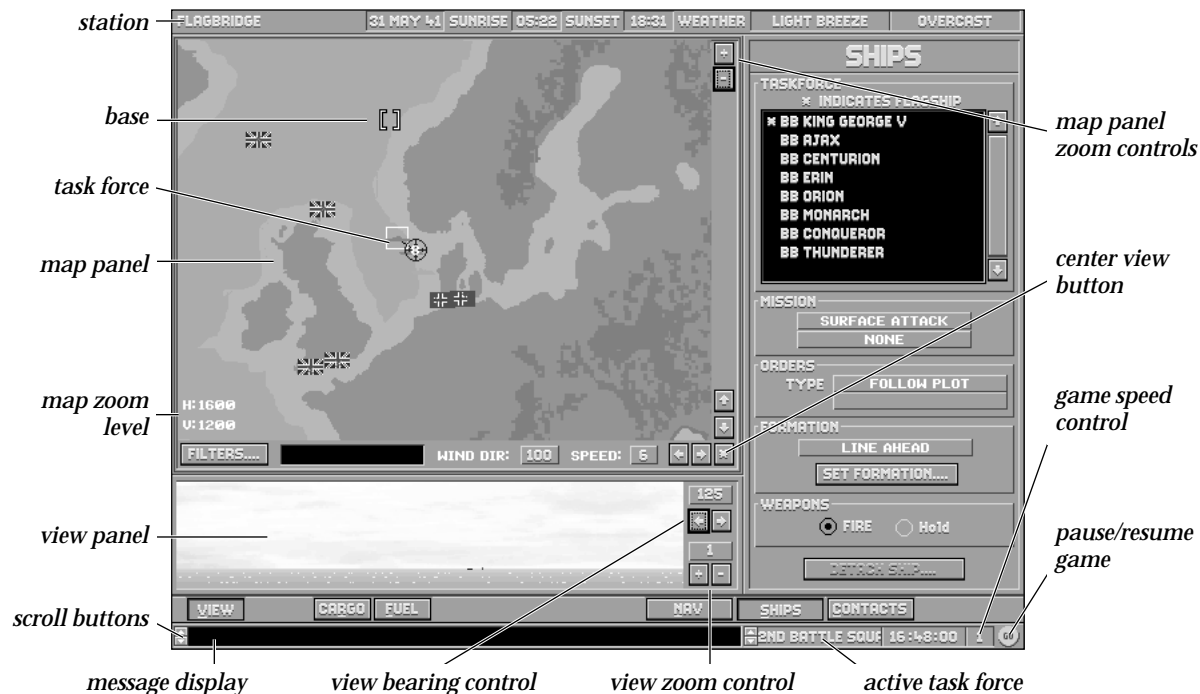
This screen shows statistical data on the guns that were used during the period portrayed in the game, by the British and German forces.

**Torpedoes (Ctrl-F4)**

This screen shows statistical data on the torpedoes that were used during the period portrayed in the game, by the British and German forces.

## COMMANDING TASK FORCES AND SHIPS

Command of task forces or ships is managed through the use of several action stations aboard the flag ship of a task force or from the bridge of a specific ship. These stations are selected by using the options from the Stations menu or the function keys F1 through F8.



## FLAGBRIDGE STATION

The Flagbridge is the first station you enter when you start a new engagement. The FLAGBRIDGE station is selected from the Stations pull-down menu or by pressing F1.



## **Map Panel**

The Map panel is displayed as part of the Flagbridge and Ship Bridge stations. The maps generally show similar information and use the same controls. There may be minor differences between map displays due to features not being available on certain ships. The Map panel is both a visual reference and a means of issuing certain commands. To help you keep track of the battle, it shows the locations of your own ships, known enemy ships, torpedoes, shell splashes, and other features of the battle. Furthermore, there are a number of “filters” you can use to toggle the display of different kinds of useful information. For more information, see the “Filters” section on page 16.

To facilitate input of orders, you can issue certain instructions by pointing and left-clicking directly on the map, most notably picking a ship to give orders to, and designating targets.

### ***Mouse Commands On The Map Panel***

To center the map at a given location, point at that location with the mouse pointer, then press the “Ctrl” key and the left mouse button at the same time.

### ***TF Symbols***

When the map is zoomed out to the 100x75 resolution or above, it shows the location of task forces rather than individual ships. The location of each task force (TF) is marked by a stylized rendering of a ship. If the TF Names filter is on, the identification code of the TF commander is displayed next to the group; if not, the name is displayed in the text box just below the map next to the FILTERS button whenever the cursor is moved over the center of the group. If the TFs are very close together, they are displayed as a single TF icon.

### ***Ship Symbols***

At levels of zoom of 50x37 and below, the positions of individual ships are shown on the map. If the TF Names filter is on, the ship positions are marked by flags of the appropriate nationality. If not, the ships’ positions are shown by top-down views of the ships themselves, colored red for British ships and blue for German ships.

### ***Active Ship / TF Indicator***

A white square bracketing a ship symbol indicates that this is the currently active ship. This is only true if the map is being displayed at a ship action station, or if the currently active TF is being displayed at the Flagbridge station.

***Target Ship Indicator***

This small white square indicates the current target of the active ship.

***Wind Direction***

Shows the direction of the prevailing wind. This affects the movement of smoke screens as well as the accuracy of gunnery in high winds.

***Wind Speed***

Wind speed is an important factor in a battle because it can tell you where the weather is on the Beaufort Scale. Heavy seas can hinder visibility and the accuracy of your weapons, and may even make certain actions impossible. For more information on the Beaufort Scale and weather in general, see “The Environment” section on page 64.

***Magnification Controls***

The “-” button decreases the magnification of the map (shows a larger area in less detail), while the “+” button increases the magnification (shows a smaller area in greater detail).

***Vertical Scroll Buttons***

These shift the area displayed on the map up and down (north and south).

***Horizontal Scroll Buttons***

These shift the area displayed on the map left and right (west and east).

***Center Button***

When you click on the asterisk (\*) in the lower right corner of the map frame, the map automatically centers itself on the currently selected ship or task force.

***Map Text Display Box***

Information about the area within the cursor appears here. This is generally a ship, TF, aircraft, or base name.



### ***Filters***

The FILTERS button displays the Map Filters window which enables you to toggle the display of certain kinds of information on the map. The common filters that can be displayed on the map at any action station are described first; station-specific filters are described afterwards.

### ***Ship Filters***

FLAGS: This filter displays ships as British or German flags.

MAIN GUNS: This filter displays a circle showing the maximum range of the current ship's main guns.

SHIP NAME: This filter displays ship names next to their icons. At zoom level 20x15 and above there may not be enough room to display ship names, so this option operates best when used at zoom level 15x11 and below.

ORDERS: This filter shows the direction of movement for the selected ship or TF if operating on a plotted course.

SUNK: This filter displays an icon for each ship sunk during the current engagement.

TORPEDOES: This filter shows three circles indicating the range of torpedoes fired by the selected ship when set at short, medium, or long range.

VISIBILITY: This filter displays three circles around each ship, and shows the maximum range at which a large, medium, and small ship can be sighted. Carriers and battleships are considered large ships, cruisers are medium ships, and destroyers are small ships.

### ***Miscellaneous Filters***

AUTOCENTER: This filter centers the map on the currently selected ship or TF.

BASE NAME: This filter displays the name of each base on the map. If it is off, you can still find the name of a base by moving the cursor over that base on the map. The name is displayed in the Map Text Display Box.

TF NAMES: This filter displays the names of task forces when the map is at zoom level 100x75 or above.

CONTACTS: This filter shows the location of all recent enemy ship sightings.

GRID: This filter superimposes a gray grid on the map at zoom levels 100x75 and below. The distance between the grid lines is 10,000 yards. At very low zoom levels you may not be able to see the grid lines because the area depicted falls between two lines.

RANGE CIRCLES: This filter superimposes a series of circles on the map panel that show distances of 250, 500, and 750 miles from the active task force.

TF PLOT TIMES: Displays the time in minutes until the task force completes its current plotted movement.

## **Flagbridge Control Bar**

The Flagbridge contains an additional control bar (just above the Message Bar) that contains five buttons. These buttons are VIEW, CARGO, FUEL, NAV, SHIPS, and CONTACTS.

### ***View Panel***

The View panel is located on the lower left side of the screen under the Map panel on the Flagbridge and Ship Bridge stations. This display shows the area around the currently selected ship. The view can be swung around the points of the compass in ten degree increments and zoomed in and out using the controls to the right of the panel. The zoom levels of 1, 2, 3 and 4 are equivalent to the Lookout, Turret, and Torpedo station zoom levels of 1, 2, 4, and 8.

### ***Cargo Panel***

You can view the Cargo panel from either the Flagbridge or the Ship Bridge station. It shows information about the total capacity and current load of troops and supplies of the currently selected task force or ship.

#### ***Capacity***

The total amount of troops and supplies that the task force or ship can carry.

#### ***Supplies***

The total amount of supplies that the task force or ship currently carries.

#### ***Troops***

The total amount of troops the task force or ship currently transports.

### ***Fuel Panel***

Capacity The total amount of fuel that the task force or ship can carry.

#### ***Remaining***

The total amount of fuel that the task force or ship still has.

### **Usage**

The amount of fuel the task force or ship consumes per hour under way.

### **Duration**

The length of time that the task force or ship can continue under way with its current fuel supplies.

### **Navigation Panel**

The navigation panel gives you control over the orders, speed, and direction of the selected task force.



### ***Auto/Manual Buttons***

These buttons set the station to Auto or Manual. The navigation controls are only enabled if the panel is set to Manual.

### ***Speed***

#### ***Current***

The vessel's current speed in knots.

#### ***Target***

The vessel's desired speed in knots. If this is different than the current speed, it is because the ship is accelerating, decelerating, or is unable to reach the desired speed because of damage.

#### ***Maximum***

The fastest speed in knots that the vessel can travel in its current condition. A task force can only travel as fast as the slowest ship in the task force. Task forces move slightly slower than the slowest ship because they must also maintain formation.

#### ***Set Speed***

This button displays the Set Speed window in which you can set the Target speed for the vessel. The Current and Maximum speeds are identical to those displayed on the main panel, but between them is an active box in which you can set the target speed either by left-clicking on the up (faster) and down (slower) arrows to the right, or by entering a number directly.

This button displays the Set Speed window in which you can set the Target speed for the vessel. The Current and Maximum speeds are identical to those displayed on the main panel, but between them is an active box in which you can set the target speed either by left-clicking on the up (faster) and down (slower) arrows to the right, or by entering a number directly.

Press OK to enter the new speed, and CANCEL to exit without changing the original Target speed.

***Course***

The “SET COURSE. . .” button does not become active until the task force or ship’s orders have been changed to Manual. See the description of Manual orders at the bottom of the page.

***Current***

The direction in degrees that the vessel is currently heading.

***Target***

The direction that the vessel has been set to sail. If this is different than the current direction, it is because the ship is turning, or is unable to reach the desired course because of damage.

***Rudder***

This gauge shows the degree to which the ship’s rudder has been turned in order to swing to a new course. Manual control of the ship’s course is achieved using the Manual orders option. See the description of Manual orders below.

***Orders***

You can give a ship a wide variety of orders from the Navigation panel.

***Type***

The ship’s current orders.

***Target (optional)***

If the ship’s current orders involve navigating relative to some other ship, this field displays the name of that ship.

***Set Orders***

This button calls out the Set Orders window, which shows the different types of orders to assign the task force or ship:

*Manual:* This button activates the “SET COURSE. . .” button on the COURSE control. Left-clicking on this button displays the Set Heading window in which you can set the target course for the vessel. The current heading is identical to the number displayed on the main panel, and it also appears as a grey line on the



compass. The active box beneath the compass is where you can set the target course either by left-clicking on the up and down arrows to the right, or by entering a number directly. The target course appears on the compass as a red arrow, and it can be also set by left-clicking directly on the compass itself.

Press OK to enter the new course, and CANCEL to exit without changing the original Target.

*Tactical:* Once a task force or ship has completed a plot, if their previous orders are interrupted, or if damage prevents them from following orders, Tactical is the default setting.

*Follow:* When you choose this option and left-click OK, the Select Ship window opens and you can select a ship from the list of friendly vessels to be the target. Once you left-click OK again, the ship you are controlling maneuvers to get behind the target, and then endeavors to move at the same speed and maintain the distance that you have selected.

*Intercept:* When you choose this option and click OK, the Select Ship window opens, and you can select a ship from the list to be the target. Once you left-click OK again, the ship you are controlling moves toward the closest point at which its path can cross that of the target. If the target changes course, the ship with this order recalculates its course to reflect the new situation.

*Patrol Box:* This command is much like Follow Plot, except that you designate four points which form the four corners of the box that the ship will move around.

*Patrol Line:* Like Patrol Box, except that the two points you designate are the two points the ship will travel between.

*Plot Course:* When you choose this option and left-click OK, the Set Plot window appears and the map clears. You can use the cursor to enter up to ten way-points. Once you left-click OK on Set Plot, the ship moves from its present position to the first way-point; from there to the second and so on, until it reaches the last.

*Return to Base:* When you select this option and left-click on OK, the Select Base window appears. Double left-click on a base name in the list and the computer plots a course for the ship to move there.

*Shadow:* This works like the Follow command, above, except that the Select Ship window contains a list of enemy ships. When you select one, your ship maneuvers to take up station behind the target, and then moves on the same course and at the same speed, at the distance you specified.

*Torp Attack:* When you select this option and left-click OK, the Select Ship window appears, containing a list of enemy ships within sight of your ship. Double left-click on one to designate it as the target for the torpedo attack, and your ship maneuvers into position and launches its weapons. If the button at the top of this panel is set to AUTO, your torpedoes are automatically fired. If your ship is on MANUAL, you must left-click on the FIRE button which is found on each individual torpedo mount. See the “Torp Button and Torpedo Panel” section on page 41 for more information. This option is only available on the Ships Bridge station.

### ***Smoke***

This control enables you to have the currently selected ship lay a smoke screen. If you set it to ON, it trails a cloud of thick, oily smoke that obscures vision across its track. Remember that smoke drifts in the direction the wind is blowing, and if the wind is strong, the smoke screen is ineffective. **Note:** Smoke doesn’t actually appear on the map panel or in the view panel, but the effect is accounted for by the game’s artificial intelligence.

### ***Task force***

#### *Name*

The name of the task force that the ship is currently part of.

#### *Mission*

The purpose of the ship’s task force.

#### *Flagship*

The flagship of the ship’s task force.

#### *Orders*

The task force’s current orders.



### ***Ships Panel***

The Ships panel gives you both summary information and generalized control over the ships in the selected task force. The Ships panel also allows you to select a particular ship to take command of, and changes to the Bridge station of that ship. **Note:** Manual control of individual ships is only possible after they have been detached from a task force using the “DETACH SHIP. . .” button.

### ***Task force List***

This list shows the name and type of each ship in the task force.

### ***A Legend of Ship Types***

BB: Battleship

CA: Heavy Cruiser

CL: Light Cruiser

DD: Destroyer

TR: Transport

### ***Direct Access to Ships***

To detach a ship from a task force, left-click on that ship's name on the list. Once a ship is selected the "DETACH SHIP. . ." button at the bottom of the panel becomes active. Left-clicking on this button detaches the ship, making it available for independent action; this is useful when ships are heavily damaged or when a ship needs to be detached for a mission such as a torpedo attack. Once a ship has been detached its name disappears from the ship list. Refer to the "Ship Bridge Station" section on page 35 for details on commanding individual ships. Once detached, a ship cannot rejoin a task force.

You can move directly to the Ship Bridge station of a ship in the currently selected task force by double left-clicking on its name in the list.

### ***Flagship Indicator***

The flagship of the task force is indicated by an asterisk (\*) to the left of its name.

### ***Large Task forces and the List***

If the task force contains more ships than can be shown in the list, the remainder are accessible by using the scroll controls to the right of the list.

### ***Mission Indicator***

This area displays the mission of the currently selected task force. If playing a short scenario, this setting is preset. During a longer scenario, you assign missions to the task forces you create.

### ***Orders Indicator***

This area displays the task force's current orders, as set in the Flagship Bridge.

### ***Formation Controls***

This area displays the task force's current formation. If playing a scenario, this setting is preset.

### ***Formations***

A task force's formation defines the relative positions that the ships attempt to maintain. Relative position is a critical factor in battle because proper positioning enables your ships to maximize their effectiveness against the enemy, while the wrong formation can minimize their impact or make them vulnerable to devastating attacks.

When setting formations, remember that the ships cannot magically appear in the positions you have selected; it takes some time to move to the proper position.

*The possible formations are:*

CUSTOM: This option enables you to have the ships take any relative positions you desire. When you choose it, you see a display with a task force list and a small map view showing the TFs' current relative positions. When you select a ship's name from the list, it is highlighted by an orange box in the formation window. When you left-click on the map, the ship's icon moves to that location. Once you have positioned all the ships where you want them to be, left-click on OK.

**Note:** If you want to spread the ships out beyond the area currently displayed, you can either scroll using the horizontal and vertical scroll bars, or zoom out by pressing the “-” control to the upper right of the map. Similarly, if you want to position two ships more precisely, you can increase the zoom level by pressing the “+” button.

LINE AHEAD: The ships steam in a column, one following another, with the flagship in the middle. When you select this option, you are given an opportunity to specify the distance between ships.

**LINE ABREAST:** The ships steam in a row, one beside another, with the flagship in the middle. When you select this option, you are given an opportunity to specify the distance between ships.

**SCREEN DEFENSE:** The ships form a tight, circular group with the destroyers on the outside but close to the heavier ships to provide an all-around defense.

***Weapons Display and Fire Control***

**Fire:** The ships in the task force fire at will.

**Hold:** The ships in the task force cannot fire.

***Contacts Panel***

The Contacts Panel lists all enemy forces that have been spotted by your forces. In general, just a contact I.D. appears, but as the information becomes more accurate, a list of ship types or even names may be shown.

***Time of Report***

The time at which the contact was made.

***Bearing***

The direction of the contact from the current task force.

***Heading***

The direction the contact is moving.

***Speed***

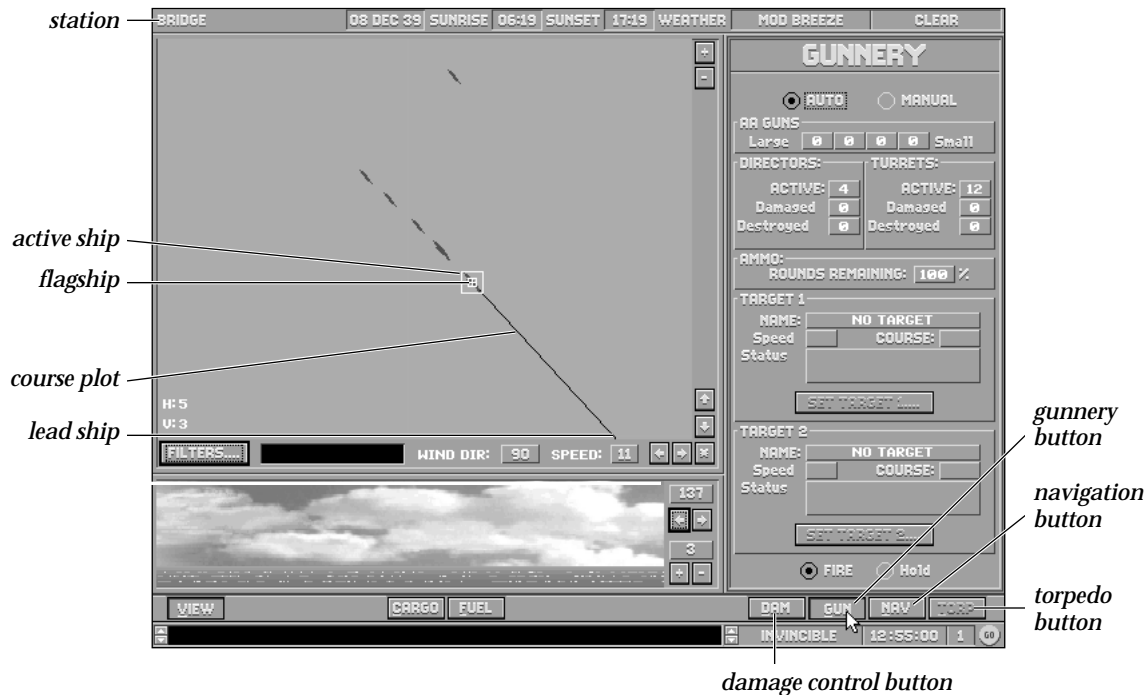
The speed at which the contact is moving.

***Range***

The distance from this task force to the contact.

***Ships Sighted***

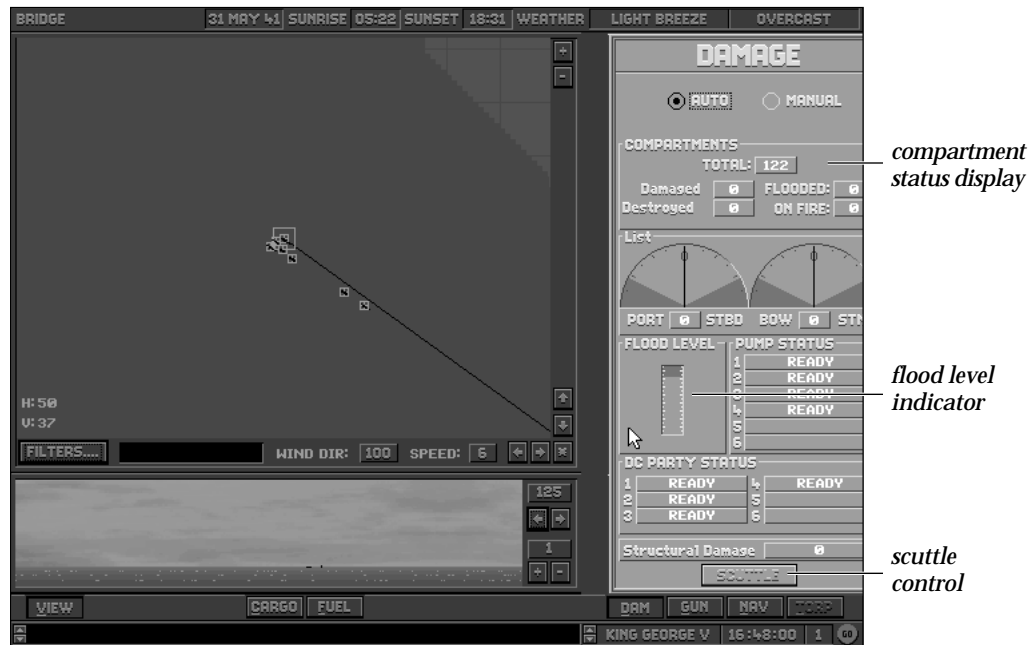
The classes of the ships sighted for that particular contact.



## SHIP BRIDGE STATION

If ships are detached from a task force, they are controlled from their own Bridge stations rather than from the Flagbridge station. The VIEW, CARGO, and FUEL button operations are identical to those described on page 18. The NAV button and Navigation panel operate identically to the Navigation panel described on page 19.

The other three buttons on the control bar: DAM, GUN, and TORP, allow or deny access to panels depending on which ship's bridge is being viewed.



## Damage Button and Panel

The Damage (DAM) panel gives you information about the well-being of the currently selected ship, and the ability to scuttle it (deliberately sink it to keep it from falling into enemy hands).

### Auto / Manual Buttons

These buttons set the station to Auto or Manual. The SCUTTLE button is only enabled if the panel is set to Manual.



### ***Compartments***

This display shows you the total number of compartments the ship is divided into, and how many have been damaged, destroyed, flooded, or are currently on fire. You can see more detail about exactly which compartments have been damaged in what way at the Damage Control Screen.

### ***List***

This display shows you how much the ship is listing to port or starboard, or forward and aft. If the needle of either gauge is in the red area, your ship is in serious danger of capsizing.

### ***Pumps***

This display shows how many pumps you have total and how many are available. The most obvious use for them is to pump water out of compartments (“bailing”), but they can also be used to pump water in to correct for list (“counterflooding”), as well as putting out fires on lower decks. To manage either bailing or counterflooding issue orders from the Damage Control station.

### ***Flood Level***

This gauge shows you how deep in the water your ship is sitting, and thus how close it is to sinking. If the flood level is in the red zone, your ship is in real trouble. Keep your eye on this gauge, especially if you are engaged in counterflooding.

### ***DC Party Status***

This display shows you how many Damage Control Parties you have in total and how many are available.

### ***Structural Damage***

Percentage of structural damage the ship has sustained. See page 57 for details of the effects on ship operation.

### ***Scuttle Button***

The SCUTTLE button enables you to sink your own ship deliberately. It is generally used as a last resort to keep the vessel from falling into enemy hands.



### Gun Button and Gunnery Panel

The Gunnery panel gives you information about your guns and some control over the guns on the currently selected ship.

#### ***Auto/Manual Buttons***

These set the station to Auto or Manual. The SET TARGET buttons are only enabled if the panel is set to Manual.

### ***Directors***

This display shows how many fire control directors your ship has, and whether they are currently damaged or destroyed. Directors improve the accuracy of your main guns dramatically. The association between directors and guns is not set: one director can control all turrets, or one can control the forward turrets while the other controls the aft turrets.

### ***Turrets***

This display shows the number of active gun turrets your ship has (main and secondary), and how many have been damaged or destroyed.

### ***Ammo***

This display shows the percentage of your ammunition you have left for all of your guns.

### ***Target 1***

This display shows the name, speed, course, and status of the primary (or only) target being tracked (if your guns have been ordered to hold fire) or engaged by your main guns.

### ***Set Target 1 Button***

You can set or modify this setting by pressing the SET TARGET 1 button. This calls out the Select Ship window which lists all enemy ships within range. Double left-click on the one you want to target, or cancel to exit without changing the current setting.

### ***Target 2***

This display shows the name, speed, course, and status of the alternate target (if any). Your ship will not split its fire between this target and the primary target unless it cannot engage the primary target with some of its guns. Normally, it deals with the primary target first with all guns, then switches to the secondary target.

### ***Set Target 2 Button***

This button works the same way as the SET TARGET 1 button.

### ***Fire/Hold Radio Buttons***

This orders the guns to fire when ready or hold fire (while tracking their targets). It is especially useful during night engagements when you may want to have your guns ready to fire as targets present themselves.

### ***Nav Button and Navigation Panel***

When commanding a single ship, the Ship Bridge station Navigation panel operates identically to Flagbridge panel. See the “Navigation Panel” section on page 19 for more information.

### ***Torp Button and Torpedo Panel***

If a ship is equipped with torpedo tubes, moving the cursor over the TORP button and left-clicking activates a panel which shows information about the ship’s torpedo mounts. Torpedo tubes on surface ships are generally mounted in groups that are operated together, so the information displayed is given for mounts.

### ***Auto/Manual Buttons***

These set the station to Auto or Manual. **Note:** If the button is set to Manual, torpedoes can only be fired manually from the torpedo mount.

### ***Mount 1***

#### ***Tubes***

The number of torpedo tubes on this mount.

#### ***Status***

Whether the mount is fully operational (Normal), damaged, or destroyed.

#### ***Loaded***

The number of tubes that currently have torpedoes in them, ready to fire. This count decreases when one or more tubes are fired.

## MAIN GUNNERY CONTROL STATION

### ***Reloads***

This is the number of additional torpedoes available to the tubes in the mount to replace fired torpedoes. After a tube fires, the crew of the torpedo mount will reload it if a reload is available, but since torpedoes are large, clumsy objects to manhandle on a heaving deck in the midst of battle, do not expect this reload process to be quick.

### ***Mount 2 or More***

If the vessel has more than one torpedo mount (most have either 2 or 4), information appears (in descending order) for each additional mount.

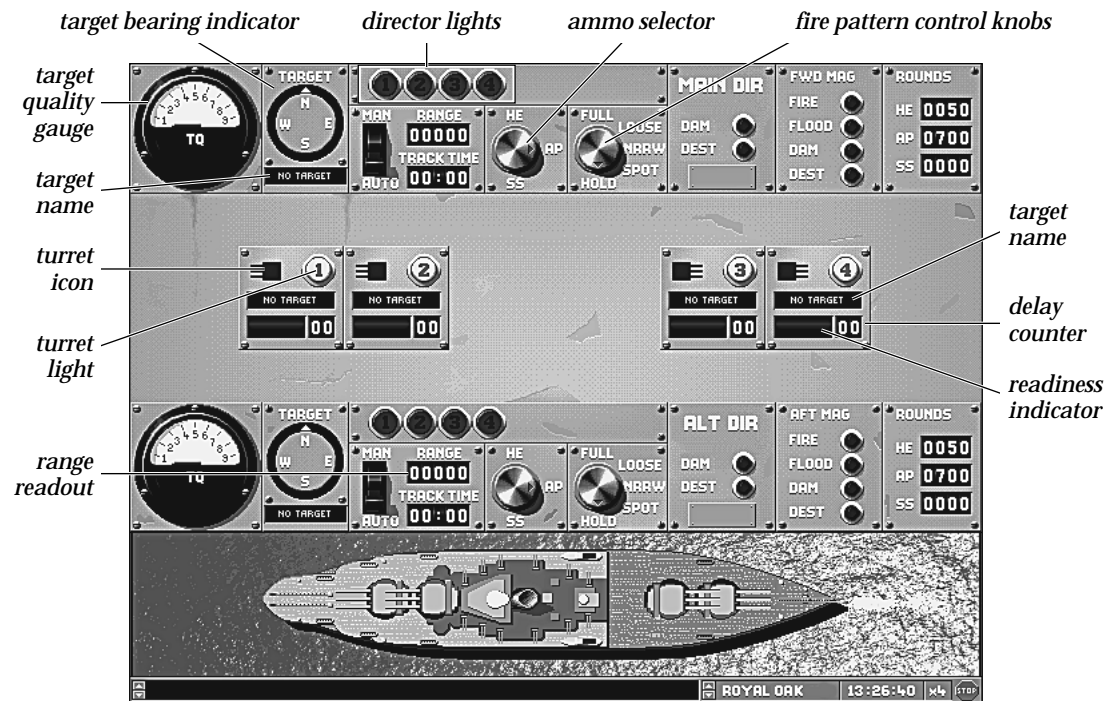
This station contains the instruments that enable you to control the ship's main gun turrets.

### **Gunnery Basics**

Hitting a target at a range of up to twenty miles is not a trivial task, and requires some understanding of how gunnery works. Basically, the gunnery director staff makes its best guess (fire control solution) of where to aim from the bearing of the target, the range indicated by the range-finding equipment (optical) and observation of the target's course and speed. The guns then fire spotting rounds, whose splashes are observed and used to make corrections before firing again. This process continues until the splashes "bracket" the target, which means some are in front of it, while others are behind it. Once this has been achieved, the guns can switch to full fire, although a return to spotting fire may be necessary occasionally as the target moves away from the bracketed position.

At long range, even an accurate fire control solution may only yield a few hits. There are many factors affecting accuracy: the sheer range (the longer the range, the more impact even small inaccuracies make), time in flight (it takes a full minute for a shell to travel 30,000 yards, during which time the target has moved), the size, speed, and maneuverability of the target ship, the amount of time the target has been tracked, waves, wind, weather, light conditions, the quality of the firing ship's crew, range finding equipment and guns, whether or not the firing ship is itself under fire, and the number of ships firing at the target (more than one makes it hard to keep track of spotting rounds).

To maximize your chances of hitting the enemy from this station, remember to use the maximum number of guns you can (broadside if possible), use the spotting fire option initially, and then decide between a normal, wide, or narrow spread when you go to full fire. Also, remember to fire the right kind of ammunition: star shell to improve range finding during night combat, armor-piercing against battleships, and high-explosive against almost everything else.



## Director Control Layout

The Gunnery Control stations, both Main and Secondary, are divided into four horizontal areas in addition to the standard Message Bar at the bottom of the screen: the Overhead view, the Alternate Director controls, the Turret Status Display, and along the top the Main Director controls. For the Secondary Gunnery stations on Battleships and Cruisers, the directors control Port and Starboard turrets.

### ***Overhead View***

The Overhead View shows a bird's-eye view of the active ship. It is used mainly for illustrative purposes, showing the orientation and firing of the main and secondary guns and torpedo tubes and graphic evidence of the damage sustained by the ship.

### ***Gunnery Controls***

#### ***Main and Alternate Directors***

The controls associated with the Main and Alternate Directors are identical. This reflects the fact that the two directors have a fluid relationship to each other and to the guns.

The Alternate Director exists primarily as a redundant system. The instruments used by the directors are sensitive; they play a crucial role in determining the ship's effectiveness in battle, and it simply makes sense to avoid a situation in which one lucky hit destroys a mighty warship.

This said, the alternate director can play a more dynamic role while the main one is still active. It enables the ship to split its fire effectively, taking on more than one enemy at a time. While captains generally avoid this approach (it is considered more effective to take out one enemy entirely than to pick away at two), there are times when it is necessary.

This fluid relationship can exist because the relationship between the directors and the gun turrets is also fluid. Either director can control any turret or set of turrets, and turrets can operate independently as well. Because of the greater effectiveness of the directors' sighting and range-finding equipment, "local control" is generally reserved for when both directors are out, but its existence highlights the fact that you have considerable leeway about how your ships' guns are controlled.

Because of the redundancy between the two control sets they will both be discussed together, with a special section indicating how they can be coordinated and control of turrets transferred between them.

***TQ Gauge***

This is the dial gauge at the left end of each Director Control area. The “Target Quality” (TQ) indicates the degree of certainty of the fire control solution on the target. The higher the value, the more likely that the next salvo will hit home.

***Target Bearing Indicator***

The compass dial just to the right of the TQ Gauge indicates the bearing of the target (in landlubber terms, the direction of fire).

***Target Name***

The display below the Target Bearing Indicator gives the name of the enemy vessel at which that director’s battery is firing. If the name is unknown, the display reads “Ship Ø.”

***Turret Lights***

The row of green lights along the upper center portion of the Director Controls is used to indicate which of the ship’s turrets are currently controlled by this director. The numbers correspond to the numbers in the Turret Status Display, and if the light is on, that turret is under that director’s control.

***Man / Auto Switch***

This switch sets whether the director can be controlled by the other controls at this director’s station. If it is set to Manual, then the cursor switches from an arrow to a cross-hair whenever it is positioned over a place that a control can be set to.

***Range***

This display, just to the right of the “Man/Auto” switch, shows the current estimate of the range to the target vessel.

***Track Time***

This display, just below the Range readout, shows how long the target vessel has been under observation in order to obtain a fire control solution. The longer the track time, the more accurate the firing solution is.



### ***Ammo Type Selector***

This knob is to the right of the Range and Track Time readouts, and is used to determine what type of shells the director's battery fires. The three possible settings are: HE, AP, SS.

HE: High Explosive — generally used against lightly or unarmored targets, or by a lighter vessel against a heavier one to damage its superstructure.

AP: Armor Piercing — generally reserved for use against heavily armored ships by other, equally heavy ships (battleship vs. battleship for example).

SS: Star Shell — illumination rounds play a critical role in night battles.

### ***Fire Pattern Control Knob***

This knob, located to the right of the Ammo Type Selector, sets the specific fall of shot desired.

FULL: The normal pattern used once the target has been acquired. All guns in the active battery fire, and continue firing as rapidly as they can be reloaded, with a normal spacing of shells falling on the target.

LOOSE: A pattern used when a hit is needed as soon as possible. The gun tubes are angled so that the shells fall over a larger area than normal, which increases the probability of a hit on an imperfectly acquired target. Because the shot pattern is so large, however, the chance of multiple hits is sharply reduced.

NRRW: Narrow, a pattern used when multiple hits are desired. The gun tubes are angled so that the shells fall over a smaller area than normal, which increases the probability of multiple hits. The chance of a total miss increases as well, and so is best used against a solidly acquired target.

SPOT: The normal pattern used when first firing on a target. The guns only fire a second time after their splashes have been observed and their aim corrected.

HOLD: The battery remains trained on the current target, but will not fire until a firing pattern is selected.

***Main / Alt Dir***

These two lights show whether the director has been damaged or destroyed.

DAM: The director has been damaged.

DEST: The director has been destroyed.

***Fwd / Aft Mag***

These lights show the damage status of the corresponding magazine.

FIRE: The magazine is on fire. As the severity of the fire increases, there is a greater chance of the magazine exploding — which is likely to destroy the ship.

FLOODED: The magazine is flooded. The ship's rate of fire may decrease due to a lack of ammo.

DAM: The magazine has been damaged. Your rate of fire is likely to drop or even stop.

DEST: The magazine has been destroyed. Thank your lucky stars you're still around to read about it!

***Rounds***

These readouts show the amount of ammo of each type in the magazine identified in the display just to the left. For the meaning of the abbreviations, see the "Ammo Type Selector" section on the previous page.

***Turret Status Display***

The turret status display is the area between the two director control areas. It contains a number of similar display areas, each of which corresponds to one of the ship's main gun turrets. Their layout corresponds roughly to their actual positions on the ship (i.e., the leftmost one is the furthest forward turret; the rightmost one the furthest aft turret; side-mounted turrets are placed above (for starboard) and below (for port) the centerline.

### ***Turret Number Light***

The green light in the upper corner of each box contains the ID number of the turret. When it is lit, the turret is active. If it is dark, that turret is damaged or destroyed.

### ***Target Readout***

The text area in the center of the turret box shows the name of the current target of that turret's guns, if one has been acquired.

### ***Readiness Status***

The text area in the lower left of the box shows if the guns are ready to fire. If the turret is not controlled by a director there is no text in this area, even if it is undamaged. The different types of status are READY, TURN, and LOAD.

READY: The turret's guns are ready to fire. You will not see this often, except as it flashes by, unless you've instructed the guns to hold their fire.

TURN: The turret is turning to aim at a target.

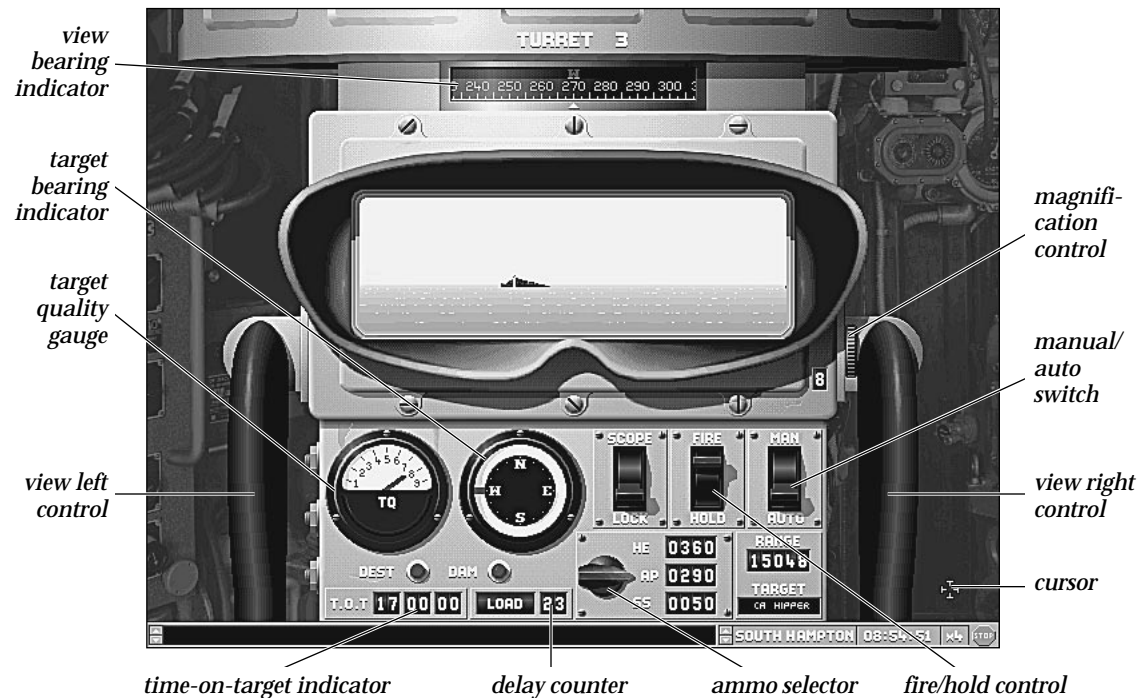
LOAD: The guns are being loaded. You see this message most frequently.

### ***Delay Countdown***

The numeric readout in the lower right of each Turret box shows the amount of time that the turret needs to turn or load before it is ready to fire again.

### ***Turret Icon***

The icon in the upper-left of each Turret Display box shows the number of guns in the turret. When you move the cursor over it, it lights up, and if you left-click the view changes to the Turret Control station.



### Individual Turret Controls

This screen enables you to control each turret directly. Many of the controls are similar to those found at the director, but only affect the guns in this turret, and through the gunner's binocular you can have an unmatched view of the battle. **Note:** You cannot get to this station via the pull-down menus; you must access it via the Main Gunnery Control station.

### ***Turret ID***

At the top center of the screen the turret is identified as Turret #. The number (#) corresponds to the ID number found in the green light on the director. See the “Main Gunnery Control” section on page 34 for details of the operation of the TQ Gauge, Compass Dial, Ammo Selector and Delay Readout.

### ***View Bearing Indicator***

The 360 degree gauge just below the turret ID indicates the direction in which the binoculars are pointed.

### ***Magnification Control***

This control, found to the right and below the binocular view itself, can increase and decrease the level of magnification. If you put the cursor over the top half of the icon, it becomes a set of up arrows, and each time you left-click, objects in the binoculars appear larger, while decreasing the field of vision. If you place the mouse cursor over the lower half of the control, it becomes a set of down arrows, and when you left-click, objects appear smaller, while the field of vision increases.

### ***Magnification Level Readout***

To the left and below the magnification thumb control is a digital readout that gives the level of magnification currently being displayed. In all, there are four levels of magnification: 1 (objects appear their actual size), 2 (objects appear double size), 4 (four times actual size), and 8 (eight times actual size).

### ***View Left and View Right Controls***

If you place the cursor over the handles on either side of the director, it becomes a set of arrows pointing to the closest edge of the screen. If you left-click, the view in the binocular swings in that direction, and if you hold the button down the view continues to swing automatically. You can swing the view through a full 360 degree arc. **Note:** These controls only work if the SCOPE/LOCK switch is set to Scope. Otherwise, the view remains locked on the current target (hence the label, Lock).

### ***Scope/Lock Switch***

This button, the leftmost of the three “light switches” below the binocular view, locks the view on the designated target when set to Lock. When set to Scope it allows you to swing the binocular view throughout a 360 degree arc.

### ***Fire/Hold Switch***

The center “light switch” below the binocular view lets you instruct gun crews to hold their fire or fire when ready.

### ***Man/Auto Switch***

This switch must be set to Manual in order for any of the other controls at this station to work.

### ***TQ Gauge***

Like the TQ gauge at the Main Gunnery Control station, this shows the reliability of the fire control range solution.

### ***Compass Dial***

Like the Compass Dial at the Director control, this shows the bearing of the current target.

### ***Ammo Selector***

Like the Ammo Selector at the Director control, this lets you choose the type of shells that the guns at this turret fire. For pros and cons of each type, refer to the Direction section. Unlike the display at the director, however, the control here includes the ammo supplies available to the turret in the digital readout to the right of each setting.

### ***Readiness Status and Delay Countdown***

Like the Readiness Status Display and the Delay Readout at the Director control, these inform you of what the gun crews are doing and how long before the guns are ready to fire.

### ***Damage Indicators***

The Dam (Damage) lights light up when the turret is damaged. The status reflects battle conditions; a turret is considered damaged if it may be returned to functionality before the end of the current engagement. When the turret is destroyed, you see a graphic representation of the destroyed turret controls.

### ***TOT - Time on Target***

TOT stands for Time on Target, or time remaining until shells in the air hit their target. Three numbers can be displayed, showing the time remaining for the last three sets of shells. Because of the physics involved, guns never have more than three sets of shells in the air at a time.

#### SECONDARY GUNNERY CONTROL

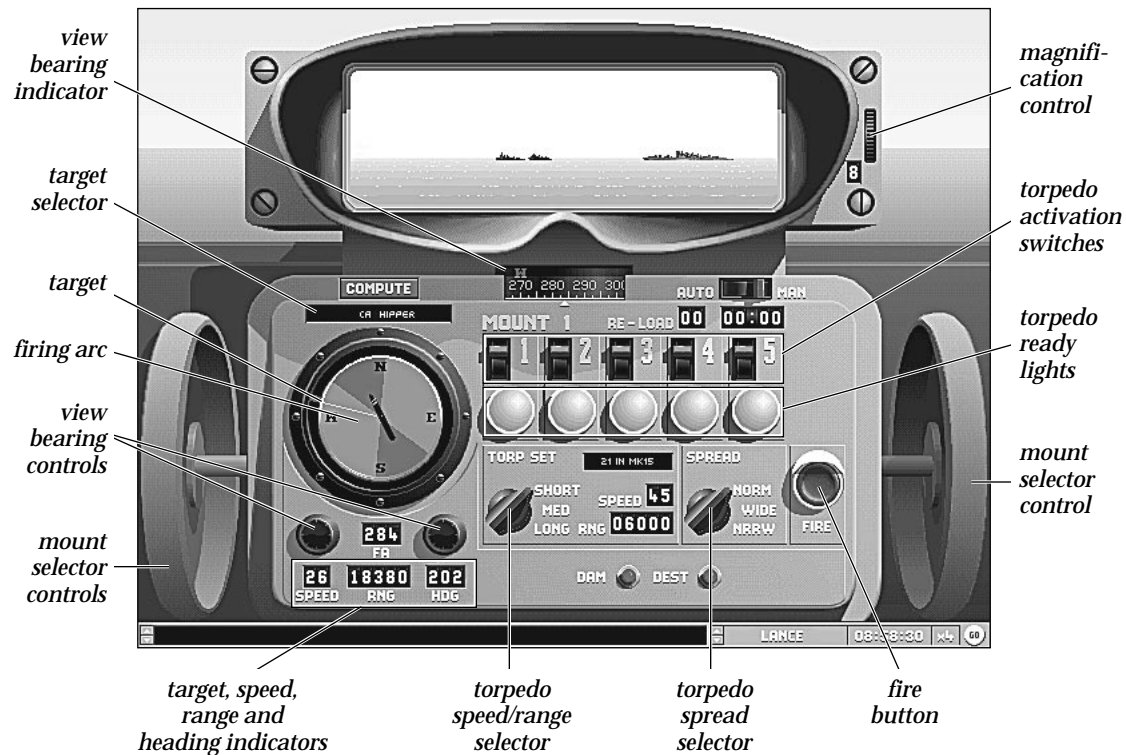
This station is very similar to the Main Gunnery Control station. It is used to direct the secondary armament of battleships, with the main differences being that the turrets are identified by letters (A, B, C, etc.), and the magazine information is for the starboard and port secondary magazines rather than the fore and aft main magazines. For information about how the controls at this station work, see the “Overhead View” and “Turret Status Display” sections on pages 36 and 39, respectively.

#### TORPEDO STATION

This station contains the instruments that control a ship’s torpedo tubes. You can access it by selecting the Torpedo option from the STATIONS pull-down menu or press F5. **Note:** that not all ships have torpedoes.

### ***Torpedo Basics***

The Torpedo Control Area contains the instruments with which you control the ship’s torpedo tubes. Torpedoes are very powerful weapons, delivering a massive charge below the target’s waterline, but many factors affect their targeting and therefore make them more difficult to use effectively. Fortunately, you have analog computers available to help you make the necessary calculations. To launch torpedoes, you first want to get as close to the target as you can, taking into account the eighty seconds required for a torpedo to arm itself. At short range, high speed settings are much more accurate than the longer ones. Next, make sure that the tubes on the target’s side of your ship are active (big ships had two sets of tubes, one per side). Select a target by switching the mount to Manual, left-click on the bar below the COMPUTE button, and pick one of the ships listed in the window that appears. Set the spread to reflect your confidence in your aim, check the computer’s suggested angle of fire (it should not be toward the enemy, because if you fire at him, he may be gone when the “fish” arrives), make any corrections you think anticipate the target’s probable maneuvers (he may turn toward you once he sees the torpedo coming), and then fire. It is a somewhat complicated business, one you will probably have to practice before you get it right.





### **View Bearing Indicator**

The 360 degree gauge just below the binocular view indicates the direction in which the binoculars are pointed.

### **Magnification Thumb Control**

This control, found to the right of the binocular view itself, can increase and decrease the level of magnification. If you put the cursor over the top half of the icon, it becomes a set of up arrows, and each time you left-click objects in the binoculars appear larger while decreasing the field of vision. If you place the mouse cursor over the lower half of the control, it becomes a set of down arrows, and when you left-click, objects appear smaller while the field of vision increases.

### **Magnification Level Readout**

To the left and below the Magnification Thumb control is a digital readout that gives the level of magnification currently being displayed. In all, there are four levels of magnification: 1 (objects appear their actual size), 2 (objects appear double size), 4 (doubled again), and 8 (doubled once more).

### **Mount Selection Controls**

When you place the cursor over the handles on either side of the torpedo director, it becomes a set of arrows pointing to the closest edge of the screen. When you left-click on the right control, you jump to control of the next torpedo mount (in ascending numerical order, with a “wrap-around” to the first when you use this control on the highest-numbered one. Conversely, when you left-click on the left control, you jump to the next mount in descending numerical order, with a “wrap-around” from number 1 to the highest-numbered mount.

### **Compass Dial**

The compass dial at the torpedo station shows the heading of your ship through the ship icon in the center.

The red area to the port or starboard of the ship icon indicates the arc of fire of the current torpedo mount, and the white line shows the exact direction within that arc that it is pointing. The white line also indicates the firing line of the torpedo. You may manually control the firing angle of the torpedoes by adjusting the white line within the display. The view at the top of the mount changes as the white line moves. The red mark on the outside of the compass dial shows the bearing of the selected target, or points north if no targets are selected.

### **Auto / Manual Switch**

This switch sets whether the director can be controlled manually by the other controls at this director's station. If it is set to Man (Manual), the cursor switches from an arrow to a cross-hair whenever it is positioned over a control whose selection can be changed.

### **Reload Readouts**

The shorter of these two readouts shows the number of reloads available to this mount. The time readout shows the countdown of time to reload a single torpedo tube. Torpedo tubes take eighty minutes to reload on the standard setting. Changes made using the Customizer may increase or decrease this time.

### **Target Readout Control**

The text area below the COMPUTE button shows the target ship for which a solution is currently being computed. Left-clicking on this area opens the Select Ship window which displays the list of potential targets. Choose one of these by left-clicking on it.

If you left-click on this area and one or more enemy ships are potential targets, the Select Ship window appears, and a target may be selected from the list by double left-clicking on it.

Left-clicking on the COMPUTE button calculates the computer's best solution as to where the targeted ship will be, assuming no changes in course or speed. **Note:** The compute button does not function at game speed settings of x3 or x4.

### **Torpedo Activation Switches**

A mount has between two and five switches depending on the number of tubes present in the mount. Each switch makes one torpedo ready for launch when switched to the on (up, red) position. Only active torpedoes are launched when you press the fire button. **Note:** All torpedoes are active by default. Deactivating some tubes allows you to reserve some torpedoes in the mount to be fired later in the battle.

### **Torpedo Ready Lights**

These lights show whether the corresponding torpedo is loaded and ready for activation. When the lights are bright green, the torpedoes are ready to fire.

### **Fire Button**

This button launches all of this station's activated torpedoes when it is left-clicked.

### **Spread**

This button sets the distance between the torpedoes as they move toward the target. Possible spreads are:

NORM: Normal distance between torpedoes.

NRRW: Less distance than normal between the torpedoes. Used when aim is particularly reliable, or need for multiple hits is great.

WIDE: More distance than normal between torpedoes. Used when aim is particularly uncertain, or against multiple ships with overlapping profiles.

### **Torp Set Knob**

This control shows, and enables you to set, the range and speed of active torpedoes. The computer's choice is set initially, but you can choose from among the possible settings for yourself by left-clicking on the knob settings.

SHORT: The torpedoes are set to run at maximum speed for a short distance. This setting gives the greatest probability of a hit.

MEDIUM: The torpedoes are set to run at a somewhat slower speed for a somewhat greater distance. This setting gives a somewhat lower probability of a hit.

LONG: The torpedoes are set to run at a slow speed for a long distance. This setting gives little likelihood of a hit. This setting should be used only when firing at nearly stationary targets.

### **Torpedo Range Readout**

The Range (RNG) number to the right of the Torp Set knob is the maximum distance the torpedoes can run at the current setting.

### **Speed Readout**

This is the speed at which the torpedoes run at the current setting.

### **Fire Angle Readout and Controls**

The Fire Angle readout (FA) shows the bearing at which the active tubes are pointed. To point them more to the left, left-click on the black knob to the left; to point them more to the right, left-click on the button to the right. The bearing can be changed more quickly by left-clicking directly on the compass dial. The tubes should not be aimed directly at the target unless the target is stationary, since torpedoes move quite slowly relative to the movement of the ships. Instead, they should point to the probable intercept point, the point at which the torpedo will meet the target if it continues its present course and speed.

### **Target Speed Readout**

This is the computer's estimate of the target's speed.

### **Target Range Readout**

This display is under the legend RNG. The number shown is your crew's estimate of the range to the target at the projected fire angle.

### **Target Heading**

This display is under the legend HDG. The number shown is your crew's estimate of the target's current heading.

### **Damage Indicators**

Dam: The damage lights light up when the mount is damaged if it can be repaired before the end of the current engagement.

Dest: When the mount is destroyed, a graphic representation of the destroyed mount is shown.

The Damage Control station shows damage sustained by the ship and any damage control efforts currently underway. It also gives you control over damage control parties. You can access this station by selecting the Damage option from the Stations pull-down menu, or pressing F7.

### **Damage**

Ships can be damaged in four ways: shell hits, torpedo hits, bomb hits, and collisions with other ships.

All four types of impact can damage or destroy ship's equipment and cause flooding (if the damage occurs below the waterline). It is important to note that even a near miss can damage a ship. Damage to ships can also start fires which can spread and cause even more destruction. In addition to damage to specific parts of ships, each ship has a Structural Damage value which affects the ship's ability to make weigh, turn, and fire accurately.

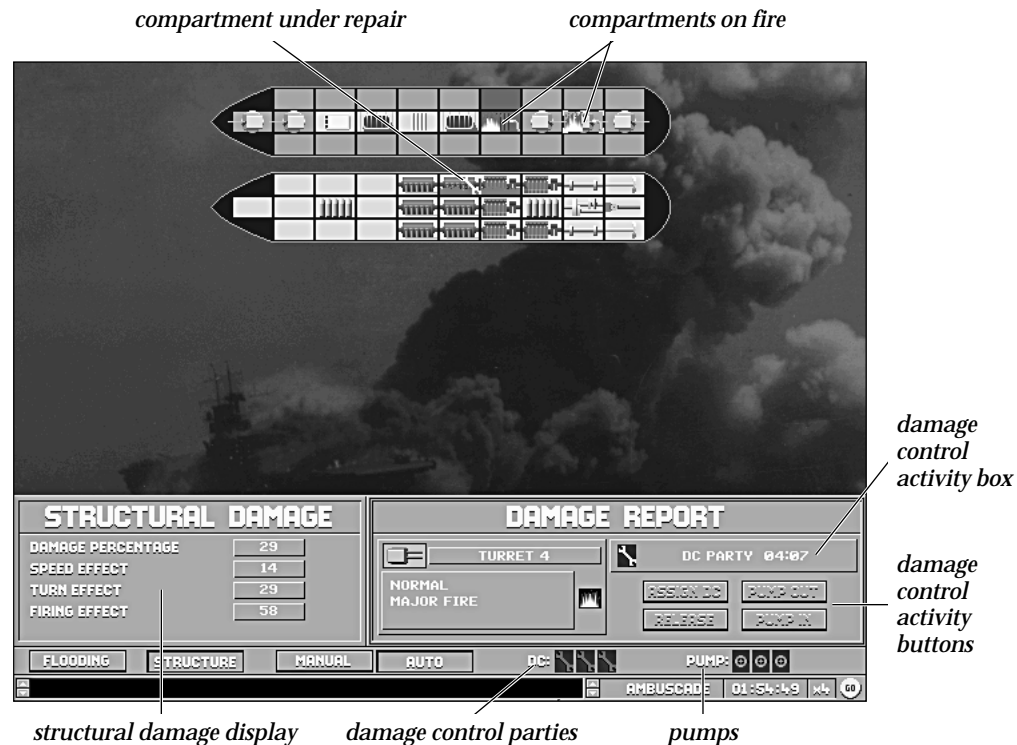
### ***Flooding and Counterflooding***

Flooding compartments causes a ship to list in the direction of the flood; if too much flooding occurs on one side of the ship, the ship will capsize. Capsizing was the most common cause of ship sinking in WWI. Flooded compartments are unusable until the leak has been plugged and the water pumped out. Flooded compartments cannot catch fire. The flooded compartment may be damaged or destroyed by the flooding. The more the ship lists, the more pronounced the negative effects upon gunnery and steering become; at lists above 15 degrees the main guns may not fire at all.

In order to counter a dangerous list caused by flooding the player may use counterflooding to bring the ship back to an even keel. The disadvantage of this is that if enough water is taken on, the ship will sink anyway; thus this must be used with caution. The area counterflooded suffers the same effects as normal flooding.

### ***Fire***

Fires progressively damage and destroy the ship's equipment. The fire may burn out or grow in strength and spread to adjacent compartments (including those above and below). The most dangerous aspect of fire is that if one spreads to a magazine, it will probably blow up the ship. It may even be worth counterflooding a magazine if fire breaks out in an adjacent area.



### Damage Station Control Bar

The Damage Control Station contains an additional control bar just above the Message Bar. It contains four buttons and two sets of icons, one for damage control parties and the other for pumps.

## **Damage Control Party Icons**

The wrench symbols on the Damage Station control bar represent the ship's Damage Control (DC) potential. All ships do not have the same number of DC parties available; larger ships generally have a larger number. Each icon represents one damage control party. If the wrench is light gray, the party is currently unassigned; if it is dark gray, the party is at work somewhere on the ship.

## **Pumps**

The pump symbols on the Damage Station control bar to the right of the damage control party icons represent the ship's ability to pump water out (or in). All ships do not have the same number of pumps; larger ships generally have a greater number. Each icon represents one pump. If the pump is light gray, the pump is currently unassigned; if it is dark gray, the pump is at work somewhere on the ship.

## ***Manual And Auto Buttons***

These buttons set whether the damage control station is under manual control. If the MANUAL button is pressed, you can access all controls and screens. If this station is set to AUTO, you can left-click on compartments to assess damage, but will be unable to assign DC parties or pumps.

## ***Flooding and Structure Buttons***

These buttons open and then toggle between two windows showing the level of flooding and the effect of structural damage.

## ***Flooding Button***

This button opens the Flooding gauge window. Three gauges here measure the list to port or starboard, the list to bow or stern, and the level of flooding, much like the gauges on the damage panel on the Ships Bridge station. For more information see the "Damage Button and Panel" section on page 29.

## **Deck Display**

### ***Deck Levels***

Each ship is composed of two deck levels, from top to bottom.

### ***Compartments***

Each deck level is subdivided into individual compartments. Some of the compartments contain icons representing a major system of the ship; empty compartments represent areas with other items: living quarters, storage, miscellaneous machinery space, etc. If a compartment is hit and damaged, it changes color; if a damage control party or pump is assigned to it, the damage control icon is superimposed. Any repairs represent a “temporary fix.” Damaged ships in long scenarios need to undergo repairs at a port to be returned to full effectiveness.

### ***Damage Colors, Symbols, and Animations***

The following background colors signify the associated damage:

Light Gray:	Undamaged
Dark Gray:	Damaged (repairable)
Red “X”:	Destroyed
Fire Animation:	Fire
Flood Animation:	Flooded

### ***Damage Control Party at Work or Pumps in Use***

A compartment containing an active damage control party is marked with a wrench icon if it is damaged or an animation of a fire hose spraying water if it is on fire. A compartment with active pumps is marked with a pump (wheel) icon.

### ***Compartment Damage Report***

To access detailed information about a compartment, simply left-click on it. The information appears in the Damage Report panel above the Damage Control bar and to the right of the Flooding/Structure Damage panels.

### ***Contents Icon***

In the upper left of the panel, a box the size of the compartment in the deck display shows the icon representing the contents of the compartment.



### ***Contents Description***

To the right of the Contents Icon is a text description of its contents.

### ***Compartment Status***

Below the Contents Icon and Description is a box that contains text describing the current damage status of the compartment.

### ***Damage Status Text***

The top line of text gives the overall status of a compartment: Normal, Damaged, or Destroyed.

### ***Destroyed Icon***

If the compartment has been destroyed, the red “X” is shown to the right of the Damage Report box.

### ***Fire/Flood Status***

If the compartment is on fire or flooded, the second line describes the severity of the situation.

### ***Fire/Flood Icon***

If the compartment is on fire or flooded, the appropriate animation is shown to the right of the Damage Report window.

### ***Holes***

If the compartment has been punctured, the location of the hole is given. The four possibilities are:

- F: Forward (toward the front of the boat)
- A: Aft (toward the back of the boat)
- P: Port (on the left side, looking forward, toward the bottom of the screen)
- S: Starboard (on the right side, looking forward, toward the top of the screen)

### ***Hole Picture***

If the compartment has been punctured, a diagram illustrating the location of the damage is displayed to the right of the box.

### ***Damage Control Activity Box***

To the right of the Contents Description is a box that contains information about damage control activity currently going on in the compartment.

### ***Damage Repair Estimate***

If the compartment contains a damage control party, the estimated time for repairs is stated. The completion time is for a temporary repair. Full repairs can only be completed at a port.

### ***Pump Action***

If the compartment contains a pump, a message states if it is pumping water out or in.

### ***Damage Control Activity Buttons***

In the lower right of the Damage Report window are four buttons that give you control over damage control and pumping in the compartment.

### ***Assign DC***

If the compartment is currently damaged, this button is active and you may left-click on it to have a damage control party begin repairs, if one is available.

### ***Release***

If a damage control party is currently at work in the compartment, this button is active. If you want to get the party out of there so it can be reassigned elsewhere, press this button, and the damage control party returns to Available status.

### ***Pump Out***

If the compartment is currently flooded, this button is active and you may left-click on it to have a pump begin pumping it out, if one is available. **Note:** You may only pump a compartment out if it has no punctured walls.

### ***Pump In***

This button is always active unless the compartment is already taking on water. If you want to counterflood, left-click on it, and if a pump is available it begins pumping water in. Be sure that the active compartment is one you want to flood. If you want to sink the ship, use the scuttle button at the Ship Bridge station (it's faster).

### **Flooding Button and Panel**

When you press the FLOODING button, the same title appears in the display panel just above it. It contains semicircular dial gauges and associated digital readouts that show the degree of list forward and backward and to either side and a bar gauge showing the level of flooding. These indicators are similar to the List and Level gauges on the Damage panel at the Ship Bridge station, and a more detailed description of them can be found in the Damage Button and Panel section, on page 29.

A mild list affects the ship's speed, steering, and fighting ability; a severe list can cause the vessel to capsize.

### ***Counterflooding***

To counteract a dangerous list, you can attempt counterflooding, which is deliberately letting water into compartments on the high side of the ship. The ship settles deeper into the water, but the danger of capsizing is lessened. Of course, be aware that if the ship settles too far while upright, it founders and sinks!

### **Structure Button and Panel**

This button opens the Structural Damage panel. Four numeric indicators in this window show the percentage of structural damage and the effect that the damage has on the ship's ability to turn, maintain speed, and fire accurately. These numbers are the percent of reduction in normal ability for the ship.

## **Effects of Damage**

### ***General Effects***

Unless noted below, the following effects apply to all ships' equipment:

**Damage:** Damage to ship's equipment is usually repairable; however, the time taken may be outside the length of a single engagement.

**Destruction:** Destruction of ship's equipment means that the equipment cannot be repaired at sea and that equipment is not available until the ship has returned to port and repaired.

### ***Damage to Specific Equipment***

**Bridge:** The bridge is the primary control center of the ship. If it is damaged or destroyed, reaction times are slower thereafter.

**Secondary Turrets:** Secondary turrets are the ship's armament for attacking smaller targets. These were often open to the elements and had very little armor. Mounted on the extremes of the ship rather than on the centerline, these turrets were unusable in rough seas or when the ship listed strongly. Loss of a turret reduces the firepower on that side of the ship.

**Torpedo Mounts:** Torpedo mounts are usually mounted in exposed positions on the ship's deck and are therefore unusable during rough weather. If they are destroyed, torpedoes cannot be fired from that mount.

**Directors:** The ship's directors are used to direct the ship's guns. Mounted high on the ship's superstructure, they combine the data from range finders and fall of shot reports to calculate the firing data for the ship's guns. The directors allow all the ship's guns to be concentrated on a single target without the mutual interference caused by local control. If one director is lost, the ship can still fire a broadside, but the guns associated with that director (fore or aft) can only fire under local control if firing by themselves. If both directors are lost, all turrets revert to local control. Local control is far less accurate than directed fire.

**Funnels:** The ship's funnels create the up-draft required for the combustion within the engines and direct away the exhaust gasses. If damaged or destroyed, the ship's maximum speed is reduced in proportion to the number of funnels on the ship.

**Magazines:** The shells for the ship's guns are stored in the ship's magazines. These are usually heavily armored and buried deep within the depths of the ship. The ship may blow up and sink if a shell explodes inside a ship's magazines or if a fire spreads to the magazines.

**Engine Room:** The ship's engines provide the motive power for the ship. The ship's speed depends upon how many engine rooms are available. Non-diesel powered ships require a functioning boiler room. The speed reduction for loss of engine rooms is small at first because a great deal of extra power is needed to gain the last few knots of speed, while cruising speeds can be achieved with as little as one third of the engines.

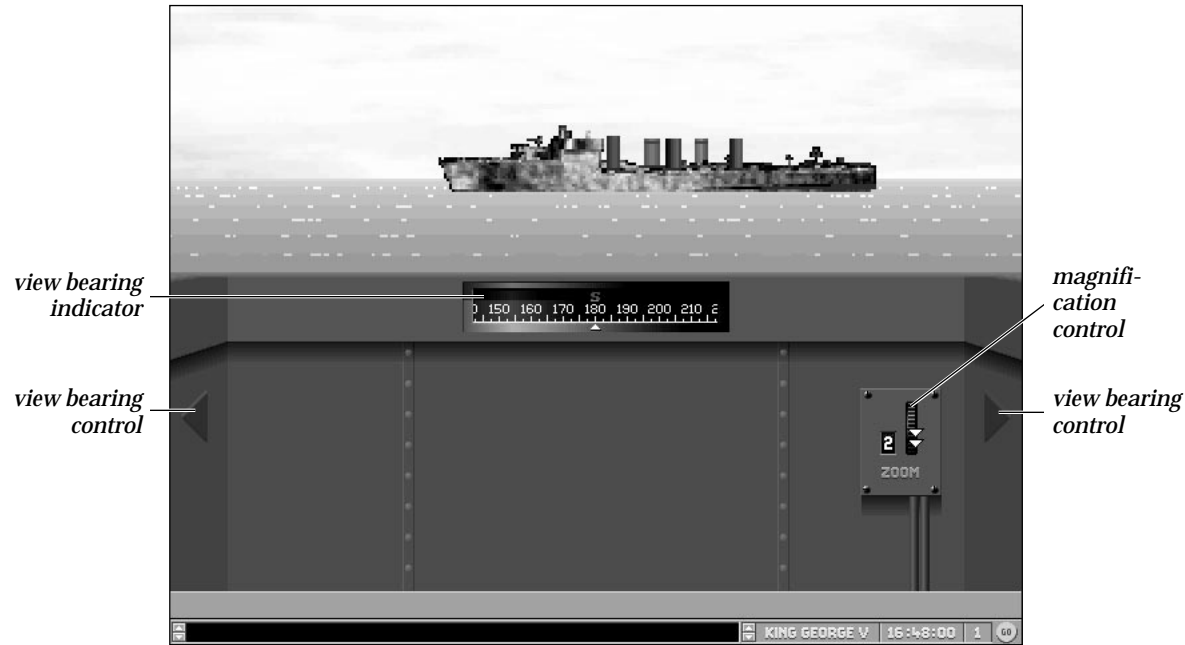
**Boiler Room:** On non-diesel powered ships, the boiler rooms provide the steam required to power the turbines in the engine rooms. The number of operational engine rooms is limited to the number of operational boiler rooms. Loss of a boiler room is equivalent to loss of the associated engine.

**Steering Gear:** These are the internal mechanisms required to change the ship's course. Loss of the steering gear increases the ship's turn radius significantly because of the inefficiencies of steering by changing the speed of the propellers.

**Shaft:** The motive power provided by the engines is transmitted by the shafts to the propellers. Loss of a shaft reduces the maximum speed of the ship in the same way as engine room damage.

**Propeller:** The motive power provided by the engines is transmitted by the shafts to the propellers. Loss of a propeller reduces the maximum speed of the ship in the same way as engine room damage.

**Rudder:** Steering is controlled by the rudder(s). Loss of the rudder(s) has the same effect as steering gear damage.

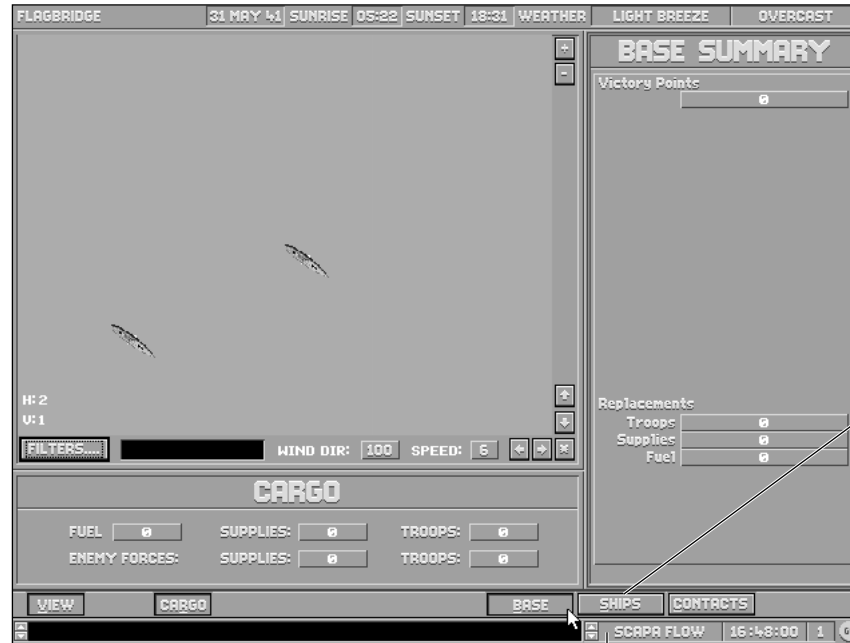


This station gives a full outside view of the ocean from the observation tower of the current ship. When the cursor is over the arrow icons to the right or left side of the screen, it changes to the View Left or View Right arrows for changing the direction of the view. The Increase and Decrease arrows that appear over the Zoom thumb wheel change the magnification level.

## BASES

Most scenarios do not concern themselves with bases. The focus of attention is on groups of ships which are contesting the waters of the Atlantic. Campaign games and scenarios created with the GNB5 Scenario Editor, however, require familiarity with base operations.

Bases function as ports. Ships must return to them periodically to refuel, or for repair and refit. To review or issue orders to a base, simply left-click on its icon on the map or scroll to it using the display on the Message Bar when at the Flagbridge station.



## **Base Station**

You issue orders to forces located at a base through the Base station. The Base station enables you to organize task forces, air strikes, and air patrols; to load and unload cargo and fuel; and to move ships into and out of dry-dock, where they undergo refit and repair. It is here that you conduct many of the necessary day-to-day operations in a campaign game.

### ***Accessing a Base***

To access a base, simply left-click on the base icon on the map or scroll to it using the display on the Message Bar when at the Flagbridge station.

### ***Base Control Bar***

Like the Flag and Ship Bridges station, the Base station contains an additional control bar just above the Message Bar. The Base station control bar contains six buttons, five of which are the same as the Flag Bridge's, and one that is unique: the BASE button.

The Base station makes use of the Map panel, described on page 14. The filters available for use at this station are the same as those described on page 16.

### ***Cargo Button***

The CARGO Button displays the Cargo panel for bases. This panel is similar to the Cargo panel for ships, and displays the amount of fuel, quantity of supplies, and number of ground troops. It also displays the number of troops and amount of supplies for enemy ground forces attacking the base during a scenario.

### ***Contacts Button***

The CONTACTS button is identical to the one displayed at the Flagbridge, see the “Contacts Panel” section on page 27 for more information.



### ***Ships Button***

The Ships Button calls out the Base's Ships panel. This contains the controls you use to control the activities of ships at the base. This panel is a necessary first stop during any campaign scenario because ships do not start out assigned to task forces.

### ***Ship List***

The list box in the Ships panel contains some or all of the ships currently at the base. Left-clicking on the name of a ship and left-clicking on one of the buttons below assigns that ship to that activity.

### ***Ship Filters***

The ship filters enable you to display only ships engaged in a particular activity in the Ship List. The possible activities are:

#### ***Docked***

Ships that are simply located at the base.

#### ***Refueling***

Ships that are taking on more fuel at the base.

#### ***Repairing***

Ships that are undergoing repairs at the base.

#### ***Loading***

Ships that are taking on men or supplies from the stores located at the base.

#### ***Unloading***

Ships that are letting off men or supplies at the base.

### ***Ship Activity Buttons***

The ship activity buttons enable you to order the ships at a base to engage in a base activity. Each button opens a window showing two lists; one of available ships and the second a list of ships undergoing one of the activities. Double left-clicking on each ship name assigns it to an activity and moves it to the other list. The possible activities are:

#### ***LOAD***

When you push this button, the Load Ship window appears. Use it to order some of the men and/or supplies from the base to be transferred onto the ship. **Note:** This operation takes some time to be completed.

#### ***UNLOAD***

Similar to Load, except that the Unload Ship window enables you to transfer men and supplies from the ship to the base.

#### ***REPAIR***

A damaged ship is scheduled to enter repairs as soon as appropriate facilities are available.

#### ***FUEL***

The ship takes on fuel.

### ***FORM TASK FORCE Button***

Some scenarios start with ships in port. It is necessary to assign these ships to task forces (TFs) before they can undertake missions.

#### ***TF Missions***

Left-clicking on the FORM TASK FORCE button opens the TF Mission window, making the following options for task force missions available:

**BOMBARDMENT:** Orders selected ships to bombard the targeted enemy base. Battleships (BBs) or heavy cruisers (CAs) must be part of a group assigned to a bombardment mission.

**TRANSPORT:** Orders ships to move loaded supplies to a targeted base. You must have some loaded ships before you can assign this mission.

**SURFACE ACTION:** Orders selected ships to conduct a surface action near a targeted base or spotted enemy task force.

**DEFEND BASE:** Orders selected ships to defend targeted bases from enemy forces near that base. Once the task force has been assembled, a window opens offering a list of bases that can be defended. Left-clicking on the name or base icon of the base to be defended assigns that task force to that mission.

### *New Task Force Creation*

After a mission has been chosen, the New Task Force window opens with a list of available ships and an empty list. At the bottom is the Task Force Name display. Double left-clicking on the name of a ship assigns it to the task force in the display. Left-clicking on the CANCEL button returns to the base screen, the OK button completes the selection and opens the Flagship window, where one of the ships must be chosen as a flagship. Then the Set Position window opens and the starting position for the task force is selected by left-clicking on the map panel. **Note:** The map panel may need to be zoomed out in order to place the task force at another base or strategic position.

Even the iron-clad steamships of the turn of the century are very much at the mercy of the weather, and the primal distinction between day and night has a profound impact on naval operations. The weather affects ships' combat capabilities and their ability to carry out patrols and searches. Furthermore, you should keep in mind the importance of the amount of daylight and nighttime, and that it can vary enormously according to the season.

### **Beaufort Scale**

The prevailing weather conditions are usually described in terms of the Beaufort scale, a numbering system rising in terms of severity from 0 (calm flat seas with little or no breeze) to 12 (hurricane force winds accompanied by 30 foot plus waves). In the game you will not see any Beaufort scale greater than 10 because in these conditions combat is impossible; all effort is being devoted to keeping the ships from capsizing. The game effects of the various Beaufort scale numbers are described in the table on the next page.

BEAUFORT NUMBER	WIND SPEED	DESCRIPTION	GAME EFFECT
0	0-0.9 knots	Calm	None
1	1-3 knots	Light air	None
2	4-6 knots	Light breeze	None
3	7-10 knots	Gentle breeze	None
4	11-16 knots	Moderate breeze	None
5	17-21 knots	Fresh breeze	None
6	22-27 knots	Strong breeze	Sec. guns reload x1.5 DD gunnery penalty
7	28-33 knots	Moderate gale	Main guns reload x1.5 Sec. guns reload x2 CA gunnery penalty
8	34-40 knots	Fresh gale	Main guns reload x2 BB gunnery penalty Sec. guns cannot fire
9	41-47 knots	Strong gale	Main guns reload x2.5 No torpedo firing No smoke
10	48-55 knots	Storm	Main guns reload x3 No torpedo firing No smoke

*Unless specified, all previous effects from a lower Beaufort scale apply to higher scales.*

## Visibility

### *Maximum Spotting Ranges*

In order to have combat you must be able to see the enemy ships; unlike land warfare, there is no terrain to impede your line-of-sight in naval combat. The curvature of the earth and the size of the ships limit the distance at which ships can spot each other. The basic spotting distances in clear, calm weather are:

	BB/CV	CA	DD
BB/CV	40,000 yds	38,000 yds	34,200 yds
CA	38,000 yds	36,000 yds	31,400 yds
DD	34,200 yds	31,400 yds	21,200 yds

Battleships can see farther because their superstructures are taller and allow sighting farther over the horizon than cruisers and destroyers. Conversely, this same superstructure can also be spotted by enemy ships at longer ranges.

### *Weather and Visibility*

Visibility is affected by both cloud conditions and at the higher Beaufort levels, the surface conditions on the sea. The average distance of visibility in each weather area appears on the Strategic Map as a range in yards (the ranges are the distances at which one battleship can spot another).

### *Land*

Waters close to land are likely to be subject to local fogs not present farther out at sea.

### *Night and Day*

All battles were fought with visually sighted weapons. Twilight conditions also apply during sunrise/sunset. While the difference between night and day has its most marked impact during engagements, it does have an important, yet subtle, impact on strategic operations. Specifically, visibility at night is far more limited than during the day regardless of cloud and sea conditions. Thus, even in extremely good weather spotting is a chancy proposition, since two ships may pass quite closely in the night without seeing each other.

## THE GNB5 SCENARIO EDITOR

The GNB5 SCENARIO EDITOR allows the creation of truly custom scenarios, allowing the player complete control over the deployment of ships and management of bases. Existing scenarios can also be edited, to allow an almost infinite potential for “What If?” scenarios.

The GNB5 SCENARIO EDITOR’s controls operate in the same manner as GREAT NAVAL BATTLES VOL. IV, using a menu bar, and various maps, panels, and windows. Designing a scenario is very similar to playing a GREAT NAVAL BATTLES VOL. V campaign. In the campaign scenario, the player is presented with a set of bases and the forces that are assigned to them. The GNB5 Scenario Editor takes this one step further by allowing the player to decide which bases are to be used, who controls them, and what forces are assigned to those bases; from small surface engagements between squadrons of destroyers to mighty fleets.

### GETTING STARTED

From the **C:\GNB5** prompt, type **EDITOR5.EXE**. When the **GNB5 Scenario Editor** is first started, the screen consists of three panels. The Map panel bears the legend Bergen, and the Options panel appears just below it. The long panel down the right side is the Display panel. This is the BASE screen. Scenario design is performed in a series of steps which establish:

- 1) Which map the scenario uses.
- 2) Which bases are active in the scenario, and their logistics.
- 3) Which ships are deployed.
- 4) The content, starting position, orders, and formation of all task forces that take part in the scenario.

### MENU BAR

The menu bar is activated by right-clicking or pressing Esc, and contains five pull-down menus. Many of these menu options are the same as those in the game, and you are referred to where instructions on those can be found. **Note:** As long as the menu bar is active, no other controls can be used until some menu option is used or the menu bar is closed by right-clicking or pressing Esc.

Using the menus that are contained on the menu bar, primarily those found on the SCREENS menu, the scenario begins to take shape as each building block falls into place.

### Buttons and Windows

Many functions in the GNB5 Scenario Editor utilize radio buttons, which usually toggle items, and larger rectangular buttons, which frequently open up windows. Many windows have two buttons, OK and CANCEL, which complete the current operation or abort the current operation and return to the previous screen.

## CONTROLS MENU

### Using the Mouse

The mouse buttons can be used three different ways:

*LEFT-CLICK*: This means moving the cursor over something on the screen and pressing the left mouse button once. This is how most buttons, both radio and rectangular, are used.

*DOUBLE LEFT-CLICK*: This means moving the cursor over something on the screen and pressing the left mouse button twice quickly. This is how most items on lists are selected.

*RIGHT-CLICK*: This toggles the menu bar on and off.

The CONTROLS menu offers options that define the scenario such as weather, the beginning and ending dates, and a description.

### Description Menu (Alt-D)

The first step in designing a scenario is to write a description for it so that it can be differentiated from other, similar scenarios. Activate the menu bar and CONTROLS pull-down menu. Select the DESCRIPTION option (Alt-D), which opens the Description window. Enter a description of up to 224 characters by left-clicking on each line as the line above is filled.

### Date / Time Menu (Alt-T)

A scenario must have specific beginning and ending times. Open the Dates and Times window by selecting the DATE/TIME option from the CONTROLS menu or pressing Alt-T. Set the starting time and date and ending time and date using the scroll arrows on each display. Take care to set the ending date later than the beginning date! The GNB5 Scenario Editor does not restrict use of ships according to when they became available. Any ship can be used in any scenario.

### Weather Menu (Alt-W)

The Weather window allows the setting of weather conditions based on the Beaufort Scale, visibility, wind direction and wind speed. See “The Environment” section on page 64 for a description of the effects of weather on combat.

## SCREENS MENU

The ships selected for a scenario, forces assigned to bases, the composition of task forces are determined using the selections from the SCREENS menu.



## Base Screen

### Map Panel

The Map Panel shows the bases that existed historically, and what their historical roles were. Moving the cursor over a base shows the base name in the display at the bottom of the map. Map filters, zoom controls and cursor controls are the same as in the regular game. Please refer to page 14 for more detailed information.



### ***Region Maps***

The next step in designing a new scenario is to decide which region map to use and which bases are active. Activate the menu bar by right-clicking or pressing Esc, go to the Files menu and left-click on NEW, or simply press Alt-N. The New Scenario window opens, giving an option to use one of three maps: Britain/France, Mediterranean, or North Atlantic. A button next to each region selects that region, and left-clicking on the OK or CANCEL buttons confirms the choice or closes the window. On the maps an British base is shown as a grey rectangle with a red “X” in it, while a German base is a grey rectangle with a blue “X”. Moving the cursor over a base shows the base name in the display at the bottom of the map. The “X” indicates unloading points for each base.

### ***Base Selection***

Once a region has been chosen the active bases must be selected for each side, British and German. At least one base on each side must be switched to Active for the scenario to be complete. At the top of the Display panel are radio buttons labeled Active and Inactive. All bases are Inactive when the GNB5 Scenario Editor is started. Scroll to the name of the base to be activated or left-click on the map icon to select it, then left-click on the Active radio button. The map icon changes to a flag of the appropriate side, either British or German.

### ***Options Panel***

The buttons on the Options panel access the windows which allow certain functions of each base to be set up. The CHANGE SIDE, NEXT BASE, and PREV BASE buttons are active when the GNB5 Scenario Editor is started. Once a base has been made Active, the BASE, and LOGISTICS buttons become available.

### ***Change Side Buttons***

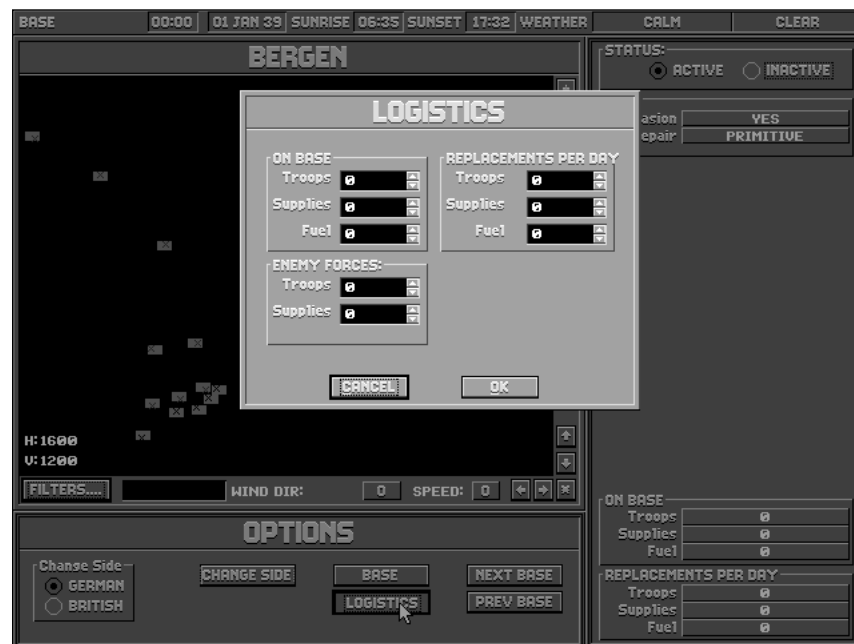
A set of radio buttons in a box marked Change Side bear the legends BRITISH and GERMAN. The radio buttons alter which side is being set up; in other words, to activate British bases, the BRITISH button must be selected. Each side needs to be set up before a scenario is complete. The CHANGE SIDE button toggles the ownership of the currently selected base from BRITISH to GERMAN and back again.

### ***Base Button and Window***

Left-clicking on the BASE button opens the Base Data window. Controls in this window set the victory point value of the base. The victory point value can be entered using the scroll buttons next to each display, or by clicking in the display and entering the numbers directly.

### Logistics Button and Window

The Logistics window is where the initial levels and replacement rate of ground troops, supplies, and fuel are set for a base. There are three sets of displays; On Base, Replacements Per Day, and Enemy Forces. Depending on the capabilities of each base, values can be changed in each of these displays using the scroll arrows or by entering the number directly. The Enemy Forces control is lighted only if ground attack of the base is possible. If a base is subject to ground attack, the Display panel shows a “Yes” next to the legend Invasion.



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*Some bases are not subject to invasion because GREAT NAVAL BATTLES VOL. V requires that each scenario have two active bases for ships to return to, one for each side.*

---

### ***Next Base and Prev Base Buttons***

These buttons move the map cursor from base to base among the bases controlled by the currently selected side.

### ***Display panel***

This panel has no identifying legend, but displays important information about the currently selected base. There are 5 displays on this panel labeled Base, On Base, and Replacements Per Day.

#### ***Base Display***

Important details about the currently selected base are listed on this display, however only one of the seven lines can be affected by changes made using the options panel. The lines on the Base display are:

INVASION: This line reads “Yes” or “No” depending on whether or not the base is subject to invasion.

TYPE: This line shows what kind of base this is. All bases at this time are Ports.

STATUS: The display can read either Undamaged or Damaged. This is the one item that can be affected using the Options panel. The scenario may be started with the runway in either Undamaged or Damaged condition.

REPAIR: This shows the repair capacity of the selected base. The values are Advanced, Average, Primitive, and None.

#### ***On Base***

These three displays show the number of troops, amount of supplies, and fuel at the currently selected base.

#### ***Replacements Per Day***

These three displays show the number of troops, amount of supplies, and fuel arriving each day to replace casualties and replenish stores.

## **Ships Screen**

After deciding which bases are to be used, the next step in scenario construction is to select the ships which will fight this scenario. Pressing F3 or selecting the SHIPS option from the SCREENS pull-down menu displays a Map panel, Options panel and Ship Data panel.

### ***Map Panel***

The Map panel is largely inactive on this screen. No bases may be selected on this screen, but it does show the active bases for each side. Selection of bases for placement of ships should be done using Map panel on the BASE screen or by using the Add or Setup windows described below. Until a ship is selected the top of the Map panel bears the legend NONE. After any ship is chosen, the currently selected ship name will appear here.

### ***Options Panel***

#### ***Change Side Buttons***

These radio buttons serve the same function that they do on the BASE screen. Changing the active side from British to German is achieved by means of the BRITISH and GERMAN buttons.

#### ***Add Ship Window***

Left-clicking on the ADD button opens the Add Ship window. Every ship available to the currently selected side is listed here, and can be chosen by double left-clicking on it.

#### ***Ship List***

The first column is the ship type and class, the second column is the ship name, and the third column is the month and year that the ship became available. **Note:** Any ship can be selected regardless of the scenario's starting and ending date. These dates have been included for your reference only. Once a ship has been selected, its class and name appears at the top of the Map panel. The name of the currently selected ship is listed here.

### *Arrival Day*

This is the number of days before a ship becomes available within the scenario. Ships can be assigned to arrive up to 199 days from the scenario's beginning. Be careful not to assign an arrival date beyond the end of the scenario!

### *Port*

This display allows scrolling through the available bases where ships can begin the scenario.

### ***Remove Ship Window***

Left-clicking on the REMOVE button opens a screen which allows the removal of the currently selected ship. Left-clicking or pressing "Y" for yes removes that ship; the next ship in the queue is then listed as the currently selected ship.

### ***Next Ship and Prev Ship Buttons***

These buttons cycle forwards and backwards through the ships that have been selected. The name of the currently selected ship appears at the top of the Map panel.

### ***Setup Button and Window***

The Setup window allows the initial status of each ship to be set or changed if editing an existing scenario.

LOCATION: These radio buttons allow the selection of starting positions: At Sea, In Port, and In Transit.

PORT: The starting position of ships can be changed using the scroll arrow at the end of this display.

ARRIVAL DAY: This is the number of days before a ship becomes available within the scenario.

TF: This allows the assignment of ships to existing task forces.

### ***Ships Display***

This display shows the total number of ships currently selected for a scenario. While you may have up to 100 ships for each side, bear in mind that scenarios with large numbers of ships will play more slowly.

### ***Cargo Button and Window***

The Cargo window has three displays; Troops, Supplies, and Fuel. The ship's capacity in troops and supplies is also shown. Each ship starts out fully fueled, but this can be adjusted for the purpose of the scenario using the scroll arrows at the end of the display. The number of troops and supplies are also controlled using the arrow keys or by entering the number directly. After these settings are made, the amounts appear in the Cargo display on the Ship Data panel.

### ***Ship Data Panel***

The Ship Data panel displays information about settings chosen for the currently selected ship using the Options panel controls. The three displays are General, Cargo, and Navigation.

#### ***General Display***

PORT: This line shows the name of a port if the settings In Port or In Transit were chosen in the Setup window. Otherwise this reads "At Sea."

ARRIVAL: This line shows the number of days before a ship arrives in port if it is In Transit or At Sea.

TF: If a ship has been assigned to a task force (TF), then its TF identification is displayed here. Otherwise this line reads NONE.

#### ***Cargo Display***

The selected ship's current load of fuel, troops and supplies are displayed on this line.

#### ***Navigation Display***

This display shows the basic speed and course of the currently selected ship.



### TF (Task Force) Screen

This screen is chosen by pressing F2 or by selecting the TF option from the SCREENS pull down menu. The TF screen is where task forces are created, formations are assigned, orders are given, and starting positions are determined. Task forces are created using the ships selected using the SHIPS screen as described in the

previous section. While you can make all task forces with the maximum capacity of fourteen ships, it is recommended that you follow these guidelines:

Surface Groups: 6–8 ships

Supply TFs: 10–12 ships

The main features of the TF screen are similar to the Ships and BASE screens, with Map and Options panels, and the TF Data panel.

### ***Map Panel***

The Map panel shows the position of active bases and task forces (TFs), once they have been created. Existing TFs can be selected using the Map panel by moving the cursor brackets over a TF of the currently selected side and left-clicking. Until a TF has been created, the legend at the top of the Map panel says NONE. Once one or more have been created, the legend bears the identification of the currently selected TF.

### ***Options Panel***

The TF screen Options panel has similar features to those found on the Options panels of other screens, the NEXT TF, PREV TF buttons and the Change Side radio buttons. NEXT TF and PREV TF buttons cycle forward and backward through the TFs once they have been created. The Change Side buttons toggle between the currently active sides.

The other five buttons; ADD, REMOVE, FORMATION, POSITION, and ORDERS have unique purposes.

### ***ADD Button and TF Windows***

#### ***TF Mission***

Left-clicking on the ADD button opens the TF Mission window, where four mission choices are listed.



The choices are:

**BOMBARDMENT:** Orders selected ships to bombard the targeted enemy base. Battleships (BBs) or heavy cruisers (CAs) must be part of a group assigned to a bombardment mission.

**TRANSPORT:** Orders ships to move loaded supplies to targeted base. You must have transports before you can assign this mission, and they may or may not be loaded.

**SURFACE ACTION:** Orders selected ships to conduct a surface action near a targeted base or spotted enemy task force.

**DEFEND BASE:** Orders selected ships to defend targeted bases from enemy forces near that base. Once the task force has been assembled, a window opens offering a list of bases that can be defended. Left-clicking on the name or base icon of the base to be defended assigns that task force to that mission.

#### *New Task Force Window*

After a mission has been chosen, the New Task Force window opens with a list of available ships and an empty list. At the bottom is the Task Force Name display. Double left-clicking on the name of a ship assigns it to the task force in the display. Left-clicking on the CANCEL button returns to the TF screen. The OK button completes the selection and opens the Flagship window, where double left-clicking on one of the ships selects it as a flagship. The Set Position window then opens and the starting position for the task force is selected on the map panel. Once the starting position is chosen, the Destination window opens, and a destination may be chosen on the map. **Note:** setting a destination is not required, particularly if the TF is to be given orders using the ORDERS button.

#### ***REMOVE Button and Remove TF Window***

The REMOVE button opens the Remove TF window, which asks if the currently selected TF is to be removed. Left-clicking on YES removes the TF and returns the ships to available status. The No button returns to the TF screen.

### ***FORMATION Button and Formation Window***

A task force's formation defines the relative positions that the ships attempt to maintain. Relative position is a critical factor in battle, because proper positioning enables your ships to maximize their effectiveness against the enemy, while the wrong formation can minimize their impact or make them vulnerable to devastating attacks.

The possible formations are:

**LINE AHEAD:** The ships steam in a column, one following another, with the flagship in the middle. When you select this option, you are given an opportunity to specify the distance between ships.

**LINE ABREAST:** The ships steam in a row, one beside another, with the flagship in the middle. When you select this option, you are given an opportunity to specify the distance between ships.

**SCREEN:** The ships form a tight, circular group with the destroyers on the outside but close to the heavier ships to provide an all-around defense.

**CUSTOM:** This option enables you to have the ships take any relative positions you desire. When you choose it, you see a display with a task force list and a small map view showing the TF's current relative positions. When you select a ship's name from the list, it is highlighted by an orange box on the map. When you left-click on the map, the ship's icon moves to that location. Once you have positioned all the ships where you want them to be relative to each other, left-click on the OK button.

If you want to spread the ships out beyond the area currently displayed, you can either scroll using the horizontal and vertical scroll bars, or zoom out by pressing the “-” control to the upper right of the map. Similarly, if you want to position two ships more precisely, you can increase the zoom level by pressing on the “+” button.

### ***POSITION Button and TF Position Assignment***

The POSITION button activates a cross hair cursor which allows the currently selected TF to be positioned or re-positioned on the Map panel. The CANCEL button returns to the TF screen.

### ***ORDERS Button and Set Orders Window***

Left-clicking on the ORDERS button opens the Set Orders window. Once one of the four types of orders listed here is chosen, the OK button confirms the choice and the CANCEL button returns to the TF screen.

The four choices for orders are:

#### ***Plot Course***

When you choose this option and left-click OK, the Set Plot window appears and the map clears. You can use the cursor to enter up to 10 way-points. Once you left-click OK on Set Plot, the ship moves from its present position to the first way-point; from there to the second; and so on, until it reaches the last.

#### ***Patrol Box***

This command is much like Plot Course, except that you designate four points which form the four corners of the box that the ship will move around.

#### ***Patrol Line***

Patrol Line is like Patrol Box, except that the TF travels between the two points you designate.

#### ***Return to Base***

When you select this option and left-click on OK, the Select Base window appears. Double left-click on a base name in the list and the computer plots a course for the ship to move there.

### ***TF Data Panel***

This panel displays information about the currently selected task force. The Taskforce list shows the name of the ships in the task force. Below that is the Mission display which shows the current mission and its status. Next is the Orders display which contains the Type of orders and the Base the TF is assigned to. Finally, the Formation display shows the formation chosen in the Formation window.

The options on the **REPORTS** menu compile important information from many of the screens you have completed and presents it in an easy to use format.

**Visibility**

Destroyers, cruisers and battleships have observation towers of different heights. The ranges at which the different sized ships can spot each of the other sizes of ships is shown here. If radar is in use, it is indicated as well.

**Reinforcements**

This menu option lists upcoming reinforcements if ships were assigned a starting date other than the beginning of the scenario while using the **SHIPS** screen (F3).

**Bases**

The Base Report window lists all of the bases shown by the Map panel. The base name appears first, followed by the status, either Active or Inactive. The last column indicates which side controls the base, Allied or Axis. Double left-clicking on the name of a base changes to the **BASE** screen and selects the base.

**Task Forces**

The TF Report window lists the task forces for the currently selected side, listed by the task force identification followed by the flagship name. Double left-clicking on the line of a task force changes to the **TF** screen and selects the task force.

**Ships**

The Ships window lists the ships for the currently selected side, listed along with the task force or port each ship is in. Double left-clicking on a ship changes to the **SHIP** screen and selects that ship.

These menus are identical to the Briefings menus in **GREAT NAVAL BATTLES VOL. V**. Please refer to the **BRIEFINGS** menu section starting on page 12.

## TUTORIAL SCENARIO

GREAT NAVAL BATTLES VOL. V is a detailed simulation of naval combat during WWI. As such, you the player manage tasks that would normally be carried out by hundreds of trained officers and enlisted men. This tutorial introduces you to the GREAT NAVAL BATTLES VOL. V interface by running you through an engagement between British and German surface groups.

This tutorial demonstrates how to navigate a task force and make a torpedo run. Gunnery is handled by the game's artificial intelligence, although if you want to handle gunnery manually, please refer to the manual's "Main Gunnery Control" section on page 34. This is not a "canned" scenario; the German side may not make the job easy, and you are not guaranteed to emerge victorious, but you will be exposed to the basics of the game.

### GETTING STARTED

Begin by selecting SCENARIO from the Game Options window, which opens the Difficulty window. Select the INTERMEDIATE difficulty setting. You may choose BEGINNER if you wish; if you do so, the German taskforce (TF) is the gray icon on the map to the west of your TF, which is in red. On intermediate, enemy movement is hidden until line of sight is established, then the German TF appears in blue.

Next, select British in the Select Side window by left-clicking on the British flag or the highlighted British button. In the Select Scenario window, left-click on the NEXT button until the scenario description reads "Tutorial Scenario." Then left-click on LOAD.

The first screen you see after loading the scenario is the Flagbridge screen. You are in command of a small task force consisting of a heavy cruiser and four destroyers, TF 01. The Flagbridge screen is where you plot the movement of your task force and give orders to other forces at your command. On the Map panel, the black line leading to the north shows TF 01's currently plotted course and the white numbers in the lower left corner show the zoom level as H50xV37. Use the "-" button at the upper right corner of the Map panel to zoom out once.

The Status bar is the bar near the bottom of the screen with six rectangular buttons. Each of these buttons allows you to access important sections of the game. Below that is the Message bar, which allows you to display messages, switch between your taskforces and bases, display the elapsed time, change the game speed setting, as well as pause and resume the game.

All scenarios begin paused, giving you time to issue orders before starting play.

## Initial Commands

An experienced commander prepares his forces prior to contact with the enemy because when you see them, it may be too late to issue orders.

### **Commanding** TF 01

If you zoom in on your map (left-clicking on the “+” button), you’ll see that you have a heavy cruiser and four destroyers in a “Line Ahead” formation. One of your ships, the *HMS Bacchante* has both a small white square and a small white “+” on top of it. The square indicates that this ship is the flagship of your task force and the “+” means that it is also the lead ship of the task force. These designations are important because *all navigation orders must be given from the Flag Bridge of the flagship*. The lead ship acts as the basis for formations and maneuvers made by the task force. Sometimes the lead ship and flagship are two different ships in a task force. Other orders, such as torpedo fire authorization are controlled from the bridge of each ship. The default setting enables the ships to fire if necessary — you are at war after all.

### **Changing Course**

Left-click on the NAV button on the Status bar to change from the Ships panel to the Navigation panel. Left-click on the Manual button to take control of the bridge. The SET SPEED and SET ORDERS buttons become active. Left-click on the SET ORDERS button. In the Set Orders window that opens are twelve possible choices. Select Plot Course and left-click on OK. The black line disappears which indicated TF 01’s previous course. You are now prompted to set the way points of your course. The cursor changes to a cross shape which you should place on the Map panel at a point near the map edge, due east. You can set up to ten way points, but for now one will do. You can left-click on REPLOT LAST if you want to change the plot. When you are satisfied, left-click the OK button. The black line should reappear, between the TF and the point you selected. No click on the GO button in the lower right corner to resume the scenario.

### **Begin Scenario**

Left click on the GO button in the lower right hand corner to start the scenario. After a few seconds, the game notifies you that there are no enemy ships. When you clear this message, the game shifts into a x16 game speed mode. TF 01 will move across the map until the enemy TF is spotted.

### ***Close In***

The enemy is at extreme range now, so the distance will need to be closed in order to make launching torpedoes more practical. The game speed setting drops to x1 automatically when enemy ships come into view. It would take hours to close the distance at that rate, so increase the game speed using Alt-T, or left-clicking on the “x1” button next to the red STOP button, to open the Game Speed window and increase the game speed to x3 or xA until you are within torpedo range.

As the enemy TF becomes visible, adjust TF 01’s course to run as close to parallel as possible so that all of your ships guns and torpedoes may fire. You may need to pause and resume a few times to achieve this. Plot a course that brings you close to the German ships, within 15,000 yards. Don’t get too close; your torpedoes won’t arm if you are within 1,000 yards and the enemy *will* be shooting at you. TF 01 will be firing back if the Fire button is active on the Ships panel. When you are not actively changing the course settings, switch back to the Ships panel using the SHIPS button. From here you can move to the bridge of individual ships in order to operate their guns and torpedoes. Double left-click on the first destroyer on your ship list to select it and change to the Ship Bridge station for that ship. Select TORP from the bottom menu. Switch the control to Manual and you should be ready to begin your attack.

### ***Launching Torpedoes***

Resume the game (remember the green GO button) and allow your ships to close to a parallel position less than 15,000 yards from the enemy and then pause the action. Gunnery and Torpedo Stations start under computer control so to take over manual control you need to select the Torpedo Mount station using the top menu (or press F5) and switch the control to Manual. Please note that this only allows you to manually control the torpedoes on this ship. Unlike navigation and gunnery, torpedoes must be controlled from *each individual ship*. If you want to manually control the torpedoes for each ship in your task force, you need to access each ship separately and switch the torpedo stations to manual. You can switch to another ship’s bridge in one of three ways: by using the Ships button on the Flag Bridge, by using the map screen to click on a different ship icon in your task force, or by clicking on the up and down arrows next to the name of the ship in the menu at the bottom of all screens except the Flagbridge screen.

When you have closed to within 15,000 yards slow the game speed down to x1. Switch to any of your destroyers, and examine the Torpedo Mount station by pressing F5. The numbered green lights and switches are the actual tubes available on this mount (in this case, two tubes). Pause the game to give yourself time to consider your choice of targets, and set the mount to manual by left clicking on the Auto/Manual switch on the upper left corner of the mount. The other dials and switches control the range setting, spread, and target direction. To set a target, click on the black box under the Compute button (there may be a contact name or ship's name there already). This brings up a target list for you to select a from by left-clicking on it. On the edge of the compass dial you will notice a thick red line; this indicates the actual position of the target ship in relation to your ship. The thin white line indicates the direction of fire of the torpedoes and the orange area indicates the mount's firing arc. Left-click on Compute to automatically compute and update the range and heading calculations needed to fire your torpedoes. If the thin white line is in the orange zone, you are ready to fire. Check the range to target and compare it to the range settings for your torpedoes. You may have to change the settings from Short to Medium or Long in order to be effective. Click on the fire button and your torpedoes are away! If you click on the handles to the left or right of the mount you can bring up a second mount (if available). This must be set to manual and then, using the process described above, you can launch another spread of torpedoes (if the enemy ships are in the correct target zone). If you look through the scope, you should be able to see the enemy ships.

If you switch back to the Ship Bridge station or Flagbridge station (one with a map), you can actually see the torpedoes you just fired speeding on their way. With luck you'll see your first victim sink from your hits!

### **Tutorial Options**

You can continue to fight this scenario out using your remaining torpedoes and gunnery, or use the orders setting on the Navigation panel to order your ships to Return to Base. For more practice, try the same scenario at a higher difficulty level. If you lost this time, try it again at the lower difficulty level unit you are more comfortable with the game play and interface.



## SHIPS

**Class:** General type, usually the name of the first vessel commissioned. Note that minor variations usually exist between vessels in the same class; all statistics here are for the first ship unless otherwise indicated.

**Year:** Year that this ship was first launched.

**Length:** Length of ship at waterline in feet.

**Beam:** Width of the ship.

**Displacement:** Standard measurement of ship's weight in tons.

**Complement:** The number of crewmen.

**Max Speed:** Maximum speed in knots.

**DC Party:** The number of damage control parties.

**Pumps:** Number of water pumps available to the ship.

**Cruise Speed:** Normal cruising speed of the ship.

**Cargo Capacity:** Number of supplies or troops that ship can carry.

**Main Guns:** Primary armament of the ship. The number and bore diameter of the largest guns in inches.

**Secondary Guns:** The number and bore diameter of next largest guns.

**Torpedoes:** The number of tubes.

**British Ships**  
*Battleships*

(no historical reference available)

*Majestic Class*

**General Data**

**Year:** 1896

**Length:** 421

**Beam:** 75

**Displacement:** 14,560

**Complement:** 672

**Max Speed:** 17

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 10

**Cargo Capacity:** 0

**Weapons**

**Main Guns:** 4-12"

**Secondary Guns:** 12-6"

(no historical reference available)

*Conopus Class*

**General Data**

**Year:** 1898

**Length:** 421

**Beam:** 74

**Displacement:** 13,150

**Complement:** 682

**Max Speed:** 18

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 10

**Cargo Capacity:** 0

**Weapons**

**Main Guns:** 4-12"

**Secondary Guns:** 12-6"

**British Ships**  
***Battleships***

*(no historical reference available)*

***Formidable Class***

***General Data***

**Year:** 1898

**Length:** 432

**Beam:** 71

**Displacement:** 14,500

**Complement:** 780

**Max Speed:** 18

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 10

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 4-12"

**Secondary Guns:** 12-6"

*(no historical reference available)*

***London Class***

***General Data***

**Year:** 1899

**Length:** 432

**Beam:** 75

**Displacement:** 14,500

**Complement:** 714

**Max Speed:** 18

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 10

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 4-12"

**Secondary Guns:** 12-6"

**British Ships**  
***Battleships***

*(no historical reference available)*

***Duncan Class***

***General Data***

**Year:** 1901

**Length:** 432

**Beam:** 75

**Displacement:** 13,270

**Complement:** 720

**Max Speed:** 19

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 10

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 4-12"

**Secondary Guns:** 12-6"

*(no historical reference available)*

***King Edward VII Class***

***General Data***

**Year:** 1903

**Length:** 453

**Beam:** 78

**Displacement:** 15,585

**Complement:** 777

**Max Speed:** 19

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 10

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 4-12"

**Secondary Guns:** 14-6"

**British Ships**  
***Battleships***

*(no historical reference available)*

***Lord Nelson Class***

***General Data***

**Year:** 1906

**Length:** 443

**Beam:** 80

**Displacement:** 16,090

**Complement:** 800

**Max Speed:** 18

**DC Party:** 3

**Pumps:** 3

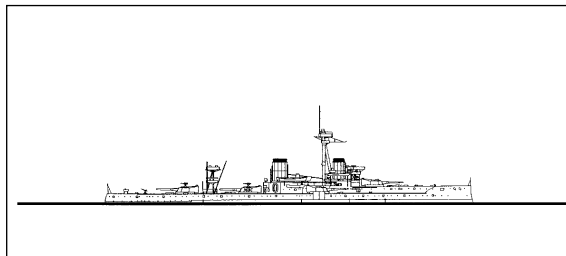
**Cruise Speed:** 10

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 4-12"

**Secondary Guns:** 10-9.2"



***Dreadnought Class***

***General Data***

**Year:** 1906

**Length:** 527

**Beam:** 82

**Displacement:** 18,110

**Complement:** 750

**Max Speed:** 21

**DC Party:** 4

**Pumps:** 4

**Cruise Speed:** 10

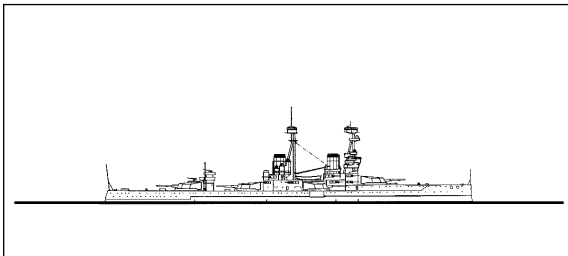
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 10-12"

**Secondary Guns:**

**British Ships**  
***Battleships***



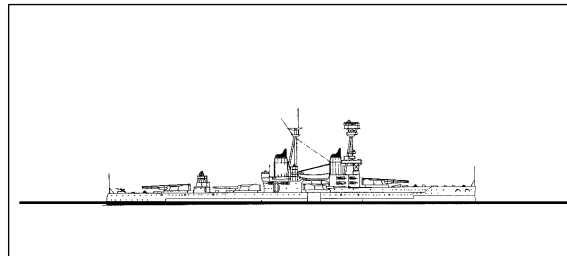
***Bellerophon Class***

***General Data***

**Year:** 1907  
**Length:** 526  
**Beam:** 82  
**Displacement:** 18,800  
**Complement:** 733  
**Max Speed:** 21  
**DC Party:** 4  
**Pumps:** 4  
**Cruise Speed:** 10  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 10-12"  
**Secondary Guns:** 16-4"



***St Vincent Class***

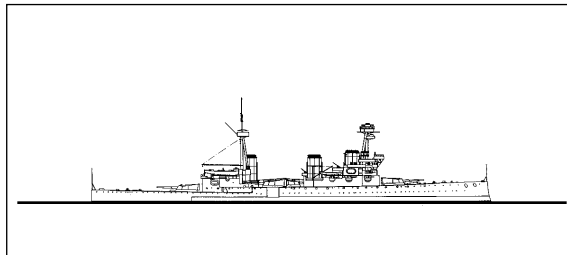
***General Data***

**Year:** 1910  
**Length:** 536  
**Beam:** 84  
**Displacement:** 19,560  
**Complement:** 718  
**Max Speed:** 21  
**DC Party:** 4  
**Pumps:** 4  
**Cruise Speed:** 10  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 10-12"  
**Secondary Guns:** 17-4"

**British Ships**  
***Battleships***



***Invincible Class***

***General Data***

**Year:** 1907

**Length:** 567

**Beam:** 79

**Displacement:** 17,373

**Complement:** 784

**Max Speed:** 26

**DC Party:** 4

**Pumps:** 4

**Cruise Speed:** 10

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-12"

**Secondary Guns:** 16-4"

*(no historical reference available)*

***Neptune Class***

***General Data***

**Year:** 1909

**Length:** 546

**Beam:** 85

**Displacement:** 19,680

**Complement:** 759

**Max Speed:** 21

**DC Party:** 4

**Pumps:** 4

**Cruise Speed:** 10

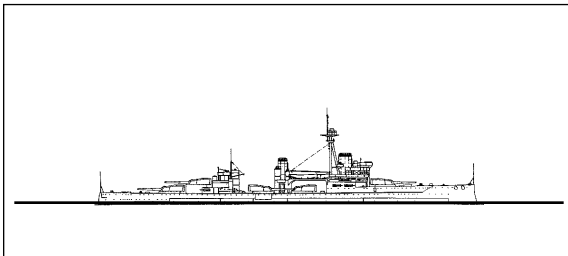
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 10-12"

**Secondary Guns:** 16-4"

**British Ships**  
***Battleships***



***Colossus Class***

***General Data***

**Year:** 1911

**Length:** 546

**Beam:** 85

**Displacement:** 20,225

**Complement:** 755

**Max Speed:** 21

**DC Party:** 4

**Pumps:** 4

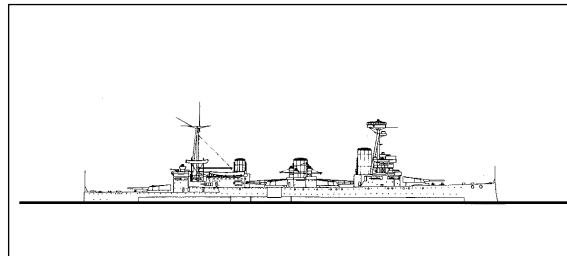
**Cruise Speed:** 10

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 10-12"

**Secondary Guns:** 16-4"



***Indefatigable Class***

***General Data***

**Year:** 1911

**Length:** 590

**Beam:** 80

**Displacement:** 18,500

**Complement:** 800

**Max Speed:** 25

**DC Party:** 4

**Pumps:** 4

**Cruise Speed:** 10

**Cargo Capacity:** 0

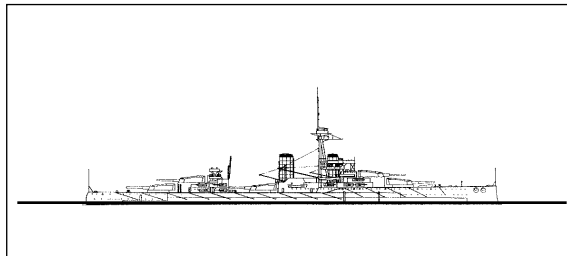
***Weapons***

**Main Guns:** 8-12"

**Secondary Guns:** 16-4"



**British Ships**  
***Battleships***



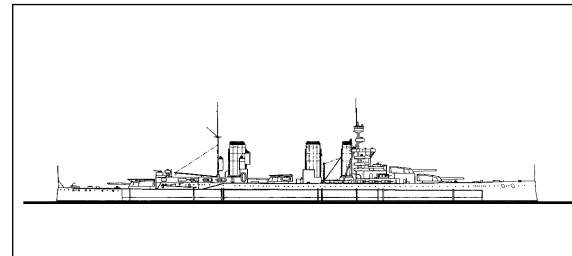
***Orion Class***

***General Data***

**Year:** 1911  
**Length:** 581  
**Beam:** 88  
**Displacement:** 22,200  
**Complement:** 752  
**Max Speed:** 21  
**DC Party:** 4  
**Pumps:** 4  
**Cruise Speed:** 10  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 10-13.5"  
**Secondary Guns:** 16-4"



***Lion Class***

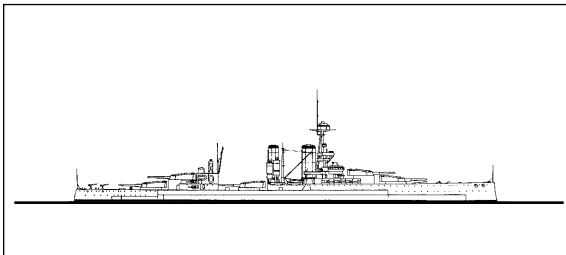
***General Data***

**Year:** 1910  
**Length:** 700  
**Beam:** 88  
**Displacement:** 26,270  
**Complement:** 997  
**Max Speed:** 27  
**DC Party:** 4  
**Pumps:** 4  
**Cruise Speed:** 10  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-13.5"  
**Secondary Guns:** 16-4"

**British Ships**  
***Battleships***



***King George V Class***

***General Data***

**Year:** 1911

**Length:** 597

**Beam:** 89

**Displacement:** 23,000

**Complement:** 782

**Max Speed:** 21

**DC Party:** 4

**Pumps:** 4

**Cruise Speed:** 10

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 10-13.5"

**Secondary Guns:** 16-4"

*(no historical reference available)*

***Queen Mary Class***

***General Data***

**Year:** 1912

**Length:** 703

**Beam:** 89

**Displacement:** 26,770

**Complement:** 997

**Max Speed:** 28

**DC Party:** 4

**Pumps:** 4

**Cruise Speed:** 10

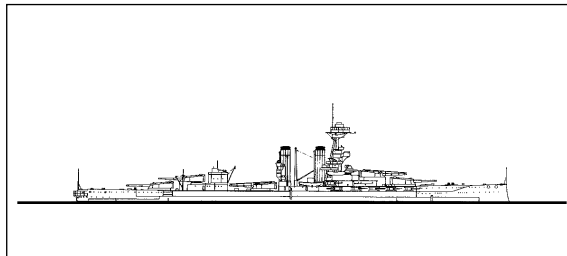
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-13.5"

**Secondary Guns:** 16-4"

**British Ships**  
***Battleships***



***Iron Duke Class***

***General Data***

**Year:** 1912

**Length:** 622

**Beam:** 90

**Displacement:** 25,000

**Complement:** 1022

**Max Speed:** 21

**DC Party:** 4

**Pumps:** 4

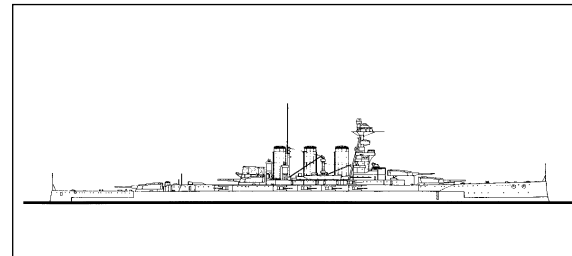
**Cruise Speed:** 10

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 10-13.5"

**Secondary Guns:** 12-6"



***Tiger Class***

***General Data***

**Year:** 1913

**Length:** 704

**Beam:** 90

**Displacement:** 28,430

**Complement:** 1121

**Max Speed:** 28

**DC Party:** 4

**Pumps:** 4

**Cruise Speed:** 10

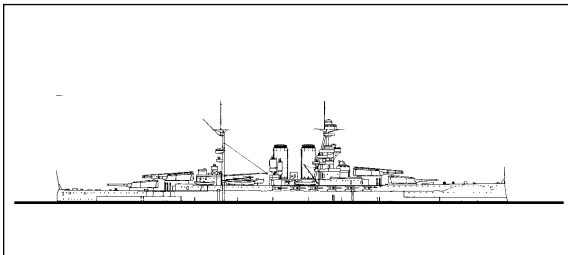
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-13.5"

**Secondary Guns:** 12-6"

**British Ships**  
***Battleships***



***Queen Elizabeth Class***

***General Data***

**Year:** 1913

**Length:** 646

**Beam:** 90

**Displacement:** 27,500

**Complement:** 950

**Max Speed:** 23

**DC Party:** 4

**Pumps:** 4

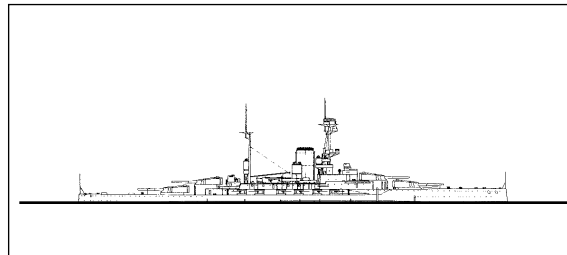
**Cruise Speed:** 10

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-15"

**Secondary Guns:** 12-6"



***Revenge Class***

***General Data***

**Year:** 1916

**Length:** 624

**Beam:** 89

**Displacement:** 28,000

**Complement:** 997

**Max Speed:** 23

**DC Party:** 4

**Pumps:** 4

**Cruise Speed:** 10

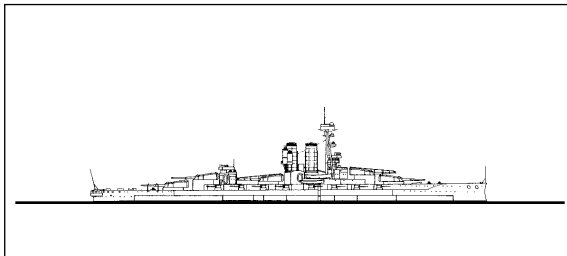
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-15"

**Secondary Guns:** 14-6"

**British Ships**  
***Battleships***



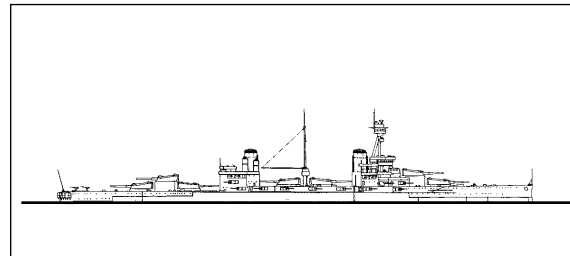
***Erin Class***

***General Data***

**Year:** 1913  
**Length:** 559  
**Beam:** 92  
**Displacement:** 22,780  
**Complement:** 1070  
**Max Speed:** 21  
**DC Party:** 4  
**Pumps:** 4  
**Cruise Speed:** 10  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 10-13.5"  
**Secondary Guns:** 32-6"



***Agincourt Class***

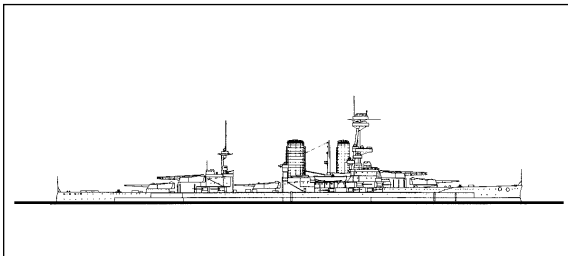
***General Data***

**Year:** 1913  
**Length:** 672  
**Beam:** 89  
**Displacement:** 27,500  
**Complement:** 1115  
**Max Speed:** 22  
**DC Party:** 4  
**Pumps:** 4  
**Cruise Speed:** 10  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 14-12"  
**Secondary Guns:** 14-6"

**British Ships**  
***Battleships***



***Canada Class***

***General Data***

**Year:** 1913

**Length:** 661

**Beam:** 92

**Displacement:** 28,600

**Complement:** 1167

**Max Speed:** 23

**DC Party:** 4

**Pumps:** 4

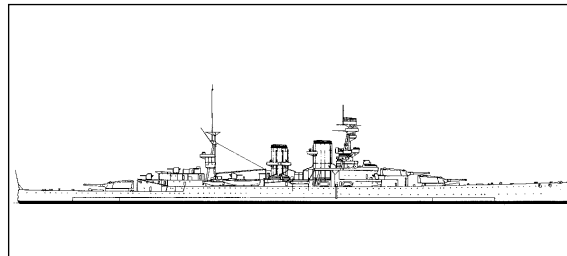
**Cruise Speed:** 10

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 10-14"

**Secondary Guns:** 16-6"



***Renown Class***

***General Data***

**Year:** 1916

**Length:** 794

**Beam:** 90

**Displacement:** 27,650

**Complement:** 850

**Max Speed:** 30

**DC Party:** 4

**Pumps:** 4

**Cruise Speed:** 10

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 6-15"

**Secondary Guns:** 17-4"

**British Ships**  
***Cruisers***

*(no historical reference available)*

***Cressy Class***

***General Data***

**Year:** 1907

**Length:** 440

**Beam:** 70

**Displacement:** 12,000

**Complement:** 760

**Max Speed:** 21

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 12

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 2-9.2"

**Secondary Guns:** 12-6"

**Torpedoes:** 2-18"

*(no historical reference available)*

***Drake Class***

***General Data***

**Year:** 1904

**Length:** 534

**Beam:** 71

**Displacement:** 14,150

**Complement:** 900

**Max Speed:** 23

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 12

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 2-9.2"

**Secondary Guns:** 16-6"

**Torpedoes:** 2-18"

**British Ships*****Cruisers***

*(no historical reference available)*

***Monmouth Class******General Data*****Year:** 1913**Length:** 463**Beam:** 66**Displacement:** 9,800**Complement:** 768**Max Speed:** 23**DC Party:** 3**Pumps:** 3**Cruise Speed:** 12**Cargo Capacity:** 0***Weapons*****Main Guns:** 14-6"**Secondary Guns:****Torpedoes:** 2-18"

*(no historical reference available)*

***Devonshire Class******General Data*****Year:** 1911**Length:** 473**Beam:** 66**Displacement:** 10,850**Complement:** 655**Max Speed:** 22**DC Party:** 3**Pumps:** 3**Cruise Speed:** 12**Cargo Capacity:** 0***Weapons*****Main Guns:** 4-7.5"**Secondary Guns:** 6-6"**Torpedoes:** 2-18"



**British Ships**  
***Cruisers***

*(no historical reference available)*

***Duke of Edinburgh Class***

***General Data***

**Year:** 1916

**Length:** 505

**Beam:** 73

**Displacement:** 13,550

**Complement:** 790

**Max Speed:** 23

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 12

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 6-9.2"

**Secondary Guns:** 10-6"

**Torpedoes:** 2-18"

*(no historical reference available)*

***Warrior Class***

***General Data***

**Year:** 1912

**Length:** 505

**Beam:** 73

**Displacement:** 13,550

**Complement:** 712

**Max Speed:** 23

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 12

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 6-9.2"

**Secondary Guns:** 4-7.5"

**Torpedoes:** 2-18"

## British Ships

### Cruisers

(no historical reference available)

#### *Minotaur Class*

##### **General Data**

**Year:** 1905

**Length:** 519

**Beam:** 75

**Displacement:** 14,600

**Complement:** 755

**Max Speed:** 23

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 12

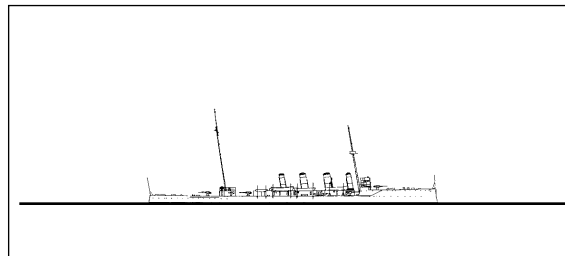
**Cargo Capacity:** 0

##### **Weapons**

**Main Guns:** 4-9.2"

**Secondary Guns:** 10-7.5"

**Torpedoes:** 4-18"



#### *Boadicra Class*

##### **General Data**

**Year:** 1908

**Length:** 405

**Beam:** 41

**Displacement:** 3,300

**Complement:** 317

**Max Speed:** 25

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 12

**Cargo Capacity:** 0

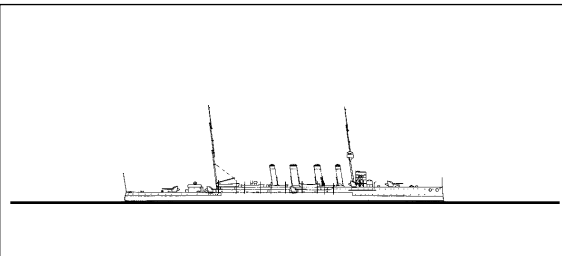
##### **Weapons**

**Main Guns:** 6-4"

**Secondary Guns:** -

**Torpedoes:** 2-18"

**British Ships**  
***Cruisers***



***Weymouth Class***

***General Data***

**Year:** 1910

**Length:** 453

**Beam:** 49

**Displacement:** 5,250

**Complement:** 475

**Max Speed:** 25

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 10

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-6"

**Secondary Guns:**

**Torpedoes:** 2-21"

*(no historical reference available)*

***Chatham Class***

***General Data***

**Year:** 1911

**Length:** 475

**Beam:** 49

**Displacement:** 5,400

**Complement:** 475

**Max Speed:** 26

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 16

**Cargo Capacity:** 0

***Weapons***

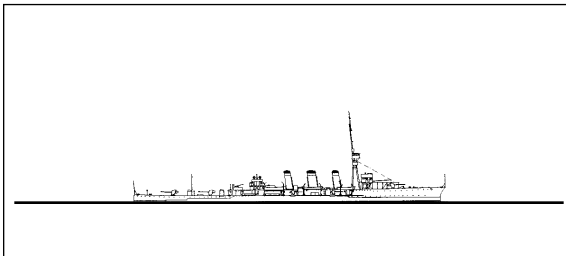
**Main Guns:** 8-6"

**Secondary Guns:**

**Torpedoes:** 2-21"

## British Ships

### Cruisers



*Arethusa Class*

#### **General Data**

**Year:** 1913

**Length:** 436

**Beam:** 39

**Displacement:** 3,750

**Complement:** 282

**Max Speed:** 29

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 16

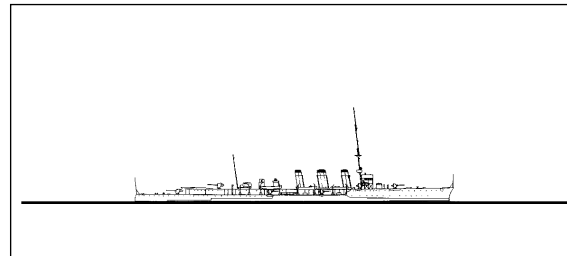
**Cargo Capacity:** 0

#### **Weapons**

**Main Guns:** 2-6"

**Secondary Guns:** 5-4"

**Torpedoes:** 4-21"



*Caroline Class*

#### **General Data**

**Year:** 1914

**Length:** 446

**Beam:** 41

**Displacement:** 4,219

**Complement:** 301

**Max Speed:** 29

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 16

**Cargo Capacity:** 0

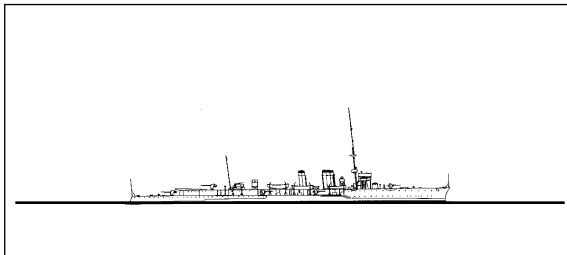
#### **Weapons**

**Main Guns:** 2-6"

**Secondary Guns:** 7-4"

**Torpedoes:** 4-21"

**British Ships**  
***Cruisers***



***Cambrain Class***

***General Data***

**Year:** 1915  
**Length:** 446  
**Beam:** 41  
**Displacement:** 4,320  
**Complement:** 368  
**Max Speed:** 29  
**DC Party:** 3  
**Pumps:** 3  
**Cruise Speed:** 16  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 2-6"  
**Secondary Guns:** 7-4"  
**Torpedoes:** 4-21"

*(no historical reference available)*

***Callipoe Class***

***General Data***

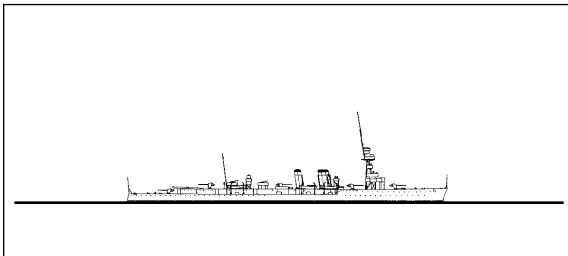
**Year:** 1914  
**Length:** 446  
**Beam:** 41  
**Displacement:** 4,228  
**Complement:** 368  
**Max Speed:** 30  
**DC Party:** 3  
**Pumps:** 3  
**Cruise Speed:** 16  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 2-6"  
**Secondary Guns:** 7-4"  
**Torpedoes:** 4-21"

## British Ships

### *Cruisers*



***Centaur Class***

#### ***General Data***

**Year:** 1916

**Length:** 446

**Beam:** 42

**Displacement:** 4,165

**Complement:** 437

**Max Speed:** 29

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 16

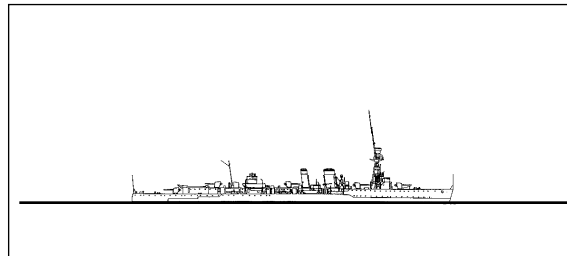
**Cargo Capacity:** 0

#### ***Weapons***

**Main Guns:** 5-6"

**Secondary Guns:**

**Torpedoes:** 4-21"



***Caledon Class***

#### ***General Data***

**Year:** 1916

**Length:** 450

**Beam:** 43

**Displacement:** 4,120

**Complement:** 437

**Max Speed:** 29

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 16

**Cargo Capacity:** 0

#### ***Weapons***

**Main Guns:** 5-6"

**Secondary Guns:**

**Torpedoes:** 8-21"

**British Ships**  
***Cruisers***

*(no historical reference available)*

***Ceres Class***

***General Data***

**Year:** 1917

**Length:** 450

**Beam:** 43

**Displacement:** 4,190

**Complement:** 460

**Max Speed:** 29

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 16

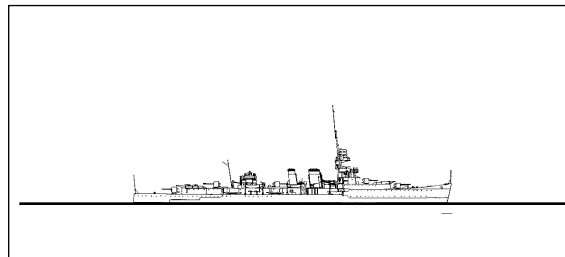
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 5-6"

**Secondary Guns:**

**Torpedoes:** 8-21"



***Capetown Class***

***General Data***

**Year:** 1917

**Length:** 450

**Beam:** 43

**Displacement:** 4,290

**Complement:** 432

**Max Speed:** 29

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 16

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 5-6"

**Secondary Guns:**

**Torpedoes:** 8-21"

**British Ships**  
***Destroyers***

*(no historical reference available)*

***Tribal Class***

***General Data***

**Year:** 1907  
**Length:** 280  
**Beam:** 27  
**Displacement:** 1,050  
**Complement:** 68  
**Max Speed:** 33  
**DC Party:** 1  
**Pumps:** 1  
**Cruise Speed:** 17  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 2-4"  
**Secondary Guns:**  
**Torpedoes:** 2-18"



***Cricket Class***

***General Data***

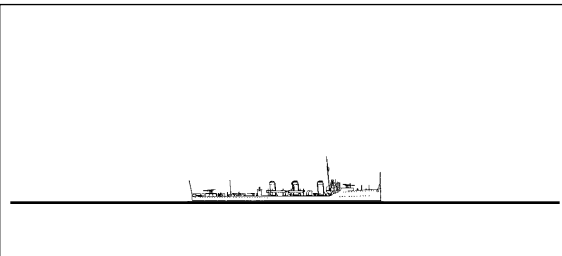
**Year:** 1906  
**Length:** 180  
**Beam:** 18  
**Displacement:** 255  
**Complement:** 35  
**Max Speed:** 26  
**DC Party:** 1  
**Pumps:** 1  
**Cruise Speed:** 14  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 2-4"  
**Secondary Guns:**  
**Torpedoes:** 3-18"



**British Ships**  
***Destroyers***



***Beagle Class***

***General Data***

**Year:** 1909

**Length:** 275

**Beam:** 27

**Displacement:** 945

**Complement:** 96

**Max Speed:** 27

**DC Party:** 1

**Pumps:** 1

**Cruise Speed:** 14

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 1-4"

**Secondary Guns:**

**Torpedoes:** 4-21"

*(no historical reference available)*

***Acorn Class***

***General Data***

**Year:** 1910

**Length:** 246

**Beam:** 25

**Displacement:** 772

**Complement:** 72

**Max Speed:** 27

**DC Party:** 1

**Pumps:** 1

**Cruise Speed:** 14

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 2-4"

**Secondary Guns:**

**Torpedoes:** 2-21"

## British Ships

### *Destroyers*



*Acheron Class*

#### **General Data**

**Year:** 1911

**Length:** 246

**Beam:** 25

**Displacement:** 778

**Complement:** 70

**Max Speed:** 28

**DC Party:** 1

**Pumps:** 1

**Cruise Speed:** 16

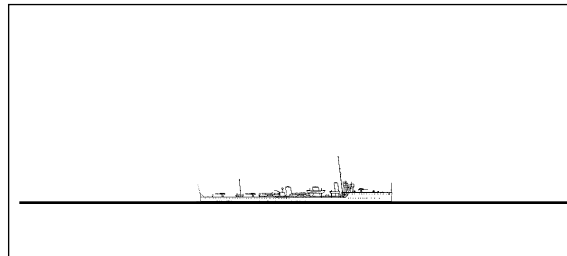
**Cargo Capacity:** 0

#### **Weapons**

**Main Guns:** 2-4"

**Secondary Guns:**

**Torpedoes:** 2-21"



*Acasta Class*

#### **General Data**

**Year:** 1912

**Length:** 267

**Beam:** 27

**Displacement:** 1,072

**Complement:** 73

**Max Speed:** 29

**DC Party:** 1

**Pumps:** 1

**Cruise Speed:** 16

**Cargo Capacity:** 0

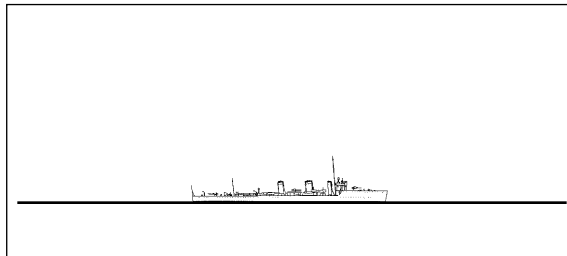
#### **Weapons**

**Main Guns:** 3-4"

**Secondary Guns:**

**Torpedoes:** 4-21"

**British Ships**  
***Destroyers***



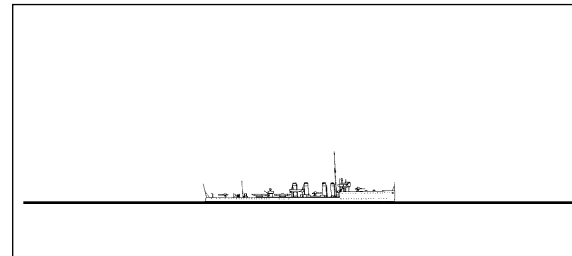
***Laforey Class***

***General Data***

**Year:** 1913  
**Length:** 268  
**Beam:** 28  
**Displacement:** 1,010  
**Complement:** 73  
**Max Speed:** 29  
**DC Party:** 1  
**Pumps:** 1  
**Cruise Speed:** 16  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 3-4"  
**Secondary Guns:**  
**Torpedoes:** 4-21"



***M Class***

***General Data***

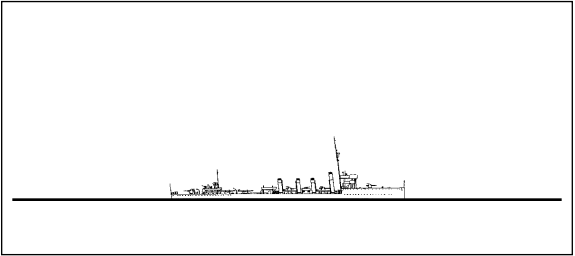
**Year:** 1914  
**Length:** 274  
**Beam:** 27  
**Displacement:** 1,055  
**Complement:** 80  
**Max Speed:** 35  
**DC Party:** 1  
**Pumps:** 1  
**Cruise Speed:** 20  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 3-4"  
**Secondary Guns:**  
**Torpedoes:** 4-21"

**British Ships**

***Destroyers***



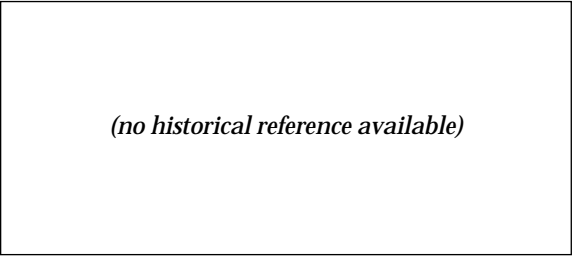
***Lightfoot Class***

***General Data***

**Year:** 1915  
**Length:** 324  
**Beam:** 32  
**Displacement:** 1,440  
**Complement:** 104  
**Max Speed:** 35  
**DC Party:** 1  
**Pumps:** 1  
**Cruise Speed:** 20  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 4-4"  
**Secondary Guns:**  
**Torpedoes:** 4-21"



***Faulknor Class***

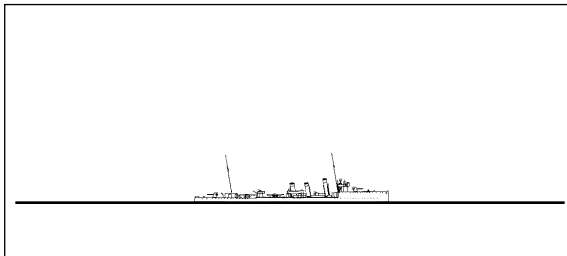
***General Data***

**Year:** 1914  
**Length:** 324  
**Beam:** 32  
**Displacement:** 1,610  
**Complement:** 197  
**Max Speed:** 35  
**DC Party:** 1  
**Pumps:** 1  
**Cruise Speed:** 20  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 4-4"  
**Secondary Guns:**  
**Torpedoes:** 4-21"

**British Ships**  
***Destroyers***



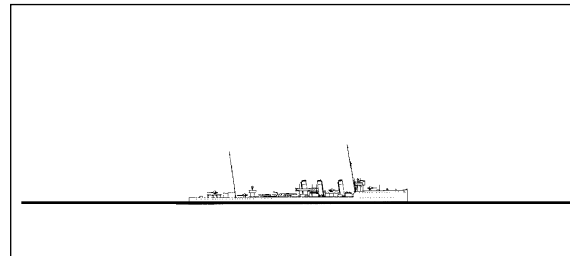
***Medea Class***

***General Data***

**Year:** 1914  
**Length:** 274  
**Beam:** 27  
**Displacement:** 1,040  
**Complement:** 80  
**Max Speed:** 32  
**DC Party:** 1  
**Pumps:** 1  
**Cruise Speed:** 16  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 3-4"  
**Secondary Guns:**  
**Torpedoes:** 4-21"



***Talisman Class***

***General Data***

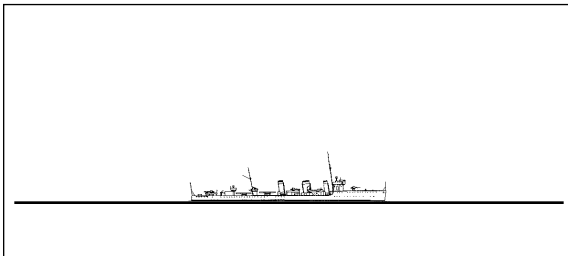
**Year:** 1915  
**Length:** 309  
**Beam:** 29  
**Displacement:** 1,098  
**Complement:** 102  
**Max Speed:** 32  
**DC Party:** 1  
**Pumps:** 1  
**Cruise Speed:** 16  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 4-4"  
**Secondary Guns:**  
**Torpedoes:** 4-21"

## British Ships

### *Destroyers*



***RS Class***

#### ***General Data***

**Year:** 1916

**Length:** 275

**Beam:** 27

**Displacement:** 1,055

**Complement:** 82

**Max Speed:** 36

**DC Party:** 1

**Pumps:** 1

**Cruise Speed:** 20

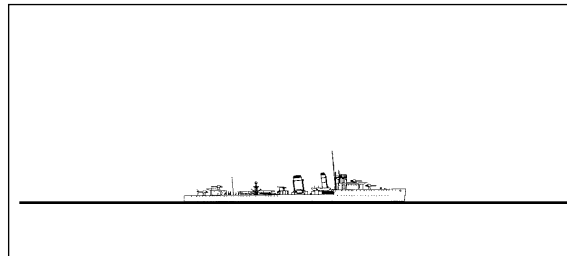
**Cargo Capacity:** 0

#### ***Weapons***

**Main Guns:** 3-4"

**Secondary Guns:**

**Torpedoes:** 4-21"



***VW Class***

#### ***General Data***

**Year:** 1917

**Length:** 312

**Beam:** 29

**Displacement:** 1,100

**Complement:** 134

**Max Speed:** 34

**DC Party:** 1

**Pumps:** 1

**Cruise Speed:** 16

**Cargo Capacity:** 0

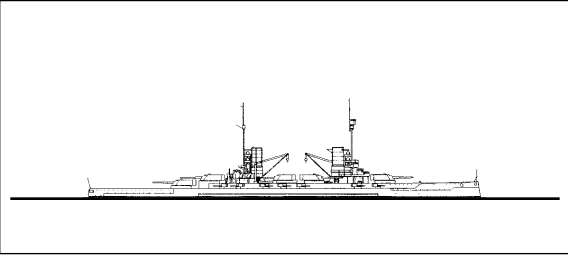
#### ***Weapons***

**Main Guns:** 4-4"

**Secondary Guns:**

**Torpedoes:** 4-21"

**German Ships**  
***Battleships***



***Kaiser Class***

***General Data***

**Year:** 1911  
**Length:** 565  
**Beam:** 95  
**Displacement:** 24,330  
**Complement:** 1250  
**Max Speed:** 22  
**DC Party:** 4  
**Pumps:** 4  
**Cruise Speed:** 12  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 10-12"  
**Secondary Guns:** 14-5.9"

*(no historical reference available)*

***Braunschweig Class***

***General Data***

**Year:** 1910  
**Length:** 419  
**Beam:** 84  
**Displacement:** 14,167  
**Complement:** 743  
**Max Speed:** 18  
**DC Party:** 3  
**Pumps:** 3  
**Cruise Speed:** 10  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 4-11"  
**Secondary Guns:** 14-5.9"

**German Ships**  
***Battleships***

*(no historical reference available)*

***Deutschland Class***

***General Data***

**Year:** 1908

**Length:** 419

**Beam:** 73

**Displacement:** 13,993

**Complement:** 743

**Max Speed:** 19

**DC Party:** 3

**Pumps:** 3

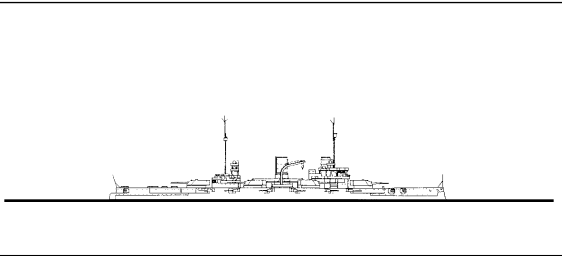
**Cruise Speed:** 10

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 4-11"

**Secondary Guns:** 14-5.9"



***Nassau Class***

***General Data***

**Year:** 1908

**Length:** 480

**Beam:** 88

**Displacement:** 18,570

**Complement:** 1125

**Max Speed:** 20

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 10

**Cargo Capacity:** 0

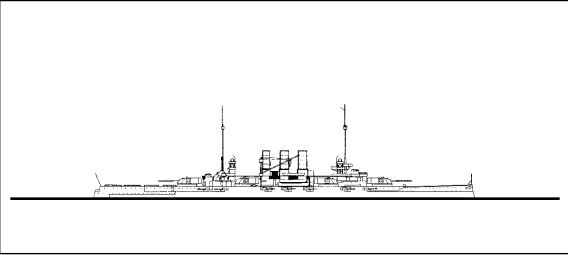
***Weapons***

**Main Guns:** 12-11"

**Secondary Guns:** 12-5.9"



**German Ships**  
***Battleships***



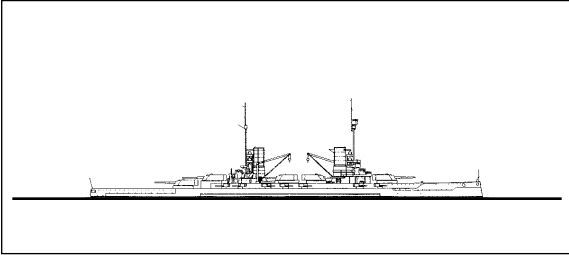
***Helgoland Class***

***General Data***

**Year:** 1909  
**Length:** 548  
**Beam:** 93  
**Displacement:** 22,440  
**Complement:** 1113  
**Max Speed:** 20  
**DC Party:** 3  
**Pumps:** 3  
**Cruise Speed:** 10  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 12-12"  
**Secondary Guns:** 14-5.9"



***Kaiser Class***

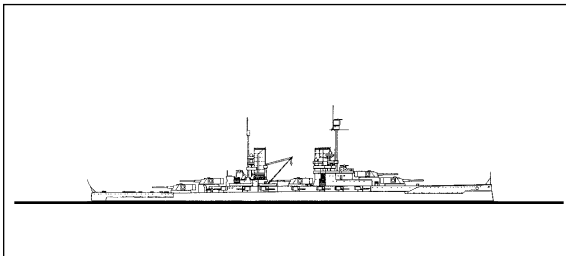
***General Data***

**Year:** 1896  
**Length:** 411  
**Beam:** 67  
**Displacement:** 11,599  
**Complement:** 703  
**Max Speed:** 17  
**DC Party:** 3  
**Pumps:** 3  
**Cruise Speed:** 10  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 4-9.4"  
**Secondary Guns:** 18-5.9"

**German Ships**  
***Battleships***



***König Class***

***General Data***

**Year:** 1913

**Length:** 575

**Beam:** 96

**Displacement:** 25,390

**Complement:** 1136

**Max Speed:** 21

**DC Party:** 4

**Pumps:** 4

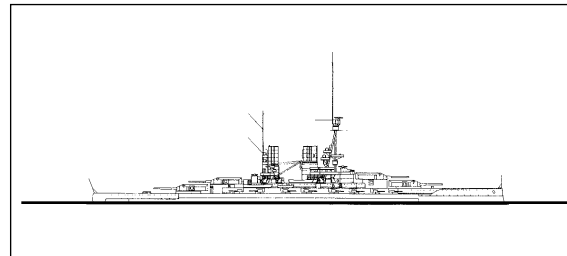
**Cruise Speed:** 12

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 10-12"

**Secondary Guns:** 14-5.9"



***Bayern Class***

***General Data***

**Year:** 1915

**Length:** 589

**Beam:** 98

**Displacement:** 28,074

**Complement:** 1187

**Max Speed:** 21

**DC Party:** 4

**Pumps:** 4

**Cruise Speed:** 13

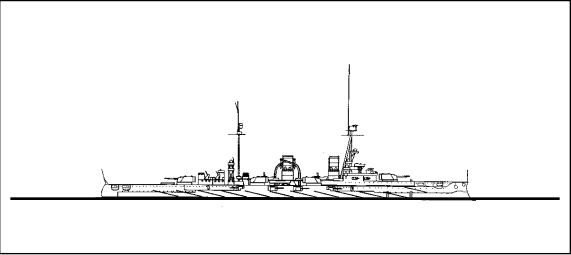
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-15"

**Secondary Guns:** 16-5.9"

**German Ships**  
***Battleships***



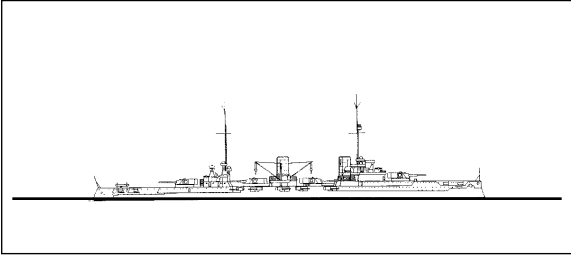
***Blucher Class***

***General Data***

**Year:** 1908  
**Length:** 530  
**Beam:** 80  
**Displacement:** 15,590  
**Complement:** 850  
**Max Speed:** 24  
**DC Party:** 4  
**Pumps:** 4  
**Cruise Speed:** 12  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 12-8.2"  
**Secondary Guns:** 8-5.9"



***Von Der Tann Class***

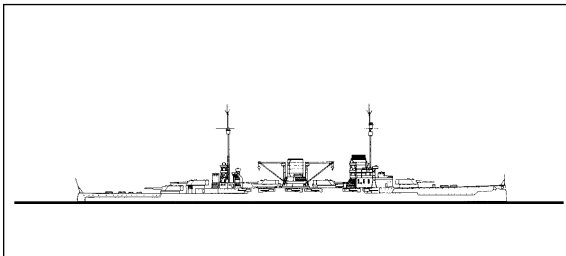
***General Data***

**Year:** 1909  
**Length:** 563  
**Beam:** 87  
**Displacement:** 19,064  
**Complement:** 1175  
**Max Speed:** 25  
**DC Party:** 4  
**Pumps:** 4  
**Cruise Speed:** 14  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-11"  
**Secondary Guns:** 10-5.9"

**German Ships**  
***Battleships***



***Motlke Class***

***General Data***

**Year:** 1910

**Length:** 611

**Beam:** 97

**Displacement:** 22,616

**Complement:** 1350

**Max Speed:** 26

**DC Party:** 4

**Pumps:** 4

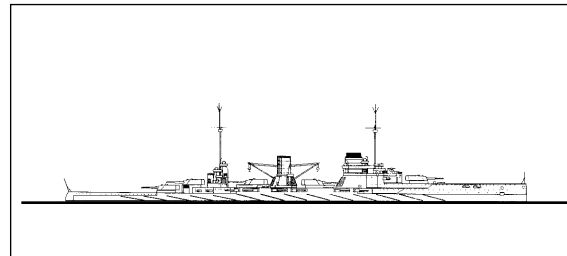
**Cruise Speed:** 14

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 10-11"

**Secondary Guns:** 12-5.9"



***Seydlitz Class***

***General Data***

**Year:** 1913

**Length:** 658

**Beam:** 94

**Displacement:** 24,594

**Complement:** 1425

**Max Speed:** 27

**DC Party:** 4

**Pumps:** 4

**Cruise Speed:** 14

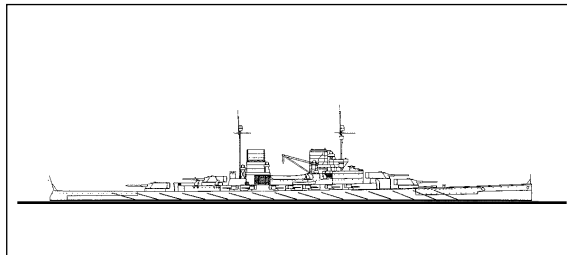
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 10-11"

**Secondary Guns:** 12-5.9"

**German Ships**  
***Battleships***



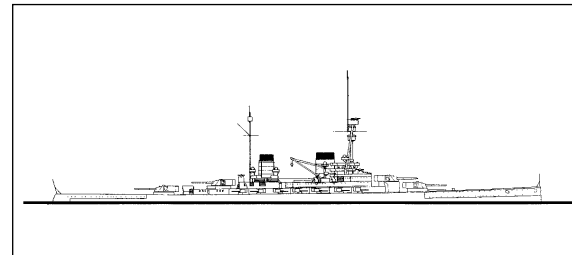
***Derfflinger Class***

***General Data***

**Year:** 1913  
**Length:** 690  
**Beam:** 95  
**Displacement:** 26,180  
**Complement:** 1390  
**Max Speed:** 27  
**DC Party:** 4  
**Pumps:** 4  
**Cruise Speed:** 14  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-12"  
**Secondary Guns:** 14-5.9"



***Hindenburg Class***

***General Data***

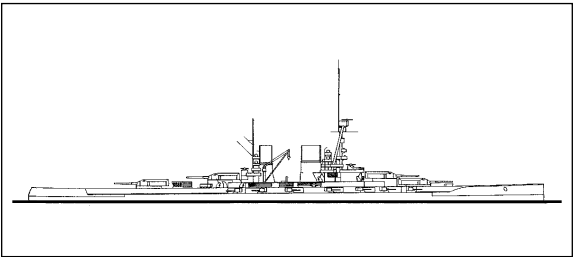
**Year:** 1915  
**Length:** 698  
**Beam:** 95  
**Displacement:** 26,513  
**Complement:** 1182  
**Max Speed:** 28  
**DC Party:** 4  
**Pumps:** 4  
**Cruise Speed:** 14  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-12"  
**Secondary Guns:** 14-5.9"

**German Ships**

***Battleships  
&  
Cruisers***



***Mackensen Class***

***General Data***

**Year:** 1917

**Length:** 731

**Beam:** 100

**Displacement:** 30,500

**Complement:** 1186

**Max Speed:** 28

**DC Party:** 4

**Pumps:** 4

**Cruise Speed:** 14

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-13.8"

**Secondary Guns:** 12-5.9"

*(no historical reference available)*

***Scharnhorst Class***

***General Data***

**Year:** 1912

**Length:** 474

**Beam:** 71

**Displacement:** 12,781

**Complement:** 764

**Max Speed:** 24

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 12

**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-8.2"

**Secondary Guns:**

**Torpedoes:** 4-17.7"

**German Ships**  
***Cruisers***

*(no historical reference available)*

***Gazelle Class***

***General Data***

**Year:** 1908  
**Length:** 346  
**Beam:** 40  
**Displacement:** 3,033  
**Complement:** 249  
**Max Speed:** 20  
**DC Party:** 3  
**Pumps:** 3  
**Cruise Speed:** 14  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-4.1"  
**Secondary Guns:**  
**Torpedoes:** 3-17.7"

*(no historical reference available)*

***Bermen Class***

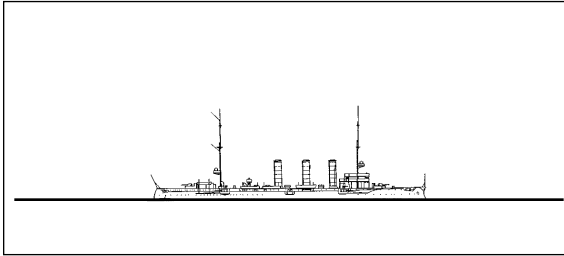
***General Data***

**Year:** 1912  
**Length:** 365  
**Beam:** 44  
**Displacement:** 3,755  
**Complement:** 288  
**Max Speed:** 23  
**DC Party:** 3  
**Pumps:** 3  
**Cruise Speed:** 14  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-4.1"  
**Secondary Guns:**  
**Torpedoes:** 2-17.7"

**German Ships**  
***Cruisers***



***Königsberg Class***

***General Data***

**Year:** 1905

**Length:** 383

**Beam:** 44

**Displacement:** 3,390

**Complement:** 322

**Max Speed:** 23

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 12

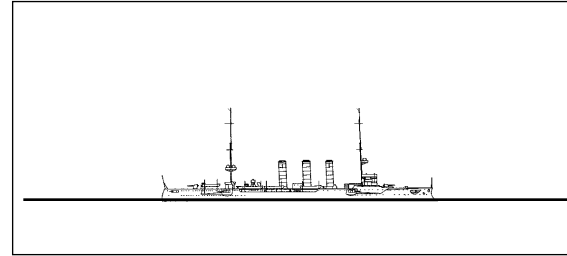
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-4.1"

**Secondary Guns:**

**Torpedoes:** 2-17.7"



***Dresden Class***

***General Data***

**Year:** 1907

**Length:** 387

**Beam:** 44

**Displacement:** 3,664

**Complement:** 361

**Max Speed:** 24

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 14

**Cargo Capacity:** 0

***Weapons***

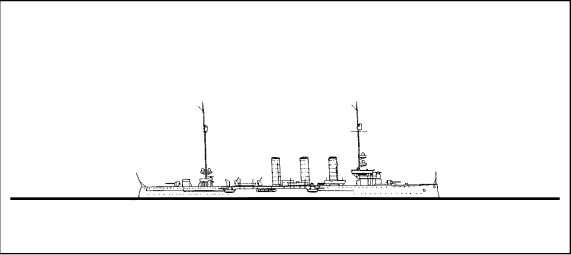
**Main Guns:** 8-4.1"

**Secondary Guns:**

**Torpedoes:** 2-17.7"



**German Ships**  
***Cruisers***



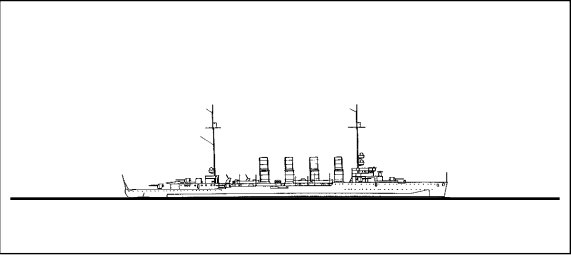
***Kolburg Class***

***General Data***

**Year:** 1908  
**Length:** 427  
**Beam:** 46  
**Displacement:** 4,362  
**Complement:** 367  
**Max Speed:** 27  
**DC Party:** 3  
**Pumps:** 3  
**Cruise Speed:** 14  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-4.1"  
**Secondary Guns:**  
**Torpedoes:** 2-17.7"



***Magdeburg Class***

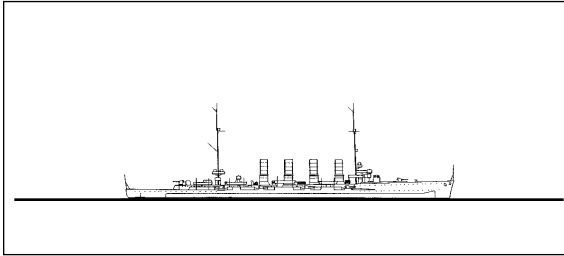
***General Data***

**Year:** 1911  
**Length:** 455  
**Beam:** 44  
**Displacement:** 4,570  
**Complement:** 354  
**Max Speed:** 28  
**DC Party:** 3  
**Pumps:** 3  
**Cruise Speed:** 12  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-4.1"  
**Secondary Guns:**  
**Torpedoes:** 2-19.7"

**German Ships**  
***Cruisers***



***Karlsruhe Class***

***General Data***

**Year:** 1912

**Length:** 466

**Beam:** 45

**Displacement:** 4,900

**Complement:** 373

**Max Speed:** 28

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 12

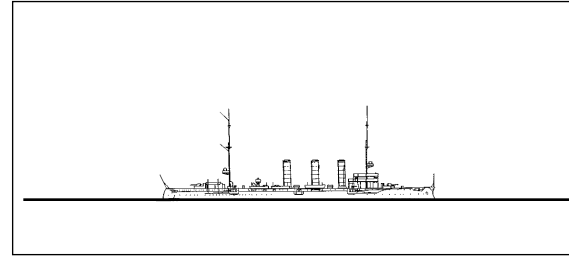
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 8-4.1"

**Secondary Guns:**

**Torpedoes:** 2-19.7"



***Pillau Class***

***General Data***

**Year:** 1914

**Length:** 444

**Beam:** 45

**Displacement:** 4,390

**Complement:** 442

**Max Speed:** 27

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 12

**Cargo Capacity:** 0

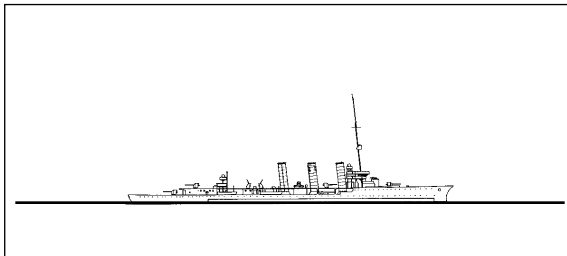
***Weapons***

**Main Guns:** 6-5.9"

**Secondary Guns:**

**Torpedoes:** 2-19.7"

**German Ships**  
***Cruisers***



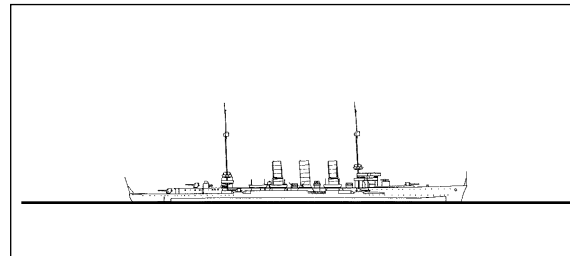
***Brummer Class***

***General Data***

**Year:** 1915  
**Length:** 460  
**Beam:** 43  
**Displacement:** 4,385  
**Complement:** 309  
**Max Speed:** 28  
**DC Party:** 3  
**Pumps:** 3  
**Cruise Speed:** 12  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 4-5.9"  
**Secondary Guns:**  
**Torpedoes:** 2-19.7"



***Weisbaden Class***

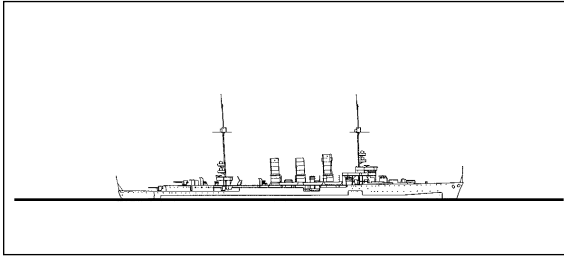
***General Data***

**Year:** 1915  
**Length:** 477  
**Beam:** 45  
**Displacement:** 5,180  
**Complement:** 474  
**Max Speed:** 28  
**DC Party:** 3  
**Pumps:** 3  
**Cruise Speed:** 12  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 7-5.9"  
**Secondary Guns:**  
**Torpedoes:** 4-19.7"

**German Ships**  
***Cruisers***



***Königsberg2 Class***

***General Data***

**Year:** 1915

**Length:** 478

**Beam:** 47

**Displacement:** 5,440

**Complement:** 45

**Max Speed:** 28

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 12

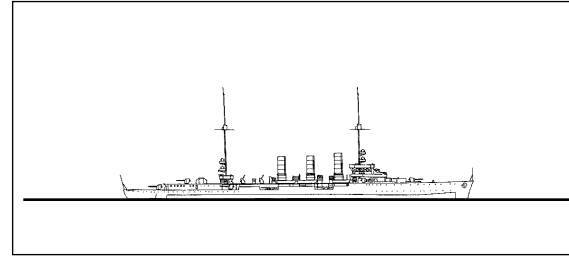
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 7-4.1"

**Secondary Guns:**

**Torpedoes:** 4-19.7"



***Coln Class***

***General Data***

**Year:** 1916

**Length:** 491

**Beam:** 47

**Displacement:** 5,620

**Complement:** 525

**Max Speed:** 28

**DC Party:** 3

**Pumps:** 3

**Cruise Speed:** 12

**Cargo Capacity:** 0

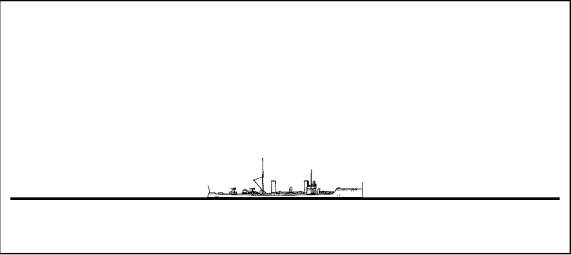
***Weapons***

**Main Guns:** 7-5.9"

**Secondary Guns:**

**Torpedoes:** 4-19.7"

**German Ships**  
***Destroyers***



***G132 Class***

***General Data***

**Year:** 1906

**Length:** 215

**Beam:** 23

**Displacement:** 414

**Complement:** 69

**Max Speed:** 28

**DC Party:** 1

**Pumps:** 1

**Cruise Speed:** 12

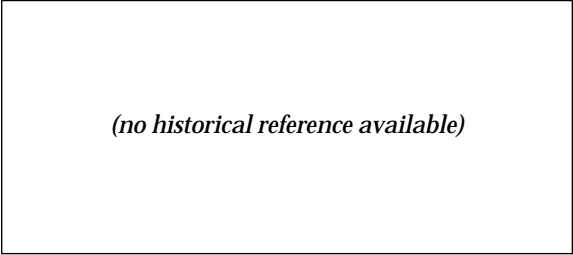
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 4-2"

**Secondary Guns:**

**Torpedoes:** 3-17.7"



***V150 Class***

***General Data***

**Year:** 1907

**Length:** 238

**Beam:** 26

**Displacement:** 558

**Complement:** 84

**Max Speed:** 30

**DC Party:** 1

**Pumps:** 1

**Cruise Speed:** 14

**Cargo Capacity:** 0

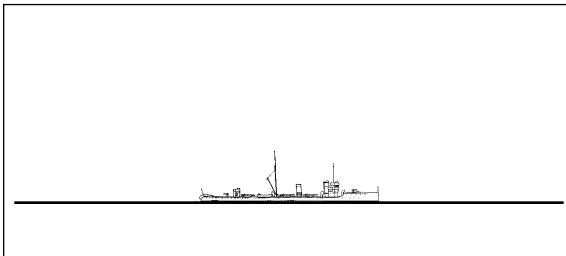
***Weapons***

**Main Guns:** 2-3.45"

**Secondary Guns:**

**Torpedoes:** 3-17.7"

**German Ships**  
***Destroyers***



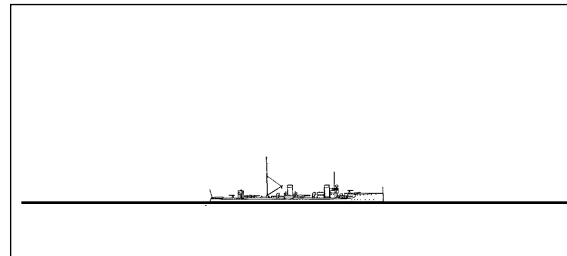
***G169 Class***

***General Data***

**Year:** 1908  
**Length:** 242  
**Beam:** 26  
**Displacement:** 670  
**Complement:** 84  
**Max Speed:** 32  
**DC Party:** 1  
**Pumps:** 1  
**Cruise Speed:** 17  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 2-3.45"  
**Secondary Guns:**  
**Torpedoes:** 3-17.7"



***V180 Class***

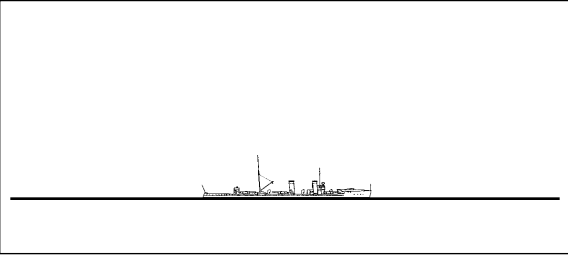
***General Data***

**Year:** 1909  
**Length:** 243  
**Beam:** 26  
**Displacement:** 650  
**Complement:** 84  
**Max Speed:** 32  
**DC Party:** 1  
**Pumps:** 1  
**Cruise Speed:** 17  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 2-3.45"  
**Secondary Guns:**  
**Torpedoes:** 4-19.7"

**German Ships**  
***Destroyers***



***V1 Class***

***General Data***

**Year:** 1911

**Length:** 243

**Beam:** 26

**Displacement:** 650

**Complement:** 84

**Max Speed:** 32

**DC Party:** 1

**Pumps:** 1

**Cruise Speed:** 17

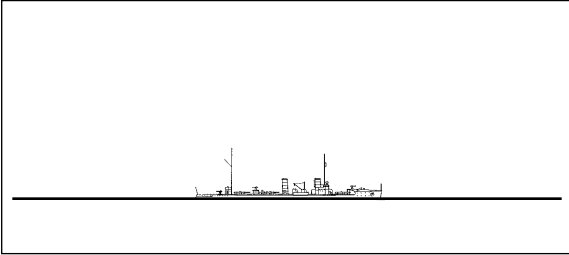
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 2-3.45"

**Secondary Guns:**

**Torpedoes:** 4-19.7"



***V25 Class***

***General Data***

**Year:** 1914

**Length:** 255

**Beam:** 27

**Displacement:** 812

**Complement:** 83

**Max Speed:** 33

**DC Party:** 1

**Pumps:** 1

**Cruise Speed:** 20

**Cargo Capacity:** 0

***Weapons***

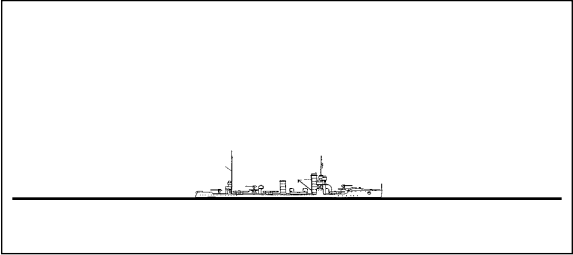
**Main Guns:** 3-3.45"

**Secondary Guns:**

**Torpedoes:** 6-19.7"

**German Ships**

***Destroyers  
&  
Transport***



***S49 Class***

***General Data***

**Year:** 1915  
**Length:** 261  
**Beam:** 27  
**Displacement:** 802  
**Complement:** 85  
**Max Speed:** 34  
**DC Party:** 1  
**Pumps:** 1  
**Cruise Speed:** 17  
**Cargo Capacity:** 0

***Weapons***

**Main Guns:** 3-3.45"  
**Secondary Guns:**  
**Torpedoes:** 6-19.7"



***Transport***

***General Data***

**Year:** 1904  
**Length:** 435  
**Beam:** 63  
**Displacement:** 13,095  
**Complement:** 404  
**Max Speed:** 14  
**DC Party:** 1  
**Pumps:** 1  
**Cruise Speed:** 10  
**Cargo Capacity:** 30,000



**German Ships**  
***Transport***  
***&***  
***Tanker***

*(no historical reference available)*

***Troop Transport***

***General Data***

**Year:** 1904  
**Length:** 435  
**Beam:** 63  
**Displacement:** 13,095  
**Complement:** 404  
**Max Speed:** 14  
**DC Party:** 1  
**Pumps:** 1  
**Cruise Speed:** 10  
**Cargo Capacity:** 30,000

*(no historical reference available)*

***Tanker***

***General Data***

**Year:** 1904  
**Length:** 435  
**Beam:** 63  
**Displacement:** 13,095  
**Complement:** 404  
**Max Speed:** 14  
**DC Party:** 1  
**Pumps:** 1  
**Cruise Speed:** 10  
**Cargo Capacity:** 30,000

DIVIDE BY ZERO  
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