HEARTS OF IRON

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Introduction

Hearts of Iron is the strategy game we have all been waiting for. Perhaps the definitive game of World War II strategy, *Hearts of Iron* allows players to completely manage the country of their choice. You can launch devastating offensives, form alliances, research new technology, hire and fire diplomats... the options are nearly limitless.

But limitless options bring complexity. Certainly not needless complexity, but rather a complexity born of rich gameplay and depth of design. Nevertheless, it will take more than a casual look at the game to become familiar with it. You need a thorough user manual. So, without further preamble, let's get into the job of explaining *Hearts of Iron*.

System Requirements

To play *Hearts of Iron*, you'll need the following hardware:

iMacs (revision B or later)

G3/G4 (blue and white desktops or later)

Any machine in OSX

MacOS 9.2 or later

333 MHz or faster

128MB Memory

DrawSprocket 1.7.6 or later

InputSprocket 1.7.3 or later

QuickTime 4.0 or later

Installation

To install the game, first insert the **Hearts of Iron** CD into your CD ROM drive. Double click on the "HOI" icon. Now simply copy the "HOI" folder to your hard-disk. To launch the game, double click the "HOI" icon. You can find additional information regarding Hearts of Iron within the "HOI Read me" file.
Please note that your game CD needs to be present to launch the game.

Getting Started

Hearts of Iron is a complex game, but we know you want to jump right into changing history. Hence, we've put together this section on getting started. It won't give you a complete understanding of the game, but just enough information to get you fighting for control the whole world. Follow along as we show you how to crack the ice with *Hearts of Iron*.

After the *Hearts of Iron* intro plays, you're taken to the opening screen. Select Single Player to display the Scenario Screen. There are a multitude of choices here, but you don't need to worry about that right now. Click 1936 under the Scenarios pane, and choose the German flag (it's red, white, and black).

Feel free to browse through the information displayed to the left of the red eagle. It's good historical background for what is happening.

Note: Your choices are not limited to the eight countries whose flags are displayed on the Scenario Screen. Control-clicking on any of the flags pops up a scrolling menu that allows you to select from numerous other countries. In fact, you can play one of eight major powers or any of the minor powers.

Once you are finished browsing Germany's historical information, click the Start button in the lower-right corner of the screen.

When your scenario loads, you're taken to the Main Screen. It's from here that you'll fight your battles and make the decisions that will dictate the future of the world. To learn more about the Main Screen, refer to the Interface section.

A pop-up box initially dominates the Main Screen. It tells you that if you score the most victory points by December 30th, 1947, you'll win the game. You earn victory points by conquering countries and, to a lesser extent, forming alliances. The number of victory points that are awarded for each province appear inside the star in the top-right corner of the Province Menu. Click Start Game at the bottom of the pop-up box.

At its core, *Hearts of Iron* is a game of global conquest, and to conquer, you must be able to fight. Let's learn how to do that by invading Poland. First press Pause on your keyboard or click the small bronze clock on the right side of the status bar at the top of the page. Now hold down the mouse button and pull a box around your units (which consists of two infantry and three armored divisions) in Berlin. Control-click on Stettin and they will move to that province when you un-pause the game again.

After the divisions arrive in Stettin, pause the game. Click, and drag a box around your newly arrived troops and the three infantry divisions already waiting in Stettin. This brings up the Military Screen. At the bottom of this panel, click on Merge Units. This forms a new army out of your eight divisions. Click on the army. A list of the divisions that comprise the army can be found in the right-hand panel.

Each division has its own statistics listed beside it. We'll explain these statistics in the Interface and Military sections, but for now, keep an eye on the two numbers on the first row of statistics. The top-left number is the unit's strength, and the top-right number is the unit's organization. Strength reflects the unit's men and material. Organization indicates the unit's combat readiness. Both may fall during combat. You may replenish a unit's strength by clicking on the unit and then choosing Reinforce to Maximum Strength at the bottom of the Military Screen. Organization increases as long as an in-supply unit does not move or engage in combat. Strength and organization are a good indication of your unit's ability to wage war.

At the top of Military Screen, you'll see a leader's portrait. Hold your cursor over the portrait to display a pop-up box with the leader's statistics. You'll quickly see that your leader can't control all your divisions, and although you can still give orders to the divisions, they will not function efficiently in such a state. Let's replace him.

Click on the leader. This displays all your available leaders in the right-hand panel. Select General Rommel. He's a leader's leader and can control up to 9 divisions without penalty.

Click on the Luftflotte II (in Halle) and the Luftflotte I (in Mannheim) and order them to Berlin. When they arrive, merge the four squadrons.

Okay, now you're ready to start your invasion of Poland. Click the Diplomat Screen button at the top right of the screen (it's the button with the envelope inside). Click on Danzig and then choose Declare War from the Diplomacy Menu displayed in the right-hand pane. Confirm the action, and you are now at war with Poland. Click Back to Main at the bottom of the Diplomacy Menu to return to the main screen.

Next, click on your army in Stettin, and control-click on the province of Danzig. This pops the Combat Control Box, which we will discuss in great detail later in the manual. For now order the army to arrive in Danzig at 0800 on January 4th. Click Okay to close the box. You can change the time at which your troops will arrive by clicking on the plus and minus signs adjacent to the hour, day, or month.

Note: By default, *Hearts of Iron* uses animated figures to depict your forces. You can change these figures to standard NATO symbology by clicking the Game Settings icon in the Quick-Nav panel. Then select Options>Use Counters and click the 'On' radio button.

Select your Luftwaffe squadrons in Berlin and order the planes to also attack Danzig. Direct them to begin their attack at 0700 on the same day that your army attacks the province.

Tip: The tactical bombers might not reduce the strength of the Polish units. On the other hand, the bombers will reduce the target units' organization, which will make them susceptible to your troops' follow-up attack.

Unpause the game. Very soon, your bombers will attack the Polish forces in Danzig. Immediately after the bombers begin their run, your land forces will join the fray. The two attacks will most likely defeat the Polish. You'll receive a message saying so, and the Poles will retreat. With your first victory under your belt, let's look at some of the other aspects of the game.

Building Units

Let's build another armored division to help with our assault on Poland. Once again, bring up the Military Screen by clicking on the circular tank icon. At the bottom of the Military Screen are three choices: Set up a new division, Commission a new ship/flotilla, and Build a new aircraft squadron.

Click 'Set up a new division'. This brings up a screen with all your available land units. Click on the icon of the tank. This displays the statistics for an armored division. Below the statistics is another box that tells you how many Industrial Capacity (IC) points the division will cost, how much manpower it costs, and when it will be ready. You authorize the division's construction by clicking OK at the bottom of the pane. But let's not do that just yet.

Hearts of Iron lets you build different divisions, and you can also attach additional brigades to those units. Between the name flag for the division type and the division's statistics is a row of four icons. These icons represent the brigades that may be attached to the division. Click on the artillery icon to attach an artillery brigade, and then click OK. When the armored division is ready (it takes about 210 days to form this division), you may click the Deploy button and then place it in any province in your home country.

Note: It takes both Industrial Capacity (IC) and manpower to build military units. The IC is lost during the time the unit is being built. The manpower is a permanent deduction from your manpower pool. That's the bad news. The good news is that your manpower pool is constantly gaining new recruits, so it doesn't take long to replace the manpower that's been used.

Diplomacy

At some point in the war, you may want to turn your eyes to the west. After all, war with France is inevitable. Nevertheless, attacking the French provinces of Colmar, Strasbourg, and Chaumont is tough. All three provinces have extensive fortifications, called the Maginot Line. On the other hand, Belgium and the Netherlands have no such fortifications. Wouldn't it be easier to attack through those small countries to get into France? We're going to show you how to do just that.
Bring up the Diplomacy Screen by clicking the envelope icon in the bank of circular icons at the top-right of the Main Screen. Click on Arnhem and then choose Declare War from the options presented in the Diplomacy Screen. Click on one of Belgium's states (it doesn't matter which one) and declare war on Belgium. Now you can send your Panzers through the Low Countries and march behind the French troops guarding the Maginot line.

Technology

To win a war, you must have not only good leaders, but also troops that are using the latest technology. To access that technology, you must research it. Let's take a look at how to do that.

Bring up the Technology Screen by clicking the gear icon at the top-right corner of the main page. You can bet that we are going to discuss the Technology Screen in great detail, but for now, let's just look at how to research a single technology.

A bank of icons is lined up across the top of the Technology Screen. These icons are the available research categories. Under each category are numerous research projects. Click on the leftmost icon. This is the Infantry Research technology. Click Early Infantry Research in the middle panel and click Start Project at the bottom of the screen. Light Mortar joins the queue at the bottom of the Technology Screen on the right side of the page. Notice that the light mortar research uses 5 ICs for 90 days. This brings us to the next topic...

The Costs of Things

Everything in *Hearts of Iron* costs something, and it's up to you to make sure that you have the money to fund it. You can increase your country's IC by both conquering provinces and upgrading your own. On the other hand, the only way to increase your coal, oil, steel, supplies and rubber production is by capturing provinces that produce those commodities. You can trade some material for others, but otherwise, capturing new provinces is the only way to increase your raw goods.

You can adjust where your IC is spent, however. Click on the Production Screen icon (it looks like a factory) on the top-right corner of the Main Screen. From the Production Screen, you can adjust where your IC emphasis will be. There are four areas of IC: Consumer Goods, Supplies, Research, and Production. Slide the production slider to the right to increase the amount of your IC that is dedicated to the production of military units.

Note that the amount of IC allotted to production does not increase the speed with which divisions, ships, and squadrons are completed. Instead, it increases the number of items that may be constructed simultaneously.

The End of the Beginning

This section will by no means make you a *Hearts of Iron* expert. It only demonstrates the basics of play. Now that you are up and running, you can learn by playing. Or if you prefer, explore this manual further before you begin playing. The choice is yours.

The Interface

To play any game well, you must first understand the interface. This section will examine the *Hearts of Iron* interface in detail.

Opening Screen

After *Hearts of Iron*'s opening movie completes, you're taken to the game's opening screen. This screen displays five buttons:
- **Tutorial:** This button opens the tutorial. We recommend playing through the tutorial before you play a single-player scenario.
- **Single Player:** Clicking on this button brings up the Scenario Screen (see below).
- **Multiplayer:** This button brings up the multiplayer submenu, which is detailed in the section on multiplayer gaming.
- **Credits:** This button scrolls the credits of the fine people who created *Hearts of Iron*.
- **Exit:** Clicking this button is not recommended because you will once again be released into the real world of chores, little brothers, and bad news.

Scenario Screen

Clicking on the Opening Screen's Single Player button whisks you away to the Scenario Screen, where you select the scenario and country that you will play. Four windows divide the screen:
- **Scenarios:** This window, on the left side of the screen, contains the scenarios awaiting your selection. Choose a scenario by clicking on it.
- **Saved Games:** Located below the Scenario Window, the Saved Games Window lists the games that you have saved. Click a saved game to select it.
- **Information:** This window displays various information about the selected scenario or country.
- **Game settings:** This window displays any options you may have changed such as difficulty, AI aggressiveness etc.

Setting Up a Scenario

Setting up a scenario is a straightforward process. First, click on the scenario in the Scenario Window that you want to play. Then it's time to choose the country that you want to play. There are eight major powers-United Kingdom, France, Soviet Union, Germany, USA, Poland, Italy, and Japan-represented by the eight flags above the Information Window. There are also numerous minor countries that await your leadership. Select one of the major powers by clicking its flag. You can browse the flags of the available minor countries by control-clicking one of the flags above the Information Window. When you decide on the country that you want to play, click on the country's flag, and the country's information fills the information box.

Click on the Options button below the Information Window to set the scenario options. This pops up a submenu with the following choices:
- **Difficulty:** There are five levels of difficulty: Very Easy, Easy, Normal, Hard, and Very Hard.
- **Artificial Intelligence (AI) Aggressiveness:** A more aggressive AI is more likely to attack. There are five levels of AI aggression: Very Easy, Easy, Normal, Hard, and Very Hard.
- **Game Speed:** This sets the game's speed. You can also increase or decrease the speed by pressing Ctrl and + or -. There are five speeds: 1 minute = 1 month, 1 minute = 2 months, 1 minute = 4 months, 1 minute = 8 months, and 1 minute = 1 year.

- **Fog of War:** This refers to the inherent confusion on the battlefield. In *Hearts of Iron*, turning on the Fog of War hides enemy units unless your own troops can see them. The default position is ON.
- **Autosave:** This option allows you to designate whether you want to Autosave your game, and if so, how often. The options are Never, Monthly, Once every three months, Once every five months, and Once every ten months.

   Note: You can change any of these choices by clicking on it and then choosing from the options.

Click Accept to accept your options, and click Back to return to the Scenario Screen. The final two buttons in the bottom of the Scenario Screen are Back and Start. Back returns you to the Opening Screen, and Start begins the scenario.

Main Screen
The Main Screen is divided into six separate parts, as shown in the following picture.

Status Bar
The Status Bar provides valuable information for your war campaign.
- **Coal:** The top-left icon and the number beside it represent your country's coal supply. Coal, steel, oil, and rubber are the building blocks of your country's IC. One IC point uses 1/2 rubber, 1 steel, and 2 coal every day. More information is available on the section on production. Suffice to say that the more resources you have, the more IC points you'll have. That is, until you reach your IC limit, which can only be expanded by increasing a province's IC (an option in the Province Menu) or by conquest.
- **Steel:** To the right of the coal readout is the steel icon and the amount of steel that your country has.
- **Rubber:** Continuing right, we find the rubber icon (it looks like a little tire) and its readout. If you lack rubber, the game automatically converts oil to rubber.
- **Manpower:** This is used to staff your military units.
- **Diplomatic Influence:** This is the amount of influence that you have with other nations. The more influence you have, the better.
- **Dissent:** The higher the level of dissent in your country, the worse things will go for you. Not providing your people with adequate consumer goods can raise dissent, as can the personalities of your cabinet ministers.
- **Oil:** This is the bottom left icon and readout. Not only does oil contribute to your IC, but it also powers your ships, tanks, and planes. Without oil, they cannot move. If you have no oil, the game automatically converts some of your coal to oil, but this is inefficient.
- **Supplies:** To the right of oil is the supplies readout. Supplies are used to keep your military units up and running. When a unit is out of supplies, its organization and strength will decrease. If a unit cannot trace a line through friendly provinces back to a friendly port or its capital, it is out of supplies.

- **Nukes:** This lists the number of nuclear weapons you currently own. You must research nukes before you may produce them. Once nukes are researched and produced, they may be loaded on strategic bombers, rockets, and flying bombs. Click on the Division Sub-menu then click the atomic icon in the top-right of the menu. To access the Division Sub-menu click on the Air Flotilla, and then click the unit you wish to load the nuke on.
- **Industrial Capacity (IC):** IC is a key concept in the game (it's completely explained in the section on production). The number to the right of the slash is your total capacity. You can increase it by building more industries in a province or capturing a province. The number to the left of the slash is the amount of IC currently available. You can increase this number by increasing the amount of raw materials (oil, rubber, steel, and coal) that are available.

Submenu Buttons

Immediately to the right of the Status Bar are the four submenu buttons, two on either side of your country's flag. They, along with the flag, provide a wealth of information. Let's take a look at them:

- **Technology Screen:** Click on the first button on the left to bring up the Technology Screen. We will cover technology in depth later in this manual, but let's briefly touch on it here. If you're a beginning player, you need only concern yourself with the technology suggested in the far-right panel. If you want to research a suggested technology, click Begin Research. Note that all research uses some of your country's IC. The top of the Technology Submenu (on the far side of the screen) lists how much IC you need to fund your current research and how much you currently have allocated.

- **Military Screen:** Click on the tank button to bring up the Military Screen. From here you can build a new division, commission a new ship or flotilla, construct a new aircraft or squadron, and deploy units that have been constructed. To construct a new unit, be it land, sea, or air, click on the appropriate button at the bottom of the Military Screen. Select the exact unit that you want to build from the subsequent submenu and click OK. Once the unit is ready to deploy, the Deploy button lights up. Click the button. Eligible deployment zones are shaded green. Click on the zone to which you want to deploy the unit. (Consult the Military section for additional information.)

- **Government Screen:** Click the flag in the center of the submenu buttons to bring up the Government Screen, which lists the cabinet posts in your government and who occupies them. Click on the name of a position to see more information about that person. You can change who sits in a cabinet post by clicking on his portrait and then selecting a replacement. Not every minister can be replaced. Consult the section on Internal Politics for additional information.

- **Production Screen:** Click the third button from the left (the one with a factory) to display the Production Screen. From this screen, you can manage how much of your economy is dedicated to consumer goods, supplies, research (technology), and production. To increase the amount of IC allotted to a section of your economy, move the slider to the right. The quantities of raw materials in storage are listed in the panel beneath the sliders. Also listed are the storage locations.

Below this panel are two buttons: **Manage Convoys** and **Trade on the World Market**. Click on the Manage Convoys button to bring up the Convoy Menu. From here, you can manage your convoys and lay out new convoys. Convoys are covered in great detail in the section on production. Click on the Trade on the World Market button to allow trading on the world market. From here, you can trade a resource that you have in surplus for one that you need. Again, we'll look at this in more detail in the section on production.

- **Diplomacy Screen:** Click on the far-right icon with an envelope inside it to display the Diplomacy Screen. We will discuss diplomacy in greater detail later, but let's take a brief look at diplomatic relations here. Not only does clicking on the button pop up the Diplomacy Screen, but it also changes the provinces' colors on the main map. Each country's provinces are color-coded. Note that this color code is dictated by the original geographical boundaries of the country, not its conquests. Hence, although Germany may have conquered the Polish province of Poznan, the province will still display the color code of a Polish province. When the Diplomacy Screen is active, clicking on the province of another country displays numerous options. These options are covered in the section on diplomacy. Keep in mind, however, that most of these diplomatic overtures require you to send a diplomat to the country... an endeavor that takes a bit of time to accomplish (usually a week). Now that we have covered the submenu buttons, let's look at the main map, where you will often direct your forces.

Map
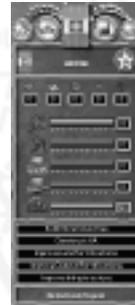
The map spreads across most of the Main Screen. It's divided into provinces and sea areas. In these provinces and sea areas are the military units that you control. Clicking on a province displays information in the screen's right-hand panel. Clicking on a unit displays information about that unit in the right-hand panel.

- **Province Information:** Clicking on a province pops up the Province Menu on the right side of the screen. At the top of the Province Menu is the name of the province, the flag of the controlling country, and the number of victorypoints awarded to the controlling country. The menu includes the following information:

- **Industrial Capacity (IC):** Increase the province's IC by clicking the Build More Industries button at the bottom of the menu. Note that this only increases the province's IC, not the amount of industry capacity that's available.
- **Anti-Aircraft Batteries Available:** Below the province's IC is the number of anti-aircraft batteries available. The more batteries available, the more costly it becomes for the enemy to bomb the province. You can increase this number by clicking Construct AA at the bottom of the menu.
- **Size of Fortifications:** This is an indication of the size and strength of the province's fortifications. Larger/stronger fortifications provide greater defensive bonuses to the troops stationed there.
- **Province Infrastructure:** The higher the province infrastructure, the more efficiently it will use the materials within the province. You can increase this by clicking the Improve Infrastructure button at the bottom of the menu.
- **Daily Rubber Production:** The amount of rubber the province produces daily. Improving the province infrastructure will raise this, if the resource is available.

- **Daily Coal Production:** The amount of coal the province produces daily. Improving the province infrastructure will raise this, if the resource is available.
- **Daily Steel Production:** The amount of steel the province produces daily. Improving the province infrastructure will raise this, if the resource is available.
- **Daily Oil Production:** The amount of oil the province produces daily. Improving the province infrastructure will raise this, if the resource is available.
- **Manpower:** The amount of manpower the province produces daily. It takes manpower to man and refit divisions, aircraft squadrons, and ships.

At the bottom of the Province Menu are five buttons: Build More Industries, Improve Coastal Fortifications, Improve Land Fortifications, Construct AA, and Improve Infrastructure. Let's take a look at what they do:

- **Build More Industries:** Clicking on this button increases the province's IC.
- **Improve Coastal Fortifications:** Clicking here improves the province's coastal fortifications, which increase the province's resistance to amphibious assaults (as well as the units garrisoning it). This option is available only in provinces that are adjacent to the ocean.
- **Improve Land Fortifications:** Clicking here improves the province's fortifications, which increase the province's resistance to assaults (as well as the units garrisoning it).
- **Construct AA:** Click this button to increase the province's anti-aircraft defense. The better the anti-aircraft defense, the more casualties enemy planes will suffer and the less damage they will do when attacking the province.
- **Improve Infrastructure:** Improving the infrastructure increases the province's productivity. Productive or not, remember that the province can only produce raw materials that are inherent to the province. In other words, if the province has no oil-producing capability, it will never produce oil.

Also indicated on the map are country capitals, rivers, ports, fortifications, borders, and airfields:
- **Capital Cities:** A nation's capital city/province is depicted as a red circle. These capitals may award victory points when captured. To determine how many victory points a capital province is worth, click on the province. The victory points appear with in the star in the upper-right corner of the Province Menu.
- **Rivers:** Rivers are thick blue lines that overlay a province's borders. They impose movement penalties on units that are moving across them.
- **Ports:** A port is depicted as an anchor inside a circle. Ship squadrons may dock at ports. Ports are also used as supply heads. Units may trace supplies to a port, which in turn can trace a convoy back to a friendly port, which can trace the line of supplies to the friendly capital.
- **Fortifications:** Depicted as an eight-sided star. Fortifications add a defensive bonus to the troops occupying the province.
- **Borders:** Borders are, well... you know, the geographical limits of a country. They are depicted as dotted red lines.
- **Army Menu:** Clicking on an army, fleet, or air flotilla displays the Army Menu in the Main Screen's right panel. This panel is divided into three sections. In the top

section is listed the commander of the formation, special formation attributes, the number of units in the formation, their strength and current orders. Passing your cursor over formation attributes and orders displays a pop-up describing the attribute or order. Click on the formation's commander to display a list of replacements. Click on the replacement to replace the commander. The middle pane displays the units in the formation. Click on a unit to display the Division Sub-menu.
- **Division Sub-Menu:** The Division Sub-menu displays the selected unit's parameters and provides three options:
- **Strategically Re-Deploy Division:** Clicking here transfers the division to your Force Pool. After a short time it will be ready to redeploy anywhere within your home country. Access the Military Screen to deploy it.
- **Reinforce to Maximum Strength:** Click this button to reinforce the selected ship/squadron/ship to maximum strength. Ships must be in port.
- **Upgrade to Latest Model:** Applies latest technological upgrade to the unit.
- **Nukes:** Once nukes are researched and produced, they may be loaded on strategic bombers, rockets, and flying bombs. Click on the Division Sub-menu then click the atomic icon in the top-right of the menu.

The bottom panel on the Army Menu allows you to create a new unit. Click the button, and then click "+" next to the unit that you wish to transfer out of the current army.

- **Movement:** The actual movement of a unit on the map is determined by its Speed characteristic, the province terrain type (for land units), the Road Coverage (seven levels, including non-existent), weather, and time of day. Movement occurs between province center points. The distance is the actual distance in pixels (translated to kilometers) between these points. Some provinces look larger than they should, due to the map projection. In these cases, the translation from kilometers per hour to pixels per hour is modified. Speed modifications are done per division in an army, and then the slowest-moving division sets the speed for the entire force. The exception is that each mechanized or armored division can carry one-fourth of a non-mechanized division. That is, if an army consists of two mechanized divisions, two armored divisions, and one regular infantry division, it can move at the speed of the slowest of the mechanized and armored divisions. The non-mechanized division is carried.

Click a unit, and then control-click the province or sea area that you want to move it to. Option+Ctrl-click the area to which you want to move. This brings up the Combat Coordination Box (CCB). We will cover this box in great detail later in the manual. For now, it's enough to know that you can use the CCB to designate when units will arrive in a province and what they will do when they get there. You can plot a unit's movement through several provinces by Shift+control-clicking on each province or sea area that you want the unit to move into.

Note: Units are a broad category that includes land armies, air squadrons, and ships/flotillas.

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- **Strategic Movement:** You can also strategically redeploy a division or aircraft squadron. To do so, select the division in the Military Screen and click the Strategically Redeploy Division button at the bottom of the menu. The unit will be removed from the map. When it's ready for re-deployment, it will appear in the Force Pool. Such units can be redeployed to any province in the owning player's home country.
- **Cycling, Merging, and Forming Units:** When multiple units occupy the selected province, you can cycle through them by left clicking on the selected unit. If you want to merge several units into one army, hold down the mouse button and drag a box around the units in the province. This will pop up the Army Menu. Click on the Merge Units button on the bottom of the menu to merge the units in a single army. You can also create a new unit by selecting an existing unit and then clicking the Create New Unit button on the bottom of the Army Menu. This displays a panel that places the units in the currently selected army on the left side. Click on the plus sign beside any division to form a new unit/army/corps with it.
- **Map Modes:** There are several map modes that can be accessed from the Quick-Nav menu at the bottom-right of the Main Screen. From top to bottom, they are Terrain, Political, Weather Information, Economic, and Day/Night Mode.
- **Terrain:** The Terrain Mode displays the dominant terrain in each province. There are numerous types of terrain:
- **Swamp:** Swampland that degrades mechanized movement.
- **Forest:** Lots of trees. Again, this degrades mechanized movement and gives defending infantry a bonus.
- **Jungle:** This is even heavier vegetation than Forest, slowing mechanized movement by approximately 70% and providing infantry with a large defensive bonus.
- **Hills:** Depicted as gentle green mounds, hills slow mechanized movement.
- **Mountains:** Displayed as steeply sloped gray mountains on the map, these slow down mechanized movement as much as jungles do.
- **Frozen:** Frozen terrain slows all movement. It's depicted as a white terrain with in the province.
- **Muddy:** Muddy terrain slows movement roughly twice as much as frozen areas. It's depicted as tan-brown terrain within the province.
- **Political:** Click on the Political Mode to color-code the provinces according to owner. However, you can see which country was the original owner by momentarily holding the mouse over the province. Each province that your units can actually see is shaded a lighter version of its owner's color.
- **Weather Information:** Clicking on the Weather Information Mode displays the weather in each province. Weather can have a profound effect on a unit's ability to move through the province and an aircraft's ability to conduct raids on the province. The effects are outlined below:
- **Storm:** A storm is depicted as a cloud with flashing lightning. Storms slow movement through a province by 10-20%.

- **Snow:** A snowing cloud depicts a snowstorm. (That makes sense, doesn't it?) Snow slows movement about twice as much as a storm.
- **Blizzard:** A cloud snowing heavily depicts a blizzard. Blizzards drastically slow movement through a province.
- **Clear:** If there is no weather icon over a province, the weather is clear. Clear weather has no effect on movement. Aircraft capability is degraded in all conditions except clear skies. This degradation can be lessened by technological advancements such as radar.

Note: The Weather Information Mode can be displayed simultaneously with the Terrain Mode. This is handy when you're planning attacks. For example, you'll have a tough time of it if you are planning to attack a mountainous province that is currently in a blizzard.

- **Economic:** The Economic Mode shows the primary resources in each province. Be aware that not every province has a primary recourse. This map is useful when you're considering your global strategy. A quick look at the Middle East shows that many of the provinces are oil-rich – a necessary commodity for a highly mechanized army.

The icons represented are:
- **Coal:** Depicted as a coal cart, this denotes a province rich in coal.
- **Industrial Capacity (IC):** Represented by a factory, this denotes a province with a high IC.
- **Oil:** Represented by a drop of oil, this represents a province that is rich in oil.
- **Steel:** Depicted as three steel bars, this indicates a province rich in steel.
- **Show Day/Night:** Clicking this button shows the day/night patterns of the province. Day and night are more than cosmetic touches in *Hearts of Iron*. They profoundly affect the game play. For example, until night radar technology is developed, aircraft are darn near useless at night.
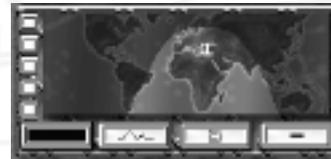
- **Quick-Nav Window:** The Quick-Nav Window is located at the bottom-right of the Main Screen. It provides an overview map of the entire world. You can center the main map view on any location in the world by left clicking on the location in the overview map. On the left side of the Quick-Nav Window are the five map modes discussed above. At the bottom of the Quick-Nav Window are four buttons that perform the following functions:
- **Zoom:** The first button zooms the map. There are five zoom levels in *Hearts of Iron*.
- **Ledger:** Clicking on the second button from the left calls up the ledger window. From this window, you can get a quick view of your empire, its armies, and how it compares to the other empires. Let's look at the screens accessible from the Ledger Screen:
- **Territorial Information:** This screen lists the territories that you currently

control, and their industry, coal, steel, rubber, and oil-producing capability.

- **Convoy Summary:** This provides data on your current convoys. Each line lists where the convoy originates, where it's headed, and how many transports and escorts are included. Additionally, this screen lists how many units of coal, steel, rubber, oil, and supplies the convoys are carrying. The bottom of the screen displays the total for all convoys. The convoys can be sorted by column. For example, if you want to sort your convoys by the amount of coal they are carrying, click on the coal column header. Refer to the convoy section of this user manual for more information.

- **Current Point Allocation:** This screen provides an overview of the current victory points possessed by each country and block of allies (Axis, Allies, Communists, and Neutral). Specifically, this screen lists each province that has a value, its value, its controller, and which block of allies reaps the victory point reward of controlling the province. The bottom row supplies the totals of each column. Again, the information can be sorted by column. For example, if you want to see precisely which victory point locations are controlled by Austria, double-click the Controller head. This sorts the controllers alphabetically, which places Austria at the head of the class.

- **Land Commanders:** This ledger displays your land commanders. Shown are each commander's name, rank, skill, experience, and commission. We'll take a harder look at this in the Military section. The commander's rank determines how many units the person can command. For example, a German Field Marshall can command 12 divisions, but a Lieutenant General can only command three. You can assign a commander more than his allocation of divisions, but the extra divisions receive no bonus from the commander's skill. His skill determines how well he commands those units (the higher the better), and he gains experience by winning battles. Once a land commander accrues enough experience, he can be promoted. His commission is the army that he currently leads.

- **Sea Commanders:** This ledger displays your sea commanders. Shown are each commander's name, rank, skill, experience, and commission. As with the land commanders, a sea commander's rank determines how many units he can command. For example, a German Grand Admiral can command 12 flotillas, but a Vice Admiral can only command three. You can assign a sea commander more than his allocation of flotillas, but the extra flotillas receive no bonus from his skill. His skill determines how well he commands those units (the higher the better), and he gains experience by winning battles. Once a sea commander accrues enough experience, he can be promoted. His commission is the fleet that he currently leads.*.*

- **Air Commanders:** This ledger displays your air commanders. Shown are each commander's name, rank, skill, experience, and commission. Once again, the commander's rank determines how many units he can command. For example, an American Lieutenant General can command three squadrons, but a Major General can only command one. You can assign an air commander more than his allocation of squadrons, but the extra squadrons receive no bonus from his skill. His skill determines how well he commands those units (the higher, the better), and he gains experience by winning battles. Once an air commander accrues enough experience, he can be promoted. His commission is the air wing that he currently leads.

- **Land Divisions:** This ledger provides information on all your land divisions at a glance. Included on the ledger are the division's name, the type of division it is, the unit that it's a part of (3rd Army, for example), its geographical location, its divisional strength, and its location. Note that its strength is based on a 100 scale. You can bring weaker divisions up to strength by selecting them on the Map Screen and then clicking Reinforce to Maximum Strength on the Division Submenu. Organization is a reflection of the organization and morale of the troops. A unit's strength and organization dictate its effectiveness in combat. Totals are provided at the bottom of the page. Each column can be used to sort the data.

- **Ships:** This ledger is similar to the ledger for land divisions. Heck, what am I saying? It's exactly the same. It lists the name of each ship or flotilla and defines the type of ship, the units it's a part of, and its location, strength, and organization. Ships are different from land divisions, however. Before you can repair a ship or flotilla, it must be in a friendly port. As with the other ledgers, this one can be sorted by any of its columns.

- **Air Wings:** This ledger is similar to the ledger for land divisions. It lists the name of each squadron and defines the type of plane, the unit it's a part of, and its location, strength, and organization. You can bring weaker squadrons up to strength by selecting them on the Map Screen and then clicking Reinforce to Maximum Strength on the Squadron Submenu. Organization is a reflection of the organization and morale of the squadron. A unit's strength and organization dictate its effectiveness in combat. Totals are provided at the bottom of the page. As with the other ledgers, this one can be sorted by any of its columns.

- **National Army Comparison:** This ledger is a very useful screen that allows you to compare the armies of different countries. It lists each country's name and includes columns for infantry, cavalry, motorized, mechanized, armored, para troopers, marines, mountaineers, and militia. Each column lists the strength points of that type of unit. The information can be sorted by column. Hence, if you want to know who has the strongest armored forces on the map, click the Armored header.

- **National Naval Comparison:** This ledger allows you to compare the navies of different countries. It lists each country's name and includes columns for battle ships, cruisers, destroyers, carriers, submarines, and transports. Each column lists the strength points of that type of unit. Note that the columns for both destroyers and submarines represent flotillas, whereas the columns for the other ships represent individual ships. As you have probably guessed, this data can be sorted by column.

- **National Air force Comparison:** This ledger allows you to compare the air forces of different nations. It displays each nation's name and includes columns for fighters, strategic bombers (StrBomber), tactical bombers (TacBomber), dive bombers (DivBomber), naval bombers (NavBomber), torpedo planes, transports, flying bombs (FlBombs), and flying rockets (FlRockets). Each column lists the strength points of that type of unit. This data can be sorted by column.

- **Game Settings:** The third button from the left at the bottom of the Quick-Nav Window is the Game Settings button. Click on it to set the following game settings:
- **Save:** Clicking here pops up the Save Game Window. Click OK at the bottom of the window to save your game with the default name presented in the window. Or, type the name you want to use and then click OK.
- **Load:** Clicking here pops up the Load Game Window. Click on the game that you want to load and then click OK.
- **Options:** Clicking this button pops up the Options Window, which allows you to adjust the following options:

- **Game Speed:** Displays a menu at the bottom of the Options Window. There are eight game speeds in *Hearts of Iron*, from 5 minutes of real time equaling 1 month of game time (this is very slow) to 1 minute of real time equaling 2 years of game time (this is really fast). Of course, you can always pause the game with your keyboard's Pause key.
- **Fog of War:** This refers to the inherent confusion on the battlefield. In *Hearts of Iron*, turning on the fog of war hides enemy units that your own troops cannot see. The default position is 'On'.
- **Use Counters:** By default, *Hearts of Iron* displays your charges as animated soldiers, tanks, ships, planes, etc. You may prefer to view them in the NATO symbology that's popular in many board war games by setting the Use Counters switch to 'On'.
- **Autosave:** This option allows you to designate whether you want to auto save your game, and how often you want to auto save it. The options are Never, Monthly, Once every three months, once every five months, and Once every ten months.
- **SFX Volume:** Clicking here displays the SFX (sound effects) volume slider. Moving the slider to the left lowers the sound effects volume, and moving the slider to the right raises it.
- **Music Volume:** Clicking here displays the music volume slider. Moving the slider to the left lowers the music volume, and moving the slider to the right raises it.
- **Message Settings:** Clicking on Message Settings at the bottom of the Options Window shows the Message Settings Box. From this box, you can set which messages you want *Hearts of Iron* to display. Simply select a message and then select one of the four options: Do not display this message, Display this type of message in the game log, Display this type of message in a message box, or Display this type of message in a message box and pause. Then click OK. Alternatively, you may Option + Ctrl-Click each message as it appears during the game and set its visibility parameters from the pop-up box.

  Note: You don't need to set each message option individually. You can also click Default to use the settings that the game shipped with.

- **Cancel/OK:** The final buttons on the Option Window are Cancel and OK. Click Cancel to return to the Game Management Window without saving your changes. Click OK to save your changes and return to the Game Management Window.
- **Hints:** The fourth button from the top of the Game Management Window is Hints. Click here to pop up the Hint Box. You can cycle through all the available hints in the Hint Box by clicking Next or Previous. Then click the Close button.
- **Surrender:** Beneath the Hints button is the Surrender button. Click it to display a confirmation box, and then click Quit in that box. This exits the scenario and displays the Victory Screen, which we will cover in greater detail later in the manual. Click OK to exit the Victory Screen and return to the Opening Screen.
- **Return:** Click this button to go back to the Main Screen.
- **Zoom Out:** This button zooms out your view of the main map.
- **Game Log:** The window at the bottom of the Main Screen is the Game Log. This log displays the messages that you chose to display in the Message Settings of the Game Management Screen's Options Window.

Technology

Technology is the heart of any country's war effort. Without armies that field the latest weapons, you cannot hope to win battles. But to field those weapons, you must first research them. You must reserve some of your IC for research in the Production Screen. This amount is then divided among a number of specific research projects in the Technology Screen. There is no upper limit to the number of research projects a player can have in progress, but you'll want to concentrate heavily in certain areas.

There are two types of research, and therefore two types of projects: Theoretical and Applied. Theoretical research is level-based (1-10) and does not necessarily provide any immediate benefits. However, each new level opens up new possibilities for applied research projects. The applied research projects that are opened up by each level of theoretical research are semi-random. Some key applications will always appear, but others may never be researched by that nation during that particular game. (Which is not to say that they cannot be shared by an ally or stolen from the enemy). See the section on Intelligence Events.

Relevant military units completed after a new discovery will be equipped with the new tech, but older units must be refitted using some of the IC.

Click on the Technology submenu button to bring up the Technology Screen.

The Technology Screen is divided into five sections. Across the top of the screen are several icons that represent the broad categories of technology that you can research:

- **Infantry Research:** This research area covers things that enhance the performance of your infantry.
- **Armored Vehicle Research:** Under this topic are research projects that enhance the performance of armored vehicles, whether they're tanks or armored personnel carriers.
- **Electronics Research:** The research of all things electronic, from radar to radio to magnetrons.
- **Industrial Research:** This encompasses research that increases your IC. Included are topics such as Assembly Mass-Production and Rocket Assembly Construction.
- **Rocket Research:** Encompasses the research that's necessary to start your own rocket program and keep it growing.

- **Nuclear Research:** Research that leads to the development of nuclear weapons. Includes Isotope Separation Process and Fission Bomb (ouch!).
- **Naval Research:** This research focuses on the navy and methods of enhancing its performance. Ruling the seas starts here. Emphasizes surface vessel research.
- **Submarine Research:** Obviously, this is where you study submarines and their deployment. Research topics include Mini-Subs and Steel Periscope.
- **Artillery Research:** Researches artillery and its deployment. The research of infantry guns, artillery, and anti-tank guns is part of this category.
- **Heavy Aircraft Research:** This leads to heavy bombers, which are a must if you hope to attack your enemy's economy from the air.
- **Light Aircraft Research:** This focuses on the study of light aircraft. Included are research topics that lead to the development of better fighters and tactical bombers.
- **Land Warfare Doctrine:** The study of land warfare doctrine improves your land unit's basic organization (among other things). Topics include Motorize Headquarters and Encirclement-Destruction Doctrine.
- **Air Warfare Doctrine:** This field of research leads to improved air unit performance. Advancements here will increase your air unit's organization.
- **Naval Warfare Doctrine:** This field of research leads to improved naval unit performance. Advancements here will increase your naval unit's organization. Topics include Great War Analysis and Sea Lanes Denial Doctrine. Clicking on a technology category flows text into three of the other four panels of the Technology Screen. Let's look at these panels and what they allow us to do:
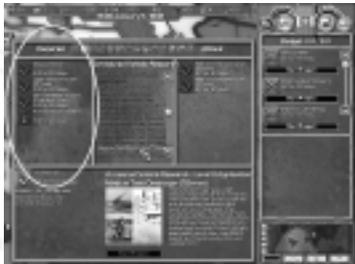
- **Research Requirement Panel:** After a project is selected, this panel displays its research requirements. If the panel remains blank, the project has already been researched. If you select a project that has not yet been researched, its requirements will be displayed here. Displayed requirements that have been researched will be illuminated and identified, with white lettering. Projects that have not been researched will be shaded out, with their research IC and time requirements high lighted in blue text.

- **Research Projects Panel:** The Research Topics Panel lists the research projects available in the currently selected technology category. Projects are coded with four colors. White-lettered projects have already been researched. Green-lettered projects meet all research requirements and are ready to be researched. They will also appear in the Technology submenu on the right side of the page. You can research one of these projects by clicking Start Project under its name in the Technology submenu, or by clicking Start Project under the project's picture in the Project Information Panel at the bottom of the screen. Each project requires a specific amount of IC for a set time. For example, if the Germans want to research Light Mortar, it costs 5 units of IC for 90 days. The cost of each project is shown in both the Project Information Panel and the Technology submenu.The

third type of projects that appear in the Research Projects Panel are those that are not yet ready to be researched. These are shaded out. Clicking on them will show which projects need be researched (in the Research Requirement Panel) before they can be researched. Projects that are being researched are indicated with yellow lettering.
- **Research Allowed Panel:** The Research Allowed Panel displays the research that the completion of the currently selected project will allow. You can click on any of the allowed projects to see what they will require for completion.
- **Project Information Panel:** The bottom pane of the Technology Screen is the Project Information Panel. Clicking on a research project in Research Requirements, Research Projects, or Research Allowed Panel displays information about the project in the Project Information Panel. This panel shows a description of the project, a picture, the IC cost, and build/research time.
- **Technology submenu:** When you click the Technology submenu button, the panel on the right side of the screen displays all the projects that you can currently research.

These projects are grouped by research category, such as Infantry Research, Submarine Research, etc. You can research any of these projects by clicking the Start Research button under the project listing. The top of the panel displays the amount of IC that you have currently allocated to research, and the amount that you are using. You can allocate more IC to research by clicking on the Production Screen button and moving the Research slider to the right.

The Military Dimension

In the final analysis, *Hearts of Iron* is a game of conquest. In fact, it's a game of global conquest. The globe has never been conquered without a fight, though, and so it is in *Hearts of Iron*. The Second World War is a time of epic conquest. To win, you must learn how to fight, and that is what this section of the user manual will teach you.

Combat is initiated when hostile units meet in a province or sea zone, or when an air flotilla performs an attack or intercept mission. Land combat is the first type of encounter that we will examine. As a precursor to combat let's explore the parameters of *Hearts of Iron*'s military units.

The Warriors of Hearts of Iron

Every unit in *Hearts of Iron* possesses some, if not all, of the following characteristics. Clicking on the army, fleet, air flotilla and then clicking an individual division, ship, or squadron display most of these. The build cost, build time, and required manpower can be seen in the Building Sub-menu [Military Screen>Setup New Division (or Commission New Ship/Flotilla/ Build New Aircraft Squadron)]. These characteristics are combined into averages for whole armies.
- **Build Cost:** This is the number of ICs that must be reserved in order to build the unit.

- **Build Time:** This is the time in days it takes to complete the unit.
- **Required Manpower:** How much manpower is needed to man the unit.
- **Speed:** Each unit has a maximum speed, which is modified by the terrain and weather. In forests, but especially swamps and mountains, armored and mechanized divisions become a liability, and even regular infantry is slowed down in mountains and swamps. If the supply level (or fuel level, if oil is used) is sufficiently depleted, armies, ships and planes can no longer move.
- **Organization/Morale (%):** This value represents the overall organization and morale of the troops. It is boosted by victories and good leadership, but is reduced by bomb raids and lack of supply. The organization value is also lowered by reorganization, reinforcement and refitting of armies. The organization value is of vital importance for an army, and the main purpose of tactical bombing is to lower this value.
- **Operating Strength (%):** This is, simply put, the measure of how many men, planes, vehicles, or gun tubes (on a ship) are still in fighting shape. Operating Strength does not automatically replenish, rather the player has to select the army, fleet or squadron (or its constituent divisions) for reinforcement. Reinforcement throws the army into temporary disorganization, reserves ICs, costs manpower and takes time to complete.
- **Ground Defense:** This is the defense value against attacks by other land units. The value is modified by terrain and weather.
- **Air Defense:** This is the defense value against air attacks. (Air attacks reduce Organization for infantry, but can severely deplete the Operating Strength of armored, mechanized, naval or air units.)
- **Soft Attack:** This is the basic attack value against "soft" ground targets like infantry and cavalry. It is modified by terrain and weather.
- **Hard Attack:** This is the basic attack value against "hard" ground targets like tanks and ATVs. It is modified by terrain and weather.
- **Transport Weight:** This value determines how much transport space a unit requires.
- **Air Attack:** Attack Value against air targets.
- **Supply Consumption:** The rate at which supplies are consumed (drawn from the national pool). This is 0 if the unit is out of supply.
- **Fuel Consumption:** The rate at which fuel is consumed. (Drawn from the national pool). This is 0 if the unit is out of supply.
- **Spotting Capability:** This value represents the ability of an Air Flotilla or fleet to discover enemy ships in a sea zone. It is high for all types of aircraft except transports.
- **Surface Defense:** A squadron's defense ability against AA fire.
- **Strategic Attack:** The ability of an air division to damage enemy industries, cities and port facilities. Modified by weather and time of day.
- **Tactical Attack:** The ability to destroy enemy tanks, vehicles and forts, and to disorganize enemy armies. Modified by weather and time of day. This value is used against both soft and hard ground targets, but is by nature more effective against hard targets.
- **Naval Attack:** The ability to damage and sink ships. Ordinary tactical bombers have a low naval attack value, but the specialized Naval Bombers rule this type of mission
- **Range:** Specifies how far the unit may fly or steam without running out of fuel.
- **Visibility:** Denotes how visible a ship is.

Land Combat

Land combat covers all types of attacks by land units and defense from such attacks. The central concepts of land combat are the attack type (assault, blitz, Para drop, or invasion), the unit attack values, the unit defense values, and the various modifiers (organization level, operating strength, fortification level, terrain type, river crossing, envelopment factor, weather, and time of day). Remember, this is a real-time game. A battle may not be decided in one round, but there will be a new round each day at noon until one side or the other breaks or withdraws. This is what happens in each round of combat, in the order in which it occurs:

- **Check for surprise (only during the first round):** Surprise is most likely to occur if the attacking commander is a Trickster (see section on Leaders below) and the enemy has not detected several attacking units. Surprise forces any defending units to take losses (see below) before firing back. Surprise also eliminates negative river crossing and Para drop modifiers (see below). The base chance for surprise is 10%; for a Trickster general it is 50%. Each division that is unspotted by the enemy when combat starts adds another 10%.
- **Calculate river crossing, Para drop, or invasion factor (only during the first round):**
  Unless the leader of the army is an engineer, Para drop, or invasion specialist, each of its divisions' combat values will be modified as follows:
- **River crossing:** -50% (-20% for divisions with an engineer brigade)
- **Invasion:** -50% (-20% for Marine divisions)
- **Para drop:** -30% (Can only be done by Paratrooper divisions)
- **Calculate Terrain modifier for each side:**
  – Jungle: -50% for attacking armored/mechanized, +30% for all defenders
  – Forest: -25% for attacking armored/mechanized, +10% for all defenders
  – Swamp: -50% for attacking armored/mechanized, -25% for other attackers
  – Hills: -10% for attacking armored/mechanized, +10% for all defenders
  – Mountains: -80% for attacking armored/mechanized, -10% for Mountaineers, -40% for other types of attacking divisions
  – Urban: -50% for attacking armored divisions, +30% to the defense values of the defenders
- **Calculate Weather modifier for each side:**
  – Frozen: -20% for attacking infantry, -30% for attacking armor/mechanized (nullified by winter specialist leaders)
  – Rain: -10% for all attackers
  – Snow: -30% for attacking inf., -50% for attacking armor/mechanized (-10% / -20% for winter specialist leaders)
  – Storm: -40% for all attackers
  – Blizzard: -60% for attacking inf., -90% for attacking armor/mechanized (-45% / -60% for winter specialist leaders)

– **Muddy:** -20% for attacking inf., -50% for attacking armor/mechanized
- **Calculate Night modifier for each side (only during the first round – subsequent rounds will be fought at noon every day):**
  – All attackers take -40% and all defenders take -25% at night, but these modifiers can be reduced by research.
- **Calculate Leader bonuses:**
  – Some leaders (and ministers) give various bonuses to their troops.
  – There is a -15% penalty to all combat values for units that are more than three provinces away from the nearest HQ.
- **Calculate Unit Experience modifiers (optional rule):**
  – All combat values are raised by XP / 2.
- **Calculate Envelopment modifier for defenders:**
  – Defenders get a -10% modifier to all combat values for each direction (province borders and sea zone borders; Para drops count as one direction) above the one that the attackers are coming in from.
- **Calculate Encirclement penalty for defenders:**
  – If enemy-held provinces encircle the defenders, they get a -20% penalty to their attack values. An encircled pocket can consist of up to two small provinces (size 1-3) or one large province (size 4-6).
- **Calculate "dug in" modifier for defenders:**
  – If the defending units are dug in, they get a 20% modifier to their defense values.
- **Calculate Fortification modifier for defenders:**
  – This value depends on the fortification level in the province. The ratio is 1 to 3: 50% fortifications gives +150% defense bonus to all defenders.
- **Each attacking unit fires:** Once all bonuses have been calculated, the attackers fire. The available soft and hard attack points [SAP and HAP (see unit characteristics below)] are calculated, modified by the unit's operating strength, organization level, and the above modifiers. Attack values cannot fall below 1 unless the unit is retreating (in which case it is 0). Next, each attacking unit fires once at the province fortifications, reducing its level by 1 for each mHAp (mHAp = modified Hard Attack points). If the division has and engineer brigade, the damage is tripled. Finally, each attacking unit targets one enemy division (using random targeting) and fires once for every modified hard attack point or soft attack point that the firing division has. Against defending mechanized infantry, the less favorable of the two is used.

Note: Hard attack points (HAP) are used against armored targets, such as armored and mechanized divisions. Soft attack points (SAP) are used against infantry-type divisions, such as infantry, paratroop, mountain, and marine divisions.

Damage Assessment

The damage that each division inflicts is calculated as shown below. In addition to the previous modifiers, the damage inflicted is dependent on the type of attack. Note that there are three types of attacks: Assault, Feint, and Blitz.
- **Assault:** This is the standard attack and the default setting in the Combat Coordination Box (CCB). To assault a province, click on a friendly land unit and then click on the province that you want to assault.

- **Feint:** This is a probe. The attacking armies initiate combat, but with draw quickly.
- **Blitz:** You can only blitz if 75% of the divisions in the attacking army are armored or mechanized. The attacking units try to break through the enemy lines and roll on to another province. If the blitz is successful, units in the targeted province will break (organization will fall below 30%) and most likely retreat.

Assault – Armored versus Soft Target: Each attack point of an armored division has a 95% chance of inflicting a 2-6% loss in Organization and 1-2% damage on Operating Strength on a soft target (non-armored or defending mechanized). The remaining 5% chance causes a "critical hit" of 12% Organization loss and 5% Operating Strength damage. Additionally, if it is the first combat round, the target takes a 5-15% loss in Organization due to "armor shock." This is not regarded as a "hit," and the target cannot avert it with its defense.

Assault – Armored versus Hard Target: Each attack point of an armored division has a 95% chance of inflicting a 1-3% loss in Organization and 1-3% damage on Operating Strength on a hard target (armored or defending mechanized). The remaining 5% chance causes a "critical hit" of 15% Organization loss and 10% Operating Strength damage.

Assault – Non-armored: Each attack point of a non-armored division has a 95% chance of inflicting a 1-3% loss in Organization and 1-3% damage on Operating Strength. The remaining 5% chance causes a "critical hit" of 10% Organization loss and 10% Operating Strength damage.

Blitz – Armored versus Soft Target: Each attack point of an armored division has a 95% chance of inflicting a 3-9% loss in Organization and 0-1% damage on Operating Strength. The remaining 5% chance causes a "critical hit" of 20% Organization loss and 3% Operating Strength damage. Additionally, if it is the first combat round, the target takes a 5-15% loss in Organization due to "armor shock." This is not regarded as a "hit," and the target cannot avert it with its defense.

Blitz – Armored versus Hard Target: Each attack point of an armored division has a 95% chance of inflicting a 2-6% loss in Organization and 1-2% damage on Operating Strength. The remaining 5% chance causes a "critical hit" of 20% Organization loss and 5% Operating Strength damage.

Blitz – Non-armored: Each attack point of a non-armored division has a 95% chance of inflicting a 2-6% loss in Organization and 0-1% damage on Operating Strength. The remaining 5% chance causes a "critical hit" of 20% Organization loss and 3% Operating Strength damage. Remember, at least 75% of the attacking divisions must be armored or mechanized to conduct a blitz.

Feint: In a feint attack, all types of attacking units inflict a 0-3% loss in Org. and a 0-1% loss in Operating Strength per hit. (The same goes for the defenders.)

After the attackers attack, the defenders defend using the following sequence and parameters:

- **Units Defend:** For each point of ground defense – modified by the unit's operating strength, its organization level, and the cumulative modifiers listed above (but never, ever less than 1) -- the unit has a 66% chance of nullifying the effects of a random enemy hit (see above).
- **If surprised, the defending units take losses.**
- **Each defending unit fires:** The defending units fire exactly like attackers using the assault formula delineated above.
- **Attackers defend:** Attackers defend exactly the same way the defenders initially defended.
- **Both sides take losses:** Note that these losses are in addition to any losses dictated by the attacker's surprise. All units now get their Organization level and Operating Strength modified according to the hits they have taken, as explained above. Damage to Operating Strength also reduces Maximum and Remaining Fuel and Supplies accordingly (as well as the consumption rates).
- **Fortification level decreased in province:** Fortification level in the province is reduced according to the number of hits taken.
- **Collateral damage calculated:** The transportation network, manpower, and indus try in the province receive collateral damage. For each attacking division, each of these three province values incurs a 1-2% loss.
- **Check supply status:** Each attacking unit now loses 3-10% supply, and each defending unit loses 2-7%. If the oil rule is active, each attacking unit (that uses fuel) also loses 3-10% fuel. Defending divisions lose 2-7% fuel. If a unit is out of supplies or fuel, losses will be incurred on organization instead.
- **Check each defending unit for surrender or broken status:** At 30% organization or below, units will "break." At 15% organization or below, they will surrender. Broken units retreat from the battlefield. Units that surrender cease to exist.
- **Check each attacking unit for broken status:** At 30% organization or below, attacking units will "break." Attacking units do not surrender.
- **Check for retreat:** If the majority of the attacking units are broken, the attackers will retreat and combat will be over. If not, a check is done for the defenders. If most of the defenders are broken, they will retreat to a random neighboring controlled province, and the province will fall to the attackers. If there is no neighboring province under the control of their side, they will all surrender. If exactly half of the units are broken, the retreat check is made on their average operating strength instead. If the average operating strength is low (5% or below), all the units will retreat.
- **Check for breakthrough for attackers (blitz attacks only):** If the defenders retreat, the attackers break through and continue to their designated target. If the target province is the same as that which the enemy is retreating to, chances are good that the attackers will arrive there first. (If there are enemy units present there, the attack type will be assault.) Even if the enemy is not retreating, there is a chance of breakthrough, calculated by the number of broken enemy divisions divided by the total number of enemy divisions. If both sides remain in the province, another round of combat ensues the next day.

Air Combat

Air combat covers all types of attacks by air units and the defense from such attacks. Thus, air-to-sea and air-to-land attacks are also discussed here. Air combat is quite diverse, and the combat resolution mechanisms for the various types of air missions are quite different.

Air-to-Air Combat Round

Air-to-air fights are quick affairs, requiring but a single combat round. Here is the sequence of events:

- **Check for surprise:**
  This works like land combat and is influenced by the Spotter leader trait and the number of unspotted attacking units. The base chance for surprise is 10%; for a Spotter it is 50%. Each squadron that is unspotted by the enemy when combat starts adds another 10%.
- **Calculate weather modification:**
  – **Rain:** Both sides operate at -30% efficiency.
  – **Snow:** Both sides operate at -50% efficiency. During Storms and Blizzards, no air missions can be flown at all. Note, however, that technological advances can influence these percentages.
- **Calculate Night modification:**
  Night conditions modify combat based on the relative technological levels of the two combatants. At base level, no air missions can be flown at night. Subsequent discoveries allow more efficient night missions.
- **Calculate Base Proximity bonus:**
  This is an abstraction representing the advantage of short transit times to the combat zone. If the base from which the air flotilla started is in a neighboring province or sea zone, it gains a +15% modifier to its attack value.
- **Calculate Leader bonuses:**
  Some air marshals give various bonuses to their air divisions. You can determine which bonuses your air marshal provides by clicking on your air flotilla and then right clicking on its leader's portrait. Consult the Leader section for additional information.
- **Each attacking unit fires:**
  Each attacker randomly targets an enemy air division. For each air attack point remaining after modification (operating strength and the above modifiers), the defending unit takes 1-20% damage (with a chance to defend, as specified below).
- **Defenders defend:**
  For each air defense point remaining after modification, the defending unit has a 66% chance of nullifying one random enemy hit.
- **If surprised, defenders take losses now:**
  If the defenders were surprised, they take their losses now rather than after they fire.
- **Each defending unit fires:**
  Defenders fire in the same manner that the attackers previously fired. See above.
- **Attackers defend:**
  For each air defense point remaining after modification, the defending unit has a 66% chance of nullifying one random enemy hit.

- **Both sides take losses:**
  Losses are now taken on both sides. Note that damage to Operating Strength also reduces Maximum and Remaining Fuel and Supplies accordingly (as well as the consumption rates).
- **Check withdrawal:**
  The attackers withdraw, returning to base for refueling and repairs. The defenders can now be forced to abort their mission depending on the losses they have taken.

Tactical Bombardment Combat Round

Aircraft are an integral part of the combined armed forces of all the major WWII powers. Although they attack land units primarily to disorganize them, planes also make impressive fortresses and tank busters. Like all types of air combat missions, air-to-surface combat lasts a single round. Here's how it goes:

- **Check for surprise:**
  The chance of surprise depends on the number of undetected squadrons in the attack. The base chance is 10%, and another 10% is added for each undetected squadron (up to a maximum of 100%).
- **Calculate Weather modifier:**
  – **Rain:** Attackers attack at -30% efficiency.
  – **Snow:** Attackers attack at -50% efficiency.
  During Storms and Blizzards, no air missions can be flown at all. Note, however, that technological advances can influence these percentages.
- **Calculate Night modifier:**
  As with the other types of air combat, this depends on the research level. The proper research into night-fighting techniques can increase your chances here.
- **Calculate Terrain modifier:**
  – **Jungle:** -80% for attackers
  – **Mountains:** -50% for attackers
  – **Forest:** -25% for attackers
- **Calculate Leader bonuses:**
  Some leaders give various bonuses to their units. You can determine which bonuses your air marshal provides by clicking on your air flotilla and then right clicking on its leader's portrait. Consult the Leader section for additional information.
- **Calculate Fortification modifier for defenders:**
  This value depends on the fortification level of the province. The equation is simple: 50% fortifications give a 50% air defense bonus to all defenders. So, if you are defending, the more fortifications, the better.
- **Anti-Aircraft (AA) Guns fire:**
  The province AA guns now fire. For every 10% of the AA gun level in the province, each attacking unit sustains one hit causing 1-10% damage to Operating Strength.
- **Attackers defend:**
  For each modified air defense point, every attacking squadron has a 66% chance of averting a random AA gun hit.
- **Attackers take losses:**
  Each attacking squadron now takes the remaining damage from the AA gunfire.

- **Attackers fire:**
  First, each attacker fires once at the province fortifications and once at the AA gun emplacements, reducing their level by a percentage in proportion to the attacking unit's modified Tactical Air Point. Next, for each modified Tactical Air Point, every attacking unit fires once at one enemy division, targeting armored divisions first, mechanized divisions second and other types third. These priorities can be altered if the tank or mechanized divisions have already sustained enough hits by prior attacks to be likely to break them. Each hit against hard targets causes 1-10% damage to operating strength and a 5-15% reduction in organization. Each hit against soft targets causes 1-5% damage to operating strength and a 5-15% reduction in organization.
- **Defenders defend:**
  Defenders use their air defense value to attempt to nullify the hits inflicted by the aircraft. For each modified air defense point, every defender has a 66% chance of averting a random hit.
- **If surprised, defenders take losses now:**
  If the defenders were surprised, they take their losses now. Losses received in this phase cannot return fire, as described below.
- **Defenders fire:**
  Using their air attack value, each defender fires at one attacking air division once for every modified air attack point (mAAp). Each hit does 1-10% damage on the air unit's Operating Strength.
- **Attackers defend:**
  For each modified air defense point, every attacking squadron has a 66% chance of averting a random hit.
- **Both sides take losses:**
  The attackers now take their losses, as do the defenders unless they were surprised (in which case they have already sustained their losses). Note that damage to Operating Strength also reduces Maximum and Remaining Fuel and Supplies (as well as the consumption rates).
- **Attackers withdraw:**
  The attacking air flotillas now withdraw to a designated controlled province within their range.

Naval Attack

Planes are a deadly tool when used against naval vessels. For example, Japanese Kamikazes did more damage in the later stages of the war than their surface fleet did the entire four years. Here's how that combat routing works in *Hearts of Iron*.

- **Check for surprise:**
  The chance of surprise depends on the number of undetected air divisions in the attack. The base chance is 10%, and another 10% is added for each undetected air division (up to a maximum of 100%, of course).
- **Calculate Weather modifier:**
  – **Rain:** Attackers attack at -30% efficiency.
  – **Snow:** Attackers attack at -50% efficiency.
    These modifiers can be changed by the attacker's technology level.

- **Calculate Night modifier:**
  As with the other types of air combat, this depends on the technology level.
- **Calculate Leader bonuses:**
  Some leaders give various bonuses to their units. You can determine which bonuses your air marshal provides by clicking on your air flotilla and then right clicking on its leader's portrait. Consult the Leader section for additional information.
- **Attackers fire:**
  For each modified naval attack point, every air squadron fires once at one enemy naval unit. Each hit causes 1-10% damage to Operating Strength.
- **Defenders defend:**
  Defenders now use their air defense value to nullify each hit they've received. There is a 66% chance of nullifying each hit per modified air defense point – as with all other combat types.
- **If surprised, defenders take losses now:**
  If the defenders were surprised, they take their losses now, before they fire back. If not, they take their losses later in the combat phase.
- **Defenders fire:**
  Using their air attack value, each ship or flotilla fires at one attacking squadron once for every modified Air Attack Point (mAAp). Each hit reduces the air unit's operating strength by 1-10%.
- **Attackers defend:**
  Attackers now use their air defense value to nullify each hit they've received. There is a 66% chance of nullifying each hit per modified air defense point.
- **Both sides take losses:**
  The attackers now take their losses, as do the defenders unless they were surprised (in which case they have already sustained their losses). Note that damage to Operating Strength also reduces Maximum and Remaining Fuel and Supplies accordingly (as well as the consumption rates).
- **Attackers withdraw:**
  The attacking air flotillas now withdraw to a designated controlled province with in their range. Note that capital ships at 30% operating strength or less can be destroyed. That's not a good thing for the sailors.

Strategic Bombardment

Strategic bombardment is used to attack the IC, infrastructure, and resources of a province. Although this is a simple type of combat, it can cripple an enemy's IC.
- **Calculate Weather modifier:**
  – **Rain:** Attackers attack at -30% efficiency.
  – **Snow:** Attackers attack at -50% efficiency.
  During Storms and Blizzards, no air missions can be flown at all. Note, however, that technological advances can influence these percentages.
- **Calculate Night modifier:**
  As with the other types of air combat, this depends on the research level. The proper research into night-fighting techniques can increase your chances here.
- **Calculate Leader bonuses:**
  Some leaders give various bonuses to their units. You can determine which

bonuses your air marshal provides by clicking on your air flotilla and then right clicking on its leader's portrait. Consult the Leader section for additional information.
- **Anti-Aircraft (AA) Guns fire:**
  The province AA guns now fire. For every 10% of the AA gun level in the province, each attacking unit sustains one hit causing 1-10% damage to Operating Strength.
- **Attackers defend:**
  For each modified air defense point, every attacking squadron has a 66% chance of averting a random AA gun hit.
- **Attackers take losses:**
  Each attacking squadron now takes the remaining damage from the AA gunfire.
- **Attackers fire:**
  Each attacking unit fires once for every modified Strategic Bombardment point at the specified target type (industry, anti-aircraft guns, transportation, manpower, or fortification).
- **Attackers withdraw:**
  The attacking air flotillas now withdraw to a designated controlled province with in their range.

Naval Combat

Naval operations played a huge role in World War II. German U-boats nearly strangled Great Britain's lifeline to North America, while the Americans' aircraft carriers wrested control of the Pacific from the Imperial Japanese Navy. Equally important were the war's amphibious operations. From the Germans' invasion of Norway to the Allies landing in Normandy, the ability to place men and machines ashore – in the face of hostile fire – was critical to victory. *Hearts of Iron* does a good job of re-creating naval operations.

Sea-to-Sea

This is where fleets face off against each other. You know, the whole In Harm's Way routine. Remember, however, that it is not enough for two opposing fleets to be in the same sea zone for combat to occur; they must spot each other and maneuver into combat positions. Once they do, here's what happens.
- **Check for surprise:**
  The chance of surprise depends on the number of undetected attacking naval units. The base chance is 10%, and another 10% is added for each undetected naval unit (up to a maximum of 100%, of course). Note that submarines are very hard to detect, making the chance of surprise much greater if a large number of submarine units participate.
- **Calculate Weather modifier:**
  – **Rain:** Both sides suffer -10% to attack values.
  – **Snow:** Both sides suffer -25% to attack values.
  – **Storm:** Both sides suffer -50% to attack values.
  – **Blizzard:** Both sides suffer -80% to attack values.
- **Calculate Night modifier:**
  Both sides suffer -40% to attack values, subject to further modification by research.

- **Calculate Leader bonuses:**
  Some leaders give various bonuses to their units. You can determine which bonuses your admiral provides by clicking on your fleet and then right clicking on its leader's portrait. Consult the Leader section for additional information.
- **Attackers fire:**
  Each attacking unit fires at one enemy unit once for every modified Sea Attack point. The target is normally selected in this order: Aircraft Carriers, Battleships, Cruisers, Transport Ships, and Destroyers. If a defending unit has already taken enough hits to destroy it, the next attacker fires at another unit. Each hit causes 1-10% damage to the Operating Strength of the defender.
- **Defenders defend:**
  The defenders now try to lessen the potential damage inflicted by the attackers. Each modified defense point has a 66% chance of nullifying a random enemy hit.
- **If surprised, defenders take losses:**
  As in all other forms of combat, if the defenders were surprised, they now take losses. Otherwise, they take their losses only after they fire, as explained below.
- **Defenders scramble air flotillas:**
  Any available air flotillas carried by the defenders now scramble to add to the defensive fire. (Note that a corresponding phase does not exist for the attackers; they have to launch their aircraft in a specific naval bombardment mission.) Each scrambled air division now acts as a defending unit, using its naval attack value to fire at the attackers.
- **Defenders fire:**
  Each defending ship now fires on the attackers exactly as the attackers fired on it. Furthermore, each scrambled air division fires once for every modified naval attack point, causing 1-10% damage to the Operating Strength of the enemy naval unit.
- **Attackers defend:**
  Fortunately for the attackers, not every hit is really a hit. The attacking naval units now use their modified sea defense points, each one having a 66% chance of deflecting a random hit from an enemy naval unit. The same goes for air defense points against enemy air units.
- **Attackers fire on enemy aircraft:**
  Using their modified air attack points, each ship fires once for every remaining point at one scrambled enemy air unit, causing 1-10% damage to operating strength.
- **Defending aircraft defend:**
  For each modified air defense point, each air squadron has a 66% chance of nullifying a random hit.
- **Both sides take losses:**
  Attackers now take their losses, as do the defenders unless they were surprised (in which case they have already sustained their losses). Note that damage to Operating Strength also reduces Maximum and Remaining Fuel and Supplies accordingly (as well as the consumption rates).
- **Combat ends:**
  Combat ends and both sides remain in the sea zone.

Shore Bombardment

Shore bombardment is an important part of an amphibious operation. This type of combat can only occur when capital ships use their guns to support an invasion. Thus, it is appropriate to regard it as an addendum to the Land Combat round. During the first combat round, each capital ship unit can use each modified Shore Bombardment point to fire on one enemy division, causing 1-5% damage to Operating Strength and 1-8% damage to organization. The enemy units defend using their ground defense value and cannot target the naval units when they return fire.

Intelligence and the Fog of War

War is confusing. Your enemies don't want you to know what they are about, and will do their best to hide their actions. The confusion and uncertainty generated by this lack of knowledge is called the fog of war. *Hearts of Iron* depicts this fog by providing limited/partial information on enemy units that have not been engaged by friendly troops. Although you will always see armies, fleets, and air flotillas in adjacent provinces, you will not know their strength until you attack. Hence, it's a good idea to for armies to Feint into an adjacent province to discover the exact composition of the enemy forces located in it.

Remember, enemy units that are not in provinces adjacent to friendly units will not be spotted. By the same token, you may scout enemy territory with squadrons of planes.

Coordinating Attacks and Assigning Tasks: The Combat Coordination Box Now that you understand the *Hearts of Iron* combat routine, it's time to look into how to coordinate your attacks and assign your troops' tasks. Both coordination and task assignment is accomplished through the Combat Coordination Box. To display the Combat Coordination Box select a unit and then press Option + Ctrl-Click on a province or the unit.

The Combat Coordination Box displays the time that your unit will arrive in the selected province. You may adjust this time, but may not order the unit to arrive in less time than it takes to travel to the province. Choosing the arrival time is a powerful tool. By wisely choosing the time of arrival you may order units from different provinces to attack one province, from different sides, at the same time. Whenever you simultaneously attack from more than one direction your attackers receive a bonus. By the same token you may order bombers to bomb the target province an hour before your attack begins. This will disorganize the defending units and render them ripe for ground assault. Also note that some troops are ineffective at night, don't order them to attack when the sun is down. Technological advances can improve your troop's night-fighting ability.

Assigning Tasks

In addition to setting the time of arrival the Combat Coordination Box also allows you to choose various tasks that your units may perform when they arrive in or enroute to a province. These tasks are specific to the unit types selected. For example, a squadron of aircraft cannot Blitz, nor can an armor unit Patrol.

Army Tasks

These are tasks that only a land unit may accomplish. They are Assault, Blitz, Feint, and Move. Okay, any unit can move, but you know what we mean. Units, which do not move, will slowly fortify their position, gaining a small bonus to assaults and bombardment.

- **Assault:** This is the standard, straight-up attack. Armies are selected, a target province is clicked, and Assault is chosen. Assaulting units will attempt to destroy or drive out all enemy units of the target province and occupy it.
- **Blitz:** In essence this is an overrun attack that may only be attempted if more than 75% of the units in the army or armies are Armored or Mechanized Infantry divisions. The attack will strive to punch a hole through enemy lines and drive through it. If successful it will devastate enemy organization and allow the Blitzing units to immediately continue to a province of your choice behind enemy lines. The enemy units will not be destroyed or take heavy losses, but will break (devastated organization) and possibly run. A successful Blitz attack should be followed by an Assault to crush the disorganized enemy and occupy the province, possibly driving them straight into your armored units that have blitzed to the province behind them... Blitz attacks are not allowed into very large provinces.
- **Feint:** This attack is a probe used to discover enemy troop compositions and lure them into believing it is a regular assault. Feinting armies do initiate combat, but attempt to keep it light and withdraw before taking (or inflicting) serious losses.

Air Flotilla Missions

These are the missions performed by air squadrons.

- **Re-base:** Moves the squadron or Air Flotilla to another airfield. To rebase to an aircraft carrier fly from a coastal province to an aircraft carrier in an adjacent sea province. Fleets that have planes embarked have a small plane icon in the bottom left of their square NATO icon. Each carrier may embark one fighter or tactical bomber squadron. The number of squadrons that may be based in a province is dependent on the terrain in that province. Clear provinces allow an unlimited or very large number of air divisions; mountains allow only two or three, the other terrain types somewhere in between. You may not re-base a Storm or Blizzard in either the province of origin or the target province.
- **Intercept:** This mission orders the air units to remain alert for enemy air raids. If an enemy air unit is sighted within range, the air flotilla will scramble and intercept it. This mission is only available if the air flotilla consists solely of fighter air divisions. Not possible during Storm, Blizzard or Snowing. Not possible at night unless the tech "Night Interception" has been researched.

- **Tactical Bombardment:** Tactical bombardment disorganizes enemy units prior to assaults or blitzes. However, it can also devastate the operating strength of the enemy; particularly armored and mechanized infantry divisions. Not possible during Storm, Blizzard or Snowing. Not possible at night unless "Night Bombing" has been researched.
- **Naval Bombardment:** This is a type of tactical bombardment that targets fleets vice land units. Not possible during Storm, Blizzard or Snowing. Not possible at night unless "Night Bombing" has been researched. Note that if the target fleet is in port, it enjoys protection from the provincial flak coverage.
- **Strategic Bombardment:** This attack mission targets strategic assets such as Industry, Manpower (terror bombing), and Fortifications. Only the AA level of the target province is relevant for the defense (unless the strategic bombing mission is intercepted). Not possible during Storm, Blizzard or Snowing. Not possible at night unless "Night Bombing" has been researched. This command is used to drop nuclear weapons.
- **Para drop:** This mission may only be flown by transports. You must have an army consisting of paratrooper divisions in the same province as the air flotilla. A target is specified, a time of arrival chosen, and the paratroopers loaded. Para drop missions are subject only to enemy provincial AA fire. Not possible during Storm, Blizzard or Snowing. Not possible at night unless "Night Bombing" has been researched.
- **Patrol / Reconnaissance:** Assign an Air Flotilla to patrol over a sea zone or province, return to base, refuel and then begin patrolling again. Helps discover especially enemy fleets and ground units. Not possible during Storm, Blizzard or Snowing. Ineffective at night.

Fleet Tasks

These are tasks that may be assigned to a fleet. From naval engagements convoys, there is a wide range. Fleet tasks are perhaps the most complex, since they include setting up convoys.

- **Invade/Transport Armies:** Move a transport into a coastal sea zone adjacent to a land unit, and direct the land unit to move into the sea zone to load the unit onto the transport. Then a target coastal province is selected and a desired time of arrival specified. When a fleet is invading, it may employ its shore bombardment value to assist, but this is the only time when shore bombardment can be used in the game. You may also unload the troops by moving into a friendly port. Fleets that have troops embarked have a small stick-man icon in the bottom left of their square NATO icon. Each transport may embark one division.
- **Hunt/Patrol:** Great task for a submarine fleet. The player sets way points and the fleet will patrol those sea zones until an enemy fleet is spotted, at which time it will attempt to destroy it.

Note: A unit's currently assigned task is displayed beneath the army/fleet/air flotilla leader's picture in the Army Menu. The Army Menu is displayed by clicking on the units.

Supply and Isolation Effects on Combat

Units that are forced to retreat as a result of combat, yet have no adjacent friendly territories in which to retreat will surrender (i.e. be eliminated) instead. Units that cannot trace a line of supply through friendly controlled provinces to their capital or to a port with an active convoy that traces to their capital are considered out of supply and fight at a greatly reduced capability. This also applies to pockets of troops. In other words, if there is a three-province pocket of troops that cannot trace a line of supply as indicated above, they are all considered out of supply.

Leaders

Leaders are as important in *Hearts of Iron* as they were in real life. A competent leader can get the most out of the divisions under his command, but incompetent buffoon can lead his men to ruin. *Hearts of Iron* includes leaders for armies, fleets, and air flotillas. To examine your unit's leader click on the army, fleet or air flotilla. Doing so displays detailed information on the group of units in the right-hand panel. At the top of the panel the leader is shown. The commander's rank determines how many units the person may command. For example, a German Field Marshal may command 12 divisions, but a Lieutenant General may only command three. More than the leader's allocation of divisions may be assigned to his charge, but the divisions above the number that the general is capable of commanding receive no bonus from the general's skill. The skill determines how well he commands those units (the higher, the better); experience is gained by winning battles. Once enough experience is accrued, the commander may be promoted.

To replace a leader click on his portrait in the Army Menu. This displays the Leader Sub-menu. This menu shows the leaders eligible to replace your leader. Additionally the sub-menu displays the leader's name, rank, skill, and experience. Click on a leader to replace your current leader.

Loyalty

All leaders have a secret loyalty value that increases with promotions and decreases with rising national dissent. Disloyal leaders decrease the effectiveness of their troops, might not always arrive at their targets on time and may even cause treason events. The careful player should observe the performance of his generals carefully and have them replaced if they start to perform badly.

Operational Commanders and HQs

Not only do divisions and lower echelon units need a leader to guide them in battle, but larger formations of units also need leadership. *Hearts of Iron* depicts this need as follows. Leaders, except for air marshals, of the highest possible rank (for example, German field marshals) are considered "Operational Commanders". This places them in charge of a large section of a front or all naval forces in an ocean. For an army officer, this means that he becomes the commander of an army group. The army he personally commands becomes an HQ unit. This status is displayed at the top of the Army Menu, beside the picture of the leader. You may have as many headquarters in play as you have available Field Marshals. Headquarters have the following effect:

- Land units get a -15% modifier if more than 3 provinces away from the nearest HQ unit.
- Units in the same sea zone or province as the HQ get to share the Operational Commander's bonuses from special characteristics. However, these bonuses are not cumulative if a regular army commander has the same skill.
- Units in provinces or sea zones bordering the HQ's province get halved bonuses from the Operational Commander's skills.
- HQs are considered to be a secondary supply source as long as they can trace a path to a primary supply source.

Leadership Skills

In addition to their experience and ability to command troops, some leaders have special skills that infuse the soldiers they command with special talents. Below is a list of these skills. They are divided into Land General, Admiral, and Air Marshall skills.

Land General Skills

- **Logistics Wizard:** If a leader has this trait, the units under his command consume supplies and oil at a slower rate than normal.
- **Defensive Doctrine:** Leaders with this trait get a bonus to their defense values.
- **Offensive Doctrine:** Leaders with this trait get a bonus to their attack values. Common among German generals such as Mannstein, Guderian, Rommel, etc. Other examples would be Patton and Zhukov.
- **Winter Specialist:** Units may move and fight without penalty in winter. An uncommon skill; usually found in Soviet, Finnish and Swedish generals.
- **Trickster / Camouflage Expert:** The army under a trickster leader is invisible to enemy intelligence, gains a large bonus to air defense, and always gains the surprise bonus when attacking. Rommel would be the prime example.
- **Engineer:** Moves and attacks across rivers without penalty.
- **Fortress Buster:** Reduces the effectiveness of enemy fortifications.
- **Panzer Leader / Blitz Specialist:** Blitz attacks are more likely to succeed for this leader, even with the odds stacked against him. Also gains a significant bonus to movement speed.
- **Commando:** Mountaineers, paratroopers and marines under a leader with this skill get a large bonus to attack and defense.

Admirals

- **Sea wolf:** Submarines under this commander are harder to detect and gain an attack bonus.
- **Blockade-runner:** Fleets under the command of a Blockade Runner admiral are much harder to detect, especially for submarines. Useful for convoys.
- **Superior Tactician:** Leaders with this trait gain attack and defense bonuses in all sea battles.
- **Spotter:** The fleet gains a large detection bonus, discovering enemy fleets more easily.

Air Marshals

- **Tank Buster / Tactical Bombing Ace:** Large bonus on tactical bombing value.
- **Superior Tactician:** This Air Marshall provides bonuses to air-to-air values.
- **Spotter / Reconnaissance Ace:** Detection bonus. Useful to discover enemy army/fleet movements and to gain a surprise bonus when attacking other aircraft.
- **Carpet Bomber:** This Air Marshall gives his squadrons a strategic bombing bonus.
- **Night Flyer:** As the name would indicate, this skill provides large bonuses when flying missions at night.
- **Fleet Destroyer:** Provides a bonus when attacking ships.

Economics

There is more to *Hearts of Iron* than a straight up military simulation. Armies need oil to fuel their tanks and the population needs food in their stomachs. All this is well depicted by the economic and production model within the game. Industrial Capacity is the cornerstone of the *Hearts of Iron* economic system. Building military units, supplying them, feeding your population, and researching new technologies all require Industrial Capability. Your Industrial Capacity is displayed in the Status Bar at the top of the Main Screen. It is displayed as a pair of numbers in the form xx/yy, where xx is the unused Industrial Capacity and yy is the total Industrial Capacity. As mentioned before, you may increase your Industrial Capacity by upgrading provinces (by Building More Industries), capturing new provinces, or increasing the number of available raw materials. On the other hand you may only increase the number of available raw materials by capturing provinces that have those raw materials (such as oil). Each province contributes to your overall economic well-being. How much it contributes is available by clicking on the province, which pops the Province Menu.

- **Province Information:** Clicking on a province pops the Province Menu on the right-hand side of the screen. At the top of the Province Menu is the name of the province. To the left of the name is the flag of the controlling country. To the right of the province name is the number of victory points awarded to the country currently controlling the province. It includes the following information:
    – **Industrial Capacity:** The province's industrial capacity. Clicking the Build More Industries button at the bottom of the menu can increase this. Note that this only increases the province's industrial Capacity, not the amount of industry capacity available.
    – **Anti-Aircraft Batteries Available:** Below the province's industrial capacity are listed the number of anti-aircraft batteries available. The more batteries available, the more costly it becomes for the enemy to bomb the province. You may increase this number by clicking the Construct AA at the bottom of the menu.
    – **Size of Fortifications:** This is an indication of the size and strength of the province's fortifications. Larger/stronger fortifications provided greater defensive bonuses to the troops stationed there.
    – **Province Infrastructure:** The higher the province infrastructure, the more efficiently it will use the materials within the province. You may increase this by pressing the Improve Infrastructure button at the bottom of the menu.
    – **Daily Rubber Production:** The amount of rubber the province produces daily. Improving the province infrastructure will raise this, if the resource is available.
    – **Daily Coal Production:** The amount of coal the province produces daily. Improving the province infrastructure will raise this, if the resource is available.
    – **Daily Steel Production:** The amount of steel the province produces daily. Improving the province infrastructure will raise this, if the resource is available.
    – **Daily Oil Production:** The amount of oil the province produces daily. Improving the province infrastructure will raise this, if the resource is available.
    – **Manpower:** The amount of manpower the province produces daily. In takes manpower to both man and refit divisions, aircraft squadrons, and ships. At the bottom of the Province Menu are five buttons: Build More Industries, Improve Coastal Fortifications, Improve Land Fortifications, Construct AA, each of which we previously covered in the manual.

Production Screen

Click the Production Screen button (the third button from the left at the top right of the main screen) to display the Production Screen. From this screen you can manage how much of your economy is dedicated to consumer goods, supplies, research (i.e. technology) and production. To increase the amount of industrial capacity allotted to a section of your economy, move the slider to the right. The specific areas to which you may allocate your Industrial Capability are as follows:

- **Consumer Products Slider:** This is the top slider. To keep your citizens happy you must give them food to eat and an acceptable standard of living. If you fail to do so, dissent may rise. If dissent rises your general's loyalty may decline and, if dissent is widespread, partisan armies may spring up. Democratic societies require lots of consumer products to keep down dissent, Fascist societies require less, but still quite a bit, and Communist societies are the least dependent on this.
- **Supplies Slider:** The second slider from the top is the Supplies Slider. Your armies need food, bullets, blankets, and whatever else to fight. This is where you designate how much of your Industrial Capability goes to supplies.
- **Research Slider:** The Research Slider is where you designate how much of your economy goes to research. The more industrial capacity you pump into research, the more research projects your economy can support.
- **Production Slider:** The Production Slider designates how much of your Industrial Capacity is allocated to producing military units. Obviously, the more Industrial Capacity earmarked for production, the more military units you can simultaneously build.

Your quantities of stored raw materials and their storage locations are listed in the panel beneath sliders. Below this panel are two buttons: **Manage Convoys** and **Trade on the World Market**. Clicking on the Manage Convoys button brings up the Convoy Menu.

Your number of convoys running and the total number of convoys are listed across the top of the Convoy Menu, as are your number of transports and escorts. Below this information are your convoys. Each convoy lists its anchor ports. The small box on the left indicates the number of escorts and the box on the right is the number of transports in the convoy. You may increase/decrease the number of escorts and transports by clicking the "+" and "-" next to the correct ship icon. You must have at least one transport for each sea zone the convoy traverses. Convoys listed in red do not have enough transports assigned to them. To assign more transports click the "+" next to the right-hand box. To establish a new convoy click the port of origin and then click the port of destination.

To manage the convoy click on the convoy you wish to modify. From the Convoy Modification Screen you may alter the number of transports, add escorts and designate what the convoy may carry. In the middle of the Convoy Modification Screen are the buttons for adding/subtracting escorts and transports. The minimum number of transports needed is indicated to the right of the slash in the transport row.

The resources available for transportation are located in the bottom panel. The number to the right of the slash is the daily production of those resources while the number to the left are the resources carried by the convoy. The more transports in the convoy, the more resources you can carry. Click on the resources that you wish to carry.
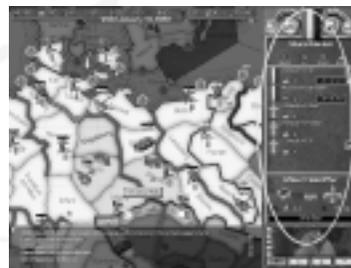
Clicking on the Trade of World Market button Displays the World Market Menu and allows trading on the world market. From here you may trade a resource that you have in excess for one that you need. Resources available on the World Market are listed across the top of the World Market Menu. Below that are current offers on the market. Further down the menu is the offer panel. You may adjust what you wish to offer and how much you wish to offer by clicking on the icons and the "-" and "+" signs. When you are satisfied with your offer, click the Offer Deal button. This posts your offer on the world market. You'll be notified when/if it is accepted.

Diplomacy

Not everything in *Hearts of Iron* is resolved by military might. There will be times when it is important to influence countries with your diplomatic prowess. There are three political blocs (Democrat, Fascist and Communist), seven major powers (UK, USA, France, Germany, Italy, Japan, and the Soviet Union) and numerous minor powers (all other nations). Diplomacy is centered on the efforts of the major powers to align minor powers with their political bloc, and on persuading allies to perform certain tasks. Most diplomatic actions cost Diplomatic Influence (DI). All nations start the game with a set amount of Diplomatic Influence and slowly gain more as explained below.

Diplomatic Influence

Diplomatic Influence (DI) represents the political clout of a nation. It is much easier for nations rich in DI to get their political way. Major nations accumulate one unit of DI every month; minor nations get one unit of DI every second month. Furthermore, DI can be gained by performing diplomatic actions, such as Annex Nation and Install Puppet Regime, by conquering key points (yields three DI), and by winning large (more than 10 enemy divisions) battles (yields three DI).

Alignment

Each nation has alliance tendencies. From joining one of the three factions to being only slightly influenced, nations are never completely neutral. The major powers normally cannot change their alignment, the exception being if the regime should fall in a coup, civil war or as the result of foreign intervention (e.g. Vichy France). The minors however, constantly move about on the alignment triangle.

In the case of minor nations, the alignment should not simply be regarded as the actual policy of the government (although that sets the "baseline"), but also how frightened and pressured the nation feels by the three political blocs. Thus, minor nation alignment tends to lean towards the bloc with the strongest presence near its borders as well as to the side that appears to be winning the war. The major powers will attempt to influence key minors by using their Diplomatic Influence to change minor countries' alignment. Let's take a look at the three alliances.

The Alliances

There are only three possible alliances in *Hearts of Iron*: Axis, Allies, and Communist International (Comintern). At the start of the game in 1936, Germany alone constitutes the "Axis" alliance, Britain the "Allies", and the Soviet Union the "Comintern" alliance.

The Axis

Fascist (in game terms, that also includes Japan) nations may only join the Axis alliance, which is headed by Germany. A nation is considered Fascist if its alignment is close to the Fascist point of view.

The Allies

Democratic nations may only join the Allies, which are headed by the UK. A nation is considered Democratic if its alignment is close to the democratic point of view.

The Communist International (Comintern)

The Comintern alliance is led by the Soviet Union. However, should the Soviet Union choose to join the Axis or Allies, the Comintern will cease to exist. If the Comintern is active, Communist nations may only ally with that, but if it is not active, Communist nations may ally with either the Axis or the Allies.

Diplomatic Effects of War

The basic concept in *Hearts of Iron* is that it is impossible for a country to remain neutral if it is at war with an alliance that is, in turn, at war with another alliance. Specific instances are explained below.

Allied against Neutral

If an allied nation declares war on a neutral nation, the latter will immediately join the opposing alliance closest to its own alignment that is at war with the aggressor. If there is no opposing alliance at war with the attacker, the neutral nation will stay neutral and fight on its own; unless its independence has been guaranteed by a member of another alliance, in which case that nation will have to decide on whether it wishes to honor its guarantee by declaring war on the aggressor alliance. If at any time the neutral nation joins another alliance, that alliance will declare war against the aggressor alliance. All other neutral countries will be upset to some degree (1-10 alignment points away from your ideology), but bordering neutrals will be completely horrified (10-30 alignment points away from your ideology).

Allied against Allied

If a member of one alliance declares war on a member of another alliance, those two alliances will be at war with each other. Neutral countries will react with worry, but the effect on their alignment will not be great (1-5 alignment points away from the attacker's ideology).

Neutral against Neutral

A neutral nation may declare war on another neutral nation. If the aggressor is a minor power, there will be no global political repercussions, but if it is a major power, the alignments of neutral countries will shift away from its alignment (just as in the "allied against neutral" case above). If the defender has its independence guaranteed by a member of an alliance and they choose to honor their commitment, the attacker will join an alliance at war with the other one, if such an alliance exists. In fact, if at any time one side joins an alliance, the other will immediately seek to join an alliance at war with that one.

Diplomatic Actions

You may perform a variety of diplomatic actions in *Hearts of Iron*. From declaring war to suing for peace, if the leaders of the Second World War could do it, so can you. To access the diplomatic actions click on the Diplomacy Screen icon/button. It is the right-hand button in the bank of four buttons at the top right of the main screen. Once you have clicked on the button the map's provinces will color code to indicate their owner. Click on a province of a country you wish to interact with and the Diplomatic Actions Sub-menu will appear. Depending on the circumstances the following actions are available:

- **Declare War**: The effects vary depending on the alliances: If not a member of any alliance, the attacked nation immediately joins the opposing alliance at war with the attacker closest to its own alignment, if such an alliance exists. If the defender is part of an alliance, that alliance declares war on the attacker. If the attacker in turn is neutral, it joins any possible alliance that is at war with the defender's alliance. So, if Sweden, being neutral, attacks Poland, which is Allied, Sweden would join the Axis, if Axis and Allies were at war.
- **Bring into Alliance**: This attempt is not a sure thing. The action is only available if you are part of an alliance and the target nation is both neutral and close to your own alignment; the closer the alignment and the greater the gap between you in power, the better the chance of success. If the action succeeds, the nation immediately joins your alliance.
- **Join Alliance**: Only available to neutral countries and the Soviet Union. It is a request to join the alliance of the target nation. Somewhat unrealistically, that nation alone will then decide whether to accept the request or not. If the alliance is at war, the joining nation will also join the war. Allies are always dear, so this action never fails.
- **Leave Alliance**: Only available to members of alliances. This is quite unusual, and possible only if the alliance (and therefore you) is not at war. Once the alliance goes to war, you must sue for separate peace with the enemy in order to leave the alliance.
- **Influence Nation**: This is an attempt to pull the alignment of the target nation closer to yours. If successful, the target country's alignment moves closer to yours.
- **Stage Coup d'etat**: Attempts to overthrow the government of another nation. Only possible if the government of the target nation is not of the same type as yours (Communist, Fascist or Democrat). A coup is much less likely to succeed if it requires that the Head of State be replaced, which is the case if his personality

does not allow any form of your ideology. If successful the government switches sides. If unsuccessful there is a slight chance that a civil war will break out in the country.

- **Trade Agreement:** If successful (alignment check), the target nation agrees to provide you with all its surplus raw materials (raw materials it does not need for its own industries). You still need to transport these to your industries though (but you may now enter their ports with convoys).

- **Transit Agreement:** Transit agreement allows troops to move through a neutral country between two controlled territories. You may not end your move in neutral territory.

- **Assume Military Control:** You ask an ally for military control of their units. If successful, you get to control the military units of your ally (but not his production, diplomacy or research efforts). This requires a great amount of DI, and is usually not possible unless your ally is in very dire straits. If you are both human players, you will have joint control over the units, but the owner must keep them in supply.

- **Send Expeditionary Force:** This is an offer to grant control over one of your task forces to one of your allies, or to a neutral country. It will still be considered one of your units, and you will have to supply it. If you are a human and you grant control to another human player, you will both have joint control over it. Right clicking on it and choosing "Reassume Control" can reassert full control. Granting control of a task force has a positive effect on the alignment of the receiving nation, balanced by a corresponding negative effect for reassuming control over it. Examples of this from real history would include the German task force sent to help Franco, and the Italian units fighting in the Soviet Union.

- **Annex Nation:** Nations with all of their key points occupied by you or your alliance will accept annexation by the invading power(s). Clicking on a province may identify key points. If the Province Menu displays a Star in the upper right-hand corner with a number in it, the province contains a key point. For example, Germany's key points are Berlin, Königsberg, Kiel, Ruhr, and München.

- If the occupied nation was the leader of an alliance, another member of the alliance will be considered the new leader. If there are no more members in the alliance, it has been defeated, and the game may end depending on these conditions:

- If the Soviet Union was on the winning side as a member of the Axis or Allies, it will automatically withdraw from that alliance and reform the Comintern. The game will not end unless the players choose to end it at this point.

- If the Soviet Union is the last surviving member of the Axis or Allied alliance, it will withdraw from that alliance and reform the Comintern. The game will not end, and the Comintern will be at war with the other surviving alliance.

- If there is now only one alliance left in the game, it will end in victory for that alliance.

Annexation of nations has tremendous impact on the political views of other nations. It awards much DI and tends to pull nations already aligned towards you even closer, while further alienating those who are already your enemies.

- **Liberate Nation:** If you control two thirds or more of a previously annexed nation's key points you can choose to liberate that nation. Any units you may have inherited from that nation (usually fleets) will immediately revert to its control, as will all of its provinces under your control. The rest will remain occupied. The liberated nation will join your alliance and be of its general alignment prior to annexation, but pulled a good deal towards your alignment.

- **Install Puppet Regime:** A nation with more than two thirds of its key points occupied may have its government replaced with a puppet regime by the aggressor. The puppet regime will be aligned with the occupier, will immediately cede any natural territorial claims to the occupier and join his alliance. (Its units will remain under its own control however.) Fleets at sea will randomly join either the puppet regime or a member of its former alliance. The owners of the ports will control fleets in ports. The same goes for armies and air flotillas on foreign ground. Colonial territories (physically separated from the motherland) will randomly go to either the new regime or the other members of its former alliance.

- **Demand Territory:** Some nations have territorial claims on other nations. These are all hardwired special cases (for example Germany claims Austria, Czechoslovakia, Polish corridor, Elsass, and Lothringen) that correspond to historical claims. If you have such a claim on another nation, you may demand that territory. If the nation refuses, this diplomatic action will result in war. However, this type of war is a little special, since the defending nation has the option of giving in to your demand at any time, ending the war (see Sue for Peace below) and automatically withdrawing from any alliance it was a part of. Naturally, the nation you demand territory from is not going to like you better for it, regardless of whether it chooses to defend its own claim or not.

- **Share Research:** Using this action, a player can hand over his discoveries in a given research area to another nation, usually an ally. It is of course a very friendly action, and will no doubt pull the receiving country closer to your own alignment.

- **Sue for Peace:** This is always an option, but is usually unlikely to be accepted. If the war was a result of a claim on some of your provinces, you can opt to give them up, which will automatically result in peace and kick you out of your alliance (if you are a part of one). However, in regular wars, the other side will have to decide whether to accept your peace offer or not. If the enemy accepts, peace will be restored between your enemy (and his alliance) and you (and your alliance). You can also go for separate peace, which will kick you out of your alliance and return you to a state of peace.However, **alliance leaders cannot sue for separate peace**.

Variables

- Each of the above diplomatic actions is influenced by several factors. This includes the ideology difference of the respective heads of state (different ideologies are National Socialist, Fascist, Paternal Autocrat, Liberal-Conservative, Centrist, Reformed Socialist, Left Wing Radical, Leninist, and Stalinist). The closer the ideologies are on this list, the more likely the heads of state will see eye to eye.

The number of friendly and enemy divisions on the border of your target state also affect you diplomatic action. The more friendly divisions there are, the more likely that you will achieve the result that you are looking for. Some Foreign Minister Personality types (see Internal Politics) get bonuses and penalties for interacting with minor countries, major countries, countries of the same ideology or different ideology, etc. This bonus or penalty is always 5%.

Internal Politics

There is more to politics than the interaction of countries. Also important are the internal politics of a country. The key concepts of internal politics are Ministers, Government Forms and Dissent, which all affect the efficiency of the state apparatus in more or less subtle ways. Whether replacing ministers, or interacting with shadow cabinets, *Hearts of Iron*'s internal politics engine will draw you into the game.

Click your country's flag in the top right of the Main Screen to access your Government's Screen. The Screen displays a list of your government's ministers.

Click a minister's portrait to bring up the Minister Sub-menu. Under the minister's information on the Minister Sub-menu are alternate ministers eligible for the minister. Click on an eligible replacement to replace the current minister. Click the Back button to return to the Government Menu.

There are two factors that affect a minister's performance:

Loyalty

This hidden value represents the minister's loyalty towards the present Head of Government and works almost exactly the same way as for military leaders. It does not apply to the "ministers" Head of Government and Head of State.
- *Very high* values indicate that the minister never takes individual action.
- *High values* indicate that the minister seldom takes individual action.
- *Medium* values indicate that the minister is individualistic and sometimes acts on impulse.

- *Low* values mean that the minister often ignores directives from the player, and if the government form is democratic he might attempt to bring about a new election.
- *Very low* values mean that the minister might resort to desperate and treasonous acts such as defection, sabotage or staging a coup d'etat. With each minister is listed his personality trait. This trait affects how he (or she) does his or her job. Left click on any minister to call up the Minster Sub-menu read a briefing on the minister.

Minister Personalities

Note that there are a plethora of personalities. Each serves its purpose. This is similar to the military leaders' special abilities, but usually with negative aspects tied to the positive. E.g. a minister might be highly biased and very good at his specialty, but at the cost of neglecting other areas. We'll look at each below as we examine their respective cabinet positions.

The Opposition

No Leader is loved by all. Although all *Hearts of Iron* nations have a government, they also have two or three sets of dissidents: Fascist countries have hidden Democrat and Communist movements, Communist countries have Democrat and Fascist movements, and Democratic countries have Fascist and Communist movements and a Democratic opposition of a different political leaning.

These dissident movements have their own sets of ministers that the player cannot see... at least as long as they remain nothing but dissidents. However, these ministers may be activated as a result of Civil Wars, Coups, and Installation of Puppet Regimes or lost Elections. Which dissident group becomes active depends on the present political Alignment in the case of Civil Wars and Coups, and the Government Form of the occupier in the case of Puppet Regimes.

Cabinet Positions and Minister Personalities

Below is a list of the cabinet positions. Additionally, we list the various personalities that may be associated with the post.

Head of State

The Head of State is the symbol of the Nation and the People. He can only be removed by natural death or a successful coup. He does not have a skill, loyalty or a personality. Instead his sole function is determining which ideologies his country may belong to and of what shades they may be. Within the Fascist ideology the different shades are Paternal Autocrat, Fascist and National Socialist. The Communist ideology has Left Wing Radical, Leninist and Stalinist, while the Democratic ideology has Reformed Socialist, Centrist and Liberal-Conservative. Both the Government and the Opposition must be of ideological subtypes acceptable to the Head of State.

Head of Government

The Head of Government directs the overall war efforts of your country. He does not have a skill or loyalty. Instead his personality determines the behavior of his country if it is a computer controlled nation, as well as the ideological subtype of the nation. Thus for every Head of Government there is an AI file based on his historical personality.

Foreign Minister

The Minister of Foreign Affairs is your head diplomat. The effects of a disloyal Foreign Minister are increasingly important autonomous diplomatic actions followed by possible defection or even a coup d'etat.

- **Foreign Minister Personality Types**
  - **Biased Intellectual:** The Biased Intellectual is a refined academic intellectual, whose scholarly work has biased his judgment of other countries and people. The Biased Intellectual is often arrogant and witty against those of his dislike and overly fawning and ingratiating towards those he likes.
  - **Ideological Crusader:** The Ideological Crusader views himself as a devoted proponent of his political system, but to others he is an extremist. If a fascist, he judges all non-fascist as weak and decadent. If a democrat, he would rather lose a war than complying with any demands from a non-democrat. If a communist, he views democrats as evil capitalists and fascists as evil pseudo capitalists. When it comes to ideology it is impossible to argue with him since he has already found his salvation. This minister gets a basic positive loyalty bonus, a positive interaction bonus with all countries of the same ideology, and a negative bonus with all countries of different ideologies.
  - **Apologetic Clerk:** The Apologetic Clerk is often a brilliant man, but either lacks inner strength or is so filled with doubt over the political system of his own country that he is inconsistent to a fault. An Apologetic Clerk might also be a man that truly believes in the righteousness of his political system, but unfortunately also believes that the other side will win the war. This minister gets a basic negative loyalty bonus and a positive interaction bonus with all countries belonging to an ideology that is not the same as his country.
  - **Iron-fisted Brute:** The Iron-fisted Brute is a simple man who has risen in rank either thanks to the military or the party. He views the world in black and white: those who eat and those who are eaten. Often very brutish and some times a sociopath, the Iron-fisted Brute makes policies without remorse. This minister gets a positive interaction bonus with all countries smaller or weaker (in military units) than his own. However, every time his country makes a Declaration of War, Annexes Country, Installs a Puppet Regime, or launches a Coup d'etat; all other countries will be more upset than usual.
  - **Great Compromiser:** The Great Compromiser is an easy-going and amiable fellow liked by most. Often he is a sage-like old man and a professional diplomat with many years of service, tactful and experienced. He has the ability to forge lasting friendships and to bind the wills of many into one, striving towards the same goal. This minister gets a large positive interaction bonus when his country performs: Ask to join Alliance, Bring into Alliance, Trade Agreement, Lend-Lease Agreement and Share Research. His country can also perform 'Leave Alliance' without any negative effects.
  - **General Staffer:** An ex-military man or teacher at the war college, the General Staffer has resettled in the field of Foreign Affairs; a subject that was always his 'hobby'. The General Staffer most likely follows his old military notion of politics and is focused on diplomacy through military might. However, by doing that, the General Staffer is often deemed a simpleminded man, lacking in imagination and extremely boring. This minister gets a price reduction (DIs) when performing: Request Specific Attack, Assume Military Control, Send Expeditionary Force, Guarantee Independence, and Declare War. However the price is raised (DIs) when performing Influence Nation, Trade Agreement, Annex Nation, Install Puppet Regime, and Lend-Lease Agreement.
  - **The Cloak-n-Dagger Schemer:** The Cloak-n-Dagger Schemer is a very secretive person. He prefers unorthodox plans and constantly seeks weaknesses to exploit among his slower victims. Often the Cloak-n-Dagger Schemer has got a background in the Secret Service and that experience makes him sly and uninformative. Basically the Cloak-n-Dagger Schemer is not a great diplomat but he is so unpredictable that in the end he often gets what he wants. This minister gets a negative interaction bonus with all major powers, and a slightly negative bonus when making 'Influence Nation' attempts. However he gets a bonus when performing Coup-d'etat and at a price reduction. He can also Install Puppet Regimes without negative effects.

Minister of Armament

The Minister of Armament directs production and research (though NOT the three doctrine areas). The Minister of Armament is typically biased towards one of more cherished areas of research. The effects of a disloyal Minister of Armament are increasingly autonomous research settings (he may not change the total amount of IC allocated to research however).

- **Minister of Armament Personality Types**
  - **Administrative Genius:** The Administrative Genius is an ardent laborer, who uses his personnel and modern techniques to the utmost to improve the war effort. The Administrative Genius is often a young engineer or scientist, free thinking and innovative. He always tries to be 'objective' and 'impartial' to further the common good. This minister gives a significant bonus to the total Industrial Capacity of his country.
  - **Resource Industrialist:** The Resource Industrialist is usually a civilian from the heavy industry that has been appointed to govern the industrial efforts of the nation. He always tries to run the country as the coalmine back home, improving and expanding its base. As such he is great, but he sometimes tends to neglect the finer points of armament industry. This minister gives a small bonus to the total Industrial Capacity of his country, and a large bonus to some Industrial Technology. Many projects that are made eligible for choice are more likely within Industrial improvements than usual.
  - **Laissez-Faires Capitalist:** The Laissez-Faires Capitalist is a specialist on market economy. It is his firmest opinion that no changes are needed, but that the good old invisible hand will best direct the resources of the Nation, war or

no war. This minister gives a bonus to the total output on the Consumer Products slider.

- **Theoretical Scientist:** The Theoretical Scientist is a brilliant old professor picked out from the nations leading university. He is of course a specialist in science -both theoretical and applied. However he sometimes has a hard time giving priority tomilitary matters, especially when great exploits in the civilian sectors can be attained. This often makes him a proponent of the more neutral areas of Electronics and Communication, but sometimes if he is eccentric enough, Secret Weapons is his preferred field. This minister gets a bonus to Electronics and Communications and secret weapons. Applied research projects that are made eligible for choice are more likely within Electronics and Communications than other.
- **Military Entrepreneur:** The Military Entrepreneur is a former military man, possibly an old fighter from the Great War. He knows his priority and that is to get the guns and the butter to the troopers on the front. This priority often neglects the finer points of science. This minister gets a bonus to the total Transportation Infrastructure and to the output of Supplies.
- **Battle Fleet Proponent:** This man is not only an able administrator and politician; he is also a meddler in Grand Strategy. He is biased for one branch of the Armed Forces. This might come from having belonged to it for a long period of time or from being sure that only if this branch is well developed enough will his homeland win the war. This minister gets a large bonus to Warship Design research. Applied research projects that are made eligible for choosing are more likely surface ship improvements than other types.
- **Submarine Proponent:** This minister gets a large bonus to Warship Design research. Applied research projects that are made eligible for choosing are more likely submarine improvements than other types.
- **Tank Proponent:** This minister gets a large bonus to Armored Vehicle Design research. Applied research projects that are made eligible for choosing are more likely armored vehicle improvements than other types.
- **Infantry Proponent:** This minister gets a large bonus to the theoretical research category Infantry Equipment. Applied research projects that are made eligible for choosing are more likely infantry improvements than other types.
- **Air-to-Ground Proponent:** This minister gets a large bonus to the theoretical research category Aircraft Propulsion and Design. Applied research projects that are made eligible for choosing are more likely within air-to-air and air-to-ground improvements than other types.
- **Air-to-Sea Proponent:** This minister gets a large bonus to the theoretical research category Aircraft Propulsion and Design. Applied research projects that are made eligible for choosing are more likely within air-to-air and air-to-sea improvements than other types.
- **Strategic Air Proponent:** This minister gets a large bonus to the theoretical research category Aircraft Propulsion and Design. Applied research projects that are made eligible for choosing are more likely within air-to-air and strategic bomber improvements than other types.

Minister of Security

The Minister of Security directs the secret police and propaganda machine (dampens the effects of dissent). As with most Ministers he might act on his own and without your consent, and this is proportional to his loyalty value. A disloyal Minister of Security is a very dangerous thing; he is the most likely to attempt a coup d'etat and assassinations as well as the most likely to succeed...

- **Minister of Security Personality Types**
  - **Silent Lawyer:** The Silent Lawyer directs his department with little imagination and creativity, but he is just. This minister gets slightly decreased dissent levels and slightly decreased resistance levels in occupied provinces.
  - **Compassionate Gentleman:** The Compassionate Gentleman is a jovial man who wishes to please all. The population regularly likes him, but he is known to be soft on crimes and terrorism. This minister gets moderately decreased dissent levels, but slightly increased resistance levels in occupied territories.
  - **Crime Fighter:** The Crime Fighter has devoted his life to combat crime wherever it shows its face. However, sometimes the law needs some bending for the common good. This minister gets slightly increased dissent levels, but moderately decreased resistance levels in occupied territories.
  - **Prince of Terror:** The Prince of Terror lives by the rule: it is better to be feared than to be loved. However, extreme amounts of violence may actually increase dissent, a factor the Prince of Terror is unable to see. This minister gets slightly increased dissent levels, but substantially decreased resistance levels in occupied territories.
  - **Back Stabber:** The Back Stabber uses his position to root out dissent and disloyal elements within the elite, but he is unable to cope with occupied territories because of his untrustworthiness. This minister doubles his chances of knowing the loyalty of ministers and military leaders. However he will some times randomly assassinate personal opponents.
  - **Man of the People:** The Man of the People knows how to talk to both low and high in society. For him it is a crusade to ease the burdens of the poor people. However, he is in an awkward position when trying to help people in the occupied zones, and his hands are bound by the Military. This minister gets substantially decreased dissent levels, but substantially increased resistance levels in occupied territories.
  - **Efficient Sociopath:** The Efficient Sociopath has no remorse and uses any means necessary to further his goals. However, he always works in the shadows, trying to hide his personal perversions and the excess violence of his minions from the population and his fellow ministers. This minister gets substantially decreased dissent levels, and substantially decreased resistance levels in occupied territories. However, he also decreases the loyalty of all military leaders and fellow ministers.

Head of Military Intelligence

The Chief of Military Intelligence directs your efforts in the realms of intelligence. As most Ministers he might act on his own and without your consent, and this is proportional to his loyalty value. A disloyal Head of Military Intelligence might leak information to the enemy and decrease the chance of success for your spies and agents abroad.

- **Military Intelligence Personality Types**
  - **Technical Specialist:** The Technical Specialist concentrates his efforts on the study of modernization of foreign equipment and units to draw conclusions on how to best defeat him. This Minister increases the chance of stealing enemy applied research breakthroughs.
  - **Logistics Specialist:** The Logistics specialist uses the old General Staff technique of monitoring the movement of supplies to learn where a new threat is mounting. This Minister reports large concentrations of enemy supply points from time to time, as well as increasing the chance of tracking enemy land units.
  - **Political Specialist:** The Political Specialist uses his 'technical embassy personnel' to fight a secret war of counter-intelligence with the enemy. This Minister gets a subtractive bonus when Enemy Nations stage coup d'etats in a third country, and gets a positive bonus when his own country stages a coup d'etat.
  - **Dismal Enigma:** The Dismal Enigma is a man of secrets, and if he were not able to produce an Ace of Intelligence from time to time he would have lost his job ages ago. This Minister increases the chance of stealing technology from other nations. Sometimes, but very rarely, he manages to acquire complete knowledge of all enemy forces.
  - **Industrial Specialist:** The Industrial Specialist concentrates his efforts on the open industrial and economic sources of the enemy and thus often learns what will come by analyzing what they are producing at the moment. This Minister reports enemy country production plans from time to time.
  - **Naval Intelligence Specialist:** This character specializes in naval intelligence. He gives a significant bonus to the detection of enemy naval units, including submarines.

Chief of Staff

The Chief of Staff directs your Armed Forces. As all Ministers he might act on his own and without your consent, and this is proportional to his loyalty value. A disloyal Chief of Staff typically begins demoting, promoting and firing military leaders on his own. In the worst possible scenario, he might initiate a civil war.

- **Chief of Staff Personality Types**
  - **School of Maneuver:** This Chief of Staff belongs to an educational tradition called the School of Maneuver that teaches and regulates strategy and tactics where Maneuver and Speed is the essence of modern warfare. This minister gets a bonus to the speed value of all land units, and a small bonus to all blitz attacks.
  - **School of Fire Support:** This Chief of Staff belongs to an educational tradition called the School of Fire Support that teaches and regulates strategy and tactics where Fire Support is the essence of modern warfare. This minister gets a bonus to the theoretical research category Artillery and Rocketry. He also gets a slight price reduction for the artillery components of the army units.
  - **School of Mass Combat:** This man belongs to an educational tradition called the School of Mass Combat (or People's War) that teaches and regulates strategy and tactics where mass formations and guerrilla tactics are the essence of modern warfare. This minister gets a bonus that increases the manpower level of the home provinces every quarter (year). He also significantly increases the guerrilla activity level of every national province that is occupied by another country.
  - **School of Psychology:** This man believes Morale and Small-unit leadership are the essence of modern warfare. This minister gets a bonus to the Organization value of all land units, but a penalty to all blitz attacks.
  - **School of Defense:** This Chief of Staff believes Militia and Strategic Depth are the essence of modern warfare. This minister gets a very large cost reduction to rush-produced units. However, rush-produced units may never be upgraded. He also gets the bonus that all land units in national provinces are always considered 'dug-in'.

Chief of Army

The Chief of Army directs your Army Doctrine efforts. A disloyal Chief of Army is very dangerous; he will issue commands of his own to the armies and might start a civil war.

- **Chief of Army Personality Types**
  - **Elastic Defense Doctrine:** This Chief of Army believes that deploying a thin defense line with heavily armed infantry and deploying replacements and assault teams in the second lines are essential for wearing down the enemy and for winning the war. This minister gives a 10% defense modifier to Mechanized Infantry divisions that defend and slightly decrease Build Costs and Build Times for anti-tank components.
  - **Static Defense Doctrine:** This Chief of Army directs the utilization of the Ground forces by the doctrine of Static Defense. This means that deploying several defense lines with fortified infantry and substantial artillery assets in the rear is essential for wearing down the enemy. This minister gives a 10% defense modifier to Regular and Motorized Infantry divisions that defend and slightly decreased Build Costs and Build Times for artillery components and fortifications.
  - **Decisive Battle Doctrine:** This Chief of Army believes that concentrating large amounts of superior attacking troops and forcing the enemy to commit inferior troops is essential to wear down the enemy and win the war. This minister gives a 10% bonus to the attack value of Mechanized Infantry, Infantry, and Armor that attack, but increased dissent for units of these kinds that are destroyed and for lost battles in general.

– **Armored Spearhead Doctrine:** This Chief of Army directs the utilization of the Ground forces by the doctrine of Armored Spearheads. This means that spear heading speedy offensives with tank units followed up with encircling infantry are essential for wearing down the enemy and for winning the war. This minister gives a 10% bonus to the attack and defense values of attacking mechanized and armored divisions, slightly decreased Build Costs and Build Times for Engineer components, but slightly increased Build Costs and Build Times for Artillery components and Infantry.

– **Guns and Butter Doctrine:** This Chief of Army directs the utilization of the Ground forces by the doctrine of Guns and Butter. He feels that it is best to allow the operational commanders to command and focus his energies on ensuring the best possible logistical support for the army. This minister grants a large bonus to the theoretical research category Logistics and Engineering. AR projects that are discovered are more likely logistics and engineering improvements than other types.

Chief of Navy

The Chief of Navy directs your navy and Naval Doctrine. Like all Ministers he might act on his own and without your consent, and this is proportional to his loyalty value. A disloyal Chief of Navy might issue independent orders to his subordinate admirals. I hate it when that happens.

• **Chief of Navy Personality Types**
  – **Open Seas Doctrine:** This Chief of Navy believes that the control of sea-lanes to far-flung resources is essential for winning the war. This minister gets slightly decreased Build Costs and Build Times for Convoys, Transports and Destroyers, but slightly increased Build Costs and Build Times for Submarines.
  – **Decisive Battle Doctrine:** This man believes that in order to win the war it is essential to amass a large battle fleet and destroy the enemy's force on the High Seas. This minister gets slightly decreased Build Costs and Build Times for Battleships and Cruisers, but slightly increased Build Costs and Build Times for Aircraft Carriers and Naval Aircraft.
  – **Power Projection Doctrine:** This Chief of Navy directs the utilization of the Naval forces by the doctrine of Power Projection, which means that by concentrating all power from aircraft, torpedoes and artillery fire into a suitable area a good chance for winning the war is ensured. This minister get slightly decreased Build Costs and Build Times for Aircraft Carriers and Naval Aircraft, but slightly increased Build Costs and Build Times for Battleships and Cruisers.
  – **Indirect Approach Doctrine:** This Chief of Navy thinks that to win the war it is essential to avoid decisive battle and instead destroy the enemy's convoys and warships piecemeal. This minister gets slightly decreased Build Costs and Build Times for Submarines, but slightly increased Build Costs and Build Times for Destroyers, Transports and Convoys.
  – **Base Control Doctrine:** This Chief of Navy believes that in order to win the war it is essential to strike directly at the enemy bases (ports and islands), and take control of them with air and land forces. This minister get slightly

decreased Build Costs and Build Times for Amphibious units, Transports and Naval Bombers, but slightly increased Build Costs and Build Times for Destroyers, Cruisers and Ground Bombers.

Chief of Air Force

The Chief of Air Force leads your air force and sets its doctrine. As all Ministers he might act on his own and without your consent, and this is proportional to his loyalty value.

• **Chief of Air Force Personality Types:**
  – **Air Superiority Doctrine:** This Chief of Air Force believes that to win the war it is essential to control the skies above the battlefield. He gets slightly decreased Build Costs and Build Times for Fighters and Anti-Aircraft components of army units, but slightly increased Build Costs and Build Times for Strategic Bombers, Ground Bombers and Naval Bombers.
  – **Naval Aviation Doctrine:** This man orders his pilots to work closely with the Navy and destroy the enemy Navy, preferably by bombing it into metal shards. This minister gets substantially decreased Build Costs and Build Times for Naval Bombers, but slightly increased Build Cost and Build Time for Ground Bombers and Strategic Bombers.
  – **Army Aviation Doctrine:** This Chief of Air Force directs the utilization of the Air forces by the doctrine of Army Aviation. This means that in order to win the war it is essential to work closely with the Army and destroy the enemy land forces, preferably by bombing them to pieces. This minister gets slightly decreased Build Costs and Build Times for Ground Bombers, but slightly increased Build Cost and Build Time for Naval Bombers.
  – **Carpet Bombing Doctrine:** This Chief of Air Force directs his generals to grind down the enemy transportation network and industrial plants, and to demoralize the enemy population by terror bombing. This minister get substantially decreased Build Costs and Build Times for Strategic Bombers, but slightly increased Build Cost and Build Time for Naval Bombers, Ground Bombers and Transports.
  – **Vertical Envelopment Doctrine:** This Chief of Air Force believes that to win the war it is essential to seize strategic terrain or bridgeheads by air to quickly enable the Army to achieve a breakthrough. This minister get slightly decreased Build Costs and Build Times for Airborne units and Transport Aircraft, but slightly increased Build Costs and Build Times for Strategic Bombers.

Dissent

Dissent is an insidious killer that will plague all *Hearts of Iron* players. Dissent can turn the head of the most loyal general or even spark a rebellion. The current dissent level is displayed on the Main Screen Status Bar. There are several keys that affect dissent.

- **Consumer Goods:** Hungry people are unhappy people. Make sure that you feed your people well. You can ensure your population receives enough consumer goods by checking the Consumer Goods slider on the Production Screen. The amount of consumer goods needed to satisfy the population is indicated under the slider.
- **The Winds of War:** Military victories decrease dissent. Great victories decrease it greatly. Conquer a country, and your people will love you.
  Lose a province and they will be less thrilled. The rule of thumb is simple: winning lessens dissent, losing increases it. If an ally is defeated your dissent will also increase, but by how much depends on the type of government. The more open the government (read democracy) the more dissent will be fostered by an ally's ill fortune. On the other hand, annexing a neutral country will increase dissent in a democracy and decrease dissent in a fascist or communist government.

The Effects of Dissent

Dissent is a bad thing. As dissent rises, production and research falls. Rising dissent also keys unrest in occupied countries, which in turn may trigger the appearance of small, weak, yet troublesome guerrilla armies. Your cabinet ministers will become less cooperative as their loyalty fades. If dissent reaches catastrophic levels civil war could ensue.

Dissent affects the government types differently. Democracies are the most susceptible to dissent. Accordingly, they must keep an eagle eye on its level and keep a healthy supply of consumer goods flowing to their citizens. Fascists are not as susceptible, and communists are the least susceptible of all. Conversely the frequent communist purges thin their leaders' ranks and make for inefficient production.

Multiplayer
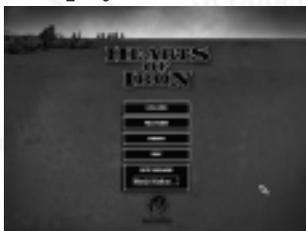
Make no mistake, *Hearts of Iron* has a strong artificial intelligence, but even the strongest AI can't match a human opponent. That's where multiplayer gaming enters the scene. Click Multiplayer on *Hearts of Iron*'s opening screen to see the Multiplayer Screen. The multiplayer screen has the following options:

- **Local Area:** Play a multiplayer game on your local area network (LAN).
- **Valkyrienet:** Play a multiplayer game on the Paradox game server, Valkyrienet.
- **Internet:** Play a multiplayer game over the Internet.
- **Back:** Return to the previous screen.
- **Enter Your Game:** Enter your gaming name. You know, something snazzy, like Joe or Elmer.

Clicking Local Area pops up a screen that allows you to either choose to Host a game, choose to Join an existing game or return to the previous screen by pressing the Back button.

Clicking Valkyrienet displays the Valkyrienet Connection Screen.

The Chat Panel on the left side of the screen displays current channel members' chat. To chat, type your message and hit enter. Next to the Chat Panel is the Channel Select drop down menu. Select the channel you wish to join by double-clicking on it. Below the Channel Select drop down menu is a list of the players in the current channel. On the top right of the screen is a list of current games in the channel. Click on a game and its information will pour into the Game Info box. Click Join to join your selected game. Click Host to start your game. Press Back to return to the previous menu.

Clicking Internet from the Multiplayer Screen pops up the Internet Menu. Click Host and enter your IP address to host a game. You may already enter an existing Internet game's IP address and click Join. Click Back to return to the previous menu.

World War II: Its Origins and Conclusion

The Second World War, which lasted from 1939 until 1945, touched virtually every continent. The two sides in this far-reaching conflagration were the Axis powers (major nations: Germany, Italy, and Japan) and the Allies (major nations: France, Great Britain, the U.S., the Soviet Union, and, to a lesser extent, China). In many ways, this great conflict picked up where World War I had left off 20 years earlier. Between 40 and 50 million people died, which makes World War II the bloodiest war in human history. Together, the two World Wars represent many great 20th-century turning points. As a result of these upheavals, the Soviet Union extended its power into Eastern Europe, the foundation was laid for a powerful Chinese Communist movement, and world power shifted away from Western Europe towards the U.S. and U.S.S.R.

The Path to Global War: A Time Line

The treaty that marked the end of the Great War represented a French, British, and American attempt to create a stable world order. France wanted to modify German boundaries drastically, but it settled for familiar guarantees of continued British and American military support. In the end, such support failed to materialize. France's proposal of a worldwide police force was rejected. The U.S. and Great Britain satisfied themselves with the league's creation and never really invested anything in enforcing the treaty.

Although the boundaries that the treaty stipulated were awkward, Germany was able to recover. True, the treaty's reparations clauses were unrealistic and went far to promote German inflation and economic collapse, but in the end, Germany paid less for reparations than it received in the foreign loans it never repaid. The German middle class, embittered by their nation's damaged economy, turned against its government and put Hitler in power. Hitler used the treaty's harshness to gain power at home and to generate sympathy abroad. He pointed to it again and again as he precipitated political crises after the war.

No real justification existed for Germany's move toward war, and it always had the power to avert it. By failing to enforce the treaty and to make economic concessions early enough to prevent war, the Allies made Hitler's way easy.

1919

Delegates from 27 victorious nations attended the Versailles Peace Conference, held near Paris in January 1919, where the League of Nations was born by unanimous resolution. Its members pledged to protect each other against aggression and to devote themselves to issues of disarmament, labor legislation, and world health. The Treaty of Versailles, signed on June 28, stipulated that Germany accept sole responsibility for having caused the Great War. It forced Germany to give back territories it had claimed in past conquests, including the Alsace-Lorraine (representing most of its iron ore reserves) to France and other areas to Belgium and Poland, and to relinquish its colonies to the Allies. The treaty demanded that Germany pay billions of dollars in war reparations, hand over merchant and fishing vessels, and deliver large quantities of coal to Belgium, France, and Italy over a 10-year period.

Germany established a new republic at Weimar and adopted a new constitution in July, but communist and monarchist uprisings continued to rock the nation. In Russia, Moscow held the Third International and founded the Comintern to unite Communist groups all around the world and produce global revolution. However, the country remained embroiled in a civil war between the Bolshevik Red Army and the (Allies-supported) White Army. Romania annexed Transylvania. Bolsheviks overthrew the Hungarian government, but monarchists regained control. Romanian forces invaded Hungary, took Budapest, and plundered the country, but finally were induced to withdraw. Montenegro deposed its king and joined Yugoslavia. France gained control of Syria from Turkey and of Togo and Cameroon from Germany.

The U.S. Senate rejected both the Versailles Treaty and membership in the League of Nations. President Wilson, who suffered a stroke in October, was too feeble to fight the isolationists. The nation was plagued by labor unrest, and four million workers went on strike or were locked out.

1920

The world's struggle to recover from the Great War continued. The League of Nations, absent membership by both the U.S. and Soviet Russia, held its first meeting in Geneva, Switzerland. Civil war continued in Russia, but the defeat of White Army forces finally ended the counterrevolution. A right-wing Putsch seized Berlin: wearing swastikas on their helmets, irregular troops aided American-born journalist Wolfgang Kapp in his bid to restore the monarchy. Kapp was made chancellor, but his government never gained foreign recognition. He lost military and police support and eventually fled the city.

Hungary lost almost three-quarters of its territory and two-thirds of its population this year after the Treaty of Trianon was signed. Austria gained western Hungary, Czechoslovakia acquired Slovakia, Yugoslavia gained Croatia-Slavonia, and Romania and Yugoslavia received portions of the Banat of Temesvar. Romania also got Transylvania and part of the Hungarian plain. Greek forces defeated the Turks at Alashehr and accepted their surrender in Adrianople.

Britain accepted a mandate over Iraq in Mesopotamia, except for the sheikdom of Kuwait on the Persian Gulf. An Arab insurrection against the British was finally suppressed in December. Lebanon, with Beirut as capital, was created by Parisian proclamation.

1921

This year saw numerous political upheavals and assassinations. Portugal had a revolution when a founder of its young republic was assassinated. In Japan, a fanatic assassinated Prime Minister Takashi Hara. Russia gave up special rights in Persia after a bloodless coup there, and V.I. Lenin gave Persia joint command of the Caspian Sea. In Morocco, Rifs defeated Spanish forces – killing 12,000 of Spain's 20,000 men – at the Battle of Anua. The Spanish general committed suicide and news of the disaster caused a crisis in Madrid. An anarchist assassinated the Spanish prime minister.

To prove that a strategic air force could render large navies obsolete, American general William Mitchell sank a former German battleship with Martin M-2 bombers, twin-engine biplanes with a top speed of 98 m.p.h. The first U.S. aircraft carrier, the U.S.S. Jupiter, made from a converted coal ship, was unveiled.

As the Russian economy collapsed, Russian sailors mutinied at Kronstadt. Bolshevik authorities put down the mutiny after much bloodshed. Bolshevik authorities opened the Holmoger concentration camp at Archangel. It was the first such camp since the end of the Boer War in 1902. (Moscow would establish many more; 10 million prisoners died in them over the ensuing 32 years.)

1922

The year 1922 saw new treaties, new violence, and continued political and economic convulsions in the wake of the Great War.

Japan returned Shandong province to China, where rival warlords engaged in civil war. A Washington conference on naval arms limits ended with a treaty stipulating that Britain, France, Italy, Japan, and the U.S. would build no new ships heavier than 10,000 tons with no guns larger than 8 inches wide for 10 years. Submarine warfare and poison gas were restricted as well. The Permanent Court of International Justice opened at The Hague. Germany recognized the Soviet Union in the Treaty of Rapallo and resumed relations with the Lenin government. Nationalist reactionaries murdered German foreign minister Walter Rathenau. Germany ceded Upper Silesia to Poland.

In Italy, a fascist dictatorship began. Its king, Victor Emmanuel III, called Benito Mussolini to Milan to form a ministry and gave him dictatorial powers so he could restore order and institute reforms more effectively. Mussolini organized the Fascio di Combattimento, and, with the support of Italian business interests who feared communism, marched his black-shirted Fascisti into Rome.

On the economic front, Moscow signed commercial treaties and trade agreements with Italy and Sweden. The German stock market collapsed, and the mark's value fell from 162 to the dollar to 7,000 to the dollar. In the U.S., an automobile industry-led business revival began a seven-year period of prosperity. Henry Ford became a billionaire.

1923

In this year, French troops occupied Germany's Ruhr Basin. Germany defaulted on its treaty-mandated coal deliveries and its inflation soared out of control. Adolf Hitler staged a "Beer Hall Putsch" in Munich as the mark fell to below one trillion to the dollar. His National Socialist Workers' party (founded by Munich locksmith Anton Drexler in 1919), which was neither socialist nor representative of workers, capitalized on social unrest. Hitler seized the Munich city government, but the Nazis finally were ousted and Hitler was sentenced the following year to five years in prison. (He served nine months.)

In Italy, Mussolini dissolved other political parties and secured his fascist dictatorship. A coup d'etat in Bulgaria overthrew its prime minister, who was shot dead as he fled. The Union of Soviet Socialist Republics, comprising Russia, the Ukraine, White Russia, and Transcaucasia, which had been established on paper the year before, became a reality in July of this year. The treaty of Lausanne returned eastern Thrace, Imbros, and Tenedos to Turkey, gave Greece the other Aegean islands, and gave the Dodacanese Islands to Italy. Britain kept Cyprus. Constantinople became the capital of the Turkish Republic. After a mutiny at the Spanish garrison at Barcelona, Spain's constitution was abolished and a directorate under the control of army and navy officers was set up. Martial law was proclaimed.

The British prime minister resigned, and general elections gave the Labour Party its first great victory. V.I. Lenin established the first Soviet forced-labor camp. Over the ensuing 30 years, slave labor built nine new cities, 12 railway lines, six heavy industry centers, three large hydroelectric stations, two highways, and three ship canals. Also in Russia, Aeroflot began operations and became the world's largest airline, providing rapid access to areas of Russia that once took weeks to reach over land.

Municipal markets closed in Berlin following a strike against high prices, and food riots ensued. The German mark fell to one million to the dollar; 1.5 million people there were unemployed, and prices continued to rise.

1924

In Russia, V.I. Lenin died of sclerosis at 53. New leader Josepf Stalin found himself in a power struggle with Leon Trotsky. In China, Sun Yat-sen admitted Communists to the Guomindang, or Nationalist Party. Germany ended its disastrous inflation, issuing the Reichsmark, imposing new taxes, and curbing the credit available for new businesses.

Mussolini's Italian Fascists gained control of electoral machinery and got 65 percent of the vote in April elections. France's president Millerand resigned in June and Gaston Doumerge became president, with Radical Socialist Party leader Edouard Herriot as prime minister. In the U.S., President Calvin Coolidge was reelected on a platform of "Coolidge prosperity."

1925

In China, republican leader Sun Yat-sen, whose Guomindang army controlled Guangzhou (Canton) and surrounding areas, died of cancer in March. In September, the Guomindang appointed General Chiang Kai-shek commander in chief. He made a

Soviet general his unofficial chief of staff, and by the end of the year he had brought Gwangdong and Gwangxi provinces under Guomindang control.

Japan recognized the U.S.S.R. in January. Turkmenistan and Uzbekistan became Soviet Socialist republics. The first part of Adolf Hitler's Mein Kampf was published. After six years of fighting extremists from all sides, Friedrich Ebert, first leader of the German Reich, died in February. The Conservative government in Britain rejected a Geneva protocol for the peaceful settlement of international disputes. Britain declared Cyprus a crown colony.

In June, world powers signed a treaty not to use poison gas in war, and an arms traffic accord to oversee international trade in arms and munitions.

In recognition of the fact that Germany never bound itself against aggression to the south and east, France began constructing heavily fortified defenses along the Franco-German border, dubbing it the Maginot Line after French politician Andre Maginot.

In the U.S., President Coolidge told Congress he opposed canceling Britain and France's war debts. The foreign press began calling Uncle Sam "Uncle Shylock" for refusing even to reduce the debts.

1926

Josepf Stalin began a 27-year rule as virtual dictator of the U.S.S.R., and his rivals Leon Trotsky and Grigori Zinoviev were expelled in October. Mussolini assumed absolute power in Italy the same month, and his Fascist party became the only one permitted. Revolutionary leader Chiang Kai-shek began unifying China under the Guomindang. Japanese emperor Yoshihito died in December; his son Hirohito would rule as emperor until 1989.

1927

Chiang Kai-shek continued his drive for a unified China. In February, the Chinese city of Hangchow fell to combined Guomindang (Nationalist) and Gungchantang (Communist) forces, who moved on to conquer Shanghai, Ghangzhou, and Nanjing. This ended China's warlord era. Shanghai money interests offered Chiang millions of dollars to break with Moscow. Reversing his earlier philosophy, he overthrew the leftist government and established the right-wing National Revolutionary Government at Nanjing. He crushed Communist Mao Zedong's "autumn harvest uprising" that September, and expelled Russians from Shanghai in December.

In May, Britain ended relations with Russia after a series of episodes involving espionage and subversion. In June, Russia executed 20 alleged British spies. Also in May, Britain recognized an independent Saudi Arabia in the Treaty of Jedda. In the U.S., Coolidge removed himself from electoral contention.

1928

Chiang Kai-shek took Beijing (which he dubbed "Peiping") and became president of China. After having been elected to a second term, Mexico's president Alvaro Obregon was assassinated in July; former president Plutarcho Lias Calles assumed control until 1935. In the U.S., voters elected Herbert Hoover president.

Italy ruled out the vote for women and imposed voter restrictions on males, reducing its electorate from almost 10 million to only three million. The British Parliament granted women the vote that July. In the U.S.S.R., Josepf Stalin launched his first Five-Year Plan, which imposed exile on millions of wealthy landowners who resisted agricultural collectivization.

1929

In May, the Labour Party won British general elections. Britain resumed diplomatic relations with the Soviet Union in October. Japan held what would be its last parliamentary election for five years (militarists soon put an end to elections there). Stalin expelled the last of his rivals and began his rule as undisputed dictator.

On October 29, the Dow plummeted, forcing margin stock speculators to sell. $30 billion disappeared and the Great Depression began.

1930

In January, Britain, the U.S., France, Italy, and Japan agreed to limit submarine tonnage and gun caliber and to scrap certain warships, in a treaty signed at the London Naval Conference. Military factions in Japan attacked the treaty. Spain's dictator Migual Primo de Rivera resigned for health reasons and died in March. Mussolini pushed for revisions to the Versailles Treaty. The last Allied troops left the Rhineland at the end of June, a year earlier than the date the Versailles Treaty had set. Chinese Communist forces attacked Hankow in China. Nationalist troops there launched campaigns in parts of three provinces. In Japan, a right-wing militant shot Japan's Prime Minister Yuko Hamaguchi in November; Hamaguchi died six months later.

In the U.S., Wall Street prices broke again in June after a spring rally, beginning a prolonged descent. More than 1,300 banks closed that year. President Hoover announced that 4.5 million Americans were out of work.

1931

After a 45-year reign, Spain's Alphonso XIII left his country in April. Republican candidates did well in ensuing elections. Royal property was confiscated, and a republic was born that lasted until 1939. Rebels in China split with Chiang Kai-shek and took Guangzhou. In June, British authorities in China arrested Vietnamese Communist leader Ho Chi Minh. Angered by China's boycott of its cotton goods, Japan used insignificant incidents as excuses to occupy Manchuria, and later took Harbin and three eastern Chinese provinces. Struggling to cope with Mao Zedong's Communist forces and disastrous Yangtze floods, Chiang Kai-shek was unable to mount a military response to Japan's aggression.

In Europe, Paul Doumer succeeded Gaston Doumerge as France's president. Britain's Labour Party resigned in the face of disputes over economic remedies, but Prime Minister Ramsey MacDonald remained to head a coalition cabinet.

Most of the world was now swallowed up by economic depression. Banks throughout Europe closed and Japan abandoned the gold standard. In the U.S., automobile sales collapsed and the industry laid off another 100,000 workers; 2,294 more banks failed. Unemployment there topped eight million.

1932

China continued its boycott of Japanese goods. Japan's troops attacked Chapei, the Chinese district of Shanghai, and planes bombed the district in the world's first terror bombing of civilians. Japan let it be known that it would consider any attempt by the U.S. to interfere with its "destiny" as grounds for war. Japan's Prime Minister Ki Tauyoshi Inukai was assassinated in May; Viscount Makoto Saito succeeded him.

In Britain, former Labor Party M.P. Sir Oswald Mosley founded the British Union of Fascists; Mosley went on to become a supporter of Benito Mussolini and Adolf Hitler, and to demand that Great Britain expel its Jews. French president Paul Doumer was assassinated by a Russian émigré in May. Albert Legrun succeeded him, and leftist parties won a majority in that year's elections.

Also in May, Germany's president von Hindenburg asked Prime Minister Franz von Papen to form a government, which he did – excluding Nazis. In general elections that July, the Nazi party became the largest in Germany. Vice Chancellor Adolf Hitler refused to serve under von Papen, and Nazi leader Hermann Goering was elected president of the Reichstag (parliament). Von Papen resigned in November.

Britain abandoned free trade and imposed a 10 percent tariff on most imports, later exempting Canada, Australia, New Zealand, and other Commonwealth nations. In the U.S. that year, 1,616 more banks failed, 20,000 business firms went bankrupt, and 21,000 Americans took their own lives. Germany had 5.6 million unemployed, Britain 2.8 million; unemployment in the U.S. reached almost 17 million by the end of the year. More than 34 million Americans had no income at all, and breadlines formed in many cities.

In Britain, scientists split the atom for the first time.

1933

In January, Adolf Hitler became German chancellor. Fire destroyed the Reichstag in Berlin in February. The National Socialist (Nazi) party won 44 percent of the vote in Reichstag elections that March, and Hitler proclaimed the Third Reich. German Nationalists gave him their support, and his regime received dictatorial powers. In March, the Nazis established the first concentration camp at Dachau for Jews, gypsies, and political prisoners.

Austrian chancellor Engelbert Dolfuss also proclaimed a dictatorship that March. Austrian Nazis rioted when the new government prohibited the wearing of uniforms by political party members, and Hitler got even, taxing German visitors to Austria and killing the Austrian tourist trade.

In the U.S., Franklin Roosevelt was inaugurated president in January.

Japan announced it would withdraw from the League of Nations in 1935. Germany followed suit. Washington and Moscow established diplomatic relations for the first time since the revolution of 1917.

1934

Turmoil in the wake of political scandals put France on the brink of civil war. February riots in Paris preceded a general strike. The republic was saved when a new coalition government was established.

Austria's Dolfuss dissolved all political parties except his own Fatherland Front. Nazis

there entered the chancellery and shot Dolfuss dead. Berlin disavowed knowledge of the coup attempt; Italy and Yugoslavia concentrated troops on the frontier.

Bulgarian fascists staged a coup in May. Nazis killed 77 party members in a purge to eliminate suspected plotters against Hitler. Germany's president von Hindenburg died August 2 and a plebiscite gave Hitler the presidency. Yugoslavia's Aleksandr I was assassinated in Marseilles, along with the French Foreign Minister Louis Barthou, by a revolutionist headquartered in Hungary. The League of Nations averted war between Yugoslavia and Hungary.

In China, Guomindang armies pursued Chinese Communist forces under Mao Zedong out of Kiangsi. Mao lost 68,000 of his 90,000 men in the ensuing Long March, which covered 6,000 miles over the next 12 months.

In Germany, Heinrich Himmler was appointed Head of German concentration camps in July.

The Swiss Parliament enacted a Bank Secrecy law to protect the accounts of Jews in Nazi Germany.

1935

A League of Nations plebiscite showed that voters in the Saar Basin preferred reunion with Germany 9 to 1 over continued rule by the League, and the Saar was returned to Germany on March 1. Hitler denounced the Versailles Treaty's disarmament clauses, but Germany promised to limit the size of its navy in an agreement signed in London. Hitler created the Luftwaffe this year, with Hermann Goering as Reich minister for air forces.

The U.S. got its first independent strategic air force this year.

Italian troops invaded Ethiopia in October and received part of French Somaliland, ceded from France. Mussolini's troops seized the Ethiopian capital on November 8, and the League of Nations imposed economic sanctions on Italy 10 days later.

1936

British king George V died this year on January 20. His son David took the throne as Edward VIII, but he abdicated on December 10 to marry an American divorcee; his brother Albert succeeded him, reigning as George VI.

Japanese army officers mutinied in Tokyo February 26 and assassinated former premier Saito, finance minister Takahashi and others in a failed attempt to set up a military dictatorship.

Exploiting the Ethiopian crisis, Hitler reoccupied the Rhineland in March. A Rome–Berlin Axis was formed in October, and Japan signed an anti-Comintern pact with Germany in November. Heinrich Himmler took over the German Gestapo (secret police) and combined it with the regular police force.

Armenia, Azerbaijan, Georgia, and Kazakhstan became Soviet Socialist Republics. Hundreds of thousands of Ethiopian warriors were killed by Italian bombs and mustard gas when Italian forces took Addis Ababa on May 5. Rome annexed Ethiopia and joined it with Eritrea and Italian Somaliland to create Italian East Africa.

France's government fell in January and a stopgap government took over, headed by Albert Sarraut. After parliamentary elections in May, the first Popular Front ministry took over in June with Socialist party leader Leon Blum as premier.

On July 18, the Spanish civil war began. Most of the military supported insurgent generals Francisco Franco and Emilio Mola. German and Italian "volunteers" joined their junta. Moscow equipped and supplied the loyalists. Britain, France, and the U.S. did nothing to intervene, but an international brigade of anti-Fascists rallied to the cause. By February 1937, several thousand Americans were fighting in the Lincoln Brigade. By April 1939, 3,100 American had fought, and half that number had died for the Loyalist cause.

Josepf Stalin began liquidating his political enemies. Over the next two years, almost 10 million people died in the Great Purge.

Also this year, Franklin Roosevelt won reelection to the U.S. presidency, with 61 percent of the popular vote.

1937

General Mola died in a plane crash as the Spanish civil war continued. Ten thousand Germans and more than 50,000 Italians supported Franco against the Republican Army, which included an International Brigade of Russians, Britons, other Europeans and Americans. On April 26, German Junker and Heinkel bombers annihilated the Basque town of Guernica, dropping thousands of explosives and incendiary projectiles and strafing fleeing civilians for three hours.

British prime minister Stanley Baldwin retired this year, and his successor Neville Chamberlain attempted to appease Hitler.

Japan's new Prime Minister Prince Fumimaro Konoye launched an undeclared war on China; Japanese forces invaded in July. The conflict would last until 1945. Japan's massacre of 200,000 civilians at Nanking and its ruthless bombing of Chinese cities aroused the world's anger against Japan. Japanese bombers attacked British and American ships near Nanking, but turmoil in Europe distracted the world powers from Japanese aggression.

In November, Italy joined the German–Japanese anti-Comintern pact and withdrew from the League of Nations on December 11. Germany opened the Buchenwald concentration camp in July. Most of the 238,980 inmates who died there in ensuing years were Jews.

1938

Vowing to protect the 10 million Germans who lived outside the Reich, Hitler annexed Austria on March 14. Nazis deprived Austrian Jews of civil rights and livelihoods, and plundered Jewish shops and homes. Britain and France protested the Anschluss, but tried to appease Hitler the following September by giving Germany the Sudetenland, which covered nearly a third of Czechoslovakia and contained a third of its inhabitants. In November, Germany began its worst pogrom, looting, demolishing, and burning Jewish shops and homes and sending 20,000–30,000 to concentration camps.

In France, the Chautemps government fell on March 10. After a failed attempt to form a new Popular Front cabinet, Leon Blum resigned on April 10, and Edouard Daladier headed a new Radical Socialist cabinet that leaned farther right.

In December, Mussolini demanded the French colonies of Corsica and Tunisia. Italy enacted anti-Jewish legislation.

An Evolution of War Technology

World War I seemed to demonstrate the superiority of defensive action. At that time, it was believed that a successful offensive required superior numbers of at least three to one. But by the end of that war, the emergence of two offensive tools – tanks and planes – began to change that thinking, at least to the Germans.

French and British armies were slow to introduce new weapons and ideas, however. Thus, in 1939 the British Army had not a single armored division, and what French tanks existed were clustered here and there in the infantry. When they resumed arming themselves in 1935, the Germans began developing massive tank contingents.

Air technology changed radically between 1918 and 1939. Aircraft got bigger, faster, and could fly farther. Aircraft carriers were developed that could keep up with the fastest ships. The dive bomber made accurate low-altitude bombing possible. All countries developed fast monoplane fighters that served as flying platforms for the machine guns installed in their wings. Light and medium bombers could be used to bombard cities and military strong points. In Britain, the threat of bomber attacks led to the development of radar; it became possible to fix the location, distance, height, and speed of approaching aircraft in any weather. By the end of 1938, the coast of Britain boasted five radar stations, with 15 more underway.

The Outbreak of War

By early 1939, Adolf Hitler was determined to invade and occupy Poland. First, though, he had to ensure the cooperation of its neighbor to the east, the Soviet Union. That August, after secret negotiations, the German–Soviet Nonaggression Pact was signed in Moscow. The Germans and Soviets agreed to divide Poland between them: Germany would take the western third, and the U.S.S.R. would take the rest.

Hitler was convinced he could attack Poland without risking Soviet or British intervention, and planned to launch Germany's invasion on August 26. But on August 25, Great Britain and Poland signed a formal treaty of mutual assistance; Hitler postponed his attack for a few days. But on August 31, 1939, Hitler issued orders to begin the invasion at 4:45 the next morning. Great Britain and France responded on September 3 by declaring war on Germany. Canada, Australia, New Zealand, the Union of South Africa, and India joined with Great Britain within a week.

At that point the Allies (Great Britain, France, and Poland) had superior industry, numbers, and armed forces. But German armaments, training, discipline, and zeal made its army (or Wehrmacht) a remarkably efficient force. In September 1939, Germany's 100 infantry divisions and six armored divisions pitted themselves against the following opposing forces:

1. **France** – 90 infantry divisions
2. **Great Britain** – 10 infantry divisions
3. **Poland** – 30 infantry divisions, 12 cavalry brigades, one armored brigade, and 30 slow-to-mobilize reserve infantry divisions

German infantry firepower by far exceeded that of its enemies. The standard German division included 442 machine guns, 135 mortars, 72 antitank guns, and 24 howitzers. Allied firepower was only slightly greater than it had been in World War I. Germany had six armored divisions that September, but although the Allies had almost as many

tanks as the Germans at that point, the Germans had organized their 2,400 tanks into six divisions, and that made all the difference. German forces deployed their tanks en masse with motorized artillery support to penetrate enemy lines and segment the opposition. Motorized German infantry then surrounded the isolated fragments while the tanks moved on to repeat the process. Mechanized infantry and foot soldiers followed deep panzer forays into enemy territory, with support from dive-bombers that disrupted enemy supplies and communications and created chaos, further paralyzing defenses.

In 1939, the German Air Force (Luftwaffe) was the best of its kind. Intended to support the Wehrmacht, the planes were superior to virtually all those of the Allies. Standardized engines and frames gave the Luftwaffe the advantage. Although the Allies had more planes than Germany did (Germany had 1,000 fighters and 1,050 bombers in operation), they included many different types, some obsolete. Great Britain's Hurricane was its sole modern fighter in 1939. Its Spitfire didn't enter the air war in significant numbers until 1940. And so many French aircraft were obsolete - 131 of its 634 fighters and almost all of its 463 bombers – that it was desperate to purchase aircraft from the U.S.

The odds against Germany were much greater at sea. In 1939, the Allies had far more large surface warships than Germany.

Germany's conquest of Poland in September 1939 was the first demonstration of the power of high-speed armored warfare. Poland's frontiers were about 3,500 miles long. Germany's recent occupation of Bohemia-Moravia and Slovakia rendered Poland vulnerable to both the north and south.

Although it managed to mobilize about a million men, the Polish Army was hopelessly outdated, with virtually no tanks, armored personnel carriers, or antitank and antiaircraft guns. Worse, many Polish military leaders persisted in believing their horse-mounted cavalry could take on German mechanized forces. And they vastly underestimated Germany's air advantage: its air force was nearly 10 times more powerful than theirs. Poland concentrated a third of its forces at the Polish Corridor (in northeastern Poland), which exposed them to envelopment from east and west. In the south, facing the main avenues of a German advance, they spread their forces thin, and they massed another third in the north-central part of the country, between Lódz and Warsaw. This arrangement rendered impossible any strategy that involved delaying actions. Before the infantry could retreat to or take up defensive positions in the rear, Germany's mechanized columns had overrun them.

Germany attacked with about a million and a half troops. Their mechanized forces' deep, rapid incursions backed up from the air (the Luftwaffe wrecked the Polish railway system and destroyed most of its air force while it was still on the ground), decided the issue. The air bombing of cities, bridges, roads, rail lines, and power stations disorganized Polish defenses.

America on the Brink

The U.S. remained isolationist, and although Nazi aggression in Europe and Japan's military expansion in Asia increasingly aroused American sympathy for the victims, its people believed they were safely removed from these events. After Poland's defeat, however, Congress repealed American arms embargoes and authorized the cash sale of armaments.

War Begins

1939

The Poles were easily defeated by Germany's blitzkrieg, or "lightning war." The first day, the German Luftwaffe destroyed Poland's airfields and bases. Within a week, it had crippled the lines of communication. At the same time, German Panzer (armored and mechanized) divisions encircled the Polish armies. The Germans then concentrated their attack on the main Polish forces around Warsaw. The Soviet Union invaded eastern Poland on September 17, and Poland was finally forced to surrender. On September 28, Germany and the Soviet Union signed a treaty in Moscow dividing Poland between them.

The Western Front saw little fighting. The French were confident that the Maginot Line could not be broken. The Germans had similar fortifications on their Siegfried Line, which paralleled the Maginot Line.

The war at sea saw more action. Great Britain used its navy to blockade Germany in an attempt to starve it out. Germany launched a counter blockade against the British. Nazi submarines, mines, and depth bombs sank numerous Allied merchant and passenger ships. The Germans scored a sensational sea victory on October 14 when a German U-boat made its way into the British naval base Scapa Flow and torpedoed the battleship Royal Oak.

The Soviet Union invaded Finland on November 30. Finland had repeatedly refused Soviet demands for military bases. Although the large Soviet army expected a quick and easy victory, the Finns held off the Soviets for several months. The Soviets finally broke through Finland's Mannerheim Line early in 1940. On March 12, Finland signed a treaty granting important Finnish territory to the Soviet Union.

1940

Germany invaded Denmark and Norway in early April. Denmark accepted German "protection," but Norway declared war immediately. The British troops that landed in Norway couldn't halt the German advance. The British evacuated their forces in May, and Norway fell on June 9.

In May, Winston Churchill succeeded Neville Chamberlain as prime minister of Great Britain after Chamberlain's resignation. On May 10, German forces invaded Belgium, the Netherlands, and Luxembourg. Luxembourg was occupied without resistance. Belgium and the Netherlands declared war. The Allies sent troops into the Low Countries, but on May 14 the Dutch army surrendered. The French cities of Amiens and Arras fell to the Germans on May 21, Belgium capitulated on May 28, and the French and British began evacuating their troops on May 29. The Netherlands was quickly brought under the rule of German forces of occupation.

King Leopold of Belgium surrendered his army on May 28. Between May 29 and June 4, the Allies were forced to evacuate 340,000 troops by sea from Dunkirk ahead of the advancing Germans. Ships, boats, and small vessels of all kinds were used in the frenzied attempt to ferry the troops across the Channel to Britain, but 30,000 men were killed or taken prisoner.

Battle of France

On June 5, the Germans attacked along a 100-mile front from near Laon to the English Channel. They smashed through French forces and headed for Paris. On June 10, Italy declared war on Great Britain and France.

On June 11, the French government moved to Tours and later to Bordeaux. Germans occupied Paris on June 14. The French cabinet voted in favor of an armistice on June 16, and the Franco-German armistice was signed on June 22 in the forest of Compiègne, in the same railway car where France had dictated its terms to a defeated Germany 22 years before. The Franco-Italian armistice was signed on June 24. By then German troops occupied more than half of France, including France's entire Atlantic coast and its northern area from Geneva almost to Tours.

The new French premiere Marshal Pétain built a fascist state with headquarters at Vichy in unoccupied France. The Vichy government collaborated with the Germans. Free French fighting forces carried on against Germany from Britain (with secret support from loyal French partisans), under the leadership of the French general Charles de Gaulle. A number of French ships joined the British, and others were interned in British harbors. The British fleet destroyed some resisting French ships at Oran, Algeria. The Vichy government broke off diplomatic relations with Britain.

Battle of Britain

Expecting Great Britain to surrender in the wake of the fall of France, Hitler urged Britain to make peace with Germany. Churchill refused even to consider it. Starting in August, hundreds of German planes swarmed across the English Channel almost daily from bases in occupied France, bombing Britain from end to end. Hermann Goering, World War I air ace and commander of the German Luftwaffe, had convinced Hitler they would drive the Royal Air Force (RAF) out of the skies. But the RAF destroyed German bombers at a crippling rate, and the Battle of Britain became one of the most important battles in the world's history. After September, Hitler never again considered invading Great Britain.

Japan and the Far East

Germany's conquest of the Netherlands and France left the Netherlands Indies and French Indo-China undefended. After Japan threatened in September to invade French Indo-China, the Vichy government granted it ports and airfields there to use in its ongoing war against China. Japan seized ports, roads, and railroads, isolating Chinese forces led by General Chiang Kai-shek.

On September 27, Japan signed a pact with Germany and Italy in Berlin, and the Axis was born. The 10-year military and economic alliance joined the three nations in an effort to create a new order. Under this agreement, Germany and Italy would control Europe and Japan would control Greater East Asia.

To check Japanese expansion, the U.S. kept its fleet in the Pacific and imposed economic sanctions banning shipments to Japan of scrap iron, oil, cotton, and metals. And Great Britain held strategically located Singapore, the key to power in southeastern Asia. On September 3, the U.S. transferred 50 overage destroyers to Great Britain. In return, the U.S. got 99-year leases on sites for air and naval bases in the British pos-

sessions of Newfoundland, Bermuda, the Bahamas, Jamaica, St. Lucia, Antigua, Trinidad, and British Guiana. The U.S. sped up its rearmament, planning a two-ocean navy and starting work on an air force of 50,000 planes. In October, it adopted peacetime compulsory military service for the first time in its history.

The Mediterranean and Near East

In the winter of 1940–41, Germany and Italy started a campaign against British power in the Mediterranean. The British position there relied on its control of the two bottleneck passages to the sea – Gibraltar at the western end and the Suez Canal in the east. The Axis launched its campaign against Suez. To drive the British from the eastern Mediterranean, the Italians coupled an attack in North Africa with a German drive through southeastern Europe, but by early 1941 almost all of Mussolini's East African empire was in British hands.

Germany, however, overran Romania, Hungary, Bulgaria, Yugoslavia, and Greece. Then it turned to assist Italy, driving British forces out of Libya, and began a campaign for the rich oil fields of Iraq, Iran, and Saudi Arabia.

1941

In early 1941, Britain warned the U.S. that soon it would be unable to pay for the war materials it had been buying. The U.S. Congress passed the Lend-Lease Act in March, giving the president authority to lend or lease arms and supplies to countries whose defense he thought important to American security. U.S. assembly lines generated a steady stream of planes, tanks, guns, and other materials, but getting the supplies into British hands became a major problem. Roosevelt announced he would take any measures necessary to ensure their delivery, and on April 9 the U.S. took Greenland under its protection. On July 7, the U.S. landed naval forces in Iceland.

Both Germany and the Soviet Union considered their 1939 non-aggression pact temporary, but it gave the Soviets time to manufacture defenses against potential German attack and gave Germany peace along its eastern frontiers during the war in the west. Germany invaded the Soviet Union at dawn on June 22. Other nations quickly took sides. Italy, Hungary, Finland, and Romania declared war on the Soviet Union. Britain pledged aid to the Soviet Union, and the U.S. promised war goods.

The front extended from the White Sea to the Black Sea, a distance of 2,000 miles. Germany struck its heaviest blows on three sectors:

1. From East Prussia through the Baltic States toward Leningrad.
2. From northern German Poland through White Russia toward Moscow.
3. From southern German Poland through the Ukraine toward Kiev.

Strong Red army resistance and guerrilla warfare behind German lines slowed the German advance. As they retreated, the Soviets destroyed crops, factories, railways, and utility plants -- anything that might be of value to the Nazis. The German assault had peaked by the end of November. In December, the Germans halted their offensive in the face of snow and cold weather, and the Soviets launched a counteroffensive that drove the Germans back from Moscow and Leningrad.

As Germany attacked the Soviet Union, British troops struck Axis forces in Libya in hopes of eliminating the Axis threat to the Suez Canal. The attack relieved a besieged British garrison at Tobruk on December 11 and drove the Axis from Bengasi on Christmas Day.

Japan Prepares for War

The Japanese believed a German victory was certain. They immediately tried to profit from it. In July, the Vichy government gave Japan bases in French Indo-China. Japan moved in and massed troops against Thailand (Siam). This and other aggressive moves by Japan brought strong protests from the U.S. and Great Britain.

General Hideki Tojo became premier of Japan in October. In November, he sent a special envoy, Saburo Kurusu, to seek peace with the U.S. (and gain time for Japan to position its forces to attack). On November 26, American Secretary of State Cordell Hull announced that the U.S. would give full economic cooperation to Japan, but insisted Japan withdraw from China and stop collaborating with the Axis.

In answer to a plea for peace from President Roosevelt, Kurusu and the Japanese ambassador accused the U.S. of standing in the way of the "new order in East Asia". Secretary Hull said the statement was filled with "falsehoods and distortions". Even as he spoke, Japanese forces were attacking Americans at Pearl Harbor in Hawaii, in the Philippines, and elsewhere in the Pacific Ocean area.

Without warning, Japanese submarines and carrier-launched bombing planes attacked Pearl Harbor, Hawaii, killing more than 2,800 Americans. Eight battleships were sunk or damaged. Many cruisers and destroyers were hit. Six air bases were heavily damaged. Most of the U.S. planes were destroyed on the ground. Japan lost 55 men, three submarines, and 29 of the 353 attacking aircraft. The Japanese also attacked Midway Island, the Philippines, British Malaya, Hong Kong, and the islands of Guam and Wake. Japanese troops occupied Siam with the consent of that government. Two-and-a-half hours after the attack at Pearl Harbor, the Japanese foreign minister informed the U.S. embassy in Tokyo that a state of war existed between the U.S. and Japan. Britain declared war on December 8. The U.S. Congress declared that a state of war had existed since December 7.

On December 9, China issued a formal war declaration against Japan, Germany, and Italy. On December 11, Germany and Italy declared war on the U.S., and the U.S. Congress voted declarations in return. That week Costa Rica, Cuba, the Dominican Republic, El Salvador, Guatemala, Honduras, Haiti, Nicaragua, and Panama entered the war against the Axis powers. Bolivia declared war against Japan. Most other Latin American nations either broke off diplomatic relations with the Axis countries or supported the U.S.. Bulgaria, Hungary, and Romania declared war on the U.S., Japan and the Soviet Union carefully avoided war with one another.

On January 1, 1942, the 26 nations then at war with the Axis powers pledged united efforts and no separate peace until victory was gained.

1942

The Allies were on the defensive in all the theaters of war. In the Pacific, Guam and Wake islands had fallen to the Japanese in December 1941. The Japanese had also taken Hong Kong from the British, and much of the American fleet lay in ruins at Pearl Harbor. Filipino and American forces, commanded at first by General Douglas

MacArthur and later by Lieutenant General Jonathan M. Wainwright, made heroic stands in the Philippines at Bataan and Corregidor. MacArthur was appointed supreme commander of the southwest Pacific in March. The Philippines fell in May, as had Singapore, the Netherlands Indies, Burma, and parts of New Britain and New Guinea. Darwin in northern Australia was heavily bombed, and Australia was under serious threat. In Burma, a small group of American volunteers called the Flying Tigers shot down hundreds of enemy planes. On April 18, carrier-based Army aircraft led by Brigadier General James H. Doolittle bombed Tokyo.

Battle of Midway Island
In June, a strong Japanese invasion force moved directly against the Hawaiian Islands. American ships, Navy planes, and Army planes from Midway Island fought a four-day battle, losing the carrier Yorktown, a destroyer, and 150 planes, but defeating Japan's forces. Japan lost four aircraft carriers, two heavy cruisers, three destroyers, and 275 planes.
A Japanese force occupied the islands of Kiska, Adak, and Atka in the Aleutian Islands, but the battle of Midway put an end to any serious threat of Japanese expansion. American counterattacks began forcing them back. U.S. Marines attacked the Solomon Islands in August, and a month later American and Australian forces began driving the Japanese out of New Guinea.

Battle of the Atlantic
By 1941, the Allies had lost more than 3.5 million tons of shipping to German submarine attacks. In March, Adm. Ernest J. King was named U.S. Chief of Naval Operations. Admiral King led Allied efforts to win the battle of the Atlantic.

Battle for Egypt
Axis aircraft in the Mediterranean had blocked British use of the Suez Canal, which forced the shipment of supplies for the British forces in Egypt, the Near East, and India to take a route around Africa. In January, Germany's Field Marshall Erwin Rommel started a new drive to seize the Suez Canal. The British lost Bengasi but held the Nazis in check until May, when a powerful attack engulfed most of the British tank force, took Tobruk, and moved into Egypt. The British halted the drive in May at El Alamein, and on October 23 started a devastating attack from there that routed Rommel's tank force and drove the Germans from Egypt by November 6.

North Africa
American forces under the command of Lieut. Gen. Dwight D. Eisenhower landed in French North Africa on November 8, quickly capturing strategic points in Algeria and Morocco. The Vichy government denounced the attack, and the Nazis occupied all of France. The French fleet at Toulon was scuttled to keep it out of German hands. The Allies captured the French naval commander in Algiers, and the French quickly ended all resistance in Africa.

Russian Front
By the spring of 1942, the Soviet Union had regained one-sixth of the territory it had lost in 1941. Warm weather brought a new German assault, however; Sevastopol fell to the Germans in July, and they advanced to within 100 miles of the Caspian Sea. In August, the Germans attacked Stalingrad, but intense Red army resistance halted them. In November, the Soviets counterattacked.

1943
This year the tide was turned against the Axis.
U.S. Marines and Army infantry forces took Guadalcanal in the Solomon Islands in February. This ended six months of bloody jungle warfare. During the fight for Guadalcanal, a large part of the Japanese fleet was destroyed. Over the spring and summer, forces led by General MacArthur and Admiral W. F. ("Bull") Halsey worked closely to drive the Japanese out of eastern New Guinea, the Solomons, and the Bismarck Archipelago. By early fall, the Allies had cleared a ring of enemy positions covering Australia, while Americans and Canadians eliminated enemy forces in the Aleutian Islands. In November, a Marine–Army force invaded the Gilbert Islands. A Marine division stormed ashore on Tarawa, and 3,000 Marines were killed during the capture of this island.

Allied Success in the Mediterranean
In February, General Eisenhower was appointed commander-in-chief of the Allied armies in the North African Theater of Operations. By May, his forces had eliminated the enemy from North Africa. The Allies invaded Sicily in July. On July 25, Benito Mussolini was forced to resign as premier of Italy. King Victor Emmanuel appointed Marshal Pietro Badoglio successor. The British 8th Army invaded southern Italy on September 3, and Badoglio's government surrendered unconditionally on September 8. German troops continued fighting in Italy, which forced the Allies to battle their way up the Italian mainland through the fall and early winter.

Soviet Counterattack and the Sea War
By January, the Soviet counterattack had gained full power, and Soviet forces trapped Nazi armies before Stalingrad, Kharkov, and Smolensk. By the end of the year, they had reached the Polish border of 1939.
Wolf packs of 500 to 700 German submarines prowled Atlantic sea lanes and sank about 700 merchant ships before the Allies developed good defenses – first relentlessly bombing German submarine bases, and then convoying ships with long-range bombing planes. The submarine menace in the Atlantic was virtually eliminated by the end of the year.

The Air War
The Germans had introduced strategic bombing – the mass bombing of targets deep in enemy territory – early in the war. Now the Allies turned that strategy against them.

RAF Hurricane and Spitfire fighter aircraft had proved superior to German fighters, but the first U.S. planes were less effective. Later Thunderbolt (P-47) and Mustang (P-51) craft were excellent fighters. British bombers (Lancasters and Halifaxes) could carry one- and two-ton blockbusters.

Having suffered tremendous losses during daylight bombing raids early in the war, the British turned to night raids. The American Eighth Air Force preferred daylight-bombing raids, however, because targets could be hit more effectively. Americans in Flying Fortress (B-17) and Liberator (B-24) aircraft flew in large numbers and in tight formations, and at first they suffered serious losses. The introduction of the Mustang fighter plane into the theater, however, enabled the Eighth Air Force to combat Messerschmitt (ME-109) fighter attacks. Because it could carry more fuel than other fighters, the Mustang could escort bombers deep into enemy territory. With the British bombing by night and the Americans bombing by day, the Allies took a heavy toll on German industry.

The U.S. Navy flew 420 planes along 65,000 miles of routes. In the China–Burma–India Theater, the Tenth Air Force carried supplies over the Himalayas from India to China. The Ninth Air Force used Marauders (B-26s) for low-level ground-support bombing on the Italian islands and mainland. C-47 transports dropped paratroops over their objectives and towed glider-borne troops.

1944

In February, U.S. forces advanced more than 2,000 miles from Hawaii to seize the Kwajalein atoll and Eniwetok in the Marshall Islands. The next advance was some 1,200 miles to the Marianas. By mid-August, the Allies had taken Saipan, Tinian, and Guam, and were using long-range Superfortress planes (B-29s) to bomb Japan. MacArthur's forces invaded the Philippines at Leyte Island in October, and completed the conquest by Christmas Day.

Soviet Advances

Soviet attacks were inflicting the greatest pressure against the Germans at this point. Soviet armies reached the Baltic States by spring and drove deep into the Ukraine in the southwest. Other drives neutralized Finland, took Minsk and Pinsk in Poland, and forced Romania to surrender. Romania declared war on Germany on August 24, and after its September defeat by the Soviets, Bulgaria did the same. Soviet forces entered Yugoslavia, joined Yugoslav partisan forces under Marshal Tito, and captured Belgrade on October 20.

Italy

General Eisenhower was named supreme Allied commander in Western Europe, and Britain's General Alexander was made commander of the Allied Forces in Italy. The Allies landed at Anzio in January. They remained pinned on the beachhead, and matters looked hopeless. After heavy assault broke through south of Cassino in May, however, the attackers joined the forces at Anzio and swept on to take Rome. The Allies now invaded France. The Italian campaign became a containing operation. Holding forces were charged with diverting German troops from the main theater in Normandy.

Normandy

Early on June 6, an invasion fleet of 7,000 ships landed 176,000 Allied troops on beaches at Normandy. Airborne divisions dropped behind the German lines. In the air, the Allies had complete command. The outcome of the war in Europe hinged on the success of this invasion. In the first week, the Allies established beachheads between Cherbourg and Caen along a 60-mile-wide strip, and within a week they'd driven 20 miles inland. Casualties for the landing were about 15,000 out of some 150,000 engaged.

Although a German spy had stolen Allied plans for Operation Overlord – the landing at Normandy – at Istanbul and delivered them into Nazi hands, the German High Command was led to believe the landings were planned as a diversion to draw German panzer divisions away from a strike at Calais. Thanks to conflicting information and a split in German thinking, Rommel never received the support he needed to drive the Allies back.

The British captured Caen on July 9. The Americans broke out of their beachhead positions on July 25. Armored columns headed inland, and Paris fell to the Allies on August 25.

Germany's Last Gasp

Germany launched robotic bombs (V-1s) against Britain from bases in France, and launched ballistic missiles (V-2s) against Britain from the Netherlands. The V-bombs injured and killed thousands of British civilians and inflicted tremendous damage.

East of the Rhine, the Germans battled to keep the Allies from entering Germany. Allied troops crossed the German border east of Aachen in September. With the Allied drive slowed down in the face of cold, wet weather, the Germans launched a surprise counterattack on December 16. The main attack came south of Aachen in the Ardennes, and the Germans surrounded the American 101st Airborne Division at Bastogne, but the Battle of the Bulge saw defeat for the Germans in this region.

As 1944 drew to an end, Allied forces to the west and east prepared to throw their weight into the drive that would crush the Nazis.

1945

Allied armies advanced into Germany in 1945. By the end of March, Allied forces had hacked their way halfway across Germany. Budapest fell to the Soviets in February, and Vienna fell in April. In Italy, partisans captured and shot Mussolini on April 28. The next day, the Germans in Italy surrendered unconditionally. Hitler remained defiant in his underground bunker in Berlin. The Soviets attacked Berlin on April 21, and Hitler committed suicide the night of April 30.

Germans in Denmark, the Netherlands, and northwestern Germany surrendered to General Montgomery on May 4. General Alfred Jodl signed the surrender documents at Reims on May 7. On May 8, President Harry S. Truman, Prime Minister Churchill, and Premier Josepf Stalin announced that General Keitel, head of Germany's supreme command, had surrendered unconditionally the day before.

Defeat of Japan

MacArthur landed an invasion force at Lingayen Gulf in Luzon. U.S. forces quashed resistance in Manila in late February, but it took months to eliminate the last pockets of Japanese resistance in the Philippines. Admiral Nimitz's forces seized Iwo Jima and Okinawa. Marine casualties at Iwo Jima – almost 20,000 – were the heaviest of any island invasion. Japanese kamikaze bomber pilots crashed planes into American ships during the course of this invasion. On July 26, the Allies demanded that Japan surrender immediately or face utter destruction, but Japan continued to fight. On August 8, the Soviet Union attacked the Japanese in Manchuria.

American scientists successfully detonated an atomic bomb in New Mexico in July. On August 6, a B-29 dropped another on Hiroshima, Japan, destroying three fifths of the city, and a more powerful version was dropped three days later on Nagasaki. The Japanese accepted Allied surrender terms on August 15. On September 2 (September 1 in the U.S.), Japan formally surrendered aboard the battleship Missouri, anchored in Tokyo Bay.

General MacArthur accepted the surrender as Supreme Commander for the Allied Powers and immediately began establishing military occupation of the empire. American troops went ashore to liberate war prisoners and enforce the surrender's terms. Japanese military forces were disarmed and sent home, and the emperor and other government officials agreed to answer to General MacArthur and follow his orders. Japan's war leaders were arrested and held for trial.

Appendix A: The Units of Hearts of Iron
Land Units

Infantry
These are the poor, bloody infantry. They move by foot and use horses and occasionally trucks to carry supplies and heavy equipment. They are good against other infantry, mechanized infantry and forts. Slow moving. Require no or very little fuel.

Cavalry
Some countries start the game with a number of cavalry divisions; some might even choose to build more. Cavalry is fast and moderately cheap, but useless against mechanized and armored divisions, and the horse soldiers don't get any improvements from research.

Motorized Infantry
Motorized infantry moves faster than their foot-bound brethren. Otherwise, they are the same animal. Motorized infantry moves faster in provinces with good roads, and of course, uses fuel. Most base values are similar, but the road modifier is much higher for motorized infantry.

Mechanized Infantry
Infantry carried in all terrain vehicles like halftracks and jeeps. Has slightly better attack and defense capabilities than regular infantry (although more vulnerable to air attacks), is much faster moving, but very expensive. Fuel hogs.
Armored / Panzer Armored divisions excel in fighting other armored divisions and mechanized infantry, but aren't slouches against regular infantry either. They are very fast, but highly vulnerable to air attacks. Also, they don't work well in rough terrain such as swamps and mountains. They do use a lot of oil.

Paratroopers
Lightly equipped and slow moving on ground, these units with their special training nevertheless have high fighting values. They are the only units that may be dropped from the air.

Marines
Like paratroopers these are well-trained troops, but these troops are trained for invasions from the sea. Other units may also invade, but marines get almost no attack penalty when doing so.

Mountaineer Corps / Bergsjaeger
Like paratroopers and marines, these troops are lightly armed, but they suffer a much smaller penalty when moving and fighting in mountains.

Militia Units
Cheaper units that can be built quickly. Militia can't stand up to regular units in a fight, but they are just what the doctor ordered if you need many divisions very quickly.

Basic Stats:
Enhanced (Reinforced) Divisions
When an infantry or armored division is first constructed, the player will get to choose if he wants to reinforce it with a larger than normal, brigade size (3000-5000 men) component of artillery, engineers, anti-tank or AA (instead of the normal battalion). Each division may only have one such specialty. Below is what those brigades will add to the division.

Artillery
Artillery adds significantly to all the attack and defense values of a division, but is quite expensive to build. However, an artillery brigade is a thing to fear! (Self propelled artillery is more expensive, of course.)
- Build Cost: +10
- Build Time: +4 (weeks)

- Manpower: +3
- Soft Attack: +2
- Hard Attack: +1

Anti-Tank Guns
Cheaper than artillery, but almost useless against soft targets, anti-tank guns raise the hard attack value of a division. (Self propelled anti-tank guns, tank destroyers, are more expensive, of course.)
- Build Cost: +5
- Manpower: +3
- Hard Attack: +2

Anti-Air Guns
Like anti-tank, but raises the air-attack value instead. Especially useful if the enemy has air superiority.
- Build Cost: +5
- Manpower: +3
- Hard Attack: +1
- Air Attack: +3

Engineers
Engineers add to the attack rating against fortifications and reduce the penalties of crossing rivers.

Air Units
Fighters
These have shorter range than the bombers and have no real bombing capability, but are used to destroy other fighters and bombers and fly escort missions.

Strategic Bombers
These mammoth planes have very long range and can carry massive amounts of bombs. They are mostly useful against industries, ports and cities, but may also be used against fleets and armies with limited effect.

Tactical Bombers
Smaller and faster than the strategic bombers, the tactical bombers are best employed against mechanized armies and

forts, but may also be used to disorganize all army types and damage ships.

Naval Bombers / Torpedo Planes
Naval bombers are specially modified tactical bombers and long range fighters designed to damage ships. Typically carrying a load of torpedoes, they are lethal against fleets but not very useful against other types of targets.

Transport Planes
Transport planes are used to keep land units in supply and to carry paratroops. They have lousy defense values and lack offensive capability.

Night Fighter Divisions
Regular Fighter Divisions can be upgraded with night fighting equipment and special training for the pilots. This works exactly like the enhanced division concept for ordinary divisions. Without this upgrade, fighter divisions cannot intercept bogies in darkness.

Spotting:	+1
Air Attack:	-1
Build Time:	+4 (weeks)

Naval Units
Battleships
These floating fortresses are extremely powerful and may even bombard coastal areas, but are vulnerable to air attacks and have a high visibility. These units should be named first with historical names as long as possible, then with the names of ships planned or in construction, with plausible but invented names.

Cruisers
In reality, cruisers come in many sizes and classes. E.g. a large battle cruiser might be considered a small battleship, whereas a small light cruiser resembles a heavy destroyer. In Hearts of Iron, cruisers should be constructed in squadrons consisting of two or three historical vessels, named for the most famous. Cruisers are excellent escort vessels and have a small shore bombardment value.

Destroyers
These fast warships are mainly used as escorts in convoys and to hunt submarines. They have a high spotting ability (at least against submarines).

Aircraft Carriers
Aircraft carriers enable air flotillas to land in sea zones – a vital ability for operations far from friendly territory. I.e. they act as mobile airbases. They are highly visible and vulnerable and must be escorted by more powerful vessels. These units should also be named with historical names as long as possible, then with the names of ships planned or in construction, then with plausible but invented names. Each Carrier unit in Hearts of Iron represents 2 actual vessels.

Submarines
Submarines are stealthy units that may lie hidden beneath the surface even though enemy units are in the same sea zone. They work best against transport ships and aircraft carriers since their defense is low once discovered.

Transport Ships
These are used to carry supplies and raw materials across sea zones. Vital for countries like the UK to keep its industries running. Transport ships may also carry land units for invasions and redeployment.

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