Hearts of Iron III

Strategic level Second World War Computer Game

Reference Manual

14. January 2010

Read this First:

The rules are organised in a format known as the ***Case System***. This system of organisation divides the rules into ***Major Sections*** (each of which deals with an important aspect of play). These Sections are numbered sequentially as well as being named. Each of these ***Major Sections*** is introduced by a ***General Rule***, which briefly describes the subject of the Section. Many times this ***General Rule*** is followed by a ***Procedure*** which describes the basic action the Player will take when using the rules in that Section. Finally, the bulk of each major Section consists of ***Cases***. These are specific, detailed rules that actually regulate play. Each of these cases is also numbered. The numbering follows a logical system based upon the number of the ***Major Section*** of which the Cases are a part. A Case with the number 6.5, for example, is the fifth ***Primary Case*** of the sixth ***Major Section*** of the rules. Many times these ***Primary Cases*** are further subdivided into ***Secondary Cases***. A ***Secondary Case*** is recognised by the fact it has two digits to the right of the decimal point. Each Major Section can have as many as nine ***Secondary cases***. The numbering system is meant as an organisational aid. Using it, Players can always easily tell where a Case is located in the Rules. As a further aid, an outline of the ***Major Sections*** and ***Primary Cases*** are given at the beginning of the rules.

How the Section and Case Numbers Work:

[13.2]

The preceding example would be the number of the third Secondary Case of the fifth Primary Case of the sixth Major Section of the Rules.

How to Learn to Play the Game

Familiarise yourself with all of the components. Read all of the General Rules and Procedures and read the titles of the Primary Cases. Set up the game for play (after reading the pertinent Section) and play a trial game against yourself referring to the rules only when you have a question. This procedure may take you a few hours, but it is the fastest and most entertaining way to learn the rules short of having a friend teach them to you. You should not attempt to learn the rules word-for-word. Memorising all that detail is a task of which few of us are capable. CSP rules are written to be as complete as possible - they are not designed to be memorised. The Case numbering system makes it easy to look up rules when you are in doubt. Absorbing the rules in this manner (as you play) is a much better approach to game mastery than attempting to study them as if cramming for a test.

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[1.0] INTRODUCTION

"You know you've achieved perfection in design, not when you have nothing more to add, but when you have nothing more to take away." -Antoine de Saint-Exupery (1900 – 1944)

Commentary
This manual is based on the original HOI3 reference manual. All errata is incorporated in this version, as well as additional notes , commends, observations and a number of additional games aids in the form of tables.

Apart from these changes the main difference is the numbering scheme. You will notice this uses a a number system called the CASE system, which was developed by a boardgame company back in the 70's (SPI). I am more familiar with this system and most older boardgamers would also be more familiar with this system. It also results in a set of rules which are easier to reference. I consider this game as a boardgame converted to computer game and wish to treat it in that manner.

About the Manual
Apologies to Star Fleet Battles veterans – this is not the SFB system, though it is similar. Generally, when I write a term which involves rules (i.e. it has its own rules section) I will capitalize that word to signify as much. This is not always true – for instance, I do not always capitalize "province" unless I'm referring to a "Province Interface," or something similar. When you see capitalized terms, you can usually find those terms in the Index.

Please note that this Manual will not often give specific figures for modifiers or other values in the game because many of these values may change in future game patches.

The Manual is an attempt to explain the game mechanics and how the system works. Players seeking specifics such as exact values for a particular patch should consult the Paradox Forum at http://forum.paradoxplaza.com.

The Forum is also where you can find not just "patch" update downloads to bring your game up to the latest version, but also fellow gamers to talk with about any questions about anything related to this or any other of Paradox Interactive's many historical strategy games.

Also, keep in mind many gaming writers meet on the Paradox Forum to write "After Action Reports" (AARs), which tell the story of their games in a variety of ways, from fictionalized alternate histories, to straight explanations of gameplay, to dramatic "fan-fiction" stories. The unique thing about Paradox games is that each game is quite different from any others are likely to have played, and so there's always a new and interesting story to tell.

Quickstart
Although it's highly recommended you come back soon to read the rest of the Manual, some players would prefer to jump right into the action. Due to space limitations, the Quick Start lesson has been moved to a downloadable PDF document which can be found at the Paradox Forum (http://forum.paradoxplaza.com). The Index for the Manual can be found in the same document. It's recommended you look there for a brief tutorial. The Quickstart section "shows you the tools without telling you the rules," which some players may prefer. This is a complicated game, and it's likely that new players will find these instructions necessary. The In-Game Tutorials are also useful for getting into the action quickly.

How the HOI 3 World Works
There are some things about the world that are best explained before we go into the various game Interfaces and how to run a country. Keep in mind that these values are very "moddable," in that they can be modified by amateur coders, and so these values may differ from patch to patch and from "mod" to "mod."

First Things First
The first things you will do in any game, especially if you start in 1936, the first phase of your game will be setting up your country the way you want it, researching the techs you need, and building the units you need.

All of this is best done after a general evaluation of your country and its strategic situation within the game. The next chapter will explain how to look at your country and its environment critically. The next chapter will explain how to set up your laws and ministers the way you want them, and prepare your economy for the coming conflict. The next two chapters will talk about how to set your research and production priorities. Other chapters will lead on from there into several subjects of a more military character.

How you act in each of these areas will all be driven by your ultimate goals. HOI 3 is designed in such a way that you can set your own goals – to be very specific, or to be entirely freeform and reactive to the world situation as it's presented to you.

If you think it would be useful for you, there is a Quickstart Guide available for those people who have registered their game on the Paradox Forum (which you have probably already done in order to have access to this Strategy Guide). If you can't find it, ask for assistance on the Paradox Forum to find where the Quickstart Guide is located. At the end of this Strategy Guide you will also find a sequence of case studies, charts and player aids that should help you to understand things better.

[2.0] STARTUP

Summary;
Once you've clicked the icon to start Hearts of Iron III, you will see a series of famous World War II scenes as the game loads. Keep in mind that HOI 3 is a tremendously involved game, and the game files used to run it are immense. It will take a while for these files to load for the first time. You will know the launch is progressing because every minute or so a new graphic will come up, and the hourglass cursor will be turning. This process will happen every time you load the game from the desktop, unless you've played since your last reboot, which may result in a faster startup.

[2.1] START MENU

General Rule
Once you load the game, you will be faced with an introductory graphic and a start menu with various selections.

[2.11] In the lower-left corner of the screen, you will see the game's version number, and a "checksum" (a unique four-letter code which indicates the specific setup and patch status of your game). You can use this checksum to verify that you have correctly installed the game. It's also important for Multiplayer games, as each player must have the same checksum code in order to play against each other. If you modify any of your game files (i.e. "modding"), it may change your checksum. This prevents incompatibilities between players, not to mention cheating. The files you might be expected to modify (Message Settings, etc.) won't change the checksum.

[2.12] You will have several options when your game fully loads:

• Single Player – Begin a single-player game, playing against computer opponents as the leader of one of many governments. This is also where saved games are reloaded.

• Multiplayer – Begin or host a multiplayer game against human opponents. You can either play against friends, or you can find opponents on the Metaserver (described in more detail in the Multiplayer Section).

• Tutorial – Launch a series of "training" scenarios, which will explain in brief the basics of how to play the game.

• Options – Make changes to the various settings in the game (see: Game Options).

• Credits – See the many people who created this game.

• Quick Start (on the lower right) – Begin a preselected game scenario.

[2.2] GAME OPTIONS

Summary
Click the "Options" button on the Main Game Menu to change any of the game's default settings. Each button at the top of the interface allows you to adjust a type of option: gameplay, video, audio, or controls. After making your changes, click the "Apply" button at the bottom of the menu to save and return to the Main Game Menu. The "Back" button will cancel your changes and return you to the Main Game Menu. Many of these settings, with the exception of Video and Difficulty, can also be changed during play by selecting the "Options" button from the Main Menu Options Interface.

[2.21] Game Settings – General Settings

• Difficulty changes the overall difficulty of gameplay to make it more or less challenging than normal. Difficulty can only be changed before a game.

• Auto-Save Frequency allows you to set the game to automatically save the game every month, every six months, every year, every five years, or not at all. When you see the list of saved games, you will also see an "Autosave" and an "Old Autosave," the two most recent automatic saved games. This can prevent the accidental loss of a game. You can always save manually as well.

[2.22] Video Settings

These can only be changed at the beginning of a game.

• Resolution allows you to choose the screen resolution that works best for you. The default is determined by your current desktop resolution.

• Refresh Rate adjusts the screen refresh rate from the default value. WARNING: An incorrect setting can cause damage to your monitor. Please refer to the manual for your monitor before changing the default screen refresh setting.

• Multisample Level sets the level of multisampling (also referred to as anti-aliasing) used to display graphics in the game. Higher levels will produce a more pleasing visual image, but will also cause a slight reduction in game performance.

• Gamma adjusts the overall contrast level of the game's graphics. For most systems, the middle position should provide excellent crispness and contrast. Shifting the slider to the left will reduce contrast, and shifting it to the right will increase contrast.

• Trees (on/off) allows you to turn the in-game trees off to avoid overtaxing a system that is close to the minimum game specifications.

[2.23] Audio Settings

The game has a full soundtrack of music as well as numerous sound effects, many of which help you play the game by informing you as to what's happening.

• Master volume adjusts the overall volume of the game's sound. It will not affect your computer's master volume.

• Effects adjusts the volume of special sound effects played in the game.

• Music adjusts the volume of the beautiful musical soundtrack which has been specially composed for this game.

• Ambient adjusts the volume of various ambient effects, such as the sounds of battle.

[2.24] Controls Settings

Basic controls that help you to see the map.

• Scroll speed adjusts the speed at which the game's Main Map will move when scrolling from one end of the map to the other. This can keep your screen movement from being too jerky.

• Zoom speed adjusts the rate at which your mouse's scroll wheel will zoom toward or away from the Main Map.

[2.25] Windowed Mode

This setting is not in the game menus, but it is possible to change to Windowed Mode by manually editing (using Windows Notepad) the settings.txt file: change the line "windowed = no" to "windowed = yes" and save. Please note that Windowed Mode is not officially supported, and may cause performance loss, visual issues, or crashes on some systems.

[2.26] Other Graphic Choices

Some of the other graphics choices from the Main Menu Options are whether you want to use Counters or Sprites (discussed in A2.3), and whether you want to use "Advanced Water," which is basically how realistic (and graphically intensive) you want the ocean's water to look. Set this to off if your computer's display of the game is slow.

In HOI 3, as in past games, you've had the option of using either "sprites" (little tanks or men to visually represent the units), or "counters" (colored squares with symbols & writing to explain more about the unit), and there are always camps of followers for each. Honestly, I haven't been a "counters" guy, myself – not since the old board wargames which used cardboard counters. But I must strongly advise you to use counters in HOI3 (at least until you're used to the game). The counters provide so much information about your units, and the enemy's units, that it will make it harder to play without.

If you do decide to use sprites, the tooltips should help you sort things out. But you will still need to click on your units often and pull up the unit interface in order to see valuable information.

Most of your other choices will have to do with your graphics. If you have an older computer, or one that is not optimized for game playing, you may want to turn off some of these extra features, like trees and realistic ("advanced") water, so they do not tie up your computer's processor or graphics cards, and the game will play more smoothly.

[2.27] Level of Difficulty

The level of difficulty you use will help determine how hard it will be for you to win. Many players will want to start at a lesser difficulty until they get used to the game, and then can play on normal or hard in later games.

On Easy difficulty, for instance, the player will have advantages in handling revolt risk, and significant advantages in acquiring manpower, IC, resources, repairing ships and transporting supplies. The enemy (the AI) will play normally, without advantages or disadvantages. This will make it easier for you to win. Very Easy will make it even easier for you to win.

At Very Hard difficulty, the enemy (the AI) will have significant advantages in manpower, resources, IC, base efficiencies and supply throughput, whereas you will have significant disadvantages in return – it really stacks things against you, making for a much harder game, which many people enjoy.

Player Level	Effect
Very Easy	global_manpower_modifier = 0.5 global_revolt_risk = -3 global_ic = 0.50 global_resources = 0.5 supply_throughput = 1.0 naval_base_efficiency = 1.0
Easy	global_manpower_modifier = 0.25 global_revolt_risk = -1 global_ic = 0.25 global_resources = 0.25 supply_throughput = 0.25 naval_base_efficiency = 0.25
Normal	No Effect
Hard	global_ic = -0.1 global_resources = -0.1 supply_throughput = -0.25 naval_base_efficiency = -0.25
Very Hard	global_ic = -0.25 global_resources = -0.25 supply_throughput = -0.5 naval_base_efficiency = -0.5

AI Level	Effect
Very Easy	global_ic = -0.25 global_resources = -0.25
Easy	No Effect
Normal	No Effect
Hard	global_ic = 0.25 global_resources = 0.25 supply_throughput = 0.25 naval_base_efficiency = 0.25
Very Hard	global_ic = 1.0 global_resources = 1.0 supply_throughput = 0.5 naval_base_efficiency = 0.5

[2.3] TUTORIALS

Click the "Tutorials" button in the Main Game Menu to access Hearts of Iron III's series of on-screen tutorials. These are designed to quickly introduce you to the basics of play.

Each tutorial focuses on a different subject, ranging from domestic management to warfare. Complete mastery of Hearts of Iron III may take many, many hours of play, so don't be discouraged if you don't catch on right away. This Manual is designed to provide far more depth to your learning experience than the tutorials.

[2.4] QUICK START

Clicking on "Quick Start" will take you to a menu with four options for interesting scenarios that will help you immediately get into the thrill of the game. These are simply preselected scenarios that save you the trouble of choosing from among more than a half-dozen starting dates or more than 100 countries to play.

If you think you'd prefer to try the Quick Start, you should first refer to the downloadable Quick Start & Index PDF mentioned in the introduction. It may be found on the Paradox Forum. It might actually be better to try the Online Tutorials instead, as they provide hands on instruction.

[2.5] STARTING A SINGLE-PLAYER GAME

General Rule
Click the "Single-Player" button on the Main Game Menu and you will be taken to the Single-Player Start Screen, where you can choose to start a new game at any point in history or from a specifically bookmarked date, or to load a saved game.

[2.51] You will see a map of Europe with colour-coded countries, which is where you will choose which country to play.

[2.52] The map will scroll so that you can explore the entire world, and choose which country to play.

[2.53] At the very top center, you will see the default scenario choice, which starts on January 1, 1936; however, you can choose other scenarios from the menu at the top left. Clicking on one of the scenarios will change the world map to reflect whichever geographical or historical changes occurred between 1936 and the start of the scenario.

[2.54] As a scenario is selected, you will see a brief explanation of what makes that date an interesting starting point for a game about World War II. Centered near the bottom are also a number of flags corresponding to the major world powers which might be interesting choices to play. Clicking on one of the flags selects that country for you to play; otherwise, you may look around to find a more preferable country.

[2.55] Once the desired country has been chosen, and the appropriate scenario has been selected, click the "Play" button located in the lower right corner. You could also select "Back" to return to the Startup Menu.

[2.56] You will see more World War II scenes as the game finishes loading your scenario, which will then lead to the Main Map and game screen.

[2.6] STARTING A MULTI-PLAYER GAME

Click the "Multiplayer" button on the Main Game Menu and you will be taken to the Multiplayer Start Screen, where there will be several options of ways to play against other players, either your friends or people you may not even know.

See Case [41.0], Multiplayer for more information about your menu choices, and how to get set up in Multiplayer.

[2.7] AUTOMATION & EASE

General Rule
HOI 3 is designed so that, if you so desire, you can allow the computer's Artificial Intelligence (AI) to run everything for you, while you just make the major decisions. Your style of play will determine whether this is a useful tool for you, or if you would prefer to make your own decisions. You can determine your favored degree of micromanagement.

Cases;
[2.71] You can set your major management interfaces to manage themselves (AI control). By setting the Diplomacy Interface to automatic, for instance, it will set up trades for you according to your needs, and save you the trouble of having to worry about it.

[2.72] The interfaces you will most likely want to retain control of are Production and Technology, because that's where you make choices about what technologies and military units you want to have to fight your war. On the other hand, if you'd rather just fight with whatever the computer gives you to fight with, you're more than welcome to set all these interfaces to automatic.

[2.73] The Theatre and HQ command system designed for HOI 3 will help you to not be overwhelmed by all the lower-level decisions such as which divisions to attack where exactly. Instead, you can provide a corps, or an army group, or even a whole theatre with general instructions, and the AI will control these units according to the guidelines you've given. See the Headquarters section for more information about managing your units with these tools.

[2.74] It will also make it easier if you understand that most of the lists of figures, wherever you see them (Diplomacy country list, Intelligence country list, statistics information, etc.), will be sortable. The interface lists, furthermore, have additional options that allow you to only look at neighbors, at members of certain factions, or at countries on certain continents, etc.

[2.8] TIME AND DATE

General Rule
Keep an eye on the clock, and on the date. The time of day is important, but remember the time on the game clock is Greenwich Mean Time (GMT or Zulu), not your local time. Night comes at different clock hours around the world. This is important to keep in mind as you play.

Cases;
[2.81] Each game "turn" is one hour, but because units don't take turns moving (they're all moving at the same time, if they're moving at all), HOI 3 is not "turn based." It's just a method of keeping track of time, and it's important to recognize that time is passing.

[2.82] The date may also be important, as summer turns to fall, turns to winter, etc. The weather will generally be determined by the season, and attrition of your units may also depend on the time of year, because extremes of hot and cold can make things tough on your troops.

[3.0] MAIN SCREEN INTERFACE

Summary
When you first enter the game you will be presented with a screen which consists of a map and a number of menu options. This is covered in this section.

[3.1] MAIN SCREEN INTERFACE

(See Examples)

[3.11] The game will start in a paused condition. This will allow you to set up your Government, examine your world, and perform other actions before having to worry about events, wars, etc.

[3.12] While you can click the Date to Pause or Unpause, it's often easiest to use the Pause button on your keyboard.

[3.13] Please also note that you can set your message settings to automatically pause your game if a certain type of game event occurs, as you can set preferences for each category of message.

[3.14] Now the easiest on-screen method of pausing is to click on the date, which will toggle pause on and off.

[3.2] INFORMATION BAR (TOP BAR)

[3.21] Information Bar Example (See Examples)

[3.22] Information Bar Overview
The Information Bar runs across the top of your screen. On the far left, your country's flag will be displayed, as well as the name of the country. Right above this is the Date on which you're starting. You can click on the Date to Pause and Unpause the game. Immediately to the right of the date are two red marks that represent a "Pause" indicator, or if you are not Paused it will show a stack of "up arrows" or "chevrons" which indicates your Speed setting. The "+" and "-" buttons allow you to increase or decrease the Game Speed.

Hearts of Iron III runs on "turns" of one hour each, and can be played very slowly, at a rate of about one game-hour every few seconds, or all the way up to a breathtaking 24 hours in the same amount of time. There is another Pause indicator on the other side of the Game Speed buttons.

Across the very top of the Game Screen, the rest of the Information Bar displays your Resource Stockpiles first (from left to right: Energy, Metal, Rare Materials, and Crude Oil), indicating how many units of each Resource are currently in stock. Green numbers indicate you are adding to the country's surplus every day, while red numbers indicate you have a deficit in that Resource and may someday run out of it.

[3.23] Resources
If you hover your mouse cursor over the numbers, a Tooltip will explain more about what that Resource is, and at what rate you are increasing or depleting your stockpile.

It will also indicate where those Resources are going, and the source of incoming Resources.

You will quickly need to get into the habit of checking the status of your resources on a regular basis. The values will flucuate greatly based on convoys and resource requirement, so you need to check them over a period of time to see if they are going up or down. Strangy enough you do not need to worry too much about crude oil, instead you need to look at fuel and if this is ok, you can ignore crude oil. If you lack a resource you will need to trade for it. If you are running out of money you may consider trading some of your excees resources.

Examples

Energy
This nation has a stockpile of 21500 energy. This increases by 41.06 each day, with 247.03 produced in home territory and 197.97 currently used.

This is a health status. In this case the nation would be wise to trade some of the excees production to gain money.

Metal
This nation has a stockpile of 11,191 metal. This increases by 45.50 each day, with 144.38 being produced in the home country and 98.98 currently used.

This is a health status. In this case the nation would be wise to trade some of the excees production to gain money.

Rare Material
This nation has a stockpile of 5459 rare metals. This decreases by 22.43 each day, with 26.91 being produced in the home country and 49,34 currently used.

This is not a healty status. In this case it would be wise to trade for some of this resource in exchand for money.

Crude Oil
This nation has a stockpile of 10,266 crude oil. This does not change.

The player will need to keep his eye on this increase it goes negative, but otherwise requires no action.

[3.24] Industrial Capacity

Next, to the right, you will see three subdivided numbers, which represent your Industrial Capacity (otherwise known as "IC"). The first number is what's called Wasted IC – it is IC that you could be using but you're not (and, of course, you'll want to fix that). The next number, on the other side of the first slash, is the Available IC – how much Industrial Capacity you actually can use. The last number, to the right of the slash, is the Base IC – how many "factories" (factory points, really) your country has, which make up the bulk of what becomes the Available IC.

Examples

Industrial capacity
This shows the industrial status of this nation. In this case the nation is not wasting any IC's, the base IC is 108 with an available IC's of 99.

This nation receives the following benefits of +7.5%, +10% and +25% with the following negatives of 50%. Overall the modified is -7.5% - which is why the 108 IC's are reduced to 99 IC's.

[3.25] Manufactured Resources

To the right of your IC are more Stockpiles – for Supplies, Fuel, and Money. Again, red numbers are bad and represent a loss while green is good and represents a gain.

Supply
This nation has a stockpile of 12,691 supply, which increases by 138.76 supply per day. 184.67 is produced in home terriotory and 46.24 and 7.56 are being used to supply the military.

In this case it would be wise to reduce the military strength of units overseas, clearly a lot of supply is going to units which are overseas.

Fuel
This nation has a stockpile of 6,455 fuel, which increases by 45.10 fuel per day. 59.40 is produced (or converted) in home territory and 14 are convoyed out.

If the nation was short of money it could trade some of this away. But fuel tends to be critical so it would be best to stock pile this.

Money
This nation has a stockpile of 486 money, which decreases by 0.30 money per day. We are gaining 0.75 in trade and losing 1.05 in trades as well.

It would be wise for this nation to ramp up its money supply.

[3.27] Others Indicators

Further to the right, you will see figures for other important values – Manpower, Diplomatic Points, Espionage Points, Leadership Points, Dissent, and National Unity (all of which will be explained later in the Manual).

Manpower
This nation has a 1012 manpower stock pile and gains 8.4 per day.

This is a good status, this nation has a reasonable stockpile which is growing.

Influence
This nation has a stock pile of 0 influence, gaining 0.24 each day.

In this case the nation better ramp up influence, as this is required to trade.

Espionage
This nation has no espionage points and is not gaining any.

As long as none are required this is ok, but it may be wise to ramp this up slowly.

Officers
This nation has 97% of the officers it needs. In 16 days it will be 100%, after which you may consider ramping down officer production.

This is a good status, you could even consider reducing your allocation of leadership in this area.

Dissent
Our level of dissent is 0.11 and is increasing at a rate of 0.02. At the moment this has no production effect, but if not controlled will start affecting production.

It would be wise to resolve the dissent issues asap before it affects your production.

National Unity
The national unity of this nation is 50%.

This is a reasonable value.

[3.28] In-Game Menu

The last icon on the top row of the Information Bar is a Menu button, which brings up several options:

• Save Game – Allows you to save the current game, either to keep a record (just in case) or to return to at a later date.

• Game Options – Allows you to change many of the settings described earlier (the same settings you can change from the Start Menu).

• Resign – Ends your current game and shows you the Victory Progress Screen, where you can then return to the Start Menu, which allows you to choose a new game or load a saved game (remember to save first!).

• Message Settings – Allows you to customize how you want to be informed of all the little details going on inside the game; you can also set it not to bother you.

• Quit – Ends the Hearts of Iron III program, and returns you to your computer's Desktop (remember to save first!).

[3.29] Sub Menus

Underneath all this information, but still on the Information Bar, is a series of six "tabs" which you will use to open important Interfaces which allow you to direct the functions of your country and its Government.

Menu's
Diplomacy
Production
Technology
Politics
Intelligence
Statistics

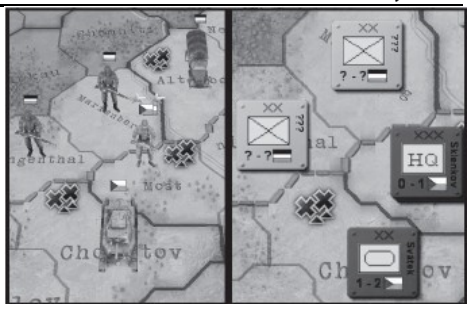
[3.3] SPRITES OR COUNTERS

Summary

Among the Game Options you can choose is whether you want your armies represented as "Sprites" (visual models of infantrymen, tanks, etc.) or classic wargame-style Counters.

[3.31] Sprites

Sprites are three-dimensional graphic images of the units, and many players prefer this because they are more visually interesting. Even if you are using Sprites for your Units, zooming out far enough will cause them to turn into Counters.



[3.32] Counters

Each Counter will show the unit type's symbol (Infantry, Armour, etc.), its organisational level (Division, Corps, etc.), and a numeric indicator roughly showing its Attack and Defence values (displayed in the format "1 – 2").

Remember that these values are approximate and only represent relative Combat values, and not actual Combat values. Zooming in will reveal more information about the Counter, including its national flag and the name of the Leader assigned to the Unit.

While pretty, the sprites are not as useful if you are micromanaging your battles – which you will need to do in some cases. The counters using the US Army symbols are not useful, although i wish they would include the formation name as well.

[3.33] Counter Symbol identification Chart, See Charts and tables

[3.34] Counter Organisational Level Identification Chart, See Charts and tables

[3.4] EVENT POP-UPS & ALERTS

[3.41] Event Pop-Ups

An Event window ("pop-up") will inform you of something that happens to which you may need to react. Event popups will appear in the middle of the screen and may pause the game, depending on your settings. Using the Message Settings Interface (See Case [3.8]) accessible through the Main Menu Options button. In general, these are things you'll need as reminders; they will tell you about the beginning or conclusion of a Combat, when some historical event has happened, and so on.

Events windows can be moved around the screen by clicking and dragging any part of the window that is not a button. The windows can generally be closed by hitting the "Enter" button on your keyboard, or by clicking the "Close" button with your mouse. Once you've read the Event notice, hitting Enter will select the default action for the Event window, which will generally be to acknowledge the information and close the window. Beware, though, that you're looking at an informational "Event" button, and not one which requires you to select one of several choices. Most of these windows do not have a default and thus will not close when you hit Enter, though you can never be too sure.

If an Event pop-up appears for a category of Event you don't want to see in a pop-up, you can right-click to bring up a menu which allows you to specify Message Settings for that category, and tell the computer how you want to be informed of those types of Events.

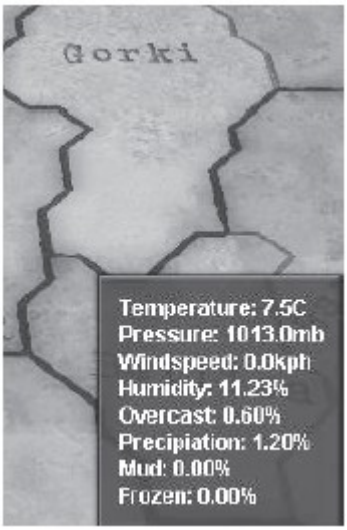
[3.42] Alerts

Alert icons will sometimes appear in the top-left corner of your screen, and will advise of conditions of which you'll need to be aware. These might advise you of newly available Laws which might better fit the world situation, or they might indicate that you have constructed units which need to be placed.

These are very useful and when you see them immediately click on them to determine what you need to do.

[3.5] TOOLTIPS

If you find that the information provided by the game's visual cues are not enough to answer all you want to know, you can usually hover your cursor over the item in question to see a Tooltip. The Tooltip is an information box that pops up next to the item to provide additional information. Later patches may include even more helpful and updated tooltips, should players express a need for greater levels of information.



[3.6] DIPLOMATIC OFFERS (FLAG ALERTS)

Diplomatic messages will appear as round country flags at the upper left corner of your screen, and as they add up, will continue to expand along the top row. These indicate other countries wanting to deal with you. These icons will remain for 23 days before they start to blink. Once they start to blink, they will remain for only seven more days. Click on the message to respond. If you don't respond before 30 days are up, you will "auto-decline," and the offer is automatically refused.

These can be useful if you have excees supply or resources and other nations wish to trade. It costs no diplomatic points and the other guy has to provide the transports.

[3.7] OUTLINER

General Rule
The Outliner is a basic information tool you can customize to provide at-your-fingertips status on all the most important things you need to keep track of – Armies, Navies, Headquarters structure, ongoing battles, etc.

Cases;
[3.71] Turn the Outliner on and off by left-clicking the button in the upperright corner of the Game Screen.

[3.72] A number of tabs across the top of the Outliner allow you to pick what type of information you want to look at.

[3.73] If you click on an entry in the Outliner, whether it's a unit or a Combat, you will center upon that location, and a Unit or Battle Interface may open. See Case [21.15] Outliner for more information about how to use the Outliner.

[3.8] MESSAGE SETTINGS

General Rule
Hearts of Iron III can inform you of most of what's going on in your country and around the world through various interfaces, Event windows, and Alert icons. The Message Settings allow you to customize what information you want to receive and how you want to be informed.

Commentary
There is a great deal of information the game can provide to you, much of which will help you in understanding what's going on. However, too much information can be more distracting than it is helpful, and so you need to decide for yourself what information you need to know about. The message settings options allow you to control this in several ways.

If you ask to be informed of everything from every country, you'll spend more time closing windows than playing the game. If you turn everything off, important things will happen without your knowledge, and you'll be unable to make well-informed decisions. A careful balance needs to be struck.

Rather than go through the long list of options and deciding on each one, the easiest option may be to set all of them to inform you with a popup window, and then you can right-click on that window to hide those messages if they become too distracting. This allows you to see all the types of message in context before you decide how they should be handled. By a couple weeks into the game, you should have the messages pared down to a manageable level.

Another way of setting these requires a little bit of coding, and is described in the Modding section at the end of the Strategy Guide. This procedure involves editing the message settings in a text file, then resaving it. It must be done carefully, though, so read the cautions in the modding section before you do this.

Cases
[3.81] To adjust the settings, click on the "Message Settings" button in the Main Menu Options Interface, which will open a scrollable menu.

[3.82] Every possible type of message is listed here – it may take a while to go through them all, but it's worth it. You don't have to go through all of the message types at once; you can attend to some when the appropriate issues arise. When you see a Message in the History Log or in an Event pop-up you want to change, right-click and a menu will ask you how you want those messages handled.

[3.83] There is also a manual method of editing these Settings, which may be easier for those who feel comfortable doing so. Using a text editor, open the file "messagetypes_custom.txt" which may be in the main HOI 3 folder, or if you use Vista it may be in another folder (do a search to find the file if necessary). Always use a text editor, like Notepad (not a word processor), because it results in a "clean" save. Back up the file first, in case you unintentionally change something improperly, then return to the original file. Each message type is listed in capitals.

[3.84] The Message Settings options will be listed, along with "=yes" or "=no". Change these, as desired, to provide the Settings as you like them. Make sure you change no other characters, and add no extra spaces, etc. – keep the file in the format it was in, and be very careful what you change.

[3.85] Then save the file. If the game behaves improperly you can save ("save as") the backup file with the file's original name, and it will go back to normal.

[3.9] MILITARY UNIT MENU

[3.91] On the right of the map you will see the military unit menu. This lists all your military units.

[3.92] The top is listed a number of symbols, clicking on a symobil will result in that unit type to be not displayed, or displayed. The symbols are as follows;

Symbols
Land units
Air units
Naval Units
?
?
?
?
?

[4.0] MAIN MAP & MAP-MODES

General Rule
The Hearts of Iron III map is designed to superficially resemble a historical World War II map in order to aid with the ambiance and get you into the mood for playing.

[4.1] MAIN MAP

[4.11] The Main Map dominates the screen when you start.

[4.12] Your game will be paused at the beginning, and you will automatically begin in "Terrain Mapmode," which shows land, rivers, mountains and deserts in full colour.

[4.13] When the game first loads, your screen will be centered on your selected country.

[4.14] To look around, move the cursor toward the edge of the screen to make the map scroll in that direction. You may also scroll by using the arrow keys on your keyboard.

[4.15] If a province is selected, it will show as a lighter colour than the normal colour shown in other, unselected Provinces (Hexes) of that country. Unselected Provinces (Hexes) in your country or in an Ally's country will be shown in a normal colour and with normal brightness. Also, those Provinces (Hexes) which are more than one province from either your country or an Ally's country will be shown in a colour darker than the rest (as if it's in a fog), and the units in those Provinces (Hexes) will be "hidden."

[4.16] As your units move around the map (or even as they sit in place), they will have a certain "range of vision" which allows you to have an idea of that area's surroundings. This "vision" also extends from every province Controlled by you or another country in your Faction or Alliance. This is explained in more detail in Section G (Intelligence). Provinces (Hexes) or Seazones that are adjacent to your units or allied Provinces (Hexes) will appear in a lighter shade than the surrounding territory (you might say the others are "grayed out"). You can generally see whatever neutral or enemy units are present in those Provinces (Hexes), though you may not know all you'd like to about what they are or what Brigade types comprise each Division.

[4.17] Most units or Provinces (Hexes) will show an informative tooltip if you hover your mouse over it. Different tooltips will be displayed depending on which Mapmode you're in. Units which are not your own will display very limited information If you hit the keyboard's "Home" key, the Main Map will center on your country's capital.

[4.18] Zooming
If your mouse has a scroll wheel, you can move it back and forth to zoom the map in and out. The further back you scroll, the more of the world will be displayed. At maximum magnification, you can closely examine the detail of the landscape, soldiers, and other units on the map; at lowest magnification, you will see most of whole continents.

If you've selected the use of "Sprites" (visual models of infantrymen, tanks, etc.) instead of classic wargame-style Counters, the map will tilt when zoomed in so you can see the graphic detail of the Sprite. As you zoom out, these sprites will turn to Counters, which show more detailed information about the unit.

[4.19] Mouse Pointer
If you hover your mouse cursor over a province or seazone, an animation will appear at the back end of the pointer to indicate whether the area you have selected is friendly or hostile. A green pulsing arrow will appear if your selected unit can move into a province which is friendly (controlled by your own country, or that of an Ally). A red pulsing arrow will appear if your selected unit can move into a province which is hostile (your enemy). A red flashing "x" will appear if your selected unit cannot move into that province or seazone.

[4.2] PROVINCES (HEXES) & REGIONS

Summary
The map has 10,000 land Provinces (Hexes) stretching around the world, with several thousand more zones at sea. This is about four times as many Provinces (Hexes) as there are in HOI 2.

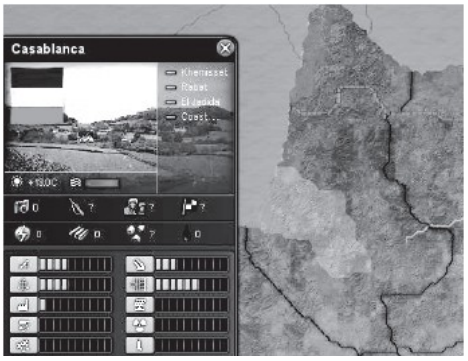
More Provinces (Hexes) should mean more flexibility with movement and combat, rather than more tedium in conquering your foes. To that end, things have been carefully balanced and accounted for.

You will find that the smaller Provinces (Hexes) are located in areas which are expected to feature the most land combat, while larger Provinces (Hexes) exist in areas where armies aren't expected to go. The enormous number of Provinces (Hexes) will enable more tactical battles and maneuvering, because portions of armies can quickly move to an adjacent province in order to outflank or encircle an enemy.

Cases;
[4.21] Depending on the Mapmode in use, these Provinces (Hexes) will be different colours. In the default Terrain Mapmode, the map is coloured to indicate the type of Terrain for each province – green shades for Forest, tan for Desert, and so on. Mountains and Rivers are also shown.

[4.4] In other Mapmodes, the province colour will indicate something specific to that Mapmode.

While not technically correc you can view Provinces (Hexes) as hexes in a boardgame. Most Provinces (Hexes) are hexagonal in nature and allow similar flexibiliy and movement as you would expect in a hex based boardgame. The advanatges of this system is flexibility and avoiding any silly hex based issue, while retaining the benefits of hexes. I personally feel this is rather clevour.



[4.23] The red borders divide countries, the black border divides regions, and the lighter spot within the region shown is the province of Casablanca. At higher zoom, it will have a thinner black border around it, too.

[4.24] Provinces (Hexes) are gathered into larger regions, which are useful for Air Missions. Most regions have four or five Provinces (Hexes).

[4.25] Regions are defined by darker lines which encompass more than one province. As you zoom out, the province borders will disappear and only the region borders will be visible.

[4.26] Individual Provinces (Hexes) can still be displayed, one by one, by clicking on it. The province will show as a lighter spot within the region border.

[4.27] Country borders are shown as a bright red line.

[4.28] Countries' Capitals are shown as a white and red spot, or "target" symbol.

[4.3] INSTALLATIONS ("BUILDINGS")

General Rule
You will see various "icons" on the map, representing what are called Installations, or "buildings."

Cases;
[4.31] Like everything in the game, Installations can be built with IC (Industrial Capacity – explained in Case [9.4]) via the Production Queue.

[4.32] A Naval Base which has Ships at dock will be a blue colour, rather than the unoccupied gray, and will have a ship icon inside the circle.

[4.33] An Airbase which has Airwings based there and on the ground (i.e. not currently away on a Mission) will be a lighter colour, and there will be an aircraft icon inside the circle.

[4.34] See Case [10.6] – When you produce and deploy new IC, Infrastructure, or various other Installations, they may take a few days to gradually come into being. After that time, you will see its effects represented in your statistics.

[4.4] OWNERSHIP & CONTROL

General Rule
Provinces (Hexes) have two statuses – Ownership (what country the province actually belongs to) and Control (what country currently Occupies and governs that province during wartime). During times of peace, Control will always match Ownership.

Cases;

[4.41] A province is normally shown in the colour of the Owner, but when Occupied by a different Controller country, the province is shown with a crosshatch pattern in the Political Mapmode. In others only the border is shown.

[4.42] The predominant colour of a province is always the Controlling country's colour, but the colour of the Owner is superimposed over the Provinces (Hexes) to indicate the original ownership.

The Japanese control the Chinese city of Shanghai, where they're now basing Japanese Ships.

[4.43] When the only units remaining (i.e. not Retreating) in a province are the enemies of the province Owner, Control changes hands, and the province will take on a hatchmarked colour pattern to signify that the conquering country has Control.

[4.44] A province will typically remain under the Ownership of its original country through most or all of the game. Control, however, may switch hands until Control is taken back by its Owner, or until the country is Liberated by an Ally.

[4.45] The Owner's Surrender may transfer certain Core Provinces (Hexes) to Ownership of another country.

[4.5] MINIMAP

General Rule

The small map of the world located in the lower-right corner of the screen is called the Minimap. It shows where you're currently looking on the Main Map, as well as offering you the ability to mouse-click your Main Map to view anywhere in the world.

Cases;

[4.51] The white box on the Minimap shows what you're currently seeing in the Main Map; it will grow larger as you zoom out, and smaller as you zoom in.

[4.52] Clicking on a place on the Minimap will center your Main Map there.

[4.6] HISTORY LOG

[4.61] The large arrow or triangle to the right, immediately left of the Minimap (the small map of the world), is the History Log toggle button. You can use this toggle to activate or make visible the History Log, which will show a running, day-byday list of all major and minor events throughout the game, depending on your Message Settings. An arrow pointing up allows you to display the History Log, while a down arrow allows you to close it.

[4.62] The History Log is located at the bottom-center of the Main Screen. The log will scroll, displaying a chronological list of the most recent events in the game. You can scroll back using the slide bar at the far right of the History Log to learn what else has happened, up to the point where you began the current game session. You can also use your mouse scroll wheel if your pointer is over the History Log.

[4.63] Left-clicking on an entry in the History Log will center the Main Map on the location where that event occurred.

[4.64] You may customize which items will appear in the History Log by clicking on the Main Menu "Options" button and choosing Message Settings. You may also right-click on any Log item to open a menu allowing you to specify how you want to be informed of future messages of that type. Often, these will be things you want to know about, but which do not rise to the importance of needing a pop-up or a pause to the game. See Case [3.8] for more information on Message Settings.

[4.7] PRIMARY MAPMODES

Summary

At the bottom right corner of the screen is a dialog box which allows you to quickly go to any part of the globe and to view the map in any one of a number of map modes.

The map modes, from left to right, as as follows;

Menu's
Terrain
Simplified Terrain
Political
Weather
INtel
Revolt Risk
Diplomatic
Region
Supply
Infrastructure
Victory Points
Theatre
Strength
Resources

These are described in detail below.

[4.71] Terrain Mapmode

This Mapmode shows what kind of Terrain each province contains. It is both the most artistic of the Mapmodes and the most useful for combat purposes, though Terrain features also appear in other Mapmodes.

Terrain is crucial, so it's something you should keep an eye on, whether you play using this Mapmode or use the graphic textures and Province Interface to keep track of it. The type of ground on which battles take place can make a huge difference between who wins or loses: attackers or defenders may suffer Combat penalties depending on the battlefield's terrain. Terrain will be explained in detail in A6.0.

[4.72] Simplified Terrain Map Mode

This displays the terrain, but in a clear simplified manner. The colours of each hex indicate the terrain.

[4.73] Political Mapmode

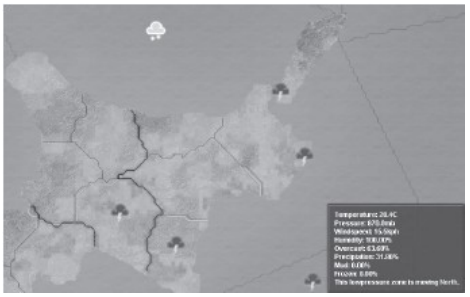
This Mapmode shows where country boundaries are, and while other Mapmodes indicate this with a bright red line along the border, this version is more distinct. It also shows Provinces (Hexes) which are under control of another country. A striped pattern in a province indicates this mixed (Owner vs. Controller) status – the colour of the controlling country will be the predominant colour of the province, but the colour of the Owner is superimposed in hatchmarks over the province to indicate the original Ownership.

The underlying Terrain in this and other Mapmodes is displayed using background textures, but it may be necessary to check the Province Interface to be sure of the Terrain type.

[4.74] Weather Mapmode

The Weather Mapmode allows you to see what Weather conditions are affecting your battlefields. It can be used to plan movement routes and offensives. Keeping an eye on the weather is crucial, particularly for planes, as the Weather might be different by the time they finish their Mission. It is also a good idea to keep your fleets away from serious Storms, as bad Weather or visibility can create the possibility of "friendly fire" casualties.

The following descriptions explain only how each type of Weather appears on the Weather Mapmode. For information on how these Weather Conditions develop, See Case [6.2], or for Weather effects upon combat, See Case [6.22].



This shows you the weather in a given hex. The colour indicated the weather. Whitish means its very cold, green more temperate.

[4.75] Intelligence Mapmode

There are various types of "Intelligence," consisting of information about the enemy or surrounding countries. This information, along with various other types of Intelligence, is provided to you through the Intelligence Mapmode. You'll be able to "see into" adjacent Provinces (Hexes), thereby learning what military forces are located there.

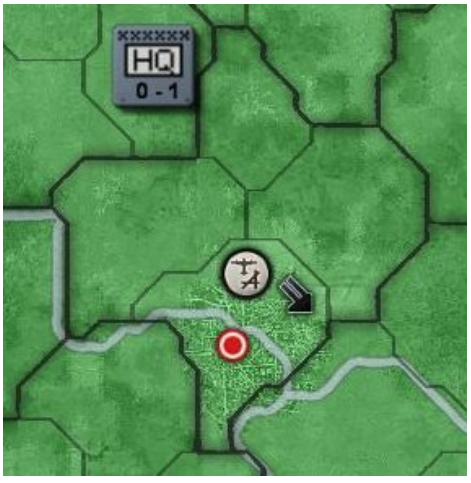
Other methods will gather intelligence about other factors, and about units deployed deeper into foreign territory. These forms of intelligence are described in Section G.

This displays the amount of intelligence you have in a givem hex/region. Green means you know what is in the hex, brown means you do not.

[4.76] Revoltrisk Mapmode

The Revoltrisk Mapmode shows the likelihood of a provincial revolt. Provinces (Hexes) shown with a green colour are "safe" and have a low chance of rebelling. Provinces (Hexes) displayed with a red colour have a higher chance of revolt.

This displays the revolt risk in each hex/region. Green means everything is ok.

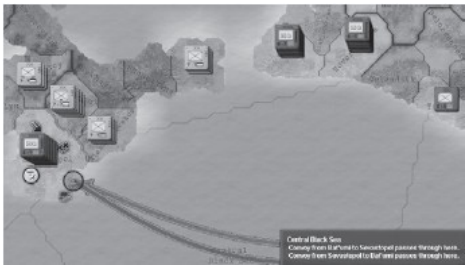


Paris will not be revolting any time soon.

[4.77] Supply Mapmode

The Supply Mapmode shows the Supply Routes your country is using to Supply your armies, and the Convoy Routes you are using to transport Resources and Supplies to and from your country. It can be useful to know exactly where the Supplies and Convoys are traveling so that you can protect those areas. It also helps to see where there might be a backlog in Supply traffic.

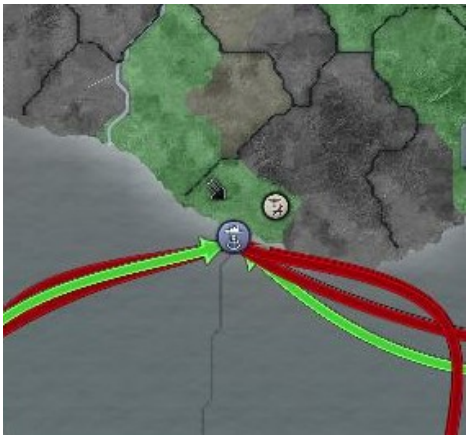
A province that is coloured green is receiving all of its requested Supplies and every Unit is In Supply. A red-coloured province indicates that Supplies have been requested for the Units' new location but they have not yet arrived. A yellow colour, or anything in between, indicates partial Supply.



The Supply Lines in and around besieged Sevastopol.

Overseas Trade Routes are marked with red and blue lines, extending the length of the Route. Red is an outgoing Convoy, and blue is for Convoys headed back to your home.

Each Convoy is also listed in the Production Interface, in the lower right hand corner.



Hexes in supply are in green, hexes not in supply are in grey.

[4.78] Infrastructure Mapmode

The Infrastructure Mapmode shows each province's Infrastructure level. Provinces (Hexes) shown with a bright green colour have high Infrastructure, but the colour shifts from darker green to yellow as the level lowers, and eventually to red whenever there are low Infrastructure levels. Dark brown is the lowest level of Infrastructure.

This shows you the infrastructure, with green having a high infrastructure level to brown with a lower level. The dark grey indicated you are unaware of the infrastructure.

[4.79] Resources Mapmode

If you click on the Resources Mapmode, you will see which Provinces (Hexes) are valuable for their Resources. A green colour indicates the presence of an available Resource, and an icon will show you which Resource(s) can be found there.

A tooltip will also tell you what that Resource is, if it's not immediately clear from the icon.

Displays the resource hexes, hexes with resources are in green, other hexes are in grey.

[4.8] SECONDARY MAPMODES

[4.81] Strength map Mode

Displays hexes with military units in them.

Controlled Hexes

Controlled hexes with military units (or strength) in them are green, with the intensity of green determining the strength in that hex. Hexes with no strength are in light grey.

Uncontrolled Hexes

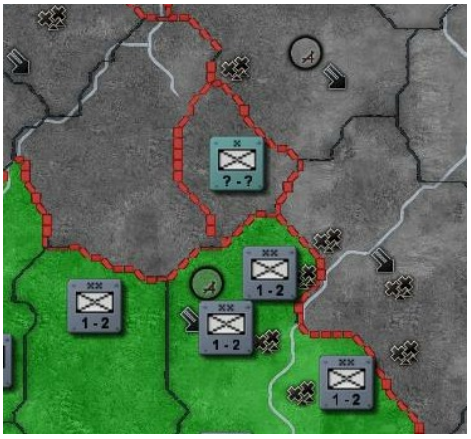
Uncontrolled hexes with military units (strength) in them are grey/blue, wuth the intensity determining the level of strength. Hexes with no known strrength are in grey

[4.82] Diplomacy Mapmode

The Diplomatic Mapmode graphically shows Wars, Alliances, and other relationships between your country and others.

Your enemies in war will be shown in red. Non-warring Allies will be shown in a greenish-blue colour, and Allies which are currently involved in your war will be coloured green.

If the selected country claims another country's province as a Core (see: Diplomacy section), or if it has a Casus Belli on another country (an excuse to declare war), the target country will be shown with green hatchmarks or alternating bands of green and gray.



The area in green is your controlled hexes, with the grey showing hexes which are owned by nations which you do not have diplomatic relations with.

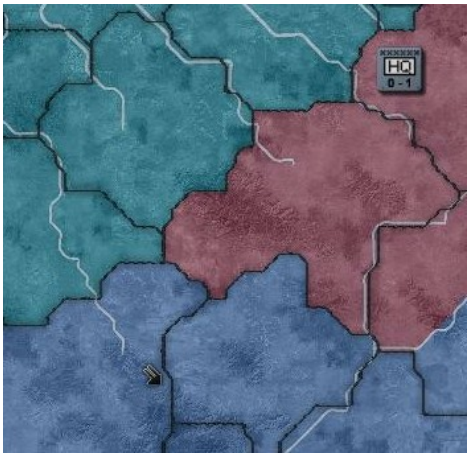
[4.83] Region Mapmode

Selecting this Mapmode allows you to see colour codes which organise Provinces (Hexes) into their appropriate Regions. Regions are used for some Air Mission Orders.

This shows the 4 hex region which includes paris in a single colour, surrounded by 6 other regions in different colours.

[4.84] Theatre Mapmode

Each Theatre will be displayed using a different colour. You can use this Mapmode to see how each Theatre boundary is defined, and how you might decide to modify those boundaries to best reflect your military priorities.



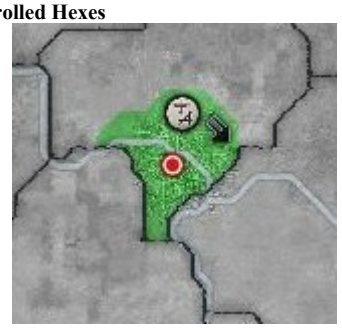
This shows three diferent theatres.

[4.85] Victory Point Mapmode

This Mapmode will show important Provinces (Hexes) worth Victory Points. Victory Points are a means of determining who's currently winning, and who the overall victor is near the end of the game. In the short term, it gives you an idea of how close a country is to Breaking, which is a condition that may lead to Surrender.

Victory Point Provinces (Hexes) controlled by you or your Allies will be shown in green. Victory Point Provinces (Hexes) controlled by a neutral country will be shown in brown. Enemy Victory Points are shown in red. Tooltips will show you how many Victory Points a province is worth if you hover your mouse over that province.

Controlled Hexes



This shows a hex with a VP value in green, surrounded by light grey hexes with no VP value.

UnControlled Hexes

This shows a hex with a VP value in olive green, surrounded by dark grey hexes with no VP value.

[5.0] INTERFACES

Summary

There are a variety of ways in which you are asked to manage your country. One of them is through your Government, which means overseeing Government Policies, Laws, and Politics. It can also involve Diplomacy, Economic Production and Espionage. These things are all controlled through tabs in the Information Bar along the top of the screen. Each tab opens an Interface, each one of which is described in more detail later in this section.

[5.1] MOVING AND CLOSING INTERFACE WINDOWS

[5.11] The main Interface windows described in this section will generally fill the whole screen and cannot be moved.

[5.12] Interface windows can be closed by using the "x" in the upper right-hand corner of the Interface; by selecting the tab at the top again (the one which initially opened the Interface) or any of the other tabs (which will bring up that Interface instead); or by hitting the "Escape" key on your keyboard.

[5.2] PROVINCE INTERFACE

General Rule

The Province Interface appears in the lower left of your screen when you click on any province, whether it's your own or someone else's, and will display things that you need to know about each province.

Cases;

[5.21] In the upper-left of the Province Interface, you will see a generalized picture representing the kind of Terrain present in that province. If you hover your mouse over the picture, a tooltip describes the Terrain in greater detail. The province name is displayed over the picture, and a flag indicates which country currently Owns that province. If the province is Controlled by an enemy power, that country's flag will be superimposed over the native flag in a roundel (circle).

[5.22] To the upper-right of the Interface, you will see each province which borders the selected province. If there is a River Crossing on that border, it will be shown as a blue "s-curve" across the green border. Seazones bordering will be blue.

[5.23] If a province borders a Strait (a waterway which can be crossed without Ships), it will display as a wider blue band on the green background.

[5.24] Underneath the Terrain picture will be a description of the Weather conditions in that province. Cloud cover is shown, and rain or snow if appropriate, alongside the Temperature, and Windspeed. If the ground is Frozen in that province, you will see a white "Frozen" icon to the right of the Wind (the Province will also appear "frosted" on the Terrain Mapmode). Similarly, Mud will be a brown icon.

[5.25] Across the middle of this Interface is a series of figures with icons. The camera represents your level of Intelligence about this province. The rifle shows the Revoltrisk in the province. The soldiers show the Manpower provided by the province. The checkered flag shows the amount of Leadership Points being generated. The second row shows the Resources being produced, which are, from left to right: Energy, Metal, Rare Materials, and Crude Oil.

[5.26] When you're looking at a province Controlled by someone else who is not in your Faction or Alliance, question marks ("?") indicate values which have not been detected by your Intelligence services and are hidden to you.

[5.27] At the bottom of this Interface, you will see rows of indicators showing your level of each type of Installation (described in A3.4). If bombing or other damage has reduced the total value of an Installation in wartime, the Interface will also show the level to which it will recover.

Name	Description
Name	The name of the hex is displayed in the top left corner
Terrain	The type of terrain is indicated by the picture in the top left corner
Nation	The owning nations flag is displayed in the picture.
Adjacent Hexes	The adjacent hexe names are displayed in the top right corner. The hex side terrain is indicated, in this case there is a river to cross to go to Charmes. For other hexes we have a road. In most cases a hex will only have 5 adjacent hexes, in this case there is 7. While hexes in a region look like hexces, in some cases they are not perfect hexes.
Time/Temperature/Weather	Below the picture is a symbol which indicates the time (day or night) and temperature (in this case -0.3C) and the weather.
Hex Resources	The next row shows the resources in the hex, in this case there is none.
Hex Installations	See Case [5.28]

[5.28] Hex Installations

The following 10 bars represents the construction of a given item in the hex, these are as follows; (From left down followed by right column down)

Construction
Air Field
Port
Factory
Naval Fortifications
Land Fortification
Anti-Aircraft Guns
INfrastructure
Radar
Nuclear Plant
Rocket base

[5.3] DIPLOMACY INTERFACE

Summary
This is where you manage your country's Diplomacy, as well as keep track of where you stand with regard to other countries.

[5.31] Diplomacy Interface Example (See Examples)

[5.32] Diplomacy Interface Description

The main feature of this screen is the triangle display on the right side, which is the Ideological Spectrum. Its three points represent the three Factions (major Military and Ideological Alliances) in the game. A country is ranked on this triangular spectrum according to where they stand,

Ideologically. They will tend to drift gradually according to internal and external influences, including Diplomatic Actions from other countries. The amount of drift can be seen in a tooltip if you hover your mouse cursor over the country's roundel on the Spectrum.

Above the Ideological Spectrum are the three Factions – the Axis (Fascists), the Allies (Democracies), and the Comintern (Communists). Any countries which have become

Members of that Faction have their flag roundels displayed here. Each Faction's relative Victory Point total is also shown here, which can give you an idea of how well each is doing.

To the left is where you can examine Diplomatic and Trade information for every country in the world, using a sortable list. Four rows' worth of sorting options are located in the upper-left. This also is where you may initiate Diplomatic Actions toward any country.

Underneath this, in the lower left corner of this Interface is where any available options for Decisions (See Case [18.24]) are listed.

Near the top-center of the display, you will see the flag of the selected country along with its current Ruling Party.

Below this is the Surrender Progress Bar, which is normally green. If the bar is partially red, then that country is at war and has lost territory, and may be likely to Surrender if things continue without change.

Below this section is relevant Diplomatic information, such as what countries they are Allied to or whether they are at War. Your current Relations with them are also shown, along with relative Threat values, and relative Neutrality values. Any Treaties or other important Diplomatic Relationships the country has will be shown underneath their Relations with you. If you click the double arrow icon in that box, it will toggle to a list of all of that country's Diplomatic Relationships with other countries.

Toward the bottom center of the Interface is a list of available Diplomatic Actions. Any button which is grayed out cannot be chosen, and a tooltip will indicate why. If it is a gold colour, you may use that Diplomatic Action on the selected country. A tooltip briefly explains what each action will do, but for more detailed information, See Case [12.0].

One of the most common Diplomatic Actions is a Trade Agreement, where use of the list of countries and Resources (to the left) is advisable. The list of countries and their Resources is fully sortable. If a country is experiencing a deficit in its supply of a certain Resource, it will be displayed with a reddish colour. A tooltip will show the exact figures as to how much surplus or deficit the country has of that Resource. [12.5] explains more about Trade Agreements.

When you select the diplomacy button you enter the diplomacy menu's. This consists of 3 columes.

[5.33] 1st Column Diplomacy Interface Description

The first colmn allows you to list the nations in a number of ways, the top row is by alliance, such as axis, alllies, etc. The second row is by other classifications, such as major nations, etc. The next 2 rows is by georgraphy. The final row is by name or threat level.

Below these selction buttons you will get a list of countries, each of which will have the following information.

Country Symbol
Country Name
Country Threat level
Country Energy status
Country Metal status
Country Rare metals status
Country Cruide Oil level
Country
Country
Country

By placing you mouse over a country symbol you can gain additional information about it, which you can use for trade.

[5.34] 2nd Column Diplomacy Interface Description

This contains additional information about any selected nation as well as any other interesting information.

Below you will see a list of actions you can initiate.

[5.35] 3rd Column Diplomacy Interface Description

This shows the position of each selected nation, in terms of alignment. Allies is at the top, Axis bottom right and Cominterm in the botom left.

[5.4] PRODUCTION INTERFACE

Summary
This is where you manage your countries production.

See Case [9.0] and [10.0] for more information on the production interface and production.

Cases;

[5.41] Production Interface Example (See Examples)

[5.5] TECHNOLOGY INTERFACE

Summary
This is where you manage your countries research.

See Case [13.0] and [14.0] for more information on the technology interface and research.

Cases;

[5.51] Technology Interface Example (See Examples)

[5.6] POLITICS INTERFACE

Summary
This is just a brief overview of the Politics Interface.

More detail about how each section of the Interface operates can be found in Section F.

[5.61] Political Interface Example (See Examples)

[5.62] Political Party

Your country's Political Party situation is located on the right. The ruling Party is shown at the very top of this column of political information, along with a colour corresponding to its Ideology.

The Organisation Chart shows how "strong" the Political Party structures are for each of the major Parties in your country. The Popularity Chart, which is not necessarily the same as Organisation, is shown just below and displays each Party's relative support from the Population. Both charts are colour-coded to show Party Ideology: blue for Western/liberal, red for socialistic or communist, and gray for fascist or Nazi. Tooltips will also indicate which colour represents which Party. We discuss how these Parties interrelate in the Internal Politics Section (Case [17.3]).

[5.63] Strategic Warfare

Below the Party information is a Strategic Warfare indicator (See Case [35.0] for more information on Strategic Warfare).

If you're at War, this will indicate the positive or negative status of your Strategic War – i.e. the War as perceived by your citizens, which will impact your National Unity.

[5.63] Mobalise, Liberate & Create Puppets

Below this, you'll see buttons to Mobilize your army (See Case [18.3]), to Liberate Countries (See Case [18.62]) and Create Puppets (See Case [18.63]).

[5.64] Ideology

The top-left of the Interface shows what Ideology your Ruling Party follows, along with an icon showing to which Faction that Party is closest. When or whether Elections are held under the Ruling Party is also mentioned. Underneath this is a listing of your Heads of State and Government as well as the Minister positions, which help run your Government.

[5.63] Laws

At the bottom left is a list of all the categories of Laws you have the power to select. Click on any category to change Government Policy through the Laws you enact (See Case [18.2]). To the right of it is a list of any countries you have Occupied, along with the type of Occupation Government you have established there (See Case [18.61]).

[5.7] INTELLIGENCE INTERFACE

Summary
The Intelligence Interface allows for the management of all aspects of your Espionage and Reconnaissance capabilities.

It also allows you to view important information about different countries that have been discovered through use of these tools.

[5.71] Intelligence Interface Example (See Examples)

[5.72] Intelligence Interface Description

At the top-left of this Interface is information about the Intelligence situation inside your country. The Partisan Efficiency shown here is a measure of how much you're hated in countries you may Occupy – the higher the rating, the higher the Experience level of Partisans who will appear to fight you. Below this is a list of all the countries, which can help you make decisions about where to send Spies, etc. This list can be filtered with the buttons located directly above it.

To the right, you will see a wide range of information about the country you selected from the Map prior to entering the Interface, or any you choose from the country list. Use the three buttons along the side of the Military Information list – Army, Airwing, and Flotilla – to switch between information on each form of Military Unit. The amount of information you have on each country will vary according to your Intelligence operations there, but it's here you can see how many Spies are in that country, indicated by the number in the circle. You can also see how active that country's Counter-Intelligence operations are by glancing above the number of Spies. Setting Missions for your Spies is done through the interface directly below the number of Spies.

The deeper workings of the Intelligence system are explained in Section G (Intelligence).

[5.8] STATISTICS TAB (LEDGER)

Clicking on the Statistics Tab will provide a series of charts containing important information about any country, including yours. Each of these charts or lists will be helpful in determining how well you are doing in certain areas, in planning how to move forward, and in showing your Military Units in a format you cannot see elsewhere in the game.

More Charts and Tables are being added at the time of writing, so it is recommended you refer to the HOI 3 Strategy Guide for more information about what charts are available, and how these charts can be most useful to you.

[6.0] TERRAIN, WEATHER & TIME OF DAY

[6.1] TERRAIN

Summary
Terrain can be critically important in determining the outcome of Combat, as well as the maneuvering and positioning which leads up to the engagement. Wise players will always be aware of the type of Terrain on which their units are moving and fighting.

Commentary;
Always look to "defensible" terrain. This may normally be a tactical consideration, but it can work as well at a strategic level by choosing the right provinces. Finding defensible positions is more complicated than just stringing units together into an uninterrupted front line. Rivers and forests, and especially mountain ranges, may provide the kind of defensible terrain you need to prevent a breakthrough. But also have an eye toward "exposure" of provinces along your defense line, which is explained more in a coming chapter.

Terrain can be useful for more than just combat in a province. Terrain which slows movement can be used as a buffer against attack, and special terrain like large lakes can entirely prevent attack from one direction. Lakes also block supply, which must go around.

Terrain drives strategy in certain regions. For instance, the steppes and the swamps in the Ukraine may end up having very different types of combat between themselves, but certainly both will be very different from combat in the mountains of Norway, or the jungles of the Netherlands East Indies. For Norway's part, its geography displays yet another facet of this, by highlighting how strategic considerations are constrained by the narrow width of the country, compared with the Ukraine's wide open fronts.

Use infantry in areas where tanks have a disadvantage, such as swamps. Always check the terrain you're operating on. Don't just rush in with your tanks – make sure you're not putting them in a bad situation.

Cases;
All penalties or bonuses for Terrain are applied at the Division level. A Brigade which works well in a certain Terrain type will average its benefit out between all the Brigades of its own Division.

[6.11] Terrain Types

• Plains – Open plains and farmlands which are easy for armies to move across. There are no penalties or bonuses associated with this Terrain type.

• Desert – Dry landscape with little or no vegetation. Causes higher Attrition (losses to Manpower and Strength).

• Arctic – Frozen landscapes that are hard on men and equipment. The associated Temperatures will cause Attrition, too.

• Mountain – High mountain areas which greatly restrict movement. All attacks in Mountains are penalized, but Mountain units are penalized less. Attrition is higher.

• Hills – Rolling, uneven Terrain which can impede travel and limit lines of sight. Motorised and Mechanised units have movement penalties. Mountain units are penalized less when attacking.

• Forest – Forests provide Penalties to the movement of all Units, but Mechanised or Motorised units are penalized more. Attacks by Armoured or Mechanised units are penalized. Air Units will also have more trouble attacking.

• Woods – A lesser version of a Forest, comprised of fewer trees. Limitations on combat and movement will be similar, but reduced.

• Jungle – Like a Forest, but with added complications like wetness, heat, and undergrowth. Causes penalties to Movement, and Attack. Infrastructure is also generally lower in these Provinces (Hexes), which complicates the maintenance of Supply. The frequently associated high Temperatures may cause Attrition.

• Marsh/Swamp – Waterlogged Terrain similar to Plains…except for the water. Water is a big problem for land units, so this Terrain causes Penalties to movement, attack, and supply. Marines have a reduced penalty on attack. Attrition is higher.

• Urban – Cities or otherwise "built-up" areas. Non-Armoured units get a Bonus to Defence. Armoured units receive a Penalty to Attack, as Urban areas are a nightmare to attack.

• Fortification – While this has already been mentioned as a "building," its effect makes it like a type of Terrain because a land or sea Fort adds certain defensive modifiers and advantages to the Terrain type when attacked. Attackers suffer a penalty to their Efficiency or Attack Modifier, so while they stand, Forts reduce the number of permanent casualties and organisation loss. Divisions with Engineering Brigades attached have a reduced penalty on attack. Land Forts protect the whole province from attack, because strategic considerations must take it into account. Coastal Forts, however, only protect against attacks from the sea.

[6.12] Terrain Sides

Some special Terrain types only apply along one or more provincial borders.

• River – Rivers are obstacles to Movement, and increase difficulty when attacking. Penalties are reduced if the Division has an Engineering brigade (for that Division only). Marines also have a reduced penalty for Movement and attack.

• Straits – A wider body of water at a seashore which causes significant delay to movement, but which can be crossed by ferry or boat, and which does not require Land Units to board Transport Ships to cross. Straits can be blocked by enemy Fleets, if they are present, and the Control of one or more sides of the Strait will block any non-Submarine Fleet from crossing through the sea at that point. Movement and attack across a Strait has serious penalties, which are less for Marines.

• Coastal Fort – As with Land Forts, Coastal Forts protect the defender from casualties and organisation loss because they reduce the attacker's Efficiency. Coastal Forts can only defend against Amphibious attacks.

[6.13] Terrain Effects Summary

Terrain	Move	Attack	Attrition
Mountain	1.4	-0.4	2
Forest	1.2	-0.2	
Woods	1.1	-0.1	
Marsh	1.4	-0.4	1
Plains	1		
Urban	1.2	-0.4	1
Hills	1.2	-0.2	
Jungle	1.3	-0.3	2
Desert	1		2
Arctic	1		2

[6.14] Terrain Effects Table, See Charts and Tables

[6.2] WEATHER

Summary
Unlike other games, which use abstracted weather, HOI 3 has a complex, detailed, and realistic weather system. It defines high- and low- pressure systems, humidity levels, as well as temperatures to determine precipitation, wind speeds and movement of weather systems.

This can come in handy if you can anticipate the weather and/or know how it develops. Most of this detail is only visible in the Weather Mapmode (See Case [4.74]), where Tooltips provide yet more information.

Commentary;
Author's Note: I expected there might be more change in the way weather operates between when the Manual was completed and now, but it's all working pretty much the way we expected at that time. I don't have a lot to add to how the weather works. But here are some pointers as to how to work in different weather conditions…

Pay attention to what weather systems are coming into your area, especially during winter, because these could impact your operations of aircraft or land offensives. Remember, it could also negatively impact your enemy's operations.

Bombing will be more difficult in windy conditions, or if there is a lot of cloud cover. Rain will make bombing very ineffective. Obviously, combine the worst of these conditions with nighttime modifiers, and your planes will be essentially useless, even without stacking penalties.

Mud will slow units down considerably. Periodically (weekly or biweekly) spot check a variety of provinces to find out whether mud exists in any great quantities. If you see a province with mud, check other nearby provinces. It's like with termites – if you see one, there's probably more.

If there's a lot of mud, it can seriously put a damper (no pun intended) on your mobility. Otherwise, take note of where it is and avoid it, checking every few hours to make sure more mud hasn't come into being that could block your movement.

Cases;
Each province's weather is described by four values:

• Temperature (Celsius) – Temperature can be useful for predicting upcoming Mud and Frozen Ground conditions.

• Pressure – Barometric Pressure is what moves the Weather around the Map. Keep an eye on pressure zones to get an idea of when the Weather might change.

• Wind Speed – Wind Speed impacts where and when Weather moves. It can also impact Air Missions.

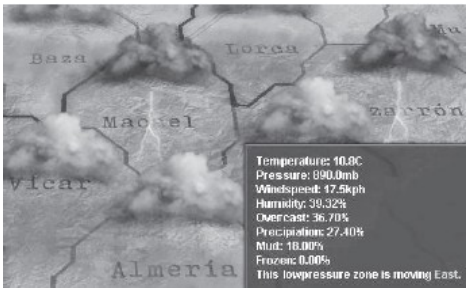
• Humidity – Humidity levels relate to Precipitation, and helps you to predict.

These values have various effects:

• Cloud Cover – Overcast days may prevent or hinder certain Air Missions.

• Precipitation/Storm – Rain, Snow or Storm may impact Detection and Combat.

• Ground State – Movement or Combat may be affected if the land is Muddy or Frozen, it may impact Movement or Combat.



[6.21] Weather Patterns

Keeping an eye on the Weather patterns as they move around the Map can help you to anticipate when you may face conditions that might be helpful, or harmful, to a planned offensive. At sea, Weather has a large impact on visibility for Detection purposes, which is a key factor in Naval Combat. It may also negatively impact on Combat. See Case [6.22] for more information about how Weather affects all aspects of the game.

Much about the Weather and its impact on your operations can be predicted. For instance, it will be Overcast where it is Raining. This will impact many Air Missions. As the Rain continues, though, the Humidity level will drop, and eventually the Rain will lessen because the clouds have dumped their moisture; this works equally well for Snow, where the only difference is Temperature. Once the Humidity drops low enough, the Overcast will begin to break up, as the Rain lessens all the while. This is when you, as a Mission planner, must be aware that Air Missions will soon become possible again for both for you the enemy. The Rain will eventually stop, though some Partial Cloud cover may remain, depending on the conditions.

Rain will also increase the likelihood of Muddy Ground, which can have a tremendous impact on your Combat operations and your ability to Supply your armies. Snow and freezing Temperatures will eventually cause Frozen Ground, which will make things difficult on your Combat troops as the ground thaws from the heat and turns into Mud. Hot Temperatures make things rough on your soldiers, too.

[6.22] Weather Conditions

The Weather Conditions that may impact you are as follows:

• Overcast – If the Humidity level is high but not sufficient for Rain to fall, then it will be Overcast, which impacts Air Missions.

• Rain – If the Humidity level is high, Rain may occur. The colder the Temperature, the more likely Rain will be at lower Humidity levels. Hills or Mountains in a province will also make Rain more likely by allowing it to happen at lower Humidity levels. Rain, or snow, will cause the province to "shed" its Humidity, causing the Rain or Snow to eventually stop.

• Storm – A Storm occurs when you have Rain conditions with a Wind Speed higher than 30 KPH (i.e. Gale Force on the Beaufort Scale). It will impact Combat and Detection, as well as prohibit Air Missions.

• Snow – Snow forms under the exact same conditions as Rain, except that the Temperature must be below Freezing. As with Rain, Snow will eventually stop once it sufficiently lowers the province's Humidity.

• Blizzard – A Blizzard occurs when you have Snow conditions with a Wind Speed higher than 30 KPH (Gale Force). This is just a winter Storm, with the same effects, plus the effects of winter conditions.

• Frozen Ground – For Frozen Ground to form, the Temperature must be below Freezing for a period of time, or the province must be experiencing Snow or Blizzard conditions. If the Temperature in a province with Frozen Ground rises above Freezing, then the ground will eventually un-freeze, which may result in Muddy Ground.

• Muddy Ground – Muddy Ground may form if a province is experiencing Rain or Storm conditions, modified by Infrastructure and Terrain type. It may also occur if the province has Frozen Ground conditions, and the Temperature climbs above Freezing. Swamp, Marsh, and Jungle Terrain have an increased chance of Muddy Ground. Muddy Ground slows down Land Unit Movement and adds to the "Supply Tax," the cost of getting Supplies to the units. See the chart in [6.22] for more information.

Keep in mind that, at the time of this writing, Weather is still being developed and balanced, and so there will be changes made to the way things work before Hearts of Iron III reaches you. You would be well advised to refer to the HOI 3 Strategy Guide for more detailed and accurate information about how the Weather system will operate, and what its impact will be on Military operations.

[6.23] Weather Effects Table, See Charts and Tables

[6.3] TIME OF DAY

Summary
Since HOI 3 operates on hourly turns, the Time of Day is a major factor for players, and not just because of the complicated schedules which must be kept by well-coordinated armies.

Procedure
Air Missions, especially, must be designated as Daytimeonly, Nighttime-only, or Both. Nighttime has a great negative impact on the Effectiveness of Missions unless Technologies like Airsearch or Navigation Radar have been Researched.

Nighttime also has a significant role to play in Land Combat, where Nighttime attacks also suffer from lower Efficiency. Timing attacks to occur at a particular time of day can be an important strategy for winning the game.

[7.0] INDUSTRY

Summary
In HOI 3, your country's economic potential is represented in terms of Industrial Capacity (normally referred to as IC), which in rough terms is a measure of the number of "Factories" you have in all of your Provinces (Hexes). Each "Factory" represents hundreds of factories, modified by Technological advancements, Ministers, and other factors.

[7.1] INDUSTRIAL CAPACITY (IC)

General Rule
IC is produced on a daily basis, and while it's tempting to think of it as a daily income, it doesn't build up like Money. It goes away if you don't use it, so it's more accurate to think of it as your daily "bandwidth" (to use a computer term): it's what you want your industry working on for that day. While there's not a lot that can be accomplished on major projects in just one day, persistent work on the same project will get it completed.

Cases;
[7.11] As head of state over your economy and commander-in-chief of your armies, you must decide what you want to produce by allocating IC toward Consumer Goods, Supplies, Upgrades, Reinforcements, and Production.

[7.12] The three IC values displayed in the Information Bar refer to Wasted IC, Available IC, and Base IC.

[7.13] Wasted IC refers to the amount of Available IC you have not allocated (i.e. it's available, but it's sitting idle). This figure is an important one to notice, because it means you are not utilizing your economy to its fullest, and you may want to consider adding Production orders or changing IC allocations in order to use the extra points.

[7.14] Available IC is your Base IC, modified by your Ministers, your available Resources, your Policies and Laws, and any Technological advances you've made which affect Industry.

[7.15] Base IC refers to the total number of home-country Factories and a percentage of Occupied Factories minus any Factories that have been destroyed by enemy bombing or conquest.

[7.16] Industrial Capacity must be "fed" by Resources to work, as explained in Case [3.23] so keep in mind that Wasted IC is what you're not using out of your Available IC, which itself may be reduced from your potential by Resource shortages and Combat. Your actual full production potential is only visible if you have sufficient Resource Stockpiles and can adequately protect your Industry.

[7.17] Laws impact Available IC, as do Ministers, some Techs, and Combat damage as well.

[7.2] INDUSTRY DEMAND FOR RESOURCES

Commentary
Countries are always performing a balancing act, trying to maintain enough of one stockpile to ensure their security while at the same time trying not to sacrifice another too badly by trading it away. Because of this, trade agreements are in constant flux: they may be canceled, or you may find that a country which refused to trade with you a month ago is now willing to make the same trade they previously turned down. Fortunately, you do not lose diplomatic points on trade offers which are not accepted, so there's no reason not to try to conclude a favorable trade with someone.

Resource stockpiles are your main concern. Lack of money you can deal with. By re-prioritizing your IC, you can devote a percentage of it toward consumer goods, which should overcome any cash crunch you have unless you really cannot afford to stop building things. If you're at that point, resources are not your most immediate concern. You can also produce supplies to sell, if you can find buyers, or try to find buyers for another resource you have a surplus of.

At the very beginning of your game, you need to examine each of your resource stockpiles to see how long they will last, which ones you can use for trading, and which ones you need to supplement through trading. Remember, also, if you get into a war, you will need to have higher stockpiles than during wartime, especially if you expect you will be unable to get convoys to your main trading partners. During the deep of wartime, with your maxed-out IC drawing heavily upon your stockpiles, they can dwindle very quickly.

If you have a deficit in a resource, use a "stockpile calculator" to evaluate each stockpile: (stockpile size / daily usage = # of days stockpile) / 365 = years of stockpile. This can easily be automated with a spreadsheet, and surely some kind forum user will make a handy computer program to do it within a week of release. If you want to see how trading away a certain quantity will affect things, add the amount you want to trade to the daily usage and recalculate. If you're producing a surplus in a resource, you will want to trade away what you don't expect you will need during your years of war.

Your wartime usage may be quite a bit more than during peacetime – if your peacetime economy only gives you 50 percent of your IC available, then going to full mobilization may as much as double your daily usage, and moving to a total war economy plus IC construction over the years may double it again. If you're expecting to play a major role in the war, you'll want four times your yearly peacetime usage per year of war. Your economic needs may prevent you from achieving that, especially if you need to trade some away to survive, or to improve other stockpiles. Just keep in mind that even if those multi-digit numbers at the top of your screen may look impressive, there's every potential you will use much or all of it during a long war.

It's always a good idea to run the Stockpile Calculator on stockpiles which are gaining, too (just ignore your daily production, and calculate from daily usage) – this will give you an idea of how intensively your economy uses that resource, and compare that need to your stockpile.

Even if you have a stockpile, and you're adding to it every day, a change in your situation may prove the stockpile is less durable than you thought.

This process will also give you a better idea of how much of each resource you can trade away.

Set stockpile goals for yourself, and try to meet them. You don't have to keep all of them on target all the time, but it's possible to let one or two drop while you're adding to another, and just switch back and forth so that they all average around your stockpile goals.

Sometimes you have to give up, temporarily, on your long-term resource strategy in order to serve a more important short-term goal. For instance, if it's your intent to build up your supply reserves, but you have a more urgent need for more production money to build new units, then it's okay to set aside your supply production in favor of unit production.

Eventually, you will want to go back to supply production, if that's a valid long-term goal.

If you find that you misjudged your need for a certain resource, you can always cancel the trade deal that is shipping it out. Remember you'll lose whatever money you were getting on the deal, too. Fortunately, most of the economic and trade mistakes players can make can also be reversed or canceled if it turns out they were the wrong decision. Don't let the mistake go too far, though, or you will cause permanent setbacks and you'll be really sorry.

Cases;
[7.21] Each IC (basically, each unit of factories) requires a certain amount of Resources to operate: 2 Energy, 1 Metal, and 1/2 Rare Materials.

[7.22] You will need to maintain stockpiles of these Resources so they are ready when needed.

[7.23] If, for any reason, the stockpile of Resources is reduced to below what you need on a daily basis, your factories will begin to shut down, and your Available IC will be reduced to a point that is sustainable by the available Resources.

[7.24] As you put more Resources into your stockpiles, whether through Trade or the opening of more Convoy Routes and so on, your IC will again be available to you.

[7.25] All resource convoys bring resources to a port connected to the country's capital. Once they reach the capital, they can be converted to be used to support the country's industrial capacity (IC).

[7.3] RESOURCES

Commentary;
You can increase your production of certain resources internally by developing the technologies that improve extraction. In HOI 3 you cannot increase production by increasing infrastructure, as in previous games. Obviously, another very efficient method of increasing your resource output is by conquering the resources of other countries, which has the added benefit of denying that source of supply to the enemy.

The types of Resource are as follows:

[7.31] Energy:
Represents combustibles other than Oil or Fuel (like coal) that are necessary to keep any country running, as well as hydroelectric or other sources. Factories will use 2 Energy to produce every 1 IC, and if you're low on Energy, your Factories may stop producing your peak output of IC.

[7.32] Metal
Represents the mineral needs of your industry, like steel and iron, but also lesser-used metals like tin and copper. Each IC requires 1 Metal, so if you're low on Metal, your IC may not be fully utilized.

[7.33] Rare Materials

These represent lesser-known or lesseravailable minerals and resources which your country nevertheless must have to operate a full industrial complex, such as antimony, manganese, gold, rubber or phosphates. Because they're rare, your country may not produce these things, which will require that you Trade for them – and if you're at war, then good luck, as you may just have to conquer them instead! Each IC requires a ½ point of Rare Materials.

[7.34] Crude Oil
Represents unrefined Oil as it comes out of the ground, which normally isn't of much use, except to burn. Crude Oil must be carried back to your Capital, where your refineries will convert it into Fuel that can be used by your military units. The rate of conversion is determined by your Available IC, on a one-for-one basis per IC point, but can be modified by Technology advances.

[7.35] Supplies
These represent materials, like food, any military unit must use to operate, even if they're sitting still. Movement or Combat may significantly increase the unit's need for Supplies.

[7.36] Money
Represents your cash reserves, which can sometimes be more useful than ordinary Resources. You do not spend money to "buy" units (that requires IC), but Money can be used to Trade for Resources or Supplies from other countries (See Case [12.5]), which is what fuels the IC you need for your war machine.

[7.37] Fuel
Represents refined, useable fuel needed by machines to run. You must distribute Fuel to all Motorised or Mechanised units, and Air and Naval Units, wherever they are, or else they will be unable to move quickly, if at all.

[7.36] Nukes
Once you develop the necessary Technology, you will be able to Produce Nuclear Bombs. Your stockpile is listed here (See Case [35.3]).

[7.4] IC ALLOCATION SLIDERS

General Rule;
In the top-right of this screen, you will see a series of sliders that are used to allocate your Industrial Capacity (IC) toward specific priorities. See Case [9.1]

The choices are:

[7.41] Upgrades
Unless all of your Brigades have been fully upgraded to the limit of your Technology, you may wish to spend some of your IC upgrading units so that they're using the latest, greatest weapons and Technologies you have discovered; otherwise, they might be at a disadvantage in combat. Even if everything is fully upgraded, you may need to Upgrade some units as soon as you Research a new Technology. A tooltip will show you how many units you need to Upgrade, and how much of that investment is covered by your current allocation.

[7.42] Reinforcement
Units engaged in combat will take casualties, and lost men will need to be replaced. Even when at peace, there is a certain level of Attrition from illness, retirements, etc. IC allocated to Reinforcement is how you recover these losses. A tooltip will explain how great the need is, as well as how your investment compares.

[7.43] Supplies
Your units all need Supplies in order to keep operating properly. These Supplies are of the utmost importance, especially in combat. Your country has stockpiles of Supplies in a central location – your Capital – and also at depots around the world, if you have outlying territories (anywhere they are pre-positioned, or where your Convoys drop them). You will want to maintain adequate Supplies to ensure success. Some of your surplus you can Trade for, but if war prevents you from trading, or if you need to supplement your imports, you may allocate IC to produce more Supplies.

[7.44] Production
IC must be allocated to Production when you want to use your country's IC to produce ships, planes, divisions or a variety of other things. You will see the current level of Production IC reflected in the Production Queue on the left-hand portion of the screen (the window might have to be closed and re-opened to display updated information), which we will discuss in a moment.

[7.45] Consumer Goods
Just as soldiers need Supplies, a country's population requires a certain amount of Consumer Goods in order to remain happy. They understand if you're at war and will therefore demand fewer goods. However, if you do not allocate some of your IC to meeting current demand for Consumer Goods, the population will become unhappy and Dissent will rise, which can become a problem if it gets too high. Soldiers, too, need Consumer Goods during peacetime.

[7.5] UPGRADES

Commentary;
It's always a better bet to upgrade your existing units than to build new ones. These will apply all those techs you've researched, and give your units better performance in combat (and sometimes even in peacetime).

Many scenarios start with some upgrades pending, so quickly decide how aggressive you want to be in pursuing them.

As mentioned before, you can underfund upgrades. During peacetime, you'll still want to upgrade to prepare for war. During wartime, you should take upgrading more seriously. Either slightly underfund it, or watch carefully for the alert telling you your upgrades are complete. Otherwise you might waste some of your valuable IC on upgrades that don't exist.

To fully upgrade a unit, through one cycle of upgrades, will take two months. It may take another two months to upgrade through a second level of techs, if you're that far behind. You may see some increase, though, in the speed of upgrades, if you have more than one level to finish.

See Case [14.6] Technology Upgrades.

[7.6] REINFORCEMENTS

Commentary
I'm not aware of any scenarios that start with reinforcement needs, but if you're at war you're likely to need reinforcements in large numbers soon.

Even if you're at peace you'll need to replace "turnover" in your units. Don't allocate anything for this in your first budget, because it would be wasted, but take note of how much your need is within the first week or so, and allocate at least a portion of it.

Underfunding reinforcements is wise, because otherwise you'll always be changing the slider. If you experiment, you may be able to find an "equilibrium" point, unless you're at war, when you'll always have fluctuations due to casualties. Don't get too far behind, or you'll have to change things more substantially to catch up.

[7.7] CONSUMER GOODS

Commentry
Consumer good management is critically important because of the economic and combat effects of dissent. If your country is experiencing Dissent, whether from events or from an accidental lapse in consumer goods supply, it's important to get it down as quickly as possible. Dissent is an economy killer. It boosts the need for consumer goods, while at the same time removing your access to a portion of your potential (base) IC. It's a huge strain.

Consumer goods are your bread & circuses, which you can use to keep the people happy. Don't just provide a slight boost to IC to draw the dissent down gradually. It's a cancer, eating away at your combat capability and your economic strength every single day! Put as much effort as you can toward eliminating the dissent, and then you can reallocate once the dissent is gone.

Events which cause dissent can be very impactful, and so responding to them is ever more important.

Be warned – you can actually reach a point-of-no-return, where the dissent you've caused by under producing consumer goods reduces the economy to the point where you don't have enough available IC to meet the consumer goods demand (even if you stop spending on everything else) and it will be impossible to turn your dissent level in a positive direction. If you're locked into a Full Civilian Economy (because you're not at war, or whatever), and you reach 50 percent Dissent, you will have basically zero IC left. In fact, you'll reach a point of no return long before that, because you'll lack enough IC to fund a positive Consumer Goods flow.

Both, supplies and consumer goods production can be used to raise more money, which means you have more ability to acquire resources.

Surplus consumer goods are converted to cash directly, whereas many countries around the world might be willing to give you money in return for supply shipments through trade.

Anytime your economy changes, such as going to war or changing laws, you should take a moment to check your CG spending.

[8.0] ECONOMICS

General Rule
To ensure your industrical capacity is producting at its optimum capacity you require resources, which can be obtained by trade. Industrial Capacity can be affected by mobalisation. Apart from industrial capacity you need to consider money.

[8.1] RESOURCES & TRADE

General Rule;
You can obtain resources using trade.

Commentary;
You've heard the term "tradeoff?" Every trade you make with another country is a choice. How well your tradeoffs match what's best for your country helps determine your long term success in HOI 3.

In fact, you can turn this into more than just a moneymaking venture. It can become your means of survival! If you do lack a resource (and very few countries at war don't lack something) you can trade your comfortable surpluses in one or more resource for money, then turn around and use that money to trade for those resources you most desperately need.

Obviously, if you're at war and your sources for trade are overseas, you'll have to protect your trade routes. But one way or another this is your way to success in a difficult resource situation. Short of conquering more provinces which produce the resources you need, this may be the only way you can make it through your war.

Sort the diplomatic list by the commodity you're wanting. The list will show you who needs the most (who has the higher deficit) first, with declining need as you go down the list. Or you can reverse order it for the opposite. A resource shown in red means that country has a deficit of that resource. It's basically a sign saying "I want…," and you can be the one to come to their rescue (and your own, if it's a tradeoff that benefits you).

When using the country list to determine your trade offers, it's best to check tooltips for two figures first – their rate of surplus/deficit of the resource you want to trade away, and the resource you want back. If you're trading away energy for money, see how much energy they need, and see how much cash surplus they have. You can do a deal to sell things to a country that doesn't have enough cash for it, and they may even agree to it, but they may cancel that deal before long, and it becomes a wasted effort. It all depends how desperate you are for that resource, and what you're willing to put up with to get it.

Every nation begins with a stockpile of fuel and crude oil. But if you don't expect to have a need for these (smaller countries, reliant on infantry) you could consider trading them to acquire things you do need.

If you can get trade deals with countries you want to be friendly with, not only do you get to support your friends with your resources, not your potential enemies, but your relations will also improve. In fact, the more supplies they get from you, not from other suppliers, the more likely they will be to join your faction, become allies, etc.

Plus, the cost of resources is always lower from countries who you have good diplomatic relations with. This means trade with these countries becomes increasingly cheaper over time.

You can make a profit by stockpiling goods from cheap sources (your friends), and selling them to countries which will pay more for them.

Unfortunately, especially during times of war, you may find that you're forced to end trade agreements where you were getting resources at a good price, because your stockpiles are getting too low. This may cut off your source of profit. There's a way around this. It's costly in terms of diplomatic points, but sometimes it's best to set up smaller trade agreements, even with the same country. If you experience a shortage, you can end one of them, but keep the other, maintaining your source of cheap resources.

Depending on the market situation, you may find that you need to issue your requests for trade deals soon after beginning the game, or else many of the surpluses may be accounted for and you'll have more difficulty finding good deals later on.

Cases;

[8.11] Resources can only be bought with Money, which you can acquire through Consumer Goods Production or from other Trade Agreements. See Case [12.5] for more information about how to set up Trade Deals.

[8.12] International Trade requires shipping to carry the goods back and forth, which means the Resources you Trade for can be attacked by enemy Submarines and Raiders during wartime. The buyer is always required to carry the Trade on their ships.

[8.13] There is an exception: if two countries are on the same continent, they can Trade with each other overland.

[8.14] Special Comintern Rule

Comintern countries can give Resources to another Comintern country as a gift (i.e. trading for free). At the start, this is an incidental rule, because the only other Comintern countries are landlocked and on a different continent.

[8.2] DEBT

[8.21] During wartime, you have the ability to begin going into Debt, a Decision you can choose to make or not, and begin buying things on the world market with War Credit.

[8.22] This is a two-part decision as it is a Diplomatic exchange and not a Policy Decision. Both countries must agree in order to bargain with Credit.

[8.3] OIL & FUEL

General Rule

Instead of just having to worry about oil supplies, HOI 3 has a more realistic system for Fuel which requires the refining of oil.

Commentry

Because any major country will need fuel to keep its tanks, planes and motorised or mechanised units running, how you acquire fuel is very important. You can trade for it, of course, but it costs about twice as much to purchase fuel on the world market as it does to purchase oil. Unless you have some tremendous fuel consumption, which outstrips your ability to refine your own oil, it's always going to be preferable to acquire the oil first and refine it at home.

Since crude oil is not a useable resource, but fuel is, there's no reason why you would want to prevent your economy from automatically converting your crude oil to fuel, which it does at a rate of 10 percent of your available IC.

It is not wise to let your crude oil stockpiles completely disappear, because then you have to rely upon energy conversion to produce any oil, and ultimately any fuel, you need. This is an expensive process in the early game, and it's still not cheap even once you've researched the right techs to improve the conversion ratios.

"Better coal to oil tech reduces the amount of coal you need to get the 10 percent, but you never get more oil from conversion unless you get more IC. If you have 50 available IC you can convert enough energy to get 5 oil per day. At 0 coal to oil tech that'd consume 50 energy per day. At level 5 coal to oil you'd still get 5 oil per day, but it'd only cost you 10 energy per day. That's quite different from how oil to fuel is converted. Oil to fuel is 50 percent of your base IC (not available IC), and better oil refining tech increases the amount of fuel your get per oil instead of reducing the amount of oil you use." – David Ballantyne (Darkrenown), Paisley, Scotland

Cases;

[8.31] To refine Fuel you must first obtain oil and bring it home, at which point your country's refining capacity will turn the crude oil into fuel for your war machine.

[8.32] You may also convert Energy Resources (i.e. Coal) to Crude Oil, using a relatively inefficient process which can be made more efficient through the discovery of new Conversion Technologies.

[8.33] Improving your Refinery Technologies will enable you to Convert Oil to Fuel more quickly.

[8.34] Your rate of Conversion from Oil to Fuel is based on your IC, modified by your Technology in related Techs.

[8.35] You may Trade for Oil or Fuel with other countries.

[8.36] Ships, vehicles and other machines require refined Fuel rather than Crude Oil to operate. If the units, motorised or mechanised vehicles in need of Fuel are not directly connected by Supply Line with the Capital, then a Convoy must carry the Fuel to a Supply Depot near them. See Case [20.0] for more detail on Convoys and Depots.

[8.37] Fuel refining is now based on your available IC, not your total IC. Therefore, it becomes more practical to reduce your enemy's fuel production by attacking IC with strategic bombing.

[8.4] MONEY

[8.41] Money is generated as a side effect of your Industrial Capacity.

[8.42] Money is also acquired on the world market in return for Trading away your Resource surplus. For this reason, countries are expected to build up reserves of Money during peacetime.

[8.43] Money is used to purchase things, such as Resources on the world market (Trade). If Money runs out during wartime, a country can make a Decision to go into Debt and begin buying things on "war credit."

[8.44] One change you may find it a little startling to cope with is overproduction of consumer goods no longer gives substantial benefits to your money supply. Instead, your money production is now keyed to your total IC.

[8.5] CONSUMER GOODS

General Rule

Consumer goods represent the many things regular people find necessary for everyday life – food, gasoline, household utilities, etc. During wartime, the people are generally more understanding of tough times and have a reduced demand for Consumer Goods. Even then, it's necessary to keep a steady supply of these products available, or else the people will begin to become dissatisfied, causing Dissent to rise and National Unity to suffer.

Cases;

[8.51] There is a minimum level of Consumer Goods you must produce, which is below the level at which you begin getting Dissent. However, if you want to avoid or reduce Dissent, you must produce a higher level of Consumer Goods by using the sliders in the Production Interface.

[8.52] The level of demand for Consumer Goods can be modified through Educational or Industrial Policy Laws, Ministers, Government Ideology, and whether or not you are at War.

[8.53] If your country has lost a lot of its Victory Points in war – if you're losing – your citizens'= demand for Consumer Goods will also be lower.

[8.54] All military units also require a certain amount of Consumer Goods during peacetime, though this need ends with full Mobilization, as the needs of the units move away from domestic peacetime concerns and toward more purely military needs.

[8.55] A higher Neutrality rating lessens your Units' need for Consumer Goods.

[8.6] WAR EXHAUSTION (WE)

[8.61] Countries which have been at war for a long time will have increased levels of War Exhaustion (WE), which makes them less willing to continue.

[8.62] Combat losses, the loss of territory, and Strategic Warfare will impact the country's War Exhaustion.

[8.63] This has no effect during war, but once peace is made, countries with high War Exhaustion will be less willing to join another war.

[8.64] WE is expressed as an increase to the country's Neutrality value, once the country is no longer at war.

[8.66] This WE-influenced Neutrality value will reduce over time until WE is gone.

[8.7] ECONOMIC IMPROVEMENT THROUGH CONQUEST

Commentary
Especially in a game built around a world war, one of the most obvious ways to improve an economy and build your industrial power is to invade and conquer other countries, taking over their Resources and IC, or a portion thereof. You can significantly change your available IC, resources, even your leadership and manpower, depending on what territory you take, and what type of occupation government you impose.

Since harsh occupations reduce your ability to get some of those, but increase output of others, you must make a choice depending on what you need. Sometimes, you will prefer to have manpower and leadership contributed from these lands anyway, rather than IC and resources.

[8.8] MOBILIZATION

Commentary
Economic mobilization is the process of preparing your reserve military units and your civilian economy for the possibility of war. If you are politically able to do so, it almost always makes sense for a country to move away from a Full Civilian Economy toward a higher economic output.

It just opens up so many options for countries that can afford it. How high to turn up the economy depends on political realities, on how much you need money and on whether your resource stockpiles can sustain the increased IC.

However, consider – If increasing your IC by 25 percent will run your resources dry, and you have no way of managing your resources through trade to prevent that, then increasing your economic output is the last thing you want to do!

Peacetime mobilization will also increase your overall supply consumption, partly because whatever reserve units you have will begin consuming more supplies. Basically, your military units begin using less consumer goods and more military supplies.

Increasing your Industrial Mobilization will reduce the amount of money you produce as you begin converting IC toward military purposes, because there is a reduced demand for consumer goods during times of war. Your country's conscription laws may also reduce your ability to make money by taking men out of their productive jobs.

[8.81] Peacetime Mobilization

There are restrictions upon how quickly, and in what ways, you can prepare for War before War is actually declared.

Democracies will have an especially hard time explaining why they are taking such actions without valid reasons. These reasons may come in the form of valid international Threats, which is represented by the Threat values (See Case [14.4]). As the Threat to your country from potential enemies grows, you may have more freedom in how aggressively you prepare for war. That freedom is reflected in terms of lower Neutrality values. Otherwise, you may have to bide your time and set priorities that will enable you to prepare for war without really having all of the tools you would like at your disposal.

A Note About Gearing – The term "gearing" has had a long life in Paradox games, and it's important to explain how this term has changed in HOI 3. Production "gearing," as it was used in HOI 2, as a bonus for standardizing factory production, no longer exists. This concept has been replaced by the concept of Practical Knowledge in Tech fields, which gives you basically the same benefit but in a more permanent and valuable way.

[8.82] Industrial Gearing – War Economy

An economy can generally be considered to be a "civilian economy," on "war footing," or somewhere in-between. Some Governments (Fascist, for instance) might end up converting part of their economy to "war footing" even before they're at war. Other Governments might be at war but unwilling to fully commit their economy to that war.

The process of committing to a war is called Gearing.

You can affect the Mobilization of your civilian economy through Economic Laws, choosing to move to a more Mobilized economy. You can also impact this somewhat through Industrial Policy Laws. Your Economic Laws may be limited by Government type and Threat level. If the Threat goes down, so must your Gearing policies, or else you must accept a penalty to your National Unity. Some Economic or Civil Laws are only allowed if you are at War, depending on your type of Government or if you are under serious Threat.

Your country's population will expect you to end your Mobilization once peace is achieved. If you do not, Dissent will rise. Certain options, such as Laws you may have set, may have to be undone in order to reflect your non-wartime status. You may also select Demobilize from the Politics Interface, if you had previously Mobilized your Reserves.

[8.83] Reserves (Units)

Producing military Divisions such as Reserves can help build your military potential without quickly increasing the expenses needed to maintain them. When you Mobilize, these Units will build their Strength so that they will hopefully be ready. The peacetime cost of Reserves depends on your Conscription Law.

[8.84] Mobilization Effects on Economy

The Laws you set will impact how the economy is being "geared" toward war production levels. Generally, as your policies and laws reflect a sensed threat of coming war, the economy will become more available for military use.

Building an army earlier allows it to eat up supplies (which is expensive). It's important that you allow your mobilization to peak on time, and not too early, which would invite economic disaster, or too late, which would invite military disaster.

[9.0] PRODUCTION INTERFACE

[9.1] IC ALLOCATION SLIDERS

General Rule;
The IC allocation sliders allow you to determine where you will be allocation your IC's.

There are 5 areas you can allocate IC's. Each guage tells you how many IC's are required, normally you do not have enough IC's and much chose which areas suffers. When you move your mouse over one of these 5 areas you get a menu providing full details.

Cases;
[9.11] In the top-right of this screen, you will see a series of sliders that are used to allocate your Industrial Capacity (IC) toward specific priorities.

[9.12] These sliders will float, so you will need to lock them, by either double left-clicking or by right-clicking once, in order to keep them from moving from the desired value.

[9.13] Each slider has a number to the right to indicate the "need" for each. If your allocation does not meet the need this number will be red. Otherwise it will be white.

[9.14] The need is also listed to the left on each item, and if you right-click that need indication it will automatically set your slider to match the need (and will then lock the slider, so it doesn't move from that spot).

[9.15] At the top you can set the IC sliders to manual control, or set it to automatic with a desired priority. Its normally better to set to automatic to avoid wastage.

[9.16] Example

The industry capacity of this nation is 99 and IC allocation is under manual control.

[9.2] RESOURCE STOCKPILE

General Rule;
The resource stockpile display provided you with information on your resource stockpile and its rate of increase and decrese.

Cases;

[9.21] To the immediate left of the IC sliders is a list of Resources with values indicating how much of each Resource you have, and at what rate the stockpile is increasing or decreasing. See Case [3.23] for more information about what these Resources are.

[9.22] Below the normal list of Resources is a slot for Nuclear Bombs. Once the necessary Technology has been developed, you will be able to Produce Nuclear Bombs. Your stockpile will be listed here once that happens (See Case [35.3] for more information on Nukes).

[9.23] Example;

Name	Stockpile	Delta
Energy	21,500	+49.1
Metal	11,191	+45.4
Rare Material	5,459	-22.4
Crude Oil	10.266	0.0
Supplies	13,533	-9.7
Money	486	0.0
Fuel	6,407	-16.1

In this example rare Material, Supplies and Fuel are reducing, so some effort may need to be made to reverse this trend.

[9.3] BUILDING UNITS

General Rule;

The Unit Production buttons allows you to build military units.

Cases;

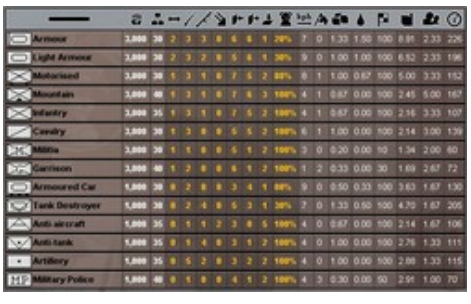
[9.31] On the left side of your Production Interface, you will see three categories of units you can build: Division, Airwing, and Flotilla (i.e. land, air and naval units).

[9.32] Underneath these headers are three related types of Production options – Brigade Attachment (a single Brigade which you can attach to an existing Division of your choice), Airbase, and Seaport.

[9.33] The operation of the Unit Production Interfaces is explained in more detail in [10.2].

[9.34] Examples

Divisions are constructed from brigades, the available Brigades and there statistics are displayed in this menu.



The information displayed is as follows;

Name	Description
Brigade Symbol	US army symbol for military formation types.
Name	Name of the formation, such as Armour
Strength	Number of men in Brigade
Organisation	Units ability to effectivly coorindate in battle
Combat Width	How much space the unit's Combat divisions take on the front
Soft Attack	Units ability to attack soft elements of land units (e.g. Infantry)
Hard Attack	Units ability to attack hard elements of land units (e.g. Armour)
Anti-Air	Units ability to counterattack against enemy air units
Defensivness	Units ability to avoid damage while in defensive Combat
Toughness	Units ability to avoid damage while on the offensive in Combat
Ait Defense	Units ability to avoid damage inflicted by enemy aircraft
Softness	The percentage of the unit which is considered a soft target
KPH	Units speed
Suprression	Units ability to prevent revolts by rebles or partisans
Supply Consumption	Units daily Supply consumption
Fuel Consumption	Units daily fuel consumptions (when operating)
Commanders	
Build Cost (IC)	Units daily cost n IC to be built
Manpower Cost	How much manpower the unit will require to be built
Time to Build	How many days it will take the unit to be constructed (at IC cost)

It should be noted the true cost of building a unit is its IC multipled by the time to build value, this the costs of the following french units would apply.

Type	Build Cost	Time to Build	Total IC
Armour	8.91	226	
Light Armour	6.52	196	
Motorised	5.00	152	
Mountain	2.45	167	
Infantry	2.16	107	
Cavalry	2.14	139	
Militia	1.34	60	
Garrison	1.69	72	
Armoured Car	3.63	130	
Tank Destroyer	4.70	205	
Anti-Aircraft	2.14	106	
Anti-tank	2.76	111	
Artilleray	2.88	115	
Military Police	2.91	70	

The section on the right contains the division information. You construct a division by adding the required brigades. The standard unit formations for the nation are listed, you can change their construction if required. You also have a number of custom formations you can create.

The total value of the division is listed as you select the unit, the information displayed is as follows;

Divisional Information
Divisional Strength
Divisional Organinsation
Divisionsl Combat Width
Divisional Soft Attack
Divisional Hard Attack
Divisuional Anti-Aircraft
Divisional Defensivness
Divisional Toughtness
Divisional Air Defence
Divisional Softness
Divisional Speed
Divisional
Divisional Supply Consumption
Divisional Fuel consumption

The final section is the ability to build divisions. Once you have selected a division you can select the number of units and how to build them (Seriel or Parallel). The final option is to build as reserves or not. Below you will see the total cost and time to build this combination.

[9.4] PRODUCTION QUEUE

General Rule

The production queue displays all units and infrstructure being built. This also includes infrstructor construction which was initiated ouside the production interface.

Cases;

[9.41] Below these buttons, which allow you to Produce things, is the Production Queue, which shows all the units you are currently Producing. If the list is longer than the window, you will see a scroll bar on the right-hand side that will allow you to scroll to see all of the units.

[9.42] On the right, each unit in the Production Queue will show details of the unit being built - ship name, Division designation, etc. To the left, you will see the expected date of completion, whether the unit is proceeding through the Queue at 100 percent speed or if it's a lesser amount, and how much total IC the unit consumes as it progresses through the Queue.

[9.43] Units which do not have sufficient IC or sufficient priority to be covered by the assigned IC will show green if they are being produced at maximum speed, yellow if they are only partially funded, and red if they are not progressing through the Queue at all (i.e. insufficient IC).

[9.44] Items in the Production Queue will now have a status bar – a bright green bar that will move across the top of the production item's tab as it gets closer to completion. By the end of its production time, the bar will extend across the whole top.

[9.45] You can now see the names of the brigades being constructed as part of a division as it's under construction in the Production Queue.

[9.46] You may select the exact order of the units to be produced by assigning priority using the red and green arrow buttons – down buttons reduce priority, up buttons increase it, and the up and down "fast forward" buttons (two triangles one atop the other) allow you to move that unit to the very bottom or the very top. This selection of priority will help you keep the most important units moving through the Production Queue, even when you do not have sufficient IC to build everything in the Queue at top speed.

[9.47] Example
Military units under construction are displayed in this menu.

In this case we are construction an armoured Brigade and a Battleship. For each military unit we have the following information; Completion date & Production rate – 100% means its moving forward at full speed.

[9.5] ASSET REQUESTS

[9.51] Underneath the Production Queue is a list of Asset requests from your Theatres, listed as numbers of Brigades, Airwings, and Ships.

[9.52] If you want to start building any of the requests, click the "Build" button.

[9.53] At the very bottom of your screen is a checkbox allowing you to ask the computer to automatically deploy your units as they finish Production.

They will go to a Theatre according either to your instructions, or to the need of the Theatre.

[9.54] If you click "Automatic Deployment" at the bottom of the Interface, the computer AI will attempt to make wise decisions about where to send any Units you produce, unless they are already assigned to a Theatre.

[9.6] INTERNATIONAL TRADE

[9.61] Underneath the IC sliders, you will see two sections related to International Trade. The topmost will list all of your active Trades, along with what's being Traded. A Tooltip will show how much is being Traded.

[9.62] If this Trade has been suspended for some reason (lack of Resources to Trade, or lack of Convoys for Transport), it will display in red. Clicking the "x" next to a Trade Agreement will cancel it.

[9.63] Beneath this box is a box showing all your active Convoys, which can be either Resource Convoys or Supply Convoys. It will list each Convoy's origin and destination, what it's carrying via a tooltip, and the number of Convoy units and Escort units. Inactive or understrength Convoys display in red. Green indicates it's operating properly.

[9.64] Available Transports and Escorts are listed at the top of the box. Keep in mind that Convoy Transports (freighters) are different from Transport Ships, which are used to Transport troops. The Create Convoy button allows you to start a new Convoy, and its operation is described in Case [20.6].

[9.7] BUILDING INFRASTRUCTURE

General Rule;
Apart from military units players can build infrastructure, such as Industry, etc.

Cases;
[9.71] This menu allows you to build the following hex improvements;

Symbols
Industry
Anti-Air
Radar
Nuclear
Rocket
Transport
Escort

[9.72] The following is an example;

In this example you can build industrial capacity, either serial (one after the other) or parallel (all together). The cost is 4.34 IC per day for a total of 317 days, which means this investment will cost 1,375.78 IC's in total. Once the industrial capacity is up and running it will take about 4 years to pay off the initial investment, so you better make sure you expect to stick around for 4 years.

[9.73] Infrastructure Production Table.

Type	Cost	Time	Notes
Air Base	2	180	Air Capacity
Naval Base	5	180	Naval Capacity
Industry	5	365	IC
Coastal Fort	5	180	Coastal Fort
Land Fort	5	180	Fort
Anti Air	3	60	Local Anti-Air
Infrastructure	1	365	Infrastructure
Radar Station	2	180	Radar
Nuclear Reactor	50	180	Nuclear Bomb
Rocket Test	20	180	-

[10.0] PRODUCTION

Summary
You must manage your country's Industrial Production through the Production Interface and the Production Queue, the list of currently progressing projects (See Case [5.4]).

Commentary;
The production sliders are very important, because they're what keeps your whole economy and military machine functioning. There's a "need" listed by each category, and if you're not meeting the need, the value of your funding (displayed on the right) will be shown in red (and there will probably be an alert in the upper left corner of your screen). Otherwise, it will be white.

While the most critical slider is production, because that's what builds anything you want to construct, it's easiest to determine the slider locations for the others first – determine how much you have to use on production by process of elimination. Consumer goods is a fixed amount, and unless you want to raise some extra cash, you'll always keep this at the level of need – not more than, and most certainly not less than. Anytime consumer goods are underfunded, you'll be gaining dissent, which no one wants.

The next categories to select are upgrades and reinforcements.

As noted below, it's not a huge problem if you cannot completely fund reinforcements or upgrades. Either you can come back to these funding categories when your economic situation improves, or you can partially fund them, which will gradually implement the reinforcement or upgrades unless you are either researching very quickly (i.e. developing new upgrades) or in heavy combat, requiring continual reinforcement. But usually, you will find partial funding just spreads out the cost over a longer period, but accomplishes the same result.

Both of these can be checked by periodic inspections of the numbers to make sure the demand for funding is dropping. This can keep you from overfunding too – alerts will tell you when you're funding above the need, but a careful watch can allow you to shift funding to more important sliders by reducing the rate at which you're partially funding upgrades and reinforcement.

Don't be surprised if you have a slight reinforcement need during peacetime. Any land province has some attrition, and so your units will slowly "leak" manpower which must be replaced (due to illness, retirements, etc.). Any province where the temperature is above 30 degrees Celsius, or below -10, your troops will experience additional attrition.

Your supplies are an interesting tradeoff – this value will probably jockey with your production value as your needs change. Despite what the alerts may tell you, there's never a time when IC spent on supplies is wasted, unless you have an enormous stockpile and no one to buy them.

A good stock of supplies is always good to have for wartime, because it offers you flexibility, and the comfort of knowing you won't face a shortage that could bring your military operations to a halt. You can also sell supplies during peacetime or wartime, and these sales may be your most viable means of getting the money you need to buy other resources. See the economy chapter for more on trading supplies to get money for other things. In any case, a positive rate of supply production is always a good thing. If this value goes "red" from time to time (i.e. your army is drawing from your stockpile), that's not necessarily a bad thing so long as you have a sufficient stockpile.

If you do have a serious need for production IC, it's okay to reduce your supply production into the red sometimes, so long as you have a plan for how to ensure it won't eliminate your stockpile in the long run.

Production is always needed by countries as they prepare for or conduct war. Recommendations on how to spend this production IC can be found in the Production chapter.

Any of these sliders can be changed by clicking and dragging, or by using the "+" or "-" buttons. A newly added feature "increments" these buttons by a percentage (i.e. they'll move faster) if you press the "shift" key while clicking.

One last caution… Changing economic laws will immediately impact your Consumer Goods need, even if you don't see the increased IC right away, so make sure you go to your production interface and adjust figures on day one, then again on day two once your IC has updated. Otherwise, people may become dissatisfied with your government and dissent will rise.

[10.1] MANPOWER

General Rule;
When Producing units, there is not only an economic demand but also a requirement to have sufficient Manpower to populate the unit.

Commentry
As with many things in HOI 3, managing your available manpower is always a balancing act for some countries. Infantry is an economizing choice which saves IC, but is very intensive in its use of manpower. Things like air units and armoured brigades reduce your need for manpower, while still having a powerful combat effect. Choose one or the other, depending on whether your shortage is in IC or manpower.

If you've come to a point where your manpower can't support any new construction, and is having trouble keeping up with reinforcement needs in the field, you've come to a point where you need to make some serious choices. If you're a minor partner in the war, withdraw from combat and set up defensive lines where hopefully the enemy won't notice you.

Hopefully your manpower situation will turn around once your units are fully reinforced, and you can start probing forward again. If you're a major power, you probably won't have this option and you'll have to take more drastic measures.

If you start to hit a major manpower crunch, there are some steps you can take. Obviously, you can change your conscription laws to provide more manpower, if you haven't already. If you have units which are "out of theatre" (i.e. they're not serving any particular purpose) you can disband them and return their manpower to the pool. If your outlying units are needed, but aren't in combat right now, you could set them to not receive reinforcements, which will cause them gradually to lose strength, but if you can correct the situation within about a years' time you'll be fine. You could always turn off reinforcements in the production sliders, and even gain back the IC you'd spend, but this is a "poor economy" – eventually your units in the field will wither and die.

An interesting method of increasing manpower most people might not think of is to change the occupation policies in countries you've taken over. This will admit certain sympathetic members of their population into your army. Keep in mind that it may also reduce any IC or resources you were getting from there, and the increase in manpower won't happen right away – it takes some time for the people to adjust to your new policy.

Notes:
Your current manpower is modified by losses and gains. Losses occur through combat (unavoidable) and attrition (avoidable). Gains comes from the general population and returned casualties. In both cases there are modifiers which can affect the rates these occur at.

Cases;
[10.11] Manpower is generated as a Resource from every Controlled province, though there is less from conquered Provinces (Hexes) than from your Owned Provinces (Hexes) which you still Control. See Case [5.25]. Overseas Provinces (Hexes), even if Owned, provide less Manpower than those on the same continent as your Capital.

[10.12] Manpower is considered a pool which can be used to produce units, and is thereafter "contained" by those units.

[10.13] Manpower is impacted by Mobilization, determined by Economic Laws, and Conscription Laws. See Case [18.24] Effects of Laws, for more details.

[10.14] Manpower is affected by the level of difficulty selected, see case [2.27] Level of Difficulty for more details.

[10.15] Manpower is affected by some minister's in your government, see case [17.35] Minister Types for more details.

[10.16] Manpower is affected by the occupational policies of a conquered nation, see case [18.9] Occupation policies, for more details.

[10.17] Manpower is affected by Technology. See Case [15.31] Manpower & Attrition Technologies, for more details.

[10.18] Units will also "leak" Manpower in terms of Attrition through routine turnover, or losses due to sickness or the environment. See Case [21.3] Manpower & Attrition, for more details.

[10.19] Each unit has a monthly demand on Manpower in the form of Reinforcements. See Case [7.6] Reinforcements, for more details.

[10.2] UNIT PRODUCTION INTERFACES

Commentary;
When evaluating costs, in terms of IC for production, remember the real cost is the daily point cost multiplied by the amount of time it will take to finish. For instance, a ship that costs 4 IC per day will actually cost 1460 "IC days" over the course of a full year. Compare that to a light armoured unit which may cost more daily IC, but only takes 180 days to finish, which equals 1240 "IC days." If you're short on manpower, you should also take into account the manpower needs of each construction. Research projects can be evaluated the same way, as a project that takes up one research slot for 90 days is going to be 3 times "cheaper" than a tech which takes 270 days. You could actually research three lesser techs in the same amount of time – is it worth it? It's important to keep these "hidden" tradeoffs in mind.

You do not always have to finish a unit you have in production. In fact, sometimes it's a good idea not to. You can complete most of the components (i.e. finish most of its construction time), and then leave it incomplete until you know you really need it. This may be considered somewhat "gamey" – and it is, if you take it too far – but there are often situations in government where you will postpone a project until later, and pick up where it left off. Some players may make use of this concept.

Cases;

[10.21] Master Unit Value List Table, See Charts and Table

[10.22] Applying Theory & Practical
Production in an ignored field will be far less efficient than familiar ones until your economy reorients toward the new field. Thus, balanced IC spending will avoid the penalties, and will result in far more efficient production and research on the long term.

The process of decay occurs relatively fast, and if you don't keep up in building units which use a certain tech, they may have to re-learn that practical knowledge.

[10.23] Strategic Timing
Don't start building level 2 tanks if you're going to research level 3 soon. Wait for model improvements and then build. It's always possible to upgrade once you've researched the new techs, but that actually takes longer than simply building from scratch, and it's a hassle. There are circumstances where you'd still want to do that, though, such as when you're in desperate need for that unit, and it's more important to you that you have a soft attack of 4 or 5, rather than a SA 6 later on.

[10.24] Production Cost and Time Determination
Productions costs and build times are determined by applying a modifer to the base cost and time for a unit or building (forts, radar, air bases, naval bases, IC, infrastructure, etc.). The base costs are found in other sections of this site or in the Units folder or Buildings file in the Common folder. There are five, or possibly six, different modifiers that are added together to give a total modifier. These sub-modifiers are:

1. Practical Knowledge value, appropriate for the unit/building.

2. Industrial Efficiency tech, found in the Industry tab in Research.

3. Upgrades to the unit's baseline statistics. Accomplished through researching equipment and doctrines techs.

4. Training Law, which only affects the build times of units and not costs or building cost/time.

5. Reserve level reduces the IC cost and manpower cost but time is unaffected.

6. Spy Production Disruption. Unknown if it is a modifier--never seen its effects. More research needed. From games files, it appears to affect the repair rate so should not be a factor for production.

[10.3] DIVISION CONSTRUCTION INTERFACE

General Rule
New Land Units must be built as Divisions comprising between two and five Brigades, with a minimum starting Manpower of 5,000. One-Brigade "Divisions" are constructed using the Brigade Attachment Interface, and these will start at less than the 5,000 minimum, but cannot be considered a Division until they meet that qualification. At the start, your country will have a limit on the number of Brigades you can have per Division, but increased Tech may allow you to increase this number.

Brigades are either Combat Brigades or Support Brigades. You will generally want each Division to have at least one Combat Brigade. Support Brigades remain behind the lines to offer assistance to the Combat Brigades.

Across the top of the Interface are listed the different Combat and Organisational values, and each Brigade has a number listed for each value representing its ability in that area.

For an explanation of these values see the chart above in [10.2].

Commentary;
The standard number of Brigades you can have in a division is four, although technology can allow you to increase that number. That said, there is nothing wrong with divisions of two or three brigades, and depending on your circumstances, it may actually be a better decision.

The minimum number of men (manpower) to make a division is 5,000. Set up your production templates before the game begins. Pick different styles of division that you're likely to want to build at some point. When constructing divisions, it's important to get a number of balances correct. The first balance is between combat units and support units. Support units like artillery will add to the combat value of a unit without adding to the combat width – the "frontal presence" of the unit.

Ideally, because of the mathematics involved, it's best to have divisions with a combat width of three, or four, or a paired mixture of four/five (this combination is explained later). That allows more divisions on a typical battlefield, whereas other combinations of widths might limit you to less. The division designer allows you to have units with four or even five brigades with the appropriate tech levels.

The other important balance is "combined arms," which is a measure of its "softness." Combined arms provides a bonus if you have enough units with a mixture of armoured and "soft" units like infantry.

You may want to build some standard divisions – infantry, heavy armoured, etc. – and then have other divisions that are more specialized.

Say, a division with two infantry brigades, an artillery brigade and an engineer brigade. Such a unit might be better suited, for instance, for attacking a city. Only specialize if you really know how to use the unit, and it's worth creating for that purpose. You could create one temporarily, by combining detached specialist brigades, and then take them out once their purpose is done.

Remember, when producing your Divisions in the Division Builder box (and even when combining units after the fact), that Paratroop units, in order to be effectively used in their intended role, must always be kept separate from other units. If you have a mixed unit, and you want to do a Paradrop, you would have to strip out all the non-Paratroop Brigades in order to do it. It's more sensible to keep them all together – full Paratroop Divisions, with 2 or 3 or 4 identical Brigades apiece.

You will need to include at least one combat brigade, or else your whole Division will melt like butter if it's ever caught in combat (the division builder will not allow you to create a division without at least one, but you may need to remember this if you're combining detached brigades).

Cases;
[10.31] As you click on Brigades to select them to build, they will appear in the Division Composition box to the right, which will show how many Brigades you've selected and the number you are allowed. The box next to it will show the cumulative stats for the Division you've proposed. Clicking the "x" on a Brigade in the Division Composition box will remove that Brigade from the planned Division.

[10.32] Above the Division Composition box will be a picture of the Brigade type you have selected, as well as a blue icon next to it that will show what Practical Technology will increase as a result of the Brigade being produced.

[10.33] Remember that Divisions which have a combined Softness rating of between 33 and 66 percent will get a Combined Arms bonus in Combat.

[10.34] If you would prefer to use preset Divisions, you will see a variety of Templates at the top-right of the screen. You can select one of these Templates to build a standardized Division of the type that your country might normally build.

You can also modify an empty or existing Template and use Save Template to hold that design for later use.

[10.35] At the bottom-right of your screen, you'll see an indicator of how long the proposed Division will take to build, and its IC Cost and Manpower Cost. You can choose to build more than one identical unit by selecting either Serial, which will start the identical unit as soon as the first one finishes construction, or Parallel, which causes the number of units selected to all enter the Production Queue at the same time.

If you choose Parallel, the IC Cost and Manpower Cost will change to reflect the total order being placed. If you choose Serial, then the Build Time will change to reflect the time necessary to build all of the ordered units.

[10.36] You may check the As Reserves box to build the unit or units that you're ordering as Reserve units (See Case [10.8]).

When completed, they will appear with the restrictions of a Reserve Division.

[10.37] Brigades may be detached and re-attached to another Division after they are constructed, by using the Reorganise and Merge buttons. By using the Brigade Attachment button on the Production Interface, you may also build individual Brigades for attachment in this way.

When done, you can either Close without saving the unit build or Start Production with the buttons at the bottom.

[10.38] Each successive product in a serial build is a new product, and so it will reflect any changes in technology which might have made those units cheaper. In other words, you are not locking in a more expensive cost by using serial build.

[10.39] Brigade Attachment Interface

This is where you build individual Brigades, which can either be attached to an existing Division or may operate on their own; Brigades operating on their own can be risky, but it is sometimes useful. It might be easier to do it this way than to build a Division from scratch. The main portion of the Brigade Attachment Interface is identical to the chart described for the Division Construction Interface.

Simply select the Brigade type you want to construct, and then choose whether you want to build more than one in Serial or Parallel. The IC Cost, Manpower Cost, and Build Time will be displayed, and you can also choose to build the Brigade as a Reserve unit (See Case [10.8]). The Unit values are the same as for Land Units (see chart in [10.2]).

When done, you can either Close without saving the unit build or Start Production with the buttons at the bottom.

[10.4] AIR-WING CONSTRUCTION INTERFACE

Commentary;
If you're on a budget, and you can't build both tactical bombers and close air support, which do you build? Don't be fooled by the better soft attack values of the early tactical bombers. IC cost for IC cost, close air support is actually the same with soft targets, and better against hard targets, plus gets better ratings against ships! The limitation on CAS is range, where they fall very short. However, they have the benefit of extending their range using single-engine techs, so they'll advance as your fighters and interceptors do. If that's where your focus is, CAS may be your best choice. If you have to reach out to bomb distant targets, then forget it.

Only build naval bombers if you really intend to use them against ships a lot. The tactical bomber is a much more versatile aircraft.

If you try building a large number of airwings without also increasing the size or number of airbases may put you in the awkward situation of not being able to effectively use all your shiny new planes. Increase the operational size of your airbases in areas where you're likely to need them, and be ready to prepare small "forward airfields" as you advance your lines.

Cases;
[10.41] This Interface is very similar to the Division Construction Interface, except that there are no templates, because each Airwing is comprised of only one type of aircraft; the exact model for each type changes as your Technology changes.

[10.42] Across the top of the Interface are listed the different Combat and Organisational values, and each Airwing has a number listed for each value representing its ability in that area.

[10.43] For an explanation of these values see the chart above in [10.2].

[10.44] When you select any type of aircraft, you will see its specifications listed in a box in the lower-left corner of your screen. A picture of the specific airplane type will be shown, along with its name or designation. Below the name, you will see the Technology level of each of the plane's component types. For instance, an aircraft being built in 1941 might have "Model 1941" component types for its Engine, Fuel Tank, Airframe, and so on. However, it might also have an advanced model of Airsearch Radar and an obsolete model of Armament, depending on your levels of Technology in each of those categories.

[10.45] At the bottom-right of your screen, you'll see an indicator of how long the proposed air unit will take to build, as well as its IC Cost and Manpower Cost. You can again choose to build more than one identical unit by selecting either Serial or Parallel. The stats for costs or build time will change to reflect the numbers you've chosen. Below these stats will also be a blue icon of an airplane, indicating which Technology will receive a Practical boost when the unit is Produced.

[10.46] When you're done, you can use the buttons at the bottom to either Close without saving the unit build, or Start Production.

[10.5] FLOTILLA (NAVAL) CONSTRUCTION INTERFACE

Commentary
In certain circumstances, there may be a cost savings for using a more obsolete component; after all, the latest Technology may be very expensive or may take longer to build.

Begin building your navy's ships early, because they will take a long time to build. This means researching early, too, so the ships you're building are not obsolete.

Cases;
[10.51] The Flotilla Construction Interface is like the Airwing Construction Interface in appearance, but its function is more like the Division Construction Interface in that you have much control over modifications to the ships you build.

[10.52] Across the top of the Interface are listed the different Combat and Organisational values, and each Ship has a number listed for each value representing its ability in that area. For an explanation of these values see the chart above in [10.2].

[10.53] When you select a Ship type from the chart, a "reference copy" of the Ship in question is moved to a line below the chart so you can see its values more readily as you modify the Ship. As in the Airwing Construction Interface, there is a picture of the Ship, its name and Class (class being a specific model of ship), and beneath these will be a listing of modifiable components.

[10.54] As your Technology levels increase, it opens up new and more capable components which can be added to newly constructed Ships. In certain circumstances, there may be a cost savings for using a more obsolete component. This is your choice. Some component lines may be grayed out, indicating that there are no model alternatives for that component.

[10.55] Below the Model Selection screen is a box that asks if you want to "Add CAG," though this is grayed out for all ships other than Aircraft Carriers. This refers to Carrier Air Groups (See Case [10.7]) which you can choose to build and assign to your Aircraft Carriers. To do so, just check the box, and the total number of CAG units the Carrier can carry will be added to your Production Queue when the order is approved. Keep in mind that although cruiser-size ships and above represent individual ships, Destroyers, Submarines, and Transports actually represent several of those types of ship, organised into squadrons, flotillas or subrons to work together as one unit.

[10.56] At the bottom-right of the screen, you'll see an indicator of how long the proposed ship will take to build, its IC Cost, and the Manpower Cost. You can again choose to build more than one identical unit by selecting either Serial or Parallel.

[10.57] The stats for costs or build time will change to reflect the numbers you've chosen. Below these stats will be a blue icon of a ship, which indicates which Technology will receive a Practical boost when the ship is Produced.

[10.58] When you're done, you can use the buttons at the bottom to either Close without saving the unit build, or Start Production.

[10.6] INSTALLATION CONSTRUCTION INTERFACES

Commentary;
Improving your economy through construction of new factories and/or research of industrial technologies will benefit you on the long term.

You're literally investing your short-term economy to ensure its long-term growth. Because of immediate wartime needs, it's always better to do this before the war, not during, but many countries will benefit from a limited production commitment even during the war. Some countries may find this is the only way they can survive a long war against the stronger economies of their opponents.

However, there is what's called an "opportunity cost" to doing so – by spending 5 IC building a factory, for instance, that's 5 IC daily which you cannot use on something else for a full year. What else could you have built using that IC? Building IC in this manner is a long-term investment, which is always at the cost of less short-term investing. If you can afford to make long-term investments because you don't believe there are urgent needs on the short-term, then economic investment of this type will generally be a good choice. Otherwise, you'll probably find researching production technology and efficiency a better return on your investment.

Both constructing industrial improvements and researching industrial techs are more valuable to your country the earlier they're done. Building a factory in 1942, for instance, benefits you six years' less productive capacity than if you'd built it in 1936.

Do you want to concentrate your factories in single provinces, where strategic bombers can hit them all at once, but where you can also stack a legion of anti-aircraft batteries? Or will it be better for you to space them out so they take up a great deal of the enemy's attention to hit them all?

Both are valid strategies, depending on the situation. Only concentrate your IC if you can protect it with AA. Obviously, when you're building new factories, it's a good idea to place them in areas where the enemy might not have the range to hit. Check your stats for strategic bombers and get an idea of how far the enemy's can fly from the airbases they have.

Everyone wants to have jet planes and nuclear bombs, but what do you have to produce to get there? Do you have the spare industry to spend 30 IC on a rocket test platform, or 75 IC on a nuclear reactor? If you can develop the tech in time, these are great options for building in the pre-war years, so you can concentrate that block of IC on more military projects during the war, yet you still get the benefit of having these installations around to enable research and production of these items once you have the tech.

Airbase positioning is important. When you build and deploy an airbase, know the range of the planes you want to base there.

Positioning of new naval bases is important, not because it matters to the ships very much, but because by placing a naval base anywhere along your coast you're inviting an invasion force to that spot. Can you defend the province where you're placing it?

Space radar stations out so that they don't cover the same areas. If you intend to build them beyond level one, take this into consideration when you place your first stations. Position them like you might design a minefield – place them where the enemy is likely to have to cross over them no matter what route they take to your important cities or targets.

Cases;
[10.61] Each of these buttons allows you to construct one point of these items for placement in a province of your choice.

[10.62] The Installations can also be built by clicking their icons in the Province Interface, which will place the item into the Production Queue. The Installation will automatically appear in the province once completed.

[10.63] When you produce and deploy new IC, Infrastructure, or various other Installations, they may take a few days to gradually come into being. After that time, you will see its effects represented in your statistics.

[10.7] CARRIER AIR GROUPS (CAGS)

The Carrier Air Group represents the aircraft squadrons assigned to an Aircraft Carrier. Different Carriers have different capacities for CAGs. Each CAG has more than one type of plane assigned, representing the various interceptor and tactical bombing capabilities of a full Carrier complement.

When you choose to build CAGs for an Aircraft Carrier, the Production system automatically assigns the proper number of CAG Airwings the Carrier can carry. A CAG does not need to be Produced with the Carrier – you may build a CAG independently, through the regular Airwing Construction Interface.

The CAG exists independently of the Carrier – it operates in most ways just like a regular Air Unit. It is displayed in its own section at the bottom of the list of ships in your Flotilla while it is operating as a CAG. It may also operate from Airbases like any other Air Unit.

[10.8] RESERVE DIVISIONS

General Rule
Divisions built as Reserves will start at a fraction of their maximum Strength when produced, and they will remain there until you increase your Mobilization level. Once you begin to Mobilize your economy, this level will gradually increase.

[10.81] Each Mobilization step will add strength to your Reserve unit's total on a staggered scale, increasing as you get closer to full Mobilization.

[10.82] At full Economic Mobilization, your Reserves will still not be at 100%, which won't occur until you Mobilize your army using the Mobilize button on the Politics Interface. See Case [8.8] for information about Mobilization.

[10.83] Reserve Divisions will also consume Supplies according to their percentage of Strength: at 50% Strength they're using 50% of the Supplies a normal non-Reserve unit would consume.

[10.84] Just to clarify, there is a "Mobilize" button at the bottom right of the Political Interface which will mobilize your military, and add the last step of mobilization to your reserve units. The other mobilization steps are controlled through the Laws section of the Political Interface, at the bottom left of the same screen.

[10.9] PLACING PRODUCED UNITS

General Rule
Constructed units may only be placed in the home country, but you can set the Theatre to which they are assigned. As soon as they are placed, the Theatre will take over moving the units toward the front lines.

[10.91] Newly constructed Units may be placed in any Owned province. Simply click on the Alert button, which will appear in the upper-left corner of your screen to indicate you have Units to be placed, and then left-click on the province where you want the Unit. Production items which are assigned to a Theatre will be automatically placed with that Theatre.

[10.92] Naval units operate the same way, but must be placed in a province containing a Naval Base.

[10.93] Likewise, Air units must be placed in a province containing an Airbase.

[10.94] When newly constructed units are ready for deployment, they may be either assigned to an existing unit, or placed directly into a valid location in your home country. These valid locations will show as green when you click the deploy alert in the upper left of your screen.

[10.95] When you deploy new units, they will appear at zero organisation, and will have to recover (through the normal organisation regain process) before they will be fully operational.

This is not to say you cannot use the units in combat before this, but you may need to be more careful. Essentially they are starting in a condition which is less than combat capable, and will gradually improve until they either reach full organisation or they enter combat.

[11.0] DIPLOMACY

Summary
You may use your Diplomatic Influence (Diplomacy Points) to perform Diplomatic Actions. There are other important Diplomatic considerations.

Commentary
Who needs diplomats when there's war to be had, right? But for most countries, there is advantage to be gained during peace and war through diplomacy.

Even if you're anxious to go to war, do not forget the importance of your Diplomatic tools. First off, most countries are not going to last long in war without a balanced economy fully supplied with Resources. Also, you will want to find allies and maneuver yourself into an advantageous position before the war starts; both of these important pre-war functions require the use of Diplomatic Points. Diplomacy continues even after war starts, because those same needs persist as you try to bring neutral powers onto your side, or at least to get them to supply your war machine with resources.

[11.1] FACTION

Commentary
A faction is like a big alliance – it's an alliance with at least one major power, which will hopefully have the staying power to survive in war against their enemy.

But you must be careful who your friends are. Once you join a faction, you're stuck, and will have to participate in whatever wars they drag you into, so you should be careful to know who their likely enemies are. Faction warfare in HOI 3 is to the death – to the final victory. Make sure the side you join is likely to have a chance at winning. Be prepared to help ensure that result, or die trying.

Faction members are the only countries which may influence a country's "drift" on the ideological spectrum, which ranges between western democracy (the Allies), communism (the Comintern), and fascism (the Axis).

[11.11] Faction Axes
There are three axes on the triangular political spectrum:

Allies (i.e. the "Western Democracies"), Axis, and Comintern. Each of these alliances, historically, was "philosophically opposed" to each of the others. While that model was distorted by "Realpolitik" considerations during the 1930s and 1940s (i.e. the Molotov-Ribbentrop Pact), it works well enough for what HOI 3 is trying to simulate. We refer to these alliances as Factions.

[11.12] Align to a Faction
A Government may choose to "Align to Faction" and Ideologically shift toward one of these great alliances. Later on, countries may be invited to join a Faction as a Member. Only a few countries are members of Factions at the start of the game in 1936.

Being Aligned to a Faction is not the same as being a Member of the Faction. Membership is acquired when the Alliance Leader invites a country to join the Faction. Once you are a member of a Faction, your country will no longer Drift on the Ideological Spectrum.

When one Member declares war on a country, all Members are invited to join that war. The AI will take these penalties into consideration when deciding whether to join the war or not. The AI will also inform you, if you're the one declaring the war, whether some countries in your Alliance are unlikely to join you. A country that chooses not to join a war at the beginning may later change its mind.

[11.13] Faction Special Abilities
Each Faction has a "special ability," which is something that it alone can do, by nature of the kind of government it has, and helps it to stand out from the other Factions.

• Allies – Countries who are Members of the Allies are protected by a universal mutual assistance treaty. If any Member of the Allies is attacked, all Members consider it an attack upon all of them and are automatically considered at war with the attacker or the attacking Faction. Allied Faction countries require more Consumer Goods during peacetime, but less during wartime (because their people feel a civic duty to support the war).

• Axis – Axis Members have the ability to Declare Limited War upon another country. They may attack another country without inviting their Faction Members to join them, which will also allow them to keep the territory for themselves and not share in the victory spoils. If the country gets into trouble, they may still issue a Call to Arms, which invites their Faction Allies to join and help them.

Axis countries also have fewer restrictions on when they can Declare War, and get a bonus when fighting in enemy-Owned Provinces (Hexes) which are Cores for the Axis country.

• Comintern – Because Comintern countries are so closely joined Ideologically, they pool their Resources for the common good and are able to Trade Resources with other Comintern Members without using Money (i.e. they can "gift" Resources to another Member).

Comintern Faction Spies get a bonus to Effectiveness.

[11.14] Cores
Core Provinces (Hexes) are land whose ownership is a matter of some dispute between one or more countries. These are often the flashpoints for conflict, and may play an important role in sparking World War II in your game, as they did historically.

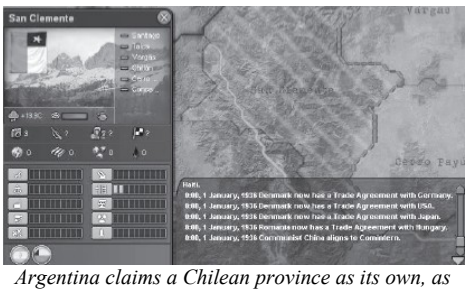
A Core is essentially a claim to rightful ownership over another country's province ("Core" is used in two ways

– a province can "be" a Core of another country, and that country can "have" or "hold" a Core in another country).

If you examine the Diplomatic Mapmode, you will see any Cores you have on Provinces (Hexes) outside of your own borders.

A country with a Core in another country will have more hostility toward that country. Diplomatic Relations will also be lower between the two, and they will have increased levels of Threat, making it easier to Declare War.

If you conquer a country through War, you will be able to integrate those Core territories into your own country once Peace is negotiated.



Argentina claims a Chilean province as its own, as shown by hatchmarks in Diplomatic Mapmode, as well as by the roundel at the bottom of the Province Interface.

[11.3] THREAT (BELLIGERENCE) & NEUTRALITY

Summary
A country has a Threat value which affects nearby countries according to the size of the Threatening country and their proximity to the target country. They will react, negatively or positively, to the Threat you pose.

Commentary
If you're itching to get into a war, or if you're really concerned about your neighbor's aggressive tendencies and you want to begin gearing up for a war you're convinced is coming, you need to understand how neutrality and threat interact, and what you can do to manipulate them each.

Certain actions, such as changes to mobilization laws, going to war, and even alliances, are blocked unless you have a neutrality rating below a certain level.

You cannot go to war unless your neutrality rating is less than or equal to the highest threat your country faces. There is a large offset to this rule allowed for Axis countries, because they are assumed to be more aggressive, and more willing to risk conflict. If you intend to go to war, you must take action to reduce your neutrality. Lowering your Neutrality also lowers demand for Consumer Goods.

Certain game events may cause the neutrality of your country to lessen, and the same may happen to other countries. There may be some decisions you could make that can also reduce your neutrality. Otherwise, you could assign internal spies, and set them to the mission of reducing your country's neutrality.

Because reduced neutrality allows certain actions you may want to take, make sure to keep an eye on the level and respond when you're able.

If you've just passed 70 percent neutrality, is there a diplomatic action or a law you'd like to change, which wasn't possible before?

Cases;
[11.31] Referred to as belligerence or badboy in previous Paradox games. Countries accumulate threat by declaring war or through some events (like the Anschluss). When the Threat of a faction's member states is high enough the opposing factions will gear up for war. The effects of threat are muted by distance. Germany engaging an unaligned Poland would build more threat toward France than it does toward the United States. Items that effect threat.

1. diplomatic actions like trade

2. Proximity (distance & Size)
3. Gov. Idealogy, Demo, Fascist, Comtern
4. Foreign Minister effects drift through idealogical direction
5. If a country has a core claim
6. Influnce
7. Align to a Faction
8. Member of a Faction
9. Offer Aliance
10. Non Aggression Pact
11. Proclaim Guarantee
12. Allow Debt
13. Construction unknown what types yet
14. Convoys unknown how yet
15. Mobilizing
16. Embargo
17. Releasing a puppet may reduce the threat level in some countries
18. Combat, Naval, Air, Land, or strategic bombing

[11.32] Effects of Threats

Threat affects Neutrality through hostile actions against others, making a country's population and Government more willing to consider war, which is the trigger, or threshold, consideration for many Laws and Diplomatic Actions, including Declarations of War, joining Alliances, etc.

Any country can declare war upon another country which has a Threat value beyond its own Neutrality. Additionally, Fascist countries (Axis Faction) may declare war on any country once their own country's Threat level passes a certain heightened level (i.e. they recognize that they're threatening and decide to use it to their advantage).

If a country performs a hostile act, that act has an effect upon the country's Threat value, and that action's effects are immediately felt around the world.

Releasing a country as a Puppet State is seen by some countries as "benevolent," and doing so may reduce your Threat level.

[11.33] Neutrality

Neutrality is the opposite of threat (it has replaced the interventionism slider in HoI2): it is a barrier to entry to hostilities. Neutrality is a measure of how uncommitted a country is to war. Countries with high neutrality are also harder to recruit into alliances, but note that any country that drifts into perfect alignment with an alliance's founding state can be recruited even if very neutral.

A common complaint is that it takes too long to lower neutrality to the point that you can declare war on neighboring states, which lowers gameplay value for those who wish to roleplay a minor nation dictator expanding his ahistorical empire. See Cheats for instructions on how to set your own neutrality to zero, with minimum side effects. Alternately one can take action to increase one's own threat, although this comes with side effects (then again, you might not care).

Neutrality requirements for actions:

* Make alliance: Highest mutual threat > neutrality - 25%
* Guarantee: Highest mutual threat > neutrality - 60%
* Join faction: Highest mutual threat > neutrality - 50%
* Declare war: Target mutual threat > neutrality

Mutual threat is the target's threat to you or your highest threat to them, whichever is higher.

[11.4] DIPLOMATIC RELATIONS

Summary

Every country has a Diplomatic Relation value with every other country, which determines how well they like each other. This value may come into play when considering whether to accept Diplomatic offers, such as proposed Trade agreements.

[11.41] Revanchism

Revanchism is the desire to retake a territory once claimed by your own country, and was historically a leading cause of World War II. Revanchism may also affect Alignment Drift. A country which has Cores on another country will automatically dislike that country, and will begin moving away from its Alliance.

[11.5] ALIGNMENT DRIFT

Summary

During the game, each Faction will compete with the others to try to attract other countries toward their philosophy, perhaps hoping to eventually make them part of their Faction.

Commentary

The inability of non-faction members to influence major powers means any adventuresome minor risks the wrath of a major power anytime he runs afoul of their national interests. Reality is that major powers run the world, and they often will step in to stop a minor country from doing what they themselves feel perfectly free to do. The advantage of this, for players who have the stomach for it, is that minors are an even greater challenge to play.

Be careful when influencing other countries. You're actually committing to an ongoing investment of Diplomatic Points. Each such investment will cost approximately 2 diplomatic points per day until you tell it to stop or you run out of points. You need to have a diplomatic points stored up, or else you may run out entirely. This may be a problem if you have other urgent needs, such as for trade deals.

However, through careful use of a faction's influence, it's possible to "tip the balance" in the battle for ideological drift. If you hover your mouse cursor over a country's roundel in the diplomatic alignment display, a tooltip will show all the different influences on that country's alignment.

You may notice a positive value for each faction, based on "relationships with faction members." If you can set up trade deals, and begin influencing that country, eventually you may no longer have to influence them in order for them to continue becoming closer to your faction because they will have "fallen into your orbit" – they will have close enough relations with you that those combined influences send them in your direction slowly.

You may still want to "hurry them along" to get them to join your faction sooner, or to head off other factions who may want to turn them back in their direction.

[11.51] Alignment

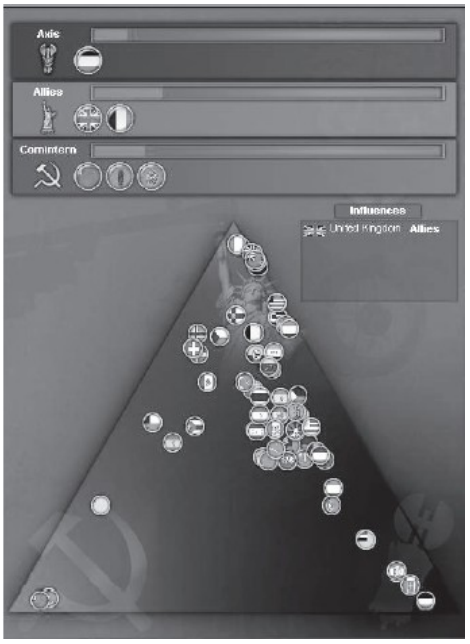
This competition, and the resulting position of each country along the triangular political spectrum, is called Alignment.

A move toward one Faction will automatically move it away from the others.

Countries will tend to Drift in the midst of the triangular spectrum as the result of competing Diplomatic initiatives, as well as other factors. Those other factors include the tendency of a country to be repelled by a neighboring major power's Alignment because it may feel threatened, but it may also gravitate toward it for the same reason.

The major determining factors for Alignment Drift are Diplomatic Actions, where good attracts and bad repels;

Proximity, in that a country may feel threatened by a powerful neighbor; and Government Ideology (i.e. if a country's Government is a Democracy, it will tend to gravitate toward the Allies). Proximity is measured not just by location, but also by size.



A country's choice of Foreign Minister will also affect how quickly it drifts in a certain Ideological direction.

Threat (or Belligerence) also impacts Drift. If a country is Threatening, then other countries not of that country's Ideology will fear that country and move away from it until a "tipping point" is reached. Once that point is reached, their increased fear from a high Threat level begins drawing those countries towards it instead, as they've decided that resistance is futile.

[11.52] Influence

Members of Factions have the ability to Diplomatically Influence other countries toward their Faction. This will have a cost in Diplomatic Points, like other Diplomatic Actions.

This can be a means of changing or slowing shifting a country's Drift away from the Faction, too.

Influencing a nation is a way of exerting direct pressure upon drift. This method is extremely costly (3 diplomats). It takes time for it to work.

Must be a member of a faction to influence.

[11.53] Aligning to Faction

A country may choose to "Align to Faction" (a Diplomatic Action with the Faction leader), which is a way of influencing your own country's Drift in the direction you want.

[11.54] Each state has a position on the diplomacy grid. Every day nations "drift" toward one of the three corners of the grid representing the ideologies of the major factions. There are two major drift components a player cannot control:

1. A country's geographical position. The closer a country is to a faction member the more it will drift toward that faction.
2. A country's ruling ideology. All country's begin with a predisposition to drift toward the Axis, Allies, or Commintern.

Threat is a major factor in countering these natural movements. When a nation perceives one of the factions as being a threat it will be pulled away from that corner. If a certain faction is extremely threatening -- like Germany after annexing Poland -- states will be "pushed" away from that corner. Thus, at the beginning of a 1936 game, most nations are drifting towards the Allies.

[11.55] Items that affect drift:

1. Cores
2. Offer Alliance
3. Non Aggression Pact
4. Proclaim Guarantee
5. Influnce
6. Embargo through change in realtions

Uncontrollable that affects drift:

1. Ideology

[12.0] DIPLOMATIC ACTIONS

General Rule
Any member of a faction may influence another nation toward their faction, but only the leader of a faction may invite non-member countries to join. Likewise, any country wishing to join a faction must ask the leader of that faction.

[12.1] FRIENDLY ACTIONS

General Rule
Various "friendly actions" allow you to try to shape the world you live in, even as you're leading toward war. It can help you choose who will end up on your side in the war, and who might avoid joining the other side. It also secures Resources which may help your economy survive the conflict.

Cases;
[12.11] Your ability to perform friendly Diplomatic Actions will be limited if you are at war with a country. Additionally, only the Faction Leader can make peace.

[12.12] Send Expeditionary Force
This allows you to send an Expeditionary Force (part of your army, navy or air force) to be commanded by an Allied country. You must have an Alliance with that country, and it must be at War. Once you've sent an Expeditionary Force, you can ask for it back, after a slight delay.

[12.13] Offer Alliance
You offer to bind your countries together in a promise to go to war to protect each other if attacked.

[12.14] Non-Aggression Pact
You promise not to attack each other. It's just a piece of paper, but it offers some peace of mind. Dissent penalties follow if you, in fact, later attack.

Non-aggression pacts expire after two years. This means you can safely issue a non-aggression pact to a neighbor if you don't expect to invade them during that time period, and it will not still stand in your way when you do want to invade them!

Naturally, this works both ways. It will not continuously guarantee peace with your formerly non-aggressive neighbors so long as it once did, which should keep you stressing about your production queues and war preparations.

Germany and the USSR will now automatically have a non-aggression pact added when they invoke the Molotov-Ribbentrop Pact decision.

[12.15] Proclaim Guarantee
The Guarantor offers to Declare War if the country is attacked, in which case there will be lessened restrictions for the option to be available.

[12.16] Ask for Transit Rights
Ask to be allowed to move your military units across the other country's land. This may allow you to reach a country with which you're at war.

[12.17] Give Transit Rights
You will allow that country to move its military forces across your own territory.

[12.18] Influence Nation
This allows you to spend a portion of your Diplomatic Points to try to Influence another country's Drift in a way that brings it closer to your Faction.

[12.2] FACTION MEMBERS FRIENDLY ACTIONS

General Rule
The one-time effect of this Action may not seem like much, but persistent gradual Influencing of a nation may change its whole Ideological orbit, and alter the flow of history.

Cases;
[12.21] This is only allowed to be used by Faction Members.

[12.22] Aign/Invite to Faction
Choose to Align your country with one of the major Factions, which causes your country to Drift Ideologically in that direction. The Faction leader may ask another country to join as a Member of their Faction. This is the only way for a country to become a new Member of any Faction: it must be Invited.

Invite to Faction requires that the Member's Neutrality be low enough it feels compelled to build an Alliance for wartime purposes.

[12.23] Buy Production License
This allows you to approach a friendly or neutral country and ask if you may build a type of Unit or Technology which is beyond your own Technological ability. This may allow small countries, for instance, to build Fighters, which they might not otherwise have the ability to do because of their limited Research budget.

[12.24] Allow Debt
You agree to allow a country to purchase Resources with Money they don't have (i.e. you're loaning them the Money to make the purchase). These loans are "expected" to be paid back, but realistically may never be as the game might be over before much attempt is made to pay them back.

[12.25] Offer Trade Agreement
You are either offering to Trade Money for Resources the other country has, or you're offering to sell your own Resources in exchange for the other country's Money. See Case [12.5] for more information about how to set up Trade Agreements.

[12.26] Note: Liberate Country – This action is not listed as a possible Diplomatic Action. Instead, it is accomplished through the Politics Interface, and more information about the conditions and procedure are given in [18.62]. It is noted here because it is a "friendly action" and many players will look for it here.

[12.3] HOSTILE ACTIONS

[12.31] Declare War
The obvious result of this Action is that you end up at War with the other country. There are some strict requirements on most countries before they can Declare War. The Threat between you and the other nation needs to be higher than your neutrality.

[12.32] Declare Limited War (Axis Only)
The same as Declare War, except that the declaring country's Allies are not required, or even asked, to join the war.

[12.33] Call to Arms (Axis Only)
This action calls for a Declaration of War from previously uninvolved Allies into a Limited War, which will make it a general war. This would be chosen if, for instance, the war proved too hot for the initial country to handle by itself.

[12.34] Embargo
You refuse to Trade with this country. Affects your Puppets too.

Embargo will increase your threat with the target county. Your threat to the target country will go up by .50. It also increases the threat to your surrounding countries. In fact all countries will perceive this action as a threat. Your threat to them will also increase at a lesser ratio. Your relationship with other countries will not change using this action.

Watch your Neutrality ration change with the target county when implementing this action.

Your relationship with target country changes by 30. This is subject to change in the next patch.

Note: As relationship changes, it effects drift. You can see the Embargo impact to drift by clicking on selected country and hovering your mouse over the target country's icon. Now click on Embargo. Go back and check again. Drift has changed.

[12.35] Diplomacy Points Cost

* Declare War 0 points
* Join Alliance 5 points
* Leave Alliance 1 point
* Guarantee Independence 5 points
* Stop Guaranting Independence 1 point
* Non Agression Pact 5 points
* Embargo 5 points
* Military Access 1 point
* Influence 3 points +1 per day
* Allow Debt 1 point
* Join Faction 0 points
* Trade Agreement 3 points

* Buy Production License 1 point

[12.4] ALLIANCES

Commentary;
In a volatile world, a good alliance may be the only protection small countries get.

Alliances will help protect you, but only if your allies are able to support you on a practical level. This is where Czechoslovakia and Poland learned their lesson. The promises of Britain and France were of little use except as a back-door threat – the British and French lacked both, the will to protect them and the proximity to have allowed it. Provided your allies are in a position to support you, their planes and armies become useful to you.

The other difficulty with alliances is that they each carry the possibility of dragging you into a war you did not want, or were not prepared for.

Requests to join an Alliance have a chance of success which is determined by the country's relative relations with you, by its National Unity, its general economic situation (all these being taken together as a "war readiness" value), and its Neutrality value. They can be revoked at any time.

Cases;
[12.41] Alliances can only be offered to or from countries whose Neutrality is below a certain level. They must be expecting war, or else they wouldn't need to form an Alliance.

[12.42] Alliances obligate you to come to the aid of that country if they are attacked, with certain exceptions.

[12.5] TRADE AGREEMENTS

Procedure
Selecting Offer a Trade Agreement opens the Trade Agreement Interface, which allows you to select a Resource you need or have, and Trade it with another country in return for Money. You may not Trade one type of Resource for another, but only for Money.

Use the sliders for each Resource to set a quantity. Any number of Resources, coming in or going out, may be selected to be part of the Trade Agreement, and the cost to the Trade partner in Money is calculated. The quantity of each is measured in units per day. Clicking on the Reset icon (the turned arrow) will reset that slider to zero.

The selections you have made will display underneath the sliders in the format, "We offer 'x country' to trade 'x' per day for 'y' per day." Below this running counter, you will see your Foreign Office's assessment of how likely the country you're dealing with will be to accept the deal you propose. As you make the Agreement more attractive to the other country, this estimate will improve, though some Agreements will remain "Impossible" no matter how attractive you make them. At the very bottom, two buttons ask you to either Decline and give up on the Trade Agreement or Accept. The Trade Agreement is proposed whenever Accept is clicked, and the other country will probably respond within a few days.

Once Trade Agreement offers are made, there is a time limit for them to be Accepted. If the offer is not accepted within a time period of several weeks, the offer is assumed to be automatically Declined. You may also cancel a Trade Agreement later, by clicking the "x" to the right of the Trade Agreement in the Production Interface.

Commentary;
It is possible to "game" the system in a realistic, free market way, in order to gain some leverage against even what seems an impossible situation.

The increase in money from one trade may allow you to manage resources in a way that would prevent running your stockpiles dry, which is why I mentioned "managing your resources through trade to prevent that." If you can use the increased IC to increase your consumer goods or supplies enough to make money, you can use that money to trade for the resources you need, and still come out the other end ahead of where you were in the amount of IC you can devote to military purposes. You will really just have to test this, because learning how is a skill that's difficult to teach. It may work in your situation, or it may not, and you may not know until you try it because the world market situation may be completely different for one country or another, or at one time or another. If it's not looking good, go back and shut everything down – return to your earlier economic laws, cut consumer goods or supplies back, cancel those trade deals. A failed experiment in this area can permanently damage your economy! Shut it down before it does.

Keep in mind that overseas trade is not free! Building more convoy ships costs money, and at least part of a trade structure as described above will involve you buying other countries' goods. Trade deals you set up will cost Diplomatic Points, too. These are costs of doing business, and fortunately it's not a heavy burden, but you have to recognize it before you start setting up too many trade deals.

Make sure to avoid conflicting or unprofitable trade deals. You don't normally want one convoy to be shipping supplies out to raise money to buy crude oil when another of your convoys is shipping crude oil out. The only reason you would do that is if you're making money on the deal – do the math and figure out if you're gaining or losing, and don't forget to calculate your "overhead" – the cost of ships you've committed to those convoys. There are times when you can make a profit through trades like this, but if you find you're losing money on one of these complicated trades, shut it down.

Cases;

[12.51] Trade Example

Once you have selected a nation you can initiate trade with it. In this case France wishes to buy 5.00 rare metals per day to France. After a short time you will get a reply from the trading nation.

[12.52] Breaking Trade Agreements
To break trade agreements you need to go to the Production Sub-Menu.

Note : Breaking a trade agreement may mean its will be difficult to trade with that country again. Be careful how you break trade agreements.

[12.53] Trading Values
There are 6 trade items you can trade in, the values in terms of money is as follows;

Name	1 unit value	10 unit value
Supply	0.18	1.83
Fuel	0.55	5.49
Rare material	0.15	1.46
Crude Oil	0.55	5.49
Metal	0.07	0.73
Energy	0.04	0.37

These values apply if you buy or sell the trade item.

[12.54] Energy to Crude Oil
The game automatically converts 10% of the energy production to crude oil. The conversion rate will vary depending on technology, but tends to be 5 to 1. (Example, France converts 49.5 energy to 9.9 crude Oil)

If you buy 5 units of energy it costs 0.18 money, if you sell the resulting crude you will get 0.55 money. This strange in-balance is probably the reason why you are limited to 10% conversion, otherwise you could make a lot of money.

[12.56] Unsolicated Trade deal
Often, it will be easier and more efficient to meet your supply production needs through trade than through producing them yourself. It all depends what you have to trade, and whether your money supply will support your purchases.

When you are at war, and you receive a trade offer from another country who is not at war, they get to carry their resources to you without being attacked. Please note, though, that this may change in future versions, as it is somewhat of an exploit. It's not much of one, as the United States is the most obvious candidate for this sort of thing, and they rarely need to purchase anything.

[12.6] EXPEDITIONARY FORCES

Summary
In certain circumstances, you may send an Expeditionary Force into another country in order to assist with an ongoing War. This may be a Limited War, or it may be your limited part in a larger War. Sending Expeditionary Forces differs from regular Unit operations because you are delegating command of that Unit to another Allied country.

Commentary
If you're both at war, you have the option of handing your units over as expeditionary forces long enough for your ally to transport the troops to where you need them (presuming you don't have this ability yourself), and then ask for them back. The AI may still misuse your units briefly, but then you take back control and can employ your divisions under your own control in the place where your ally left them.

You should be very careful with the use of expeditionary forces.

Remember, first, you're handing your precious, lovingly crafted divisions, ships or airwings over to a computer for the AI to handle. Computers are not known for their compassion or for handling someone else's property gently. Besides, you probably have a better idea of how to use your divisions to help your enemy anyway.

[12.61] Sending an Expeditionary Force
You must be Allied with the country to which you're sending an Expeditionary Force, but that does not necessarily mean you are obligated to join their war directly. There are circumstances where, even if you are already at War, you can send Expeditionary Forces in order to allow your Ally to integrate your forces into their command structure; historically, Britain did this for France in 1939 and 1940.

Expeditionary Forces are a Diplomatic Action. When you select that Action, the Expeditionary Force Interface will appear.

You have three tabs to choose from: Army, Air, and Navy. Click on whichever single unit you wish to send. You may send one Unit per week.

The British decide to send their army from Baghdad to aid the French in Syria. Clicking the arrow next to Palestine would allow you to send individual divisions under its command. One level of command (Division, Corps, etc.) at a time may be transferred to an Ally's command.

A "single unit" can be at any level of command, and so you may assign an entire Theatre Command as easily as a single Division, with the limit of one assignment per week.

The default view will show the higher-level Headquarters. Headquarters with smaller units under their command will feature a darker green arrow next to the unit. If you want to send a smaller Unit than that, click the arrow, and any units assigned to that Headquarters will be displayed. You may then select any of those units, or click another green arrow to reveal further, smaller Units under the command of that Headquarters.

You will be asked to confirm the order to send the unit by clicking "Accept." If you decide not to send the unit, then click "Decline."

Once a Unit has been assigned as an Expeditionary Force, it will be controlled (moved, sent into Combat, etc.) by the other country's AI. The Unit Interface will indicate the Unit is an Expeditionary Force not under your control. If you want to ask for the Unit to be returned to your control, you must ask for it back through another Diplomatic Action.

There will be a 30-day delay so that your Ally can make arrangements. After 30 days, the Expeditionary Force status will end and you will regain control.

[12.62] Receiving an Expeditionary Force

You may also accept Expeditionary Forces from other countries, if you are in a position to do so. You will have to Accept the offer when it's sent, and then you will take command of that Unit as if it's yours, until and unless the other country asks for it back. You will also have a 30-day grace period before having to return the units.

[12.63] Conditions

You are not required to have a Military Access treaty to send an Expeditionary Force; only an Alliance. The Unit should be able to move to a coastline for recovery, should you Revoke its Expeditionary Force status. It won't be able to return once more unless you either send it back as an Expeditionary Force or ask for Military Access.

[13.0] TECHNOLOGY INTERFACE

[13.1] LEADERSHIP POINT INTERFACE

General Rule;
At the upper-left of this Interface is a set of four sliders, which you may use to divide the total number of Leadership Points you have; basically, this is a measure of "intellectual manpower."

Cases;
[13.11] Leadership Points – Each province Controlled by your country generates a certain amount of Leadership Points, which are visible in the Province Interface. These Leadership Points are pooled at the national level, and you can allocate them to deal with your national problems and needs in any of four categories. Think of this pool as your country's "brain trust," which can be used to handle high-level needs.

[13.12] You can divide up your Leadership Points using the sliders in the Technology Interface. These sliders can be locked, just like those in the Production Interface, by either rightclicking or double left-clicking.

[13.13] The categories to which you can allocate Leadership are:

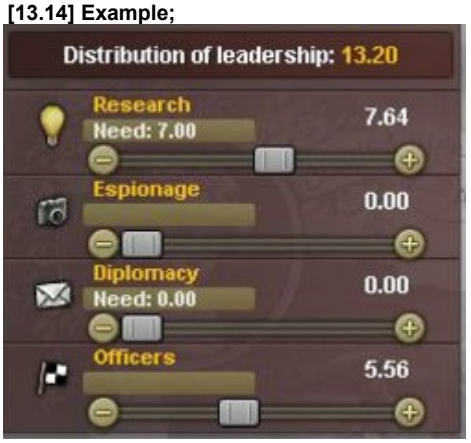
Officers – Officers, including non-commissioned officers (NCOs), become the guiding force behind your military units. Running short of Officers can have a serious negative impact on your military's combat abilities, including the likelihood they will Shatter more easily. To be fully staffed, each Division requires 100 Officers.

Research – Any major country's long-term survival may well depend upon how much war-related Research it can accomplish, and at what rate. Smaller countries, though they may never hope to catch up to the major powers, may make up for shortcomings in some areas through well-selected Research priorities.

Diplomacy – The number and importance of Diplomatic missions you send to make Treaties and other Diplomatic agreements with other countries will depend on how many Diplomat Points you've built up. You can only have a maximum of 100 points at once, so if you aren't using these points allocate them elsewhere.

Espionage – Your country's Spies and Intelligence managers are supplied through the Leadership Points allocated to Espionage.

[13.14] Example;



[13.2] RESEARCHING TECHNOLOGY

General Rules;
This sub-menu allows you to allocate your leadership points and start research.

[13.21] Most of the Interface is taken up by an array of Technologies which can be Researched. Tabs along the top of the screen allow you to pick Research categories.

[13.22] On the far left of the Technology Interface, underneath the Leadership sliders, is the Research Queue, which works much like the Production Queue, and shows what Techs are being Researched.

[13.23] At the bottom of the Interface is a full listing of your country's current Knowledge levels in a variety of Theoretical or Practical fields.

[13.24] Much of the function of the Technology Interface relates to choosing and managing your Research priorities. Since this is more complicated than the functions of some of the other Interfaces discussed here, the technical operation of the Interface, as well as an image of what it looks like, are all located in Case [14.5].

[13.25] Example;
To reaserch a technology you need to select one of the sub-menus and then select a technology. The technologies are all listed, with the following keys;

This Technology is current researched

This technology is available for research.

This technology cannot be reaserched until other technologies has already been reaserched.

The year symbol means if this is reaserched prior to this year, there will be a research penalty.

[13.3] KNOWLEDGE - THEORY V PRACTICAL

[13.31] At the bottom of this sub-menu you will see the current Theory/Practical Knowledge of your nation.

Green = Theoretical Knolwedge

Blue = Practical Knowledge

[13.32] This affects the time it takes to research a technology. You take 30% from theory and 70% from practical. The higher this resulting value is the quicker you can research that tech.

[13.4] LEADERSHIP SLIDER MANAGEMENT

Commentary;
Most of the choices with leadership sliders will be obvious. You want to optimize as much leadership as you can for research without ignoring other important needs.

If your officer ratios are at or near 100 percent, you can afford to skimp on this slider for a little while. However, if you have a massive building program planned, with lots of divisions due to roll off the lines over the next couple of years, it wouldn't hurt to stock up on officers. You'll need them eventually, and it's less painful to allocate leadership for them now rather than cut back on research later on, when you're really counting on it. You might think you'd rather get the research done early. But don't think that – you'll never want to give up that research slot later on if you don't want to give it up now!

Some countries can get along without anything allocated to either espionage or diplomacy. However, if you have any resource shortages, you'll need some diplomatic points for trade. Not everyone will conveniently come to you with exactly what you want. If you have a lot of diplomatic points at game start, you could research with those points now, and just reallocate your points when you need more.

Any country which is a member of a faction should keep some flow of diplomatic points coming, so you can influence countries if you need to.

Espionage is hard, sometimes. If you really don't feel you'll gain anything from spies, it's fine to leave this unfunded. Later, if you find you're the target of enemy spies, you might change your mind. Change your mind early enough to counteract whatever they're trying to do – don't let them boil you slowly.

The remainder – hopefully the majority – can be allocated to research.

You get to research one tech for every full or partial point allocated, though the partial points will take longer to research. See the research chapter for more information on how to prioritize.

Any of these sliders can be changed by clicking and dragging, or by using the "+" or "-" buttons. A newly added feature "increments" these buttons by a percentage (i.e. they'll move faster) if you press the "shift" key while clicking.

Cases;

[13.41] Leadership Slide Example

[14.0] TECHNOLOGY & RESEARCH

Commentary;
When researching, you cannot do everything unless your country's leadership pool is remarkably strong. The United States, for instance, and Germany in some scenarios, may have the ability to basically research everything available.

However, most countries will have to make strategic choices as to what they'll concentrate on. Do you focus on medium tanks rather than heavy tanks? On tactical bombers, rather than fighters? Most countries will have to choose one or the other, because they cannot possibly afford to effectively research both with the relatively small amounts of leadership points they have to play with.

When choosing which techs to research, go through first and locate which techs you really know you need to accomplish to benefit the strategy you would prefer to use. It may be, after looking at the realities of the tech world, you will have to change your strategy. Maybe air flotillas of strategic bombers are entirely beyond your reach! But pick the things you will need eventually – many of these things, in early scenarios, may be grayed out because they're beyond your reach. So check the tooltip, follow the arrows backward, and find which techs are prerequisites for the things you need. Research those things.

Even between broader categories of research fields, hard choices must be made. Break these down, basically, into land, air and naval techs, plus industrial techs and land/air/naval doctrines. Secret techs might be considered another one. Five or six very broad categories. Germany, in most scenarios, can concentrate on three or four of these, and most major powers can make progress in two or three. But if Germany chooses to build a strong navy, she's going to have to choose another broad category to ignore – which will it be? These are important questions, and the earlier in the game you answer them, the more successful your research efforts will ultimately be.

The most obvious technology strategy is to start from the earliest tech dates and work forward. This will avoid the serious (50 percent) penalty for "ahead-of-time" research. However, some exceptions may be necessary to meet your personal objectives in time for when you expect they may need to be used.

Go through the tech screens and find which techs have a start date of the current year or before. At each stop, evaluate whether that's a tech you want or not, and then consider whether it's a need or just a want.

This will give you a set of techs to immediately place in the queue, and to research in sequence. If your list is longer than your available research slots, then start researching and wait for the techs to be achieved before you add more. The techs you've researched to the first level will go to the end of the list, and you'll want to see if they're also at your current start year or before to see if you want to continue researching them.

When you're improving "resource techs" – those techs which allow you greater production of a resource – see what you produce the most of.

If there's a high enough demand for that resource on the world market, such that you can sell it to make a profit, that may be what you want to research first. Obviously, if you're desperately short of a resource, that's going to be your first choice, unless you somehow think the increase in the one resource will allow you to get enough money to correct your shortages through trade. Researching industrial techs has an opportunity cost, just like committing IC to construct new factories – there are other things you could be researching instead. However, there is less potential cost to researching at least certain industrial techs because the rewards are almost always worth the investment of a research slot.

Preparing for winter through the research of winter gear can become very important. Later on, consider the night vision tech, which may enable your troops to fight at a higher effectiveness at night than your enemy – not a small advantage!

If you intend to build a navy – if it's integral – research early because it will take a while to build on the basis of what your research gives you Researching techs which improve morale, such as ground crew training and other doctrine techs, will ultimately improve your repair rate so your units will be able to rejoin combat sooner.

[14.1] TECHNOLOGY CONCEPT IN HOI 3

General Rule
Hearts of Iron III uses the concept of Leadership points, which represent intellectual talent. These points may be directed toward Research and Technology, among other things.

Researchers do not work on an entire production model of a machine or unit at once. Instead, they research Components of the final product, which will separately alter the Combat values and other statistics of the final product.

Cases;
[14.11] Producing new Units - As you acquire new elements for each category of technology (say, a light tank gun or a light tank engine), you get closer to the point where you can produce that new piece of equipment or implement that warfare theory.

[14.12] Incremental Improvements to Units - Meanwhile, incremental improvements to existing units may result.

Example : While developing a new Armour Unit you need to develop 4 technologies, each of which can provide an incremental benefit.

[14.13] Upgrading Existing Units - Eventually, upgrades may introduce older units to the use of new Technology and tactics.

Example : Once you develop a new technology which provides a benefit to a unit, existing units can be upgraded to take advantage of that technology.

[14.14] Technology Start Year - Each piece of Technology has a "start year," which means if you develop that Tech after that point in time, you suffer no penalty for doing so. If your Research moves faster than it did historically, you will incur a penalty for trying to achieve a technology that is "ahead of its time."

The penalty seems to be four times the effort needed to research a technology with no penalty.

[14.15] Fuel and Supply effects – Each technology which a unit type benefits from results in the unit expending more fuel and supply. This seems to be a 0.01 unit of fuel or supply increase per every level of tech that unit has, be it doctrine, special equipment or whatever.

[14.2] THEORY VS. PRACTICAL

General Rule
Hearts of Iron III separates Theoretical and Practical Knowledge as being distinct from each other.

Commentary;
Another thing you should consider as you plan your research is which practical and theoretical knowledge category you both, draw from, and benefit in. Each technology is made harder or easier to research based on your theoretical and practical knowledge in the relevant fields (shown by icons on the left of each tech). Continuing to research things using this same category of knowledge will enable you to research more techs in less time. Meanwhile, those techs you successfully research will provide you with a benefit in a certain theoretical technology (shown by an icon on the right side of the tech), which helps you to research such techs in the future.

As an example, if you build single-engine aircraft, you will develop a higher degree of practical knowledge in Single-Engine Techs (airframe, engine, etc.), because your production adds to your practical knowledge.

This practical knowledge will not help you build better four-engine aircraft – only single-engine. However, researching certain aeronautical theories which you will need to produce single-engine aircraft (such as Basic Aircraft Machine Gun) will also make it possible for you to build better four-engine aircraft.

Plus, production affects technology. The more you produce, the better your practical knowledge in that area will be, which will speed your research into other techs in that category, because you learn as you gain more experience in operating those units or technologies.

Cases;
[14.21] Gaining Theoretical Knowledge - Research creates Theoretical Knowledge, which helps with new and advanced concepts.

[14.21] Gaining Practical Knowledge - Practical Knowledge, on the other hand, is accumulated experience in working with and implementing Technology. Practical Knowledge cannot be gained through Research; it can only be gained from making use of the Theoretical Knowledge you've gained. Therefore, you will need to either Produce units which use these Technologies, or use those units in Combat, in order to build your Practical Knowledge. Preferably both.

[14.23] Theoretical and Practical Knowledge values. - At the bottom of the Technology Interface, you will see existing Theoretical and Practical Knowledge values. Theoretical Knowledge (Theories and Doctrines) are shown in green while Practical Knowledge Techs are shown in blue.

[14.24] Researching a technology - When you Research a Tech, you're drawing about 30% from Theory and 70% from Practical. The higher each of these values is, the quicker you will be able to Research the Technology, and you can see the impact of each Technology in tooltips attached to each Research item.

[14.3] PRACTICAL KNOWLEDGE

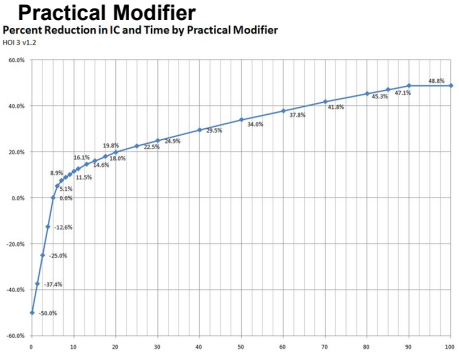
Commentary;
This section comes from the wiki and was designed for v1.2, however to my knowledge it is still valid in v1.3.

Cases;
[14.31] Each unit and building has a single Practical Knowledge value that will modify the cost and time of its build.

[14.32] Much like the research Knowledge modifiers, it is not a linear equation. Level 0 has a modifier of -50% (increased cost and time). From level 0 to 5 each point is +10% so at level 5 the modifier is 0%. After level 5 the increases slow but are still fast until level 20 (+20%). From 20 to 40 (+30%), each level is +0.5%. From 40 to 80 (+46%), each level is +0.4%. Above level 80 each level is +0.2% and there appears to be no theoretical ceiling.

[14.33] A player may be wise to keep a Practical level at 5 if future builds using that Practical are planned. Those first 5 levels are the best "bang for the buck" but will take the longest if the Practical value is allowed to decay while doing other builds.

[14.34] Percent reduction in IC and time by Practical Modifier



[14.35] However, Knowledge decay is a percentage (appears to be -2% per month even though the file says it is -2.5%) while Practical gains from builds are constants. This means it becomes increasingly difficult to increase or maintain a Practical Knowledge as it increases. Also, the benefit gained in reduced cost and time also decreases at increased Practical levels.

[14.36] Be advised the current tooltip gives an incorrect modifier when moused over the Practical symbol on the Build screen. Currently it shows just a direct percentage from the value; i.e. level 2.5--decreased cost and time of 2.5% when, in fact, the modifier is a 25% increase in cost and time.

[14.37] As a side note, in-game testing on v1.2 revealed that there may be a cap to the production effect (50%) above a practical value of 90. The data points shown in the chart below should be considered with an accuracy of at least +/-.2% from roundoff issues when reading values from the HOI3 production screen.

[14.38] Practical knowledge is a concept that represents the nation's experience in engineering and construction of each particular field. Increasing practical knowledge is done only through production. In addition to the effects it has on technologies that depend on practical knowledge, practical knowledge also has effects on the speed of production.

Practical Knowledge Table

Unit / Building Type	Cost in IC-Days	Practical Type
Armour	1005.9	Armour
H-Armour	1008	Armour
SH-Armour	1088.89	Armour
Light-Armour	1008	Armour
Rocket Artillery	845.5	Artillery
Artillary	1000	Artillery
AT	1000	Artillery
AA (Brigade)	1106.75	Artillery
Tank Destroyer	1125	Artillery
SP-Artillery	1142.86	Artillery
SP-Rck-Artillery	1154.67	Artillery
AA	1920	Artillery
Battlecruiser	972.97	Capital Ship
SH-Battleship	997.5	Capital Ship
Battleship	997.16	Capital Ship
Escort Carrier	984.38	Carrier
Carrier	1102.94	Carrier
Industry	2723.88	Construction
Naval Base	2727.27	Construction
Coastal Fort	2727.27	Construction
Land Fort	2727.27	Construction
Air Base	2727.27	Construction
INfrastructure	2807	Construction
Light Cruiser	1050	Cruiser
Heavy Cruiser	1050	Cruiser
Destroyer	1000	Destroyer
Radar Station	720	Destroyer
Strat Bomber	1000	Heavy AirCraft
Transport Plane	1000	Heavy AirCraft
Infantry	1106.75	Infantry
Mountain	1335	Infantry
Paratrooper	1500	Infantry
Engineer	1540	Infantry
Marine	1600	Infantry
Rck INterceptor	1428.57	JetEngine
HQ	1200	Land Doctrine
CAS	990	Light Air
Multi-Role	1071.43	Light Air
CAG	1400	Light Air

Unit / Building Type	Cost in IC-Days	Practical Type
Interceptor	840	Light Air
Naval Bomber	993.55	Medium Air
TAC Bomber	1005.71	Medium Air
Garrison	501	Militia
Militia	665	Militia
Military Police	900	Militia
Motorised inf	934	Mobile Unit
Mechanised inf	1000	Mobile Unit
AC	1009.25	Mobile Unit
Cavalry	1100	Mobile Unit
Nuclear Reactor	9000	Nuclear
Flying Bomb	600	Rocket
Flying Rocket	1200	Rocket
Submarine	1080	Submarine
Nuclear Sub	1422.22	Submarine
Transport	900	Transport
Rocket	3600	Rocket

[14.39] By taking a quick look at the table, one can see that the game designers intended for most costs to be around 1,000 IC-days per practical. For those fields that do not fit this norm, one can see that the designers strove for all units in that category to have the same cost. Some fields, due either to low cost across the board or to low cost in a single unit, are easier to acquire experience in.

The easiest fields are Militia and Rocket, being about half of the 1,000 IC-days baseline cost. Massive construction of Flying Bombs and Garrisons will lead to an enormous explosion of practical, quickly cutting production time and cost. Rocket Artillery is also a relatively cheap way of increasing Artillery Practical, being significantly cheaper than the next cheapest artillery unit in terms of IC-days per practical. Interceptor squadrons are the quickest way to increasing Light Aircraft practical. Motorised Infantry is somewhat cheaper than the next most costly unit in the Mobile Unit field. Aside from these few examples, all other fields are relatively balanced.

One of the most expensive fields is the field of construction practical. Under previous versions of the game, it made sense to engage in massive production of infrastructure in order to cause a huge gain in practical. As of 1.2, this is no longer the case. Industry production is now the cheapest of all construction practical, but only by the tiniest of margins. For increasing IC, it no longer makes sense to produce infrastructure--or anything else--to gain practical.

[14.4] DECAY OF KNOWLEDGE

General Rule
If you've developed a Technology, but you don't build upon that Knowledge, it will Decay over time: scientists or engineers who are involved will move on to other things and factories will be re-tooled for other purposes.

Cases;
[14.41] Both Theoretical and Practical Knowledge may suffer from Decay.

[14.42] Some Ministers, however, enable you to reduce Decay for certain Techs.

[14.43] Units used in Combat will have less Decay for Techs they employ.

[14.5] RESEARCH

General Rule;
Generally, without any kind of theory or practical aptitudes to improve research times, a level 1 tech that's not "ahead of time" will take about 200 days to research. Each level of difficulty beyond that adds about 20 days. So a level 5 tech would take 280 days to research if you had no knowledge "aptitude" (the knowledge levels at the bottom of the tech screen) to apply. Thankfully, many countries start with some aptitudes, and so some level 1 techs won't take that long to research for those countries.

If you continue researching a category of techs, your research time will improve, because your knowledge and familiarity with the tech category is improving.

Cases;

[14.51] Research Queue
Immediately below the Leadership sliders, you will see any Technologies (often referred to as "Techs") you have selected to Research. This is the Research Queue. The indicator just above the list shows how many projects you have selected to Research, compared to the number of projects possible to Research at one time with the Leadership you've allocated to Research.

Don't worry; if there are more projects than you can do at once, the others will begin running as soon as one of the prior projects is completed.

[14.53] Technologies
To the right of the Leadership sliders, you will see a row of tabs displaying different categories of Technology. You only see those Technologies contained under the header you have selected at the top (the list of categories, ranging from Infantry Technologies to Air Technologies). Clicking each tab will show a different set of specific Technologies, some of which are further grouped into clusters of related Techs. Prerequisites for Research are indicated by arrows pointing from the prerequisite Techs to the more advanced Techs which rely upon it.

On each Technology's tab, you will see the name of the Tech. A number of icons will indicate what categories of Practical Knowledge (blue icons) and Theoretical Knowledge (green icons) will improve Research for that Tech.

A number inside a black circle will indicate the relative difficulty of the Research program, with green numbers being the easiest and red numbers indicating long-term Research projects.

If there is no number and there is a bright green checkmark on the top-right corner of the Tech, it means you have already successfully Researched the Tech. The already-Researched Techs will be in beige. Green-coloured Techs are ones you have met the prerequisites to Research. Graycoloured Techs are still beyond your reach. These colour codes are further explained by the date on the right of each Tech tab, which is the year when the Tech was historically achieved. If you try to Research something years ahead of its time, such as Atomic Techs in the 1930s, then you will face penalties to Research time.

Techs with a light green bar extending partially underneath the Tech's name have been partially Researched, and subsequent Researching will pick up where previous Research left off.

Click on the Tech in order to select it, and more detailed information about it will appear in the slot at the bottom of the screen. If this is what you want to Research, click the Start Research button if it is coloured brown, and it will enter the Research Queue. If it is gray, you have not met the prerequisites (its Tech listing above should also be gray).

On the far left of the Technology Interface, underneath the Leadership sliders, is the Research Queue, which works much like the Production Queue. It shows each Tech you're Researching and the expected completion date. Displayed at the top of the Queue is the number of selected projects and the highest possible number of simultaneously Researchable projects, which should match the number of Leadership Points allocated to Research. If more Techs are chosen than Leadership Points will cover, some of the Techs in the Queue will have to wait. You can prioritize the Techs using the up and down arrow buttons, as with the Production Queue.

At the very bottom of the screen is a representation of all the Practical and Theoretical Knowledge held by your country, as well as your country's Aptitudes with each, organised by category. These Techs will assist either the speed of Research (for Theoretical) or the speed of Production (for Practical).

[14.54] Technologies Interface Example (See Examples)

[14.55] Costs to Build and Operate Equipment
For each level of Technology you advance, you're likely to face slightly increased costs to build and operate the equipment you've researched.

[14.56] Field Testing
Using units in Combat will earn you Practical Knowledge in the fields represented within that unit (i.e. using Infantry will build up Small Arms Tech), because you are learning things about your Technology as you put it into practice.

Using units in combat will build your practical knowledge in related areas.

[14.6] TECHNOLOGY UPGRADES

Summary
As your Technology improves, you will be able to build more advanced weapons or pieces of equipment, and you can replace the older equipment your armies are using in the field.

Cases;
[14.61] You may allocate a percentage of your IC toward Upgrades. Tooltips in the Production Interface will explain how many units need to be Upgraded and how long it will take. Upgraded Techs generally affect one or more statistics for whichever units utilize that Tech. For instance, upgrading to a new level of Mortar will improve an Infantry unit's Toughness while Machine Gun Techs improve Defensiveness.

[14.62] When a unit is Upgraded, it takes on all the qualities of a newer unit, as though it had been produced with that newer equipment. For example, if you've just developed a Me-109F, that plane will eventually replace all of your Me-109E models if you've allocated IC for Upgrades.

[14.63] Ship Upgrades - Ships are in a unique situation in HOI 3. You will Produce a ship of a certain Class (i.e. Bismarck Class or Alaska Class), but this ship will contain a set of components. These components do not necessarily need to all be of the same level of advancement (i.e. you may have a ship with 1918-level armour but 1934-level engines).

[14.64] Researching new Naval Techs will later allow you to build improved Classes of ships. However, only certain components of existing ships and ship Classes can be upgraded with new Technology. These include Radar, Anti-Aircraft, and Anti-Submarine weapons.

[14.65] Upgrades of Other Technology - Certain non-unit Technologies can be upgraded as well. For instance, there are Technologies that allow Radar Stations to operate as Signals Intercepts Stations, while other Techs improve the Efficiency of land-based Anti-Aircraft Installations and allow the building of Forts.

[14.7] LICENSING TECHNOLOGY

General Rule
For a cost, a country can negotiate with another country and agree to "License Build" a unit type at the Tech Level of the other country.

Commentary;
Licenses don't give you the technical knowledge directly, but it does build your overall knowledge (having built the item), which may help you to develop that tech in the future.

Licenses can be costly, plus afterward you're still without the knowledge base to build one yourself. However, having built one, your knowledge increases, which may help you develop that tech in the future. Your options for what to request may be limited, and your chances of convincing them to let you build may be even more limited.

Cases;
[14.71] A License allows for the construction of a single Brigade (or Airwing, Ship, etc.) at the other country's Tech level.

[14.72] You cannot license Capital Ships or Nuclear Bombs.

[14.73] To do this, go to the Diplomacy Interface, select the country you want to deal with, and then click "Buy Production License" from the list of Diplomatic Actions. You will see a list of unit types that country has which are more advanced than what you can build. Tooltips explain the unit stats. A default price is suggested, but you can offer more if you want to make it more likely that the other country will accept. Licenses can be purchased for more than one unit at the same time by using the sliders for Serial or Parallel production.

[14.74] Once the deal is concluded, the items you've Licensed will automatically appear in your Production Queue, but you must still pay IC to build them.

[14.75] Practical Knowledge Increases
Buying Production Licenses will actually increase your Practical Knowledge in the area of the units being Produced, which might make it easier for you to build similar Models on your own later on.

[15.0] RESEARCHED TECHNOLOGIES

Summary;
This section contains a description of the technologies which can be researched.

Commentary;
The Technology Interface, and what's generally referred to as the "tech tree," may seem like a confusing jumble of interrelated techs with arrows going this way and that. It is not as daunting as it seems! There are simple, logical ways of seeing through the complexity and finding clear paths to researching what you want.

First, establish how many of your leadership points you're going to direct toward research. At first, this will require some guesswork, and you'll probably make some adjustments, based on changing priorities, once your game is underway. Pick good slider positions for the other categories first, and use what's left for research. Once you pick your "must have" techs to research, you may find you want to reduce other categories in order to meet your research goals.

You have to understand what your country needs – in general – and then decide which of those goals is most important. Make a list in your mind of what your goals must be on the short term, and if you are able to develop a long-term strategic plan, make a list of those too. For every tech you want, you'll then need to get an idea of the prerequisites for that technology.

There's never a reason not to place a tech in the queue as a "placeholder," and maybe that's easier for you than a "mental list" – basically, "I need this tech eventually, and I don't want to forget it, so let's just put it here even though there aren't enough active slots." Reminders are good, plus if you still forget you'll start working on at least one necessary tech even without realizing it. Techs will jump to the end of the list once one level is researched, and so these other techs you've placed in the queue will eventually get some attention. On the other hand, if you have a tech you're researching and you want to immediately start working on the next level, you'll need to pay attention and re-order that item in the queue soon after you finished the earlier level.

Generally, your research priorities will be driven by the kinds of units you have, or the types you want to produce. Longer-term research projects can be inserted into this priority list according to your needs.

Cases;

[15.1] PREREQUISITE'S

General Rule;
It will be good to click through the different category tabs to see what technology projects are covered by each one (categories with direct hardware applications like tanks or planes are on the left, and those which are more theoretical are to the right). Don't be overwhelmed – all will become clear, in time.

Cases;
[15.11] Prerequisites are very important to understand – those are the gateways which must be achieved before you are even allowed to research a tech you may want.

[15.12] If a tech isn't available to be researched, the tooltip will show you its prerequisites. If it is available, the tooltip will explain what the tech will do – usually showing what values on which units will improve once the tech is researched and those units are upgraded.

Example : Take the Infantry tech category as an example. If you know you want to research and eventually build Mechanised Infantry (like the famous PanzerGrenadiers), there are certain easily understood steps to reaching that goal. Hover your mouse cursor over the tech, and the tooltip will show you that you can't build it yet, but will also show what the prerequisites for that technology are.

[15.13] There are easy-to-understand tools built into the Tech screens to guide you.

Example : For instance, there should be six techs listed as prerequisites for Mechanised Infantry. Motorised Infantry, Medium Tank Brigade, and four Infantry Techs – this all makes sense, because Mechanised Infantry is a merging of the traditional Motorised Infantry concept with armoured concepts in order to make the combination more fearsome. Here's our first step toward demystifying the tech tree. Those four infantry techs?

[15.14] Look at the tech tree, and notice there's an arrow pointing to Mechanised Infantry from… a grouping of four infantry techs. You'll basically need a certain level of each of those grouped infantry techs before you can proceed.

[15.15] Plus, if you trace the other arrows from those four techs, you'll find that these techs are also what allow you to build Marine Infantry. That's a fringe benefit like you'll find often in the tech tree.

[15.16] What else? Motorised Infantry is right above Mechanised. Notice the stubby little arrow pointing from Motorised Infantry to Mechanised which indicates the relationship. But if you don't already have Motorised Infantry researched, you'll have to get there, first. Which means you must reach a certain level of the Cavalry techs – the set of four with the arrow pointing to Motorised.

[15.17] The last prerequisite requires you to look at the techs listed under the Armoured tab. Once you locate Medium Tank Brigade, you'll see an arrow pointing to it from a set of four Light Tank techs, which are the ones you'll have to research if you don't already have Medium Tank Brigades.

[15.18] Another fringe benefit – once you've achieved the Medium Tank Brigade, you may also begin researching Self-Propelled Artillery Brigades, which allows you to build Tank Destroyers.

And that is the whole tree – the "roots" which allow you to build Mechanised Infantry. All in all, that's twelve "component techs" – the ones which are grouped together, with each one contributing a component to existing units (most techs you research will improve your unit stats, provided you're funding upgrades), but which all must be researched to follow the arrow to the next major tech.

Plus, you must also have those major techs researched – the Medium Tank Brigade and Motorised Infantry. Finally, you must research the Mechanised Infantry tech, too, which you're allowed to do once you have all the others researched. Those 15 techs might seem like a lot, but so's the ultimate payoff. Hopefully this explanation helps you see the simplicity of how the tree is built.

[15.19] The progress bar for a tech displayed on the main technology interface (i.e. not in the research queue) shows its total progress through all possible levels. This will give you an idea of how advanced you've become in that technology area.

[15.2] TECHNOLOGY EFFECTS ON UNITS

[15.21] Sometimes, you might notice that a tech has a negative effect on your units! For instance, an aircraft engine tech might increase the speed of your planes, but also reduce their range. Or a tank engine tech might improve its speed, but reduce its toughness (survivability) in battle. These are tradeoffs representing either higher fuel consumption (the planes) or increased chance of breakdown (the tanks).

[15.22] Generally, there's another tech which will counterbalance the other, and so the combined effect of both will make your units appreciably better.

[15.3] RESEARCHING INDUSTRY TECHNOLOGY

General Rule
Industry technology have a wide range of effects on your economy, such as industrial capacity, resource production, manpower, supply and leadership.

Cases;

[15.31] Manpower & Attrition Technologies

Technology	Effect
Combat medicine	Casualty trickle back = +1%
First Aid	Maximum attrition = -5%
Agriculture	Manpower Gain = +10%
education	Leadership gain = +5%

[15.32] Industry and Resources technologies

Technology	Effect
Industrial production	ic_modifier = 0.025
Industrial efficiency	ic_efficiency = 0.025
Oil to coal conversion	Energy to oil conversion = +10%
Oil refining	Refinery efficiency = +10%
Steel production	Refinery efficiency = +10%
Rare metal refining techniques	Rare Metral Production = +5%
Coal processing technologies	Energy production = +5%

[15.33] Supply & Civil Defence Technologies

Technology	Effect
Supply production	ic_to_supplies = +5%
Supply transportation	Supply transfer cost = -1%
Supply organisation	Supply throughput = +5%
Civil defence	Repair rate = +5%
Heavy aa guns	Provincial aa efficiency = +10%
Construction engineering	Activate building = industry
Advanced construction engineering	Activate building = infrastructure

[15.34] Electronic Technologies

Technology	Effect
Electronic mechanical engineering	NA
Census tabulation machine	Research efficiency = +2%
Mechanical computing machine	Research efficiency = +2%
Electronic computing machine	Research efficiency = +5%
Decryption machine	Decryption = 0.1
Encryption machine	Encryption = 0.1
radio_technology	NA
radio	Combat efficiency = +10% encryption = -20%
radar	activate_building = radar_station radar_efficiency = +5%

[15.35] Rocket, Jet and Nuclear Technologies

Technology	Effect
Rocket tests	Activate building = rocket test
Rocket engine	NA
Theorical jet engine	NA
Atomic research	NA
Nuclear research	NA
Isotope seperation	NA
Civil nuclear research	Activate building = nuclear reactor

[15.4] RESEARCHING DOCTRINE

[15.41] It's often wise to be researching at least one "doctrine" tech at all times. Doctrines are how you shape your military to fight most effectively using the tactics you prefer to use, and your doctrines may be entirely different from your enemy's.

[15.42] These tabs are all at the far right of the technology screen, along the top. The one which adds organisation to your units is your likely first choice.

[15.43] Air doctrines are grouped according to type of aircraft – close air support, interceptors, bombers, etc.

[15.44] Naval doctrines are in three main categories. Land doctrines are divided into four major categories, or "lines of doctrinal thought." Usually, if your country is more advanced in one grouping, compared to the rest, that's the doctrinal path most likely to fit your country's strengths. But look at the explanations as described in the tooltips, and make your own decision.

[15.5] THEORY TECHS

General Rule
As has already been noted, there are specific cases (jet engines, for instance) where theory techs can be very important (nuclear physics and rocket theory work the same way). In general, they are not. The same improvements in knowledge aptitudes can be achieved through the normal research tree. But there are times when you may benefit from researching theories anyway.

Cases;

[15.51] Researching a theory always benefits you if you're either building or researching that type of unit. The question is whether it helps you as much or more than researching a relevant tech from the regular tree, and the answer there is often "no."

[15.52] However, some players will use the theory techs to "warm up" a research line gone cold. Say you had built some armoured units early on, but have been busy building your fleet. You can research the automotive, or some other relevant theory tech, to re-build your knowledge base and make research and construction in that area easier and faster – just think a little ahead of time, and throw it into the queue when you're a few months from going into that shift in research priorities.

[15.53] Also, if you're really relying heavily on one category of research and production – building a whole army of tanks, for instance – then you get to almost double the speed of your improvement in knowledge by researching theory techs in addition to your regular tech panels.

[15.54] In general the effect of theory tech's are as follows, based on your theory/practical values;

0: tech takes 50% longer than normal
5: tech takes normal length
20+: tech finishes 39.5% quicker

So basically from 0-5, each point makes your research go 10% faster. After that, it doesn't contribute as much.

[15.55] Theory techs are most useful for getting you from zero knowledge up to five.

[15.56] The optimum teory tech's to research are nuclear, rocketry, jet engines and the three logistic techs. The logistic tech's provide benefits in supply distribution and the repai rates.

[15.57] Reserching Theory Tech's is also useful for tech areas with which you have zero skill, and are going to invest in the next year or so.

[15.56] The tech does degrade, however if you are researching something quick (such as the theory techs), you will gain substantially more skill than you are losing to degradation. Just try researching atomic bombs (especially before 'historical' date) without the theory tech as a support and watch your pitiful skill level go up to 1.0 and quickly back to 0 before the second tech in nuclear chain is finished

[15.6] RESEARCHING INFANTRY TECHNOLOGIES

General Rule;
Infantry technologies can improve the compabt and movement of infantry, militia and specialists leg units, such as engineers. Most of these are listed in the charts. This section will list the improvement not included.

Cases;

[15.61] Attrition Infantry Technologies

Technology	Effect
Desert warfare equipment	Desert Attrition -1% (infantry, marine, mountain, paratrooper)
Jungle warfare equipment	Jungle Attrition -1% (infantry, marine, mountain, paratrooper)
Mountain warfare equipment	Mountain Attrition -1% (infantry, marine, mountain, paratrooper)
Artic warfare equipment	Artic Attrition -1% (infantry, marine, mountain, paratrooper)

[15.7] RESEARCHING SECRET TECHNOLOGIES

Cases;

[15.71] Secret technologies

Technology	Effect
Strategic rocket development	NA
Flying bomb development	Activate unit = flying bomb
Flying rocket development	Activate unit = flying rocket
Strategic rocket engine	flying_rocket strategic_attack = -5 range = 50
Strategic rocket warhead	flying_rocket strategic_attack = 10 range = -75
Strategic rocket structure	flying_rocket range = 50
Radar guided missile	cas soft_attack = 3 hard_attack = 3 tactical_bomber soft_attack = 3 hard_attack = 3
Radar guided bomb	tactical_bomber soft_attack = 2 hard_attack = 2 sea_attack = 2 naval_bomber sea_attack = 3
Electric powered torpedo	submarine sea_attack = 2 convoy_attack = 4 sea_defence = 2
helecopters	NA
Medical evacuation	default_morale = 0.1 (infantry, marine, mountain, paratrooper)
Pilot rescue	default_morale = 0.1 (interceptor, multi-role)
sam	provincial_aa_efficiency = 2
aam	interceptor air_attack = 3 multi_role air_attack = 2
Da bomb	Nuclear production = 0.1

[16.0] TIME TO RESEARCH A TECHNOLOGY

General Rule
Formulas based on tooltips; determined empirically. All modifiers are multiplicative.

Commentary;
This was designed for v1.1 and may differ for later versions. For example, in version 1.3 the ahead of time researching effort has been doubled.

Cases;

[16.1] BASE RESEARCH TIME

[16.11] The base time needed to research a technology is given by the following: 125 * (1 + difficulty level * 0.1) days

[16.12] The Base Time to research a technology can be modified by difference technologies, Knowledge levels, Espionage and if you are reaserching ahead of the historical date.

[16.2] RESEARCH TECHNOLOGIES

General Rule;
The computing machine technologies reduce the time needed to research a new technology.

Cases;
[16.21] The Mechanical Computing Machine techs reduce the time by 2% each,

[16.22] The Electronic Computing Machine techs reduce it by 5% each.

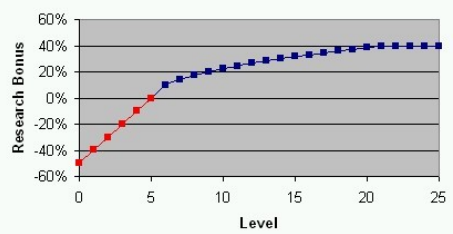
[16.3] KNOWLEDGE LEVELS

General Rule
Knowledge levels will affect the time it takes to research a technology. There are three regimes of levels listed below.

Cases;
[16.31] Linear Regime: If your level is below 5, research will take (5 - level) * 10% longer.

[16.32] Square Root Regime: Between level 5 and approximately level 20, you gain a bonus to research speed. The exact formula here is not known. However, empirical testing shows that a sqrt(level - 5) * 10% reduction in research time is a good fit.

[16.33] Constant Regime: Once the bonus reaches 39.5%, which occurs around level 20, it stops increasing.



[16.4] RESEARCHING AHEAD OF HISTORICAL DATE

Cases;
[16.41] Each year ahead of the historical year increases the research time by 50%. This is calculated by year only; e.g, researching a 1937 tech in 1936 is one year ahead no matter if it is January 1 or December 31st.

[16.42] There is no bonus for researching behind the historical date.

Note : The game guide for v1.3 indicated the effector tor research ahead of time has been doubled.

[16.5] TECHNOLOGY ESPIONAGE

Not only can you assign Spies to discover what Technologies other countries are Researching, but it is also possible to assign Spies to sabotage other countries' Research projects. Naturally, the same can be done to you.

[16.51] Enemy spies may decrease research speed. If this is the case, the penalty will show up in the tooltip for techs being researched.

[16.6] MISCELLANEOUS

[16.61] At the end of every day the time needed to research every tech with non zero leadership dedicated to it is recalculated. This is then compared to the actual time spent researching the tech to determine whether the research is done.

[16.62] This means that if you gain a sudden decrease in research time (for example, if a large parallel construction suddenly finishes, giving you a boost in Practical Knowledge, or a new year begins, decreasing the penalty for researching ahead of the historical date), the research progress can suddenly jump forward.

[16.63] This is only done for active researches. If this sudden jump forward completes the project with extra days to spare, than these extra days are allocated to the next level of research (if not a one-time tech).

[16.64] The recalculations start at the top of the research queue and work to the bottom. If a tech completes, the Knowledge increase from it will be included in the recalculations below it. This can result in identical techs that complete on the same day having different completions dates for the next level of research (Knowledge increase from the tech higher up the queue reduces the required time for lower down tech resulting in spare days that are added to the lower tech's next research level).

Example
Let's say you are researching Infantry Small Arms.

* The difficulty level for this is 1, so the basic research time is 125 * 1.1 = 137.5 days.

* Let's say you have a 4% research bonus from techs. This reduces the time to 137.5 * 0.96 = 132 days.

* The research is 30% based on Infantry Theory, 60% based on Infantry Practical, and 10% based on Grand Battleplan Theory. Let's say you have a level 10 in the first two and a level 0 in the last. This shortens the time for the first two by 22.5% and lengthens the time for the last by 50%. The total multiplier to time is 0.775 * 0.9 + 1.5 * 0.1 = 0.8475. This reduces the research time to 132 * 0.8475 = 111.87 days.

* Finally, let's say the year is 1940, but you're trying to research the 1942 tech. This increases the time by 50% for each year, or 100% total. The total research time is then 223.74 days.

[16.7] SHORTEST POSSIBLE RESEARCH

[16.71] The shortest possible research is a level 1 difficulty tech with full Knowledge level, and past historical date. If the above is correct, such a research would take 125 * 1.1 * 0.605 = 83.1875 days. Computing techs can reduce this further.

[16.8] KNOWLEDGE LEVELS

[16.81] You gain Theoretical Knowledge levels by researching techs, and Practical Knowledge levels by building and using buildings and units.

[16.82] At the beginning of each month, all levels decrease by 2.5%. This can be reduced by certain ministers.

[16.83] Knowledge levels are capped at 99.0.

[16.84] Practical Knowledge decreases the IC and time needed to build a unit or building of that type. The maximum reduction is 60% IC and build time. This is multiplicative with Industrial Efficiency techs.

[16.9] EFFECTS

[16.91] The effects given in the tooltips are the cumulative effect; that is, the effect of all upgrades up to that one combined.

[16.92] The tooltip days required (when moused over the Start button prior to commencing the research) and the dates listed in the research queue are calculated for that day's cumulative modifier only and do not account for expected changes due to Knowledge decay and/or Ahead of Historic Year modifer changes on 1 Jan of the next year (if research completion is projected to go into the next year).

[16.93] Each upgrade seems to result in an approximately 1% increase in unit IC cost and build time. The exact effect is unknown.

[17.0] GOVERNMENT

Summary
Every country has a Government – a set of leaders who lead their country. In HOI 3, that Government is represented by you, the Ministers and military Leaders you put in place, as well as the Decisions, Laws, and other choices you make over the course of the game.

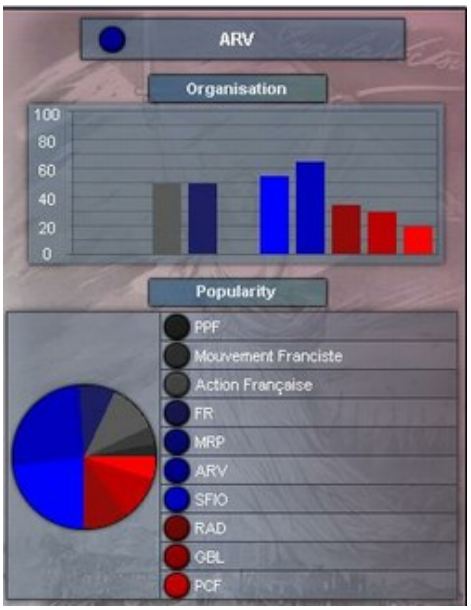
While you – the player – are quite secure and not liable to be replaced, that's not always true of your country's actual Government and the Ministers who are in power. You may only choose Ministers who are aligned with the political Party currently in power in your country, which you do not have total control over.

[17.1] POLITICAL PARTIES

General Rule
Each country has a ruling political Party. This Party exists at the start of the game, and presumably will remain until an Election, Coup, Revolution, or some other game event causes it to lose power.

Cases;
[17.11] When a Party loses power, another Party takes its place, and your choice of Ministers may change - or it may not, depending on the type of change.

[17.12] This lists your political party along with their organinsational and polularity.



[17.2] IDEOLOGY

General Rule
Each Government has an Ideology it tends to follow. Ideology has a number of effects detailed below.

Cases;
[17.21] The player cannot control Ideology – it is what it is, per Party.

[17.22] When a new ruling Party takes over, the country's Government Ideology may change, or it may not, if the Party is of the same Ideology.

This nations political system is Social Liberalism, which holds elections each 48 months, with the next election to be held in 1940.

[17.23] Fascism can be either national_socialist, fascistic or paternal autocrat. It allows a player to conduct Limited War and has a territorial pride modifer of +10% and a neutrality of 25.

[17.24] Democracy can be either social conservative, market liberal, social liberal or social democrat. It allows alliance wide guarentee and has the following modifiers : war consumer goods demand = -10% and peace consumer goods demand = +10%.

[17.25] Communism can be either left_wing_radical, leninist or stalinist. It allows free resource gifts and has the following modifiers : supply consumption = -33% and espionage bonus = +10%.

[17.3] MINISTERS

General Rule
One way you will shape your country is by choosing which Ministers are in charge of different parts of your government.

Commentary
You can actually make a substantial impact upon your economy, research or combat abilities by choosing the right ministers in the politics screen.

Each minister has different qualities they can contribute. Some ministers have "qualities" you want to keep far, far away from your government. But others can be very helpful.

The army, air and naval ministers are easy – choose one which matches whatever type of unit you want to build the most of – artillery, cruisers, tactical air, etc. Head of Intelligence is also easy – choose what type of intelligence is important to you.

Your foreign minister is most useful if you want to align your country in a certain direction. Certain ministers are more receptive to one faction or another. Other foreign minister candidates may be able to increase your ruling party's support so that you don't have to worry so much about losing the next election, or having some disruption break out.

It is possible, over time, to change your country's ideological alignment through the use of the Align to Faction diplomatic action, as well as the appointment of certain foreign ministers.

The two most powerful minister positions are your Chief of Staff and your Armaments Minister. Your chief of staff helps your military, and may assist with organisation regain, with speed of movement, with supply throughput, or with reinforcement chance. Decide what you need most at a particular time, and make sure that guy's in the slot.

Other than your Head of Government or Head of State – neither of which you can change without losing an election or having some other badness occur – the only minister which can improve your available IC is the Armaments Minister. The Administrative Genius can even improve your IC by 10%, which is pretty useful. Other armaments minister candidates, if IC isn't your main concern, can help with supply production, reduce consumer goods needs (maybe best during peacetime), or can help with certain technologies. Remember, if you're short on resources, you might prefer someone who improves supply production over someone who increases IC, because that also increases your resource consumption.

Your Minister of Security can also help you maintain support for your ruling party, or maintaining national unity, but otherwise can mostly help with killing spies. If you are really having difficulties on the war front, and you're concerned your country may surrender because national unity is getting low, that's one time to make sure you have a good minister of security who can hopefully help you.

Keep in mind that new ministers appear over time, who may have better qualities than the ones you currently have in office.

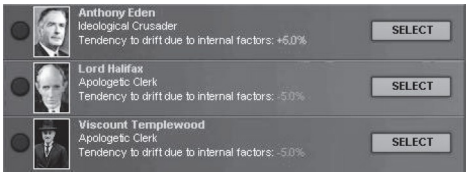
Also, your ministers should be "context sensitive" – some ministers have traits which are useless during peacetime, or useless during war.

You may want IC bonuses early in the game, because you're preparing for war. But later, you may want to switch him out in favor of someone who benefits your immediate war effort more than the IC would. Keeping Ministers in, and swapping them out, is always a matter of value judgments – who creates the most value for you right now, and does the value of one guy outweigh the value of the other guy, all things considered?

Cases;
[17.31] Every country has 10 Minister positions, each controlling a part of your Government. Each Minister has an ideology, which may or may not need to match your government philosophy, a hidden loyalty rating, and various traits that depend upon which government position that person is assigned to. They each also have a hidden "start date," which dictates when they are available to be employed.

[17.32] Each Minister's Traits determine which parts of your military, economy, production, and such are affected, either positively or negatively, by their assignment. Your choice of Foreign Minister, for instance, primarily affects into which Ideological direction your country will Drift. Click on the Minister's "Replace" button to see what your choices are. Click "Select" to choose that Minister, or cancel.

[17.33] Because of the open-ended nature of the HOI 3 program, a wide variety of ideologies may be represented by each country's pool of Ministers. For instance, if Germany becomes a Socialist country rather than Fascist, there will be Socialist Ministers to fill those positions.



[17.34] Effects of Ministers
The ministers are listed below, along with their modifiers

Head of State	Modifies
Intel during Peace	Intelligence
National Unity Changes	Unity

Head of Government	Modifies
Money	Money
Consumer goods during peacetime	Consumer goods

Foreign Minister	Modifies
Tendency to drift due to internal factors	(+/Good -/Bad)
Susceptibility to Comintern	(+/Good -/Bad)

Susceptibility means your country with drift to a faction slightly faster than normal, or drift away slighly slower.

Armament Minister	Modifies
IC	(+/Good -/Bad)
Consumer good during wartime	(+/Bad -/Good)
Consumer Good during peacetime	(+/Bad -/Good)
Jet Engine Theory Decay	(+/Bad, -/Good)
Nuclear Physics Decay	(+/Bad -/Good)

Minister of Security	Modifies
National Unity Changes	Unity (+/Bad -/Good)
Change in Neutrality	Neutrality (+/Bad -/Good)
Ruling Party Support	(+/Good -/Bad)
Partisan Efficiency	(+/Bad -/Good)

Head of Intelligence	Modifies
Political Intel	(+/Good -/Bad)
Land Intel	(+/Good -/Bad)
Naval Intel	(+/Good -/Bad)
Industrial Intel	(+/Good -/Bad)

Chief of Staff	Modifies
Supply Throughput	
Infantry Practical Decay	(+/Bad -/Good)
Militia Practical Decay	(+/Bad -/Good)
Mobile Unit Practical Decay	(+/Bad -/Good)
Supply Consumption	(+/Bad -/Good)

[17.35] Minister Types

Name	Effect
Biased Intellectual	Susceptibility to Comintern = +10%
Ideological Crusader	Tendency to drift due to internal factors = +5%
Apologetic Clerk	Tendency to drift due to internal factors = -5%
Iron Fisted Brute	Threat impact = +5% ruling party support = +10%
Great compromiser	suseptibility_axis = +10%
General staffer	Peace offmap intel = +10%
The cloak n dagger schemer	Suseptibility allies = 10%
Silent lawyer	Change in neutrality = -1%
Administrative Genius	IC = +10%
Resource industrialist	global_resources = +5% chemical engineering decay = -25%
Compassonate gentleman	National Unit Changes = +10%
Laissez-Faire Capitalist	Consumer Goods during wartime: -2.5% Consumer Goods during peacetime: -2.5%
Theoretical Scientist	Jet Engine Theory Decay: -25% Nuclear Physics Decay: -25%
Military entrepreneur	Global supplies = +20%
Prince of Terror	Ruling Party Support = +15% Partisan Efficiency = +10%
Battle fleet proponent	Naval engineering decay = -25%
Submarine proponent	Submarine engineering decay = -25%
Tank proponent	Automotive theory decay = -25% mobile theory decay = -25%
Infantry proponent	Infantry theory Decay = -25% militia theory Decay = -25%
air_to_ground proponent	Aeronautic engineering decay = -20% single engine aircraft practical Decay = -5%
air_to_sea proponent	Naval engineering decay = -20% twin engine aircraft practical decay = -5%
strategic_air proponent	Aeronautic engineering decay = -20% four engine aircraft practical decay = -5%
Crime fighter	counter_espionage = +10%
Back stabber	Dissent = +1% counter_espionage = +10%
man_of_the people	global_leadership_modifier = +5%
Efficient sociopath	counter_intelligence = +10%
Technical specialist	espionage_bonus = +5%
Research specialist	offmap_land_intel = +20%
Political Specialist	Political Intel : +20%
Dismal Enigma	Land Intel : +10% Naval Intel : +10%
Industrial Specialist	Industrial Intel : +20%
Naval intelligence specialist	offmap_naval_intel = +20%
school_of manoeuvre	combat_movement_speed = +10%
school_of fire_support	attack_reinforce_chance = +10%
school_of mass_combat	human_wave_theory decay = -10% global_manpower_modifier = 5%
school_of psychology	org_regain = +10%
school_of defence	defend_reinforce_chance = +10%
Logistic Specialist	Supply Throughput : +10%
Elastic Defence Doctrine	Mobile Unit Practical Decay : -25%
Static Defence Doctrine	Infantry Practical Decay : -25% Militia Practical Decay : -25%
decisive_battle doctrine	artillery_practical Decay = -25%
Armoured spearhead doctrine	armour_practical Decay = -25%
Guns and Butter Doctrine	Supply Consumption : -10%
Open seas Doctrnie	Destroyer Practical Decay : -25%
decisive_naval battle doctrine	capitalship_practical Decay = -25%
Power projection doctrine	carrier_practical Decay = -25%
Indirect approach doctrine	cruiser_practical Decay = -25%
base_control doctrine	naval_base_efficiency = +10%
air_superiority doctrine	single_engine_aircraft practical Decay = -25%
naval_aviation doctrine	twin_engine_aircraft_practical Decay = -15% naval_engineering Decay = -10%
army_aviation doctrine	twin_engine_aircraft_practical Decay = -25%
Carpet Bombing Doctrine	Heavy Aircraft Practical Decay : -25%
Vertical envelopment doctrine	strategic_air_focus Decay = -10%
Undistinguished suit	ruling_party_support = +5%
air_superiority proponent	fighter_focus Decay = -10%
Corrupt kleptocrat	global_supplies = -10% ruling_party_support = +10%
Crooked kleptocrat	global_ic = -3% ruling_party_support = +10%
power_hungry demagogue	national_unity_effect = -10% espionage_bonus = +5%
Barking Buffoon	Intel during Peace : +5% National Unit Changes : +10%
Stern imperialist	global_ic = +5%
Ruthless powermonger	land_organisation = -5% national_unity_effect = -20%
Autocratic charmer	global_ic = -5% war_consumer_goods_demand = -50%
Resigned generalissimo	global_supplies = +10% global_money = -10%

Name	Effect
Benevolent gentleman	suseptibility = -5% org_regain = +5%
Weary stiff neck	suseptibility = +5% org_regain = +5%
Insignificant layman	global_money = 5% war_consumer_goods demand = +2.5%
die_hard reformer	industrial_efficiency = +3%
pig_headed isolationist	neutrality_change = +1%
Popular figurehead	ruling_party_support = +10%
Silent workhorse	global_ic = +5%
Naïve optimist	threat_impact = -10%
Flamboyant tough_guy	drift_speed = +5%
Happy Amateur	Money : -5% Consumer Good during peacetime : -2%
Backroom backstabber	global_ic = -5% ruling_party_support = +10%
Smiling oilman	global_crude_oil = +5%
Old general	land_organisation = +5%
Old admiral	naval_organisation = +10%
Old air_marshal	air_organisation = +10%
Political protege	ruling_party_support = +5% peace_consumer_goods_demand = -2.5%
Ambitious union_boss	war_consumer_goods_demand = +5% dissent = -5%
Corporate suit	global_money = +10%

[17.4] INTERNAL POLITICS

[17.41] Party Organisation & Popularity

Party Organisation typically refers to the power of each political party, as far as its ability and that of its key opinion leaders to sway public opinion. Popularity, by contrast, is how the public in the country really feels (i.e. how "swayed" they are). The total Organisation of all of a country's Political Parties added together is 100 percent. If one gains in Organisation, others will fall.

The ruling party will generally be a strong Political force, and the others will be weaker. If that's not the case, you can expect that the ruling party may not remain in that position for very long; your Politics Interface will show when your next Election is scheduled, if there is one. Party organisation determines how much influence that party has on the country's internal political opinions. Only communist agitators can increase the attractiveness of communism to the people. The military presence of another faction's troops in a country increases the influence of that faction's parties; for example, in the Spanish Civil War, the communist troops were backing the Republicans, while German and Italian troops backed the Nationalists. Spy Missions can also increase a Party's political influence in a country.

[17.42] Dissent

Dissent acts against the Political Party in power: the Ruling Party. If Dissent is allowed to build, it is likely to cause the Ruling Party to lose to a Party of another Ideology. In Authoritarian regimes that do not hold Elections, high Dissent makes it more likely a Coup or Civil War might happen, as well as localized Revolts of a more limited size.

Dissent also greatly harms your nation's Economic position, and undermines National Unity. Dissent causes a penalty in any type of Combat.

[17.43] Elections in Democracies

Parties are given strength in elections by both Popularity and Party Organisation. Proximity to a Faction member will strengthen an ideology (popular view) in that country's Elections (i.e. neighbors to Nazis become more fascist over time unless they have a balancing influence on the other side).

[17.44] Authoritarian Parties

If an authoritarian party is elected in a Democratic country, then a national crisis will begin. This is partly dependent upon National Unity, but the ruling Authoritarian Government will eventually suspend democratic processes through an Event "to save the country from the crisis." An Authoritarian Ruling Party will become strengthened while its opponents will become weaker. Less dissent from opposing parties means that National Unity improves.

You will continue running the country, but there will be a new set of Ministers that are Ideologically aligned with the Authoritarian Ruling Party and with different political ground rules.

[17.5] CAPITALS

Your Government exists within your country's Capital city – your seat of Government. This city is of strategic importance, because its capture will strongly impact your Victory Points, and usually your industrial base as well. Defeated Governments can leave their Capitals and take residence in an Allied Capital as a Government in Exile (See Case [18.5]).

[18.0] POLITICS

[18.1] EVENTS, DECISIONS AND LAWS

[18.11] Events

You will frequently see a pop-up message informing you that something (an "Event") has happened. Sometimes, these simply inform you of a new situation that you must take into account – it may change gameplay a little, a lot, or it might completely change the approach you are taking to the game.

Some Events require you to make a choice between one or more options. The choice you make will determine the effects from that Event, and these effects will appear in a tooltip if you hover the mouse over each option in the Event window.

Note to Paradox Veterans: Many of the historical Events you might have seen in previous versions of the game are now represented very differently. Events in the past were often scripted to happen at a particular time, in order to match history, but they often didn't react realistically in response to major changes from the historical timeline, such as an Axis victory against Britain. Decisions, by contrast, take the situation into account, and when conditions closely match the conditions that historically resulted in that event, the Decisions put it into action, or offer players a choice, even if the date isn't historically accurate. This allows for more flexibility and a higher degree of realism.

The function served by sliders in previous games has been replaced by Decisions and Laws, which may be familiar to In Nomine players. Laws and Decisions are options allowing you to enact policies that match your goals. Some are country-specific, while others are Ideology-specific. The two main differences between these and the way previous games have worked is that a) they are context-sensitive, and not rigged to fire at a certain historical date, and b) they do not "reset a time limit" which requires you to wait a year before making another similar type of decision.

[18.12] Decisions

Decisions are choices you make in order to steer your country's policy. They may impact military preparedness, economics, relations with other countries, or a variety of other things. One major difference between a Decision and an Event is that the player may decide when to enact the Decision. Potential Decisions are listed in the Diplomacy Interface.

Some Decisions are "reactive" to Decisions made by other countries. Once a country has made a Decision, a Decision option may be triggered for other countries.

In this way, the old interlocking Event trigger system is still used, but in a way that remains realistic according to the context of the alternate history you've developed in your game (i.e. the USA doesn't enact Lend Lease if Britain is not at war).

You will not see a Decision displayed as an option until its potential triggers have been met, which refer to most of the conditions required for it to be possible. At that time, it will appear in your list with a grayed-out checkmark next to it, meaning you can expect the Decision as a potential option in the near future. A tooltip will explain what conditions must still be accomplished in order for the Decision to become an available option. If and when you meet those conditions, the checkmark for the Decision will turn green. You may choose to make the Decision at any time by clicking the checkmark. You will be asked to confirm.

[18.14] Political Parties

This lists your political party along with their organinsational and polularity.

[18.2] LAWS

General Rule
Laws are nationwide policy options, and they are the same for every country. Some countries, especially Democracies, may not be able to enact some Laws (Censored Press, for instance) at certain times, or at all. There are restrictions on which Laws you have the political power to enact. These Laws are context-sensitive, which means you can't start the draft, for instance, until the public sees some reason for it.

This system makes preparing for war a lot easier as world powers begin to reveal themselves as a Threat. The more authoritarian your system of government, the less you need to worry about what the people want.

Commentary;
There will be requirements to be met before you can implement certain laws. Most of these have to do with neutrality levels, national unity, whether a country is at war, or even whether the ruling party is a democratic or authoritarian party. Because of these requirements, there are some democracies that will never be able to enact some of these laws (repression, for instance) because unless they become totalitarian, they probably cannot meet the prerequisites.

But generally even the western democracies will be able to enact the higher mobilization laws by the time war arrives, if not before. Being at war opens options for almost all of these laws.

Some law categories are incidental. More advanced education laws, for instance, is always what you would prefer, but only if you can afford it. That's a tradeoff – money for leadership. The same could be said for training laws – if you can afford to wait to get your troops and units, you'll benefit from the extra training. However, if you're in a desperate situation, minimal training may have to do. Editor's Note: Experience gain is one of those things that may get tweaked from time to time, so the usefulness of training versus combat experience may vary from patch to patch.

The press laws are generally not very important, and unless you're worried about what enemy spies are doing, or your government has become very unstable (perhaps because of spies), it won't give you much advantage to go for more oppressive laws. The civil laws are repressive in nature too, yet they do provide some advantages against spies, aid the ruling party in maintaining power, and reduce consumer goods need, all while they increase the likelihood of serious revolts.

Your industrial policy impacts things a lot, but the realistic choices for each country will be pretty well scripted. Unless you have high dissent, and not enough IC to overspend on consumer goods, there's not much point to anyone having the Consumer Product Orientation, which is only available if you're at peace anyway.

Generally, the choice between Mixed Industry and Heavy Industry focus is whether you are at war or not, though many players may be fine operating with a mixed economy even during war. Basically, the tradeoff for heavy industry requires more consumer goods during wartime in favor of better supply throughput, but CG needs during wartime aren't very high anyway, so for the most part it will benefit anyone who's at war.

You will always want to increase conscription laws as quickly as you're allowed, because in this version of the game there is no negative to any of the levels.

Obviously, the most important and far reaching of the laws you can enact are the economic category, which mobilize your economy for war.

There are plenty of limits on these, and so you'll generally be nearer to war before you can enact them. Plus, once you get there, you'll need the resources stockpiles to support the increased IC. Provided you have that, though, you will always want to increase your economic mobilization as quickly as possible because it opens up so many opportunities to make your military better than the other guy's. The other tradeoff is money – if you're short on it, you may not be wise to increase your economy unless you want to counteract the reduction in money with CG or supply spending – a realistic alternative for most countries. More on economic mobilization and management in the next chapter…

When you enact a new law, make sure to look for other things which are affected. Higher IC output, for instance, will need to be allocated, and you may have changed consumer goods need, etc.

Cases;
[18.21] Aside from the final military Mobilization, which is handled through its own button at the bottom right of the Politics Interface, most Mobilization (See Case [8.8]) options are controlled through Laws.

[18.22] As the world becomes a more dangerous place, more countries will find their Mobilization options opening up. Tooltips, which become visible if you hover your mouse cursor over the checkbox, will explain what must happen before you can enact that Law: a green asterisk ("*") means you have achieved that condition, whereas a red asterisk means you must still achieve it.

[18.23] If you are playing an aggressive power, you should keep in mind the effects your militarism will have on your enemies' ability to Mobilize.

[18.24] Effects of Laws

The laws affect a range of things, the laws and their options are displayed below.

Civil laws	Modifies
Open Society	Counter-intelligence -25%
Limited Restrictions	Consumer good during wartime -1% Counter-intelligence -10% Partisan Efficiency +1%
Legalistic Restrictions	Consumer goods during wartime -2% Partisan Efficiency +2%
Repression	Consumer goods during wartime -3% Counter-intelligence +10% Ruling Party Support +10% Partisan Efficiency +3%
Totalitarian System	Consumer goods during wartime -4% Counter-intelligence +25% Ruling Party Support +30% Partisan Efficiency +4%

Conscription laws	Modifies
Volunteer Army	National Manpower Modifer -50% Peacetime Manpower Modifier +25% Reserves Penalty Impact -75% Officer Recruitment -50%
One-Year Draft	National Manpower Modifier -25% Peacetime Manpower Rotation +20%
	Reserves Penality Impact -66% Officer Recruitment -25%
Two-Year Draft	Peacetime manpower Rotation +15% Reserves Penality Impact 50%
Three-Year Draft	National Manpower Modifier +25% Peacetime Manpower Rotation +10% Reserves penality Impact -25% Officer Recruitment +25%
Service by Requirement	National Manpower Modifier +50% Peacetime Manpower Rotation +5% Reserves Penality Impact -10% Officer Recruitment +50%

Economic laws	Modifies
Full Civilian Economy	IC -50% Money +15% Consumer Goods during peacetime -10% Resources -50%
Basic Mobalisation	IC -25% Money +5% Consumer Goods during peacetime -5% Resources -25%
Full Mobalisation	
War Economy	IC +25% Money -5% Consumer Goods during wartime -2%
Total Economic Mobalisation	IC +50% Money -15% Consumer goods during wartime -5%

Education laws	Modifies
Minimal Education Investment	Money +10% Leadership Modifier -15%
Average Education Investment	
Medium-Large Education Investment	Money -10% Leadership Modifier +10%
Big Education Investment	Money -25% Leadership Modifier +20%

Industrial Policy laws	Modifies
Consumer product Orientation	Consumer goods during peacetime -1% Daily Dissent Change -0.2 IC Efficiency for Production -5%
Mixed Economy	Consumer goods during wartime -5% Consumer goods during peacetime -5% Supply Throughput -5%
Heavy Industry Emphasis	Consumer goods during peacetime +10% IC Efficiency for Production +5% Supply Throughput +10%

Press laws	Modifies
Free Press	Tendency to drift due to internal factors +10% Counterespionage -10%

Press laws	Modifies
	National Unity Changes +20%
Censored Press	Tendency to draft due to internal factors +5%
State Press	Tendency to draft due to internal factors -5% Counterespionage +5% National Unity Changes -5%
Propaganda Press	Tendency to draft due to internal factors -10% Counterespionage +10% National Unity Changes -10%

[18.3] MOBILIZATION

General Rule
Military mobilization is the final step in the process, occurring when you push the large mobilize button at the lower right of your political interface.

You can do this even before going through any of the steps of economic mobilization, but there's not really any reason to do so unless you suddenly become concerned war is going to happen before you can economically mobilize. Some western democracies may face this difficulty, because their neutrality may not allow them to undertake some of the steps of economic mobilization before war arrives.

The act of mobilizing early may have a serious impact on relations with a neighboring country because of its perception of threat, but it may have a much lower impact on relations with a country across the ocean. Because it is isolated by distance, the United States will not be very strongly influenced by any of these events. If you're an aggressive country, and you're presumably trying to "sneak up" on your potential enemies without allowing them warning before war, you may want to delay this step, which is often recognized as the final step before war.

Cases
[18.31] At the bottom-right of your Politics Interface is a button that allows you to Mobilize your Reserve Units. This military Mobilization is completely separate from the Industrial Mobilization accomplished through Laws (See Case [8.8]).

[18.32] There may be internal political prerequisites before you can Mobilize, or you may suffer political consequences if you Mobilize when the public does not see a need.

[18.33] You are automatically de-mobilized when you are at peace, unless you had previously mobilized while at peace – then you must manually decide to de-mobilize.

[18.4] NATIONAL UNITY

General Rule
National Unity is how a country commands support for its Policies and marshals Resources (mineral, military or Manpower) to its own defence. A disunited country is weak and vulnerable so, obviously, it is always better to be united.

National Unity is affected by Government Decisions, War losses, and Strategic Warfare. Some Laws or Decisions may affect National Unity even though they're not the "smart" choice – i.e. Soviet Purges create higher National Unity but hurt the country in some ways. Some Laws will negatively affect National Unity and/or Dissent.

A country whose National Unity drops too low may suffer a Revolt, or it simply may see a change of Government through an Election. Naturally, a Party that has allowed the National Unity to fall so low is not likely to remain in power after an Election.

[18.41] Coups and Civil Wars
A country with low National Unity is at risk for a Coup or Civil War, which might happen through a triggered Event. This is more likely if there is an opposition Party that has a high Organisation rating. Well-organised opposition is a recipe for disaster for a Party that is having difficulty maintaining National Unity. Though it is rare for a ruling Party to have low National Unity and high Party Organisation, this situation would make a Coup or Civil War less likely.

A Coup may occur when a strong opposition Party decides it has a good chance of succeeding against a weak ruling Party. A Coup is more likely to happen in a non-Democratic country, as Elections usually balance out Democracies before conditions reach the level where a Coup might occur.

Coups may ultimately fail, which may present the possibility of Civil War. Keep in mind that ahistorical Civil Wars are very unlikely to happen in an un-modded game of HOI 3.

[18.42] Breaking
During wartime, a nation's National Unity can become so low that it Breaks. When this happens, a Government has a choice: it may Surrender, in which case the conquering country may choose whether to Annex the country or create a Puppet Government, which is different from an Occupation Government. However, the conquered country also has an option to create a Government in Exile from the remnants of the country's Government and Military.

If this occurs, they relocate to the Capital of an Ally. Any Military units still engaged in combat in the homeland (i.e. which are not geographically separated from the capital) will surrender. Unoccupied Provinces (Hexes) will continue to fight on, under the leadership of the Government in Exile. Other Governments may also choose to send troops to support the defence, but if they don't, these Provinces (Hexes) will quickly fall prey to the victorious army.

The Breaking formula takes into account the percentage of the country's Victory Points (important Provinces (Hexes)) that have been lost; it then compares that to the National Unity and the level of Troop commitment from Allies as a percentage of the defending country's army, and then applies some more complicated probabilities. Only Provinces (Hexes) in the home country count for purposes of Breaking (i.e. colonial territories do not).

Allied troop commitment impacts your Strategic Warfare score, not your chance for breaking directly, although breaking is partly dependent upon your Strategic Warfare score.

[18.5] GOVERNMENTS IN EXILE

[18.51] A Government in Exile (GIE) is formed when the home country Breaks but the Government chooses to continue to fight after moving its Ministers to a friendly same-Faction country.

[18.52] When a Government in Exile forms, all units within the home country are eliminated, but any units outside of the home country come under the control of the GIE.

[18.53] If there is another Alliance at war with the conquering country, the GIE will move to that country as a result of being "hosted" by the Alliance Leader. Otherwise, the GIE goes dormant until there is a war between someone and the conquering country.

[18.54] If an Alliance Leader makes peace with the country controlling the home country, the GIE may move to another Alliance which is at war with the controlling country.

[18.55] The Ideology of the GIE will always conform to the Ideology of the Alliance Leader which hosts it, and the Alliance Leader's Capital is assumed to be the GIE's Capital.

[18.56] The GIE gets five IC, as well as a small amount of Manpower from exiled citizens joining the cause, which together can be used to Produce GIE-owned military units within Technology Restrictions.

[18.57] The Technology Restrictions remain the same as before the formation of the GIE, but it can use IC to Research gradual improvements, though it is often better to instead purchase Licenses to build higher Tech units. The units Produced by the GIE will have the Organisation and Doctrine levels of the hosting Alliance Leader.

[18.58] If the home country is Liberated, the GIE ceases to exist and the Government is reinstated in its home capital; if the home country is re-occupied by a different Alliance which chooses to install a Puppet State, in which case the GIE merges with and becomes the Puppet Government under the control of that Alliance, along with any military forces; or if the Alliance Leader hosting the GIE makes peace and there is no other Alliance also at war with the controlling country (i.e. there is nowhere left to move).

[18.59] If the conquering government loses control of the GIE's homeland (i.e. it gets Annexed), the GIE ceases to exist.

[18.6] OCCUPATION, LIBERATION & PUPPET STATES

General Rule
War often involves conquest, which may involve occupation. The handling of occupation policies is handled later, but while we're discussing diplomacy let's also talk about how to use diplomatic tools to decide the fate of the countries you take over.

Conquering all of a country's territory may allow the possibility of annexation. This may be the choice if you just want to take over the land, along with all of its resources, factories, manpower, etc. It will be part of your country, and you'll be responsible for its military security.

Sadly, you'll also be responsible for a lot of anger from patriots inside that country who want to be free, and who are willing to cause trouble and kill your soldiers as a form of protest. This is the most effective way to utilize that country's resources for your own purposes, but only if you're willing to put up with a higher level of revolts.

There are times, however, when you may want to have that country act with relative independence, but still be under your control. In those cases, you can puppet them (place a government in power which listens to your wise counsel). They will raise their own armies, and have their own economy, but their populations will be more likely to support you than oppose you because they have their own people telling them what to do and how to fight. The fact that you're there, telling their leaders what to do, is less important than the nationality of the guy in charge.

As you re-take territory that your enemies had previously conquered, you may have the opportunity to liberate a former ally of yours. This allows them to re-join your war, and to begin helping you again with their own resources and soldiers. But before you push that button to liberate a country and invite their government in exile back, you should wait until you're sure you can hold the territory in question. Otherwise, you may enter a cycle of back-and-forth liberating, and find you have a Government in Exile on your hands again.

Commentary;
Once you start to conquer enemy territory, you must set an Occupation Policy to govern the provinces you've taken. Until you personally address this issue, the AI will assume you'll impose a Collaboration Government, which is the least restrictive of all the occupation policies. You can set your own according to whether your priority is to draw IC from the territory, in which case you'd want a fairly repressive occupation, or to make use of native manpower or leadership, both of which are more available the less restrictive you are.

Until you actually capture provinces with towns large enough to supply some of these materials or resources, there really is no urgent need to change from the default type. Therefore, why assume the increased risk of revolt without a good return in IC? Once you've captured something valuable, it's important that you set the policy so you get what you want from the land.

[18.61] Occupation Governments & Policies
See Case [18.9].

[18.62] Liberating Countries
If your Faction is hosting a friendly Government in Exile and you have since recaptured some of that country's Owned territory, including its Capital, then you may Liberate the country. The GIE will reclaim its rightful place in control of its own Government on its own land, and will from then on operate as the individual country, like it was before. Simply click the "Liberate Country" button at the bottom-right of the Politics Interface.

[18.63] Puppet States
If you Control another country, you may Release that country by clicking "Create Puppet" in the Politics Interface.

This creates an "independently" governed country in its own territory, but one which is largely controlled by your country – it is an Ally, and allows you Transit Rights through its country. Its foreign policy is yours.

A Puppet State is always Allied with the country which established it. They will give discounted Trades to their master country. Any of the Puppet State's own military units remain under its own control.

Countries which become puppets do not lose all of their military strength any longer. An infantry division will appear in each province with IC, so that these countries have some capability of defending themselves, as well as the ability to contribute to their master's military operations.

[18.64] When attacking from an allied territory, contol of the conquered province goes to the ally. In order to control a territory attack from a province that you own or from a puppets.

[18.7] PARTISANS & REBELS

General Rule;
There are various types of Partisans in HOI 3. The types of Rebels are Partisans, Nationalists, Patriots, and Disgruntled Rabble. You'll see Partisans in conquered lands and Disgruntled Rabble at home. The actual type of Rebels matters little, with the exception of Partisans, who actually become enemy units under the control of another country or Government in Exile.

Commentary;
Suppression of rebels is an art. You need to space out your units which have a suppression value, and keep an eye on the Revoltrisk Mapmode to see where you may need to station units, or send them to ward off a spike in rebel activity. If a rebellion actually does break out, respond quickly, because these rebels aren't kidding.

The presence of an actual rebellion should draw response from all nearby units, because the reality of one rebellion outweighs the possibility of others. As soon as it's defeated, move your units back to their stations so they can continue suppression efforts.

Nationalism is always going to be present in an occupied province unless it's a core for you. You will always have to worry about the possibility of partisan uprisings, though you can counter this or increase this risk according to your occupation policies. Keeping some forces to add suppression and to be ready to defeat partisans is wise. The higher the revolt risk, the more forces you should ideally hold back.

A brigade of Military Police actually has the best chance of preventing a revolt (i.e. suppression). However, if/when the revolt breaks out, it's an individual detached brigade without much combat power, and so it's wise to team it up with another brigade.

Garrisons have limited suppression power, and they can be used instead of military police, or in concert with them (say, one of each?).

Infantry and cavalry both have some limited suppression capability, plus they are more effective in combat. If you can spare a limited amount of either for garrison duty (cavalry is best, as it's faster), place one division centrally so that it can respond quickly to the site of a rebellion. It doesn't need to be adjacent, just near enough to come running.

[18.71] Revoltrisk
Your Revoltrisk Mapmode provides a good overall guide to where Partisans or Rebels might pop up. However, the Province Interface provides detailed information on the actual risk, as well as the type of Revolters you might see in that province. Various factors may increase Revoltrisk in a province (best viewed using the Revoltrisk Mapmode, but there is also a Revoltrisk Alert), including Dissent and Nationalism from recent Occupation.

Hover your mouse cursor over the value next to the rifle icon in the Province Interface (Revoltrisk) and it will show a tooltip revealing the type of Rebels causing trouble and the total Revoltrisk. The "minimum Revoltrisk" shows things such as Nationalism, which always makes Revolt a risk.

[18.72] Suppression
Certain types of Brigades (Military Police, Garrison, etc.) are good at Suppressing Partisan and Rebel activity by using their Suppression values; having those units present makes Revolt less likely. The units will also be available to fight in case the Suppression doesn't work. Some players will prefer to use single Brigades of these types for keeping order behind the lines.

[18.73] Partisan Efficiency
In your country's Intelligence Interface, you will see a Partisan Efficiency rating. This is in part a measure of how much your country is hated, because this value determines the Experience level of Partisans who will rise up to oppose you when you Occupy another country.

[18.8] WAR EXHAUSTION, SURRENDER, PEACE & ANNEXATION

[18.81] War Exhaustion
Countries that have been at war for a long time will have increased levels of War Exhaustion (WE), which makes them less willing to continue. Things such as combat losses, the loss of territory, and Strategic Warfare will impact the country's War Exhaustion. This has no effect during war, but once peace is made, countries with high War Exhaustion will be less willing to join another war. WE is expressed as an increase to the country's Neutrality value once it is no longer at war. This WE-influenced Neutrality value will reduce over time until WE is gone. War Exhaustion builds gradually during wartime. Once peace is achieved the WE will lessen at a rate faster than it built up.

[18.82] Surrender, Peace & Annexation
Because of Governments in Exile, there are sometimes no Surrender negotiations for Faction Members in HOI 3. Also, World War II Combat was "total warfare," with no consideration for "separate peace" or "partial victory" negotiations; some Peace treaties are allowed, but are generally handled through Events. It is assumed that even if a country has been entirely occupied, there will always be some members of the Government who escape and choose to fight on. Therefore, no Government actually goes away in HOI 3 until the game is won with a final victory by one Faction over another.

Use the diplomatic screen, click on a country, then wait for the tooltip on the bar just above the current relations number. That will tell you how many of it's important cities are occupied along with their national unity. If the occupation is higher than their national unity, they will surrender. This surrender threshold is also used for events such as the Bitter Peace and the French surrender creating Vichy France.

[18.83] White Peace
Countries that are not Members of a Faction may fight and come to peace negotiations on terms of a White Peace, where there are no territorial changes and the war ends;

[18.84] Annexation
Annexation of disputed Core territory, in which the victor gets to take those Provinces (Hexes) they believe to be rightfully theirs; or Total Annexation, which only occurs if the entire country has been conquered.

[18.9] OCCUPATION POLICIES

General Rule;
When an Alliance takes over Provinces (Hexes) or countries, it must set an Occupation Policy to determine what kind of rule it will exercise over the conquered Provinces (Hexes). Generally, the more exploitative the imposed Occupation Policy, the more Resources are available to the conquering country, but the available Manpower is less and the Revolt Risk (Partisans) is higher.

National Decisions will restrict certain countries in terms of which Occupation Policies they can enact.

Cases;
[18.91] Collaboration Government – A Collaboration Government uses members of the existing government who are willing to run the country for you, and is the least oppressive of the Occupation Policies. It causes the lowest Revolt Risk, but also the lowest levels of Production, while Manpower provided to the Controlling government is highest as people are willing to collaborate by joining the military.

Effects
Local Partisan Support: 1%
Local Manpower Modifier: -25%
Local Leadership Modifier: -40%
Local Industrial Capacity: -100%

[18.92] Military Government – A faceless, generic military commander is placed in charge of the conquered Provinces (Hexes) and runs them with military efficiency, but without total repression and the majority of civil administration is left as-is. This increases the benefit in Production for the conquering power but is moderately more bothersome for the people, who have an increased likelihood of revolt. Manpower is also moderately less.

Effects
Local Partisan Support: 2%
Local Manpower Modifier: -50%
Local Leadership Modifier: -60%
Local Industrial Capacity: -75%

[18.93] Full Occupation – The military takes total control of the Provinces (Hexes), using a heavy-handed police presence with civilian administrators brought from home. This is more likely to cause revolt, but it also produces much more in the way of Production. It is less likely to provide Manpower for the conqueror.

Effects
Local Partisan Support: 5%
Local Manpower Modifier: -75%
Local Leadership Modifier: -80%
Local Industrial Capacity: -50%
Requires Repression or Totalitarian System

[18.94] Total Exploitation – Every effort is put forth to use military administrators and police repression to squeeze every bit of Production out of the conquered Provinces (Hexes).

Naturally, this treatment breeds rebellion, and few natives are willing to join your Manpower pool.

Effects
Local Partisan Support: 10%
Local Manpower Modifier: -100%
Local Leadership Modifier: -100%
Local Industrial Capacity: -25%
Requires Totalitarian System

[19.0] INTELLIGENCE & DETECTION

Commentary;
You will have level 9 intelligence upon all of your provinces, but also on provinces where you're attacking. You have level 3 intelligence on border provinces in enemy or neutral territory, and moving aircraft or other units through enemy territory will allow you level 2 intelligence on provinces adjacent to their movement.

Ships offshore will gain level 2 intelligence on provinces bordering their seazone. You can also improve your intelligence levels by assigning spies in a country to conduct Military Intelligence. This can tell you what their force levels are (roughly), and occasionally you may see where a certain unit is stationed.

Remember, your intelligence from spies, signals, or lower-level observation (level 3, for instance) can be wrong, wrong, wrong! You may think you're facing just two divisions, and your attack may find five. Or the opposite is possible – you might have an easy time against a force you thought was much larger. You also don't know what is behind the lines unless you're scouting with air units.

Scout out enemy provinces with ships or planes before you send an invasion force into a landing site, or if you need to know where your enemy's units are for any other reason.

Remember your combats, if you can. Remember what you faced, what special brigades were attached to the units, who the leaders were.

These types of information may come in handy later if you face these units again. Learn from the enemy and use your knowledge to defeat him. Even the computer AI may use different tactics from country to country (and from patch to patch).

When the enemy starts to move, depending on your level of intelligence, you may see red arrows indicating the approximate direction of their travel.

[19.1] INTELLIGENCE & ESPIONAGE CONCEPTS

General Rule;
Any country has three sources of Intelligence: Ground Reconnaissance, Signal Intercepts, and Spies. Provinces (Hexes) have nine levels of Intelligence, which affect how much you can know about the enemy units and conditions within the province.

There are five levels of Intelligence for military units.

[19.11] Ground Reconnaissance

This type of Reconnaissance (Recon) involves only what can be seen from the ground. Therefore, there is an obvious limitation as to how distant your detection can be from Allied observation sources. It is assumed that any place outside of the Fog of War limit will allow you Detection Level 1 on every unit, updated every hour. Several factors can increase the Detection Level on these units.

[19.12] Radar Stations & Signal Intercepts

Radar Stations are not just for "radar," as they also act as Signals Intercept stations. They have a limited range for Radar and Signal Intercepts, but a farther reach than simple observation. This range is roughly two regions beyond your nearest unit or observation point. The resulting Detection Level is less certain than other methods, however. For instance, you might only deduce the Region a unit is in, rather than a specific Province.

This type of Intelligence can be improved with Technology advancements, and by improving the level of the Radar Station (i.e. building another level). Higher-level Stations can see and Detect further from the point of observation. Headquarters units are easier to detect than other units through Signals Intercept. The higher the level of HQ, and the higher the level of Radio Technology being used, the more likely they are to be detected.

Both Radar Detection and Signals Intercepts can also give you information on Ships at sea (See Case [33.2]).

[19.2] SPIES & ESPIONAGE

General Rule;
The Espionage Interface allows you to select a country, and then to select what level of Spy Activity you would like to initiate in that country – essentially, you're setting relative priorities.

Commentary;
Where you concentrate your spies will be determined by your Risk Assessment. There's no reason to have spies in a country you don't care about. But you have to be sure who you should care about (i.e. Who potentially poses a threat to you, or even who you wish to pose a threat to).

If spies are at capacity in a country (i.e. at 10), you're wasting leadership producing more. Shift that leadership into other priorities.

Sort by the number of spies to see if your spy assignments match your priorities, and drop the assignment priority if it's too high.

If you have more than one spy in a small country that you're not ready to attack, that's probably enough. Set priority to zero, and check back occasionally to make sure you haven't lost the guy you had there. You always have the option of changing message settings to notify you when a spy is caught, but if you've got a lot of spies in the field during wartime, this may start to seem more like spam than useful information.

If you set too many countries as priorities for spy assignments, none of them will get much attention. The quickest way to increase the number of spies in a country is to set them to top priority, and drop everybody else to level 1 (red) or zero.

Remember you can use a quick trick to adjust your spy priority settings – use left-click to increase the rate of spies to that country, and right-click to reduce. It's easiest to adjust your priorities if you order the list according to existing priorities, and decide which ones are set correctly and which aren't.

Cases;
[19.21] Your available Spies will be sent by the AI to these countries based on how you've prioritized the country, and how much you've spread out your Spy commitment. Setting no priority in a country means you will send no spies there.

[19.22] The more Spy Points you have in a country, the more likely they are to find the information you're looking for.

[19.23] This is negatively modified by the target country's Counter-Espionage commitment.

[19.24] Discoveries and Detection by Spies are calculated monthly. When a country Surrenders, some of your Spy rings may be lost in the turmoil. If you are the Occupier, then the surviving Spies convert to internal Counter-Espionage; otherwise, your Spies are transferred into the Occupying country.

[19.3] ESPIONAGE SETTINGS

General Rule;
In the Intelligence Interface, you may choose one of several options for your Spies in each country. They are listed in the cases below:

Commentary;
If no specific Mission is set for Spies in a country, those Spies will perform some of each of these types of Missions, randomly. It's actually preferable at times to leave them unassigned, as you'll maybe discover something you didn't know you wanted to know. Obviously, this is more likely to be useful during peacetime, when you don't have more urgent missions for them (and when you probably have more time to pay attention to what your spies are finding). A similar alternative would be to switch your spies back and forth between different missions during peacetime (this can work during war too, though you may prefer to watch military information) so you can get a broader idea of the selected range of issues. If you have time to micromanage this, it's actually more effective than setting to "none" because a spy set to none is actually "laying low" and not actively gathering intelligence.

If you're trying to get into a war (for offensive or defensive purposes), you can use spies internally to reduce your neutrality or raise your national unity (important for some mobilization steps). Externally, you can use an array of spy missions, including disrupting research or production.

Supporting rebels is not likely to be useful during peacetime, and neither is supporting "our party." But lowering an enemy's national unity can be useful in preventing certain necessary steps toward mobilization. It can't absolutely prevent war, but it can help prevent their preparedness for war by keeping them from getting military or industrial forces completely prepared.

Unless you're intentionally manipulating a country's political situation, there's not much point to the political espionage setting, because it's merely passive. You may try setting it every once in a while just to see if there's an opportunity to back a rival party, just to see what havoc that might cause.

The tech espionage mission allows you to see what their research priorities are. This is useful as a "one-shot" glimpse, but once you've observed it and assessed what they're aiming for, they're not likely to change priorities entirely. You might look once per year, just to get an idea of their strategic thinking.

Sometimes it's as easy to neutralize spies from their home country as in your own. If one particular enemy is pestering you, set your spies at home to counter-espionage missions, and also send counter-espionage missions into their own territory. Double-team them!

If your opponents are doing something clever with their spies (either to you, or you may be able to detect their "hand" in another country, too), you can keep them busy at home by massively targeting them in ways they care about. This is more likely to attract the attention of a multiplayer opponent than the AI, but it's worth trying in any case. Try sending spies to kill their spies (counter-espionage), or to disrupt their production, or lower national unity, etc. Do something they have to respond to, and they may have to change the focus of their own spies and try to counter your moves instead.

Cases;

[19.31] None
Spies are in a Passive role, gathering occasional Intelligence, but not taking risks that might get them caught (not that this will always protect them). The Intelligence they gather might be on any subject.

[19.32] Counterespionage
This helps you track and kill opposing Spies from the inside.

[19.33] Information
Military - Find the current strengths, organisation, and location of units in the target country.

Technical - Seek information on what the target is Researching.

Economic - Discover the target country's Trade deals, its current mobilization level, units under construction, etc.

[19.34] Political
Political - Your Spies will infiltrate Political groups of your Ideology, and then use them to agitate against the ruling Party and lower National Unity, making Surrender or Coups more likely.

Support Ruling Party - Perform propaganda and organisational activities to strengthen the current Ruling Party in the country, regardless of the Ideology.

Support Our Party - Agitate inside their country, trying to strengthen the Political Party that is closest to your own Government Ideology.

[19.35] Disruption
Disrupt National Unity – Perform political agitation activities that will ruin popular trust in the Government.

Support Rebels – Increases the Revolt Risk for Partisans in Provinces (Hexes) where a country has occupied territory.

Disrupt Research – Your Spies will try to tamper with or destroy vital parts of a Research project, hopefully turning their scientists and engineers onto the wrong path.

Disrupt Production – These are "sabotage" missions that will cause delays in the target country's Production of units or other items.

[19.36] If no specific Mission is set for Spies in a country, those Spies will randomly perform some of each of these types of Missions.

[19.37] Spies in other countries can be set to Passive or Active. An Active Spy is more likely to find information, but he's also more likely to be discovered and killed. Setting spies to "None" sets them in Passive mode, which is one way to try to preserve them for when you really need them.

[19.4] INTERNAL ESPIONAGE FUNCTIONS

General Rule;
You may also place your own Spies in your own country. There is a Priority setting for your country (in the upper left of the Intelligence Interface), which is how you determine whether and to what degree to concentrate on having Spies at home.

These internal Spies can be used for one of three missions listed in the cases below.

Cases;

[19.41] Counter espionage
This helps you track and kill opposing Spies who have been placed in your own country.

[19.42] Support Ruling Party
Perform propaganda and organisational activities to strengthen the current Ruling Party in the country, regardless of the Ideology.

[19.43] Lower Neutrality
These Spies are employed in the business of leaking information and planting stories in your own country's newspapers and radio programs about the Threat posed by other countries, which can lower your country's Neutrality rating.

[19.5] DETECTION LEVELS

[19.51] A province has nine Detection Levels (what is known about the province) which will reveal a variety of things about the province, according to your level of Intelligence.

[19.52] A Unit has five Detection Levels, revealing increasing degrees of information, which may be discovered as a result of the province Detection Levels, or through direct Military Espionage or other means.

[19.53] When any level of information is discovered, that information is "stored" until either a new detection check is done and the information is lost or it is already detected at level 3 and is redetected at level 3 at an alternative location.

[19.54] If a unit is detected at level 1 or 2 in one region and moves to another region, the odds of the detection level falling to 0 are higher the next time a detection check is done. These values are saved.

[19.55] Detecting a unit generally reveals little more than the region it is in. It is possible for a unit to be detected at level 1 or 2 in more than one region (obviously, both can't be true).

[19.56] Note for AI purposes that the closer a detected unit is to the front line, the more possible ways there are to detect it, so this information may be considered more reliable than for units farther away from the front.

[19.6] DISPLAY OF DETECTED UNITS

[19.61] Units Detected at a relatively high Detection Level are visible on the map.

[19.62] Detected units are displayed as though they are in the capital of the Region where they're detected; however, they may actually be one or two Provinces (Hexes) away, within that Region.

[19.63] They will initially be marked as "believed reserves."

[19.64] If a unit appears on the front lines, within one province of friendly observers, it is assumed that it may have been the unit previously spotted behind the lines (if all Detected information matches), and the previously spotted unit will disappear.

[19.65] Units observed to have left the front lines are moved to an assumed position within the Fog of War but within the same Region. Eventually, these units will be removed as it cannot be known whether they're still in the same area (i.e. the Intelligence will decay).

[19.7] RECONNAISSANCE BY FIRE

There's a military technique called "reconnaissance by fire," where a small unit moves forward and attempts to draw the enemy's fire, thereby exposing what resources the enemy has. This concept works in HOI 3 – you may move a single division forward into a brief skirmish.

By ordering an attack along the border, which you can stop after one hour with little consequence, you will have discovered what enemy units are present (you did look at the battle interface before stopping the combat, didn't you?), and you will have gained level 9 intelligence on that province. After one hour, you won't have lost much of your strength, even if the combat was at outrageous odds. You will have lost your entrenchment, which may or may not be important to you.

[19.8] COUNTER ESPIONAGE

[19.81] Spies set to Counter Espionage kill every foreign spy they can find.

This is incredibly useful for maintaining a high quality spy network. This is the most common mission for domestic spies, due to the tendancy for the AI to use spies to sabotage your research projects.

[19.82] It is also usefull in an offensive role however. At first if the enemy has a large number of foreign spies in their country you will actually help the enemy by killing large numbers of them. The chance of what countries spy you find and kill seems to be random, but you will eventually begin to kill domestic spies.

[19.83] Once those spies are killed the oppossing country will not be able to conduct counter espionage until they replace their spies, which requires them to spend leadership, and allows you to conserve leadership since your own spies are much less likely to be killed.

[19.84] Counter espionage also seems to have an easier time killing new arriving spies rather than entrenched old spies.

[19.85] Another observation is that counter espionage seems not to target spies of your ally.

[19.86] Pros:

* Enables you to establish 'espionage superiority', leading to lowered leadership cost in the long run.

* Forces the enemy to dedicate additional leadership to espionage to rout spies.

* Can possibly be used to help protect weaker allies from espionage attacks.

* Allows spies to perform usefull missions longer.

[19.87] Cons:

* Kills all spies, which may actually assist the target country in the short term by removing penalties imposed by foreign spies.

* Waiting to eliminate target countries domestic spy network delays them from performing other more usefull tasks, like increase threat, or disrupt national unity.

* Can lead to an espionage war, forcing you to spend leadership on spies to establish the upper hand.

* Because the majority of foreign spies in the target country belong to you, they're much more likely to be targeted by the target countries remaining counterespionage units.

[20.0] SUPPLY & LOGISTICS

Summary
Veteran Hearts of Iron players are familiar with the concept of Transport Capacity, which has been eliminated in HOI 3 and replaced with a much more realistic system, as follows…

Also note that with Strategic Redeployment, your units no longer use the "beam me up" system, where they disappear and later reappear in another location, but instead in HOI 3 units are hurried along fast railway lines where they are visible and vulnerable to enemy air attack.

[20.1] INFRASTRUCTURE

General Rule;
Infrastructure is the system of roads and railways which make it easier to get from place to place without getting your feet all muddy. Infrastructure greatly affects important things such as how quickly units can move through the province, and how efficiently Supplies can transit through en route to your units.

Commentary;
Infrastructure is a measure of how "built up" the territory is and, more to the point, how easy it is to transport military forces or supplies through the province. A simple "line-of-sight" to your supply source does not guarantee a unit will be in supply – there has to be sufficient "throughput" (which is supported by infrastructure) to allow enough supplies to get through for all the units reliant upon those roads or railways.

Yes, you can stack 100 divisions in one province, but if you do they'll start losing strength because you can only supply a few of them. Units which can't get supplies cannot fight attrition with reinforcements, nor may they recover organisation, if they've recently been in battle.

Units in countries which have low infrastructure will constantly be fighting to get enough supplies. On the long-term, the way to improve this is by building higher infrastructure, or building higher level naval bases if the theatre is overseas. On the short term, more highly skilled commanders at the corps level, and higher throughput technology may help. Sometimes, just letting units in a region rest may allow them to regain their supply, because units which are sitting still use supplies at a slower rate than those in combat. Another option would be to open a new source of supply nearby, which uses different the throughput from new provinces to transport supplies. This might be done by capturing a new naval base, or even constructing one along a friendly shore.

Long term combat strategy requires strong infrastructure channels through your country which can be used to get your armies where they need to go. Invasions of another country are made easier by strong infrastructure there, as well. On the other hand, you always run the risk of allowing your enemies to use your infrastructure against you if you are on the defensive. You should build infrastructure in areas you feel are secure, but where you expect to need to support large numbers of divisions. Once captured enemy territory becomes secure, it would be good to improve the infrastructure there, too.

The rate at which your units repair is also dependent partly upon the infrastructure in the province where it is. However, unlike previous games, the rate of resource production in a province can only be improved through technology.

Be especially careful while using "forward airbases," where the base is very close to the front lines, because these bases will draw upon the same supply throughput as the units at the front. You may find your air units and your land units are interfering with each others' supply.

Supply tax can be a serious drain on your Supply stockpile, so as your empire grows or as your armies move into enemy territory, your supply needs will gradually increase. It will get worse if rain or melting snow is causing mud along your routes. Supply is easier through provinces you own, (i.e. not in occupied territory).

If you're having systemic supply problems, like armies in Russian or Chinese territory often do, attacking only makes the problem worse, because it increases the draw on supplies. Resolve your supply issues first, and then attack. If there's no way to effectively solve the issue, then attack sparingly or invest your attack strength into trying to open better supply routes.

If you're wandering around behind enemy lines, it's possible to capture enemy supplies and make use of them yourself. You may collect those supplies moving through the province at that moment, or you may even be able to capture an enemy depot.

It's sometimes useful to take just a few days to prepare an army for a new offensive, because if you've just moved forward it's going to take a couple of days for the supply lines to adjust and fully prepare you to move forward unless you are willing to do so without a fully established supply line. Your units may also need to refill their 30-day reserves, and this period does well to restore any strength or organisation they may have fallen behind on, too.

Cases;
[20.11] A province's Infrastructure level is displayed in its Province Interface, which can be seen by clicking on the province.

[20.12] There is also a useful Infrastructure Mapmode that provides a good overview.

[20.13] Infrastructure represents how "built up" a province is, or perhaps "how civilized." Improving things like roads, railways, and communication networks in a province will increase that province's Infrastructure level.

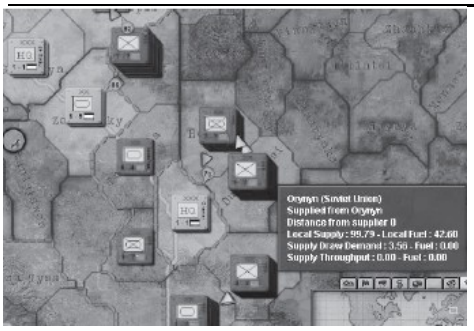
[20.14] Being the site of Combat, bombings, or other hostile attacks can reduce a province's Infrastructure level.

[20.15] New Infrastructure may be constructed in Provinces (Hexes) by clicking on the Infrastructure icon in the province screen, which will enter the Infrastructure construction into the Production Queue. It will take one year to produce and cost 1 IC. Once constructed, it will gradually come into being over the course of several days as a new point of Infrastructure.

[20.16] Damage to a province's Infrastructure will temporarily lower the effective ability of that province to meet its potential Supply Throughput.

[20.2] THROUGHPUT

General Rule
Throughput is the volume of Supplies you can fit through a province per day (which is enabled or limited by the Infrastructure level). Imagine two-ton trucks lined up bumper-to-bumper on a narrow, muddy road.



"However will we explain this to the Führer?!" The cut-off province of Orynyn shows a need of 3.56 Supplies, but a Throughput of zero, which is bad for the surrounded Unit (it will draw from its 30-day reserve at first).

[20.21] Your Supply Throughput is limited by the province with the lowest Infrastructure along the Supply path, because it becomes a bottleneck. Your Supply sergeants will try to route through other paths if one becomes too crowded, but on busy fronts, those other routes may experience traffic jams too.

[20.22] Some Technologies may allow you to increase your Throughput of Supplies per Infrastructure point.

[20.23] Technologies may also reduce each unit's Supply consumption.

[20.3] SUPPLY & SUPPLY LINES

General Rule
Every province, and every Unit within that province, draws supply from a central province in your rear area. Supplies for your armies must be able to move from their centralized Depot to your units without being intercepted. Supplies move along the Supply Line at the rate of one province per day, until they catch up to the unit they are supposed to Supply.

[20.31] Moving Units & Supply Lag
When a unit moves, its new location filters back through the lines, and new orders for Supply are directed to the unit's new location. This filtering process creates a lag, which may delay the Supply of the unit. It may take a day or two for the Supply Line to fully adjust and begin delivering supplies to the unit's new location.

If new units which require supplies move into a province, you may see the Mapmode colours turn from green (Supplied) to brown (partially Supplied), indicating that the rate of Supply cannot keep up with the increased demand from the additional units.

[20.32] Supply Routes
The Supply route is flexible. If the logistics management system cannot draw sufficient Supply through one province, it will search for other routes to deliver the necessary amount.

Supply can't go through lakes or other large bodies of water (except for straits, unless they're blocked by enemy naval units), so large lakes can be useful terrain features if you're trying to isolate or constrict supply to a group of enemy units. Examine the infrastructure map to see which provinces are obvious routes for supply, and use your divisions and airpower to try to cut off those routes.

Pretty sure it follows the shortest route from source to destination. Doesn't care about infra levels. I think you can determine the route by clicking on a unit in the source location and issuing it a movement order to the destination.

You can test verify it by looking at the supply map - you should see a green route for the most part from the source to your dest. - at least parts of the route should be green

[20.33] 30 day Supply Reserve
Units have a 30-day reserve of Supplies, which may become exhausted if the unit is constantly running ahead of its supplies.

[20.34] Overseas Supply
Overseas Supply is limited by the size of the Seaport taking in the Supplies. Sometimes, though, because of the sheer length of overland Supply lines, it may still be more efficient to direct Supply by sea.

[20.35] Supply Tax
Since the process of transporting Supplies uses Supplies (Fuel, etc.), there is a small Supply cost per province, which can add up over distance. If any part of the Supply Line route passes through Muddy Ground, that portion of the Line is impacted by an extra cost of transportation ("supply tax").

There's a higher supply tax for provinces you control but do not own (i.e. occupied land).

[20.36] Logistics Technology
Technology Research can improve your ability to move Supplies. It can also reduce the Supply consumption rates of your units, though good Leader Skills or Traits can do this as well.

[20.4] OUT OF SUPPLY

Units that are out of Supply will not be able to recover Organisation, will not Reinforce, and cannot Upgrade. What units are or are not in Supply is recalculated each day.

Units which find themselves temporarily out of supply may suffer from partial Unsupply, and will feel the effects of that inefficiency. These units will draw upon their 30-day reserve before they actually go out of Supply (i.e. Before they start feeling the effects).

Extended periods of time outside of Supply will seriously degrade the fighting Strength of the unit.

[20.41] Supply Mapmode
It is highly recommended that you examine the map in Logistics Mapmode to get an idea of how your Supply situation is being handled. The use of the Logistics Mapmode is explained in Case [4.77]. Overseas Trade Routes are marked with red and blue lines, extending the length of the Route.

[20.5] OIL & FUEL

HOI 3 separates the traditional Resource of Oil so that there is Crude Oil on the one hand and Refined Fuel on the other.

Crude Oil is a Resource produced at certain locations, which must then be transported back to the home country, where it will be Refined at a rate that depends on your actual IC, modified by Technology.

Refined Fuel will then become available to your units at home, and can then be transported to your units via Convoys or Supply Lines.

You can Trade for either Oil or Fuel on the world market, which is the preferred method of meeting your Fuel needs; it's cheaper than converting from Energy.

Every country has a limited ability to Convert Energy Resources to Oil, which basically takes the Energy and turns it to Oil using a wastefully inefficient ratio. It is preferred that you meet your Fuel needs by refining Oil.

[20.6] CONVOYS

Summary
If your country has territory in a location geographically separated from your capital, you will need to maintain some sort of Supply connection. If a connection is not maintained with the distant territory, you may quickly lose it during wartime.

Presumably, you will also have some military forces assigned there, which will need Supplies to operate.

As noted in B3.0, it is the buyer of a resource on the world market who must transport those goods on his own transport ships if the goods must be transported overseas.

You can only attach escorts to convoys while you're at war. Otherwise they sit in a pool, waiting.

[20.61] Assigning Covoys
To send Supplies overseas, you will need to build and assign Convoys. Conveys are made of collections of cargo ships and tankers that carry Supplies and Fuel in groups, making them easier to protect and more secure from enemy attack. Resource Trades also require Convoys. The country making the offer is also required to provide the ships to carry the Trade. If the Convoy cannot make it to the purchasing home country, those items Traded for are lost.

Convoys are managed through the Production Interface. At the bottom-right is a list of your current Trade Routes, describing the Resources being traded but not the Convoys themselves. Below that is a detailed list of all of your Convoys, both those for Resource transport and Supply transport. The list shows origin, destination, cargo carried, and the number of assigned Convoy points and Escort points. The number of Reserve Transports and Escorts are listed above the display.

In order to set up a Convoy, click on the "Create Convoy" button just underneath the Available Escort figure. A display will come up, asking what the Convoy's Origin will be with a list of origination Seaports. Once you select an Origin, you must select its Destination in the same way, by picking from a list of overseas Seaports Controlled by you.

Convoys can be created automatically, if you select that option, so long as you have available Convoy Ships. Escorts will be added, too, if they are available.

A formula is used to determine where along a Convoy Route the Convoy is actually located. If there are enemy Submarines or surface ships in the Seazone, there is a chance they may be able to attack the Convoy. If a Convoy is damaged, the Resources or Supplies being carried will be lost in proportion to the number of Freighters sunk.

If a Seazone starts to get hit with attacks by Submarines or a Convoy Raider, the Convoy management system will automatically adjust the Convoy Route to avoid the dangerous area. This is an ongoing process that should make Convoy Raiding a guessing game for the enemy.

Aside from the Convoy Escorts assigned through the normal Convoy system, Ships from your Naval Bases may also be assigned to Patrol and guard specific Convoy Routes. These Ships will travel along the assigned Route and try to engage any Convoy Raiders. They will also hunt for Submarines, but this will be more difficult than locating surface Ships. Any Class of Ship may be assigned to this duty, but Destroyer Flotillas are the most effective at finding Submarines. See Case [33.11] for more information on this Naval Mission assignment.

[20.62] Naval Bases

The size of the Naval Base determines how large the stockpile can be, as well as how fast it can replenish its stockpile.

It also determines how quickly Ships which Base there can regain Organisation and Repair their Strength.

[20.63] Convoy Escort Example (See Examples)

[20.64] Supply/Fuel Depots

A Supply Convoy can leave a Stockpile of Supplies at a Naval Base, from which all nearby Provinces (Hexes) will draw their Supplies. This will be the central distribution point, and all nearby units will have to maintain some kind of contact with this Depot in order to remain in Supply. There are no overseas Resource stockpiles – you must ship all Resources home, or they will be lost.

[20.65] Escorts

You will also want to build and assign Escorts to protect your Convoys from Raiding and Submarines. Otherwise, your Convoys may be sunk faster than you can build replacements.

Escort points are produced the same way as Convoy points, and Escort points are produced and assigned the same way as Convoy points.

[20.66] Logistics Interdiction & Convoy Raiding

Land units may interfere with enemy Supply Lines by physically occupying Provinces (Hexes) through which the Supply Lines travel. It is possible to capture or destroy Supplies when overrunning enemy Supply Lines. A portion of captured Supplies may be used for your own units – this may be just what you need if you've advanced ahead of your own Supply Lines!

Logistical Airstrikes can create additional hardship for the Supply of outlying units. This is done by Bombing the Infrastructure of Provinces (Hexes) along the path of Supply. These Logistical Strikes temporarily destroy Infrastructure and permanently destroy Supplies, meaning the enemy may be out of Supply for a day.

Convoys, of course, can be attacked at sea by enemy naval forces such as Submarines or Convoy Raiders. Aircraft can also attack Convoy Routes at sea. Sinking Convoys will interrupt the provision of Supplies by sea, and may place units out of Supply.

[20.7] FLEET SUPPLY

[20.71] A Fleet is always connected to a home Naval Base, and draws its Supply from that Base, even while it's not there.

[20.72] So long as the Base has sufficient Supply for the Fleet, and the Fleet has not surpassed its maximum range before returning to Base, it will remain In Supply.

[20.73] If it is unable to reach a Naval Base before surpassing its maximum range, its speed will slow considerably.

[20.8] AIRDROP OF SUPPLY

[20.81] There is an Air Mission for Transport Planes to deliver a limited number of Supplies by air to distant or cut-off units.

[20.82] The Supplies are drawn from what's available at the Airbase from where the flight originates.

[20.9] STRATEGIC REDEPLOYMENT

General Rule
Strategic Redeployment is a method of quickly moving units by train from one area to the next.

Commentary;
Land units using strategic redeployment will move at what's essentially a speed of 20, modified by the infrastructure level. They will lose 1 point of organisation every day. Supply costs will be double.

Theoretically, there is an infrastructure-based cap on strategic redeployment, because these units will still need supply (in fact, they will need more of it) to travel along their route. However, they will not need fuel, which may be a useful point.

Consider using strategic redeployment to move your units if you're short on fuel. Not only is it faster, but it also costs you supplies, rather than fuel. You can SR most places, including into combat, though that's risky because you also lose organisation. You can come to just within range, though, and then move forward.

SR reduces the organization of your units, so they will not be as prepared to fight. Because of this it's a bad idea to use strategic redeployment to carry your units straight into combat. But there's no rule against it, and at times it may seem a useful tactic to get your units into combat more quickly.

Cases;
[20.91] They may move ahead of their Supply line and will carry Supplies with them, which should hold them over until Supply can be re-established.

[20.92] Strategically Redeploying units will move them at a speed of 20 KPH per point of Infrastructure level, so actual speed will vary according to the Infrastructure levels along the route.

[20.93] These units will lose 1 Organisation per day, and will use twice as much in Supplies.

[20.94] Units that use Fuel, such as tanks, will not consume Fuel while being Strategically Redeployed.

[20.95] To strategically move a unit press Ctrl and select the unit.

[20.96] Strategic Redeployment does not cost fuel – it costs additional supplies. It also reduces organisation, and may also cause the unit to have an attack delay.

[20.97] Units move at a speed of 20, which is applied differently depending on the infrastructure of the province (just as with any other unit's speed).

[20.98] Can not SR through another country. One must SR to your border, then move into the country's province, then SR in that country to to the border, then move out of the country into the next province.

[21.0] MILITARY UNITS

[21.1] UNIT INTERFACES

[21.11] Unit Tooltips

If you hover your mouse cursor over a unit or a stack of units, you will see a tooltip explaining those units. If it is an enemy or neutral unit, your information will be limited.

Each Division will be listed, with its national flag above its military symbol (Infantry, etc). The unit name will be listed on the top line, along with its Strength level and Organisation level, and the Division's Leader will be listed below. If the unit has movement orders, the tooltip will tell you where it's moving to and when it will arrive, providing it doesn't get involved in combat first.

If they're present, air units will appear in the tooltip below the land units. They will show the unit type's icon, along with the unit's Strength and Organisation.

[21.12] Selecting Units

A unit must be selected and clicked on in order to be provided with instructions. You may also select a stack of units, or a number of units in different Provinces (Hexes), by drawing a Select Box (see below) around all the units you wish to command.

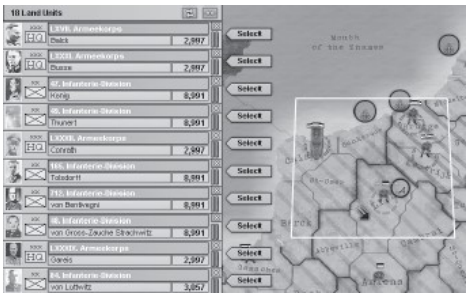
[21.13] Select Boxes

In a number of circumstances, it is helpful to be able to click and drag a Select Box across one or more Provinces (Hexes) in order to select more than one unit.

To draw a Select Box, pick one corner of a box that will cover the area you need, then hold down the mouse button as you drag your mouse to the opposite corner of the area you want highlighted. When you let go, any units within that box will be selected. If there are Land Units present, only those Units will be selected. If you want to select Air or Naval Units, select one of those Units individually first, and then draw the Select Box.

There are some orders which can only be given to a single unit at a time, to units in a single province or seazone, or to a single type of unit (such as moving into a seazone, which land units cannot do).

Any number of land units or other similar units may be given the same orders, but they may not be combined (see below).



Using a Select Box selects all the Units inside. You may issue an order to all of them, or choose the one you want by clicking the "Select" tab next to the Unit.

If you're trying to select all the air or naval units in a province, you can draw a select box (or "dragbox") around just the airbase, or just the naval base. If the province is too small to select just the base, first select any of the types of units you're wanting to select, and then use the select box. It should select only the air or naval units.

[21.14] Combining and Dividing Units

Either multiple selected fleets or air units may be merged into a single unit by using the "Merge" button on the Unit Interface.

Land Units may do the same thing, though only within the Divisional structure. If all selected Brigades can fit into one Division without exceeding the maximum number of Brigades, they can be Merged.

Single Brigades can be built and moved across the map, and can then be merged into a Division once they arrive by using the "Merge" buttons. Even a single Support Brigade may be built, but be very careful that it doesn't get into Combat, because it will Shatter almost immediately due to the lack of Combat troops to save it.

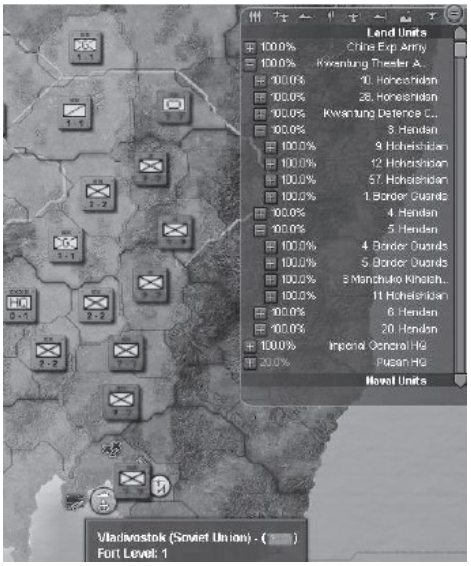
Units in Combat cannot be split or reorganised into different units. You would need to pull them out of Combat and reorganise them. Units who are Retreating also cannot reorganise until they're outside of the Combat zone where they were forced to Retreat.

[21.15] Outliner

The Outliner will help you keep track of your military's Command Structure, and assist in finding its location.

Click the small "+" symbol in the upper right corner of your screen, and the Outliner will appear.

At the very top, there are several selection tabs which will toggle on (green) or off (black) so you can select which parts of the total available information you want displayed in your Outliner. You can change it at any time in order to focus on more specific things. These items include generally help-ful things as a list of Units and your HQ Structure, battles underway, and so on.



The Japanese Outliner, showing some of its Headquarters, including border guards along the Manchuria-Soviet border.

[21.2] MOVEMENT

Commentary;
Pay attention to the speeds of land, air and naval unit types which might be mixed in with your divisions or groups. The speed (and other attributes also) of your least capable unit will determine the speed (and other factors) for the whole unit. If you need a fleet or land unit to move at high speed, detach any units which will slow it down (and find another home for them – don't just leave detached brigades hanging around).

If you've used a Select Box, however, the units you've selected may have different top speeds. In those cases, your units will each move at their Divisional top speed. Take this into account if you're trying to coordinate the arrival of units. It may be more exact (though more time consuming) to assign each unit a time to arrive in combat.

If you've got an open frontier, without a solid front line, movements are more fluid. Sometimes, intercepting land units with other land units isn't much different from making a "deflection shot" in air combat. You must make an educated guess of where the enemy unit is heading, and how long it will take him to get there, then plot your course to arrive where you think he's going so you'll be in his way once he gets there.

Cases;
[21.21] To move any unit, it must first be selected, and then you must right-click on the province to where you want them to move. You will see an arrow appear (blue for normal movement, red for attack), indicating the path chosen by the computer to reach that destination; the computer will always choose the path that will take the least time, even if that's not the path you want, and perhaps not even the shortest route according to distance. Higher Infrastructure always allows movement to be more rapid than through low Infrastructure areas, or sometimes through areas with complicated Terrain.

[21.22] If you command movement for all the units in a Select Box, they will all move to that location, regardless of which province they're in. Make sure this is what you want. Keep in mind that all Divisions move at the speed of their slowest Brigade; this is sometimes modified if there is an Engineer Brigade present.

[21.23] If you command a land unit to move into a province where an enemy unit exists, you are ordering an attack. HOI 3 assumes "movement is attack," (See Case [29.1]). Those Units will immediately enter into Combat because the men on each side would already have been near each other, and those moving forward would quickly meet enemy skirmishers.

[21.24] Complex Movements

If you do not want your units to follow the default movement path selected by the computer (the "shortest-time route"), then you can override it. This will require movement in "legs" – multiple parts to your path. Set the first path normally: select a province or seazone to which to move that is close enough to your destination. You may have to experiment to find the right path. Then, once you've set movement close to where you want, draw the next leg of the path by holding down the "Shift" key on your keyboard and right-clicking on your final destination.

A Japanese Motorised Unit takes a circuitous route by selecting each leg of its journey using shift-right-click.

Also See Case [29.11] (Movement/Attack Interface) for more information about using Control-Right-Click to give more specific commands to your Land Units.

[21.3] ATTRITION

General Rule;
Manpower is important both for construction of new units and for Reinforcement of existing units. Manpower is reduced by attrition. This may increase in hostile conditions or when units are Out of Supply. See Case [10.1] for more information about Manpower.

Cases;
[21.31] When you click on a Division/Brigade (click again to cycle through multiple Divisions in a stack), the Land Unit Interface will appear in the upper left-hand corner of the screen. The attrition a unit suffers is displayed, as a percentage, next to the province name.

[21.32] All units suffer a level of attrition due to illness and other standard causes. This value is normally less than 1% and is not shown on the attrition display.

[21.33] In some cases the unit will suffer exceptional levels of attrition due to weather. Any province where the temperature is above 30 degrees Celsius, or below -10, your troops will experience additional attrition. (+ 1%)

[21.34] There are commander modifers which can reduce attrition caused by severe weather. A commander who is a Winter Specialist Reduces attrition in frozen and snow by 50%. If the commander is a corp commander it can have a 25% reducing affect on its subsequent divisions. Example : A division in snow can suffer 1% attrition, this is reduced to 1/2% by this commander – or 2/4% if the divisions corp commander is a winter specialist.

In Artic terrain the attrition can be up to 4%, its assumed a winter specialist will reduce this to 2%.

[21.35] In some cases the unit will suffer exceptional levels of attrition due to terrain. See Case [6.11] Terrain Types, Case [6.13] Terrain Effects Summary and Case [21.36], for more information.

[21.36] Terrain Attrition Values

Terrain	Attrition value
Default	1.00%
Mountain	(+) 2%
Marsh	(+) 1%
urban	(+) 1%
Jungle	(+) 1%
Desert	(+) 2%
Artic	(+) 2%

[21.37] Some technologies will have an affect on attrition, see Case [15.31] Manpower & Attrition Technologies and [15.61] Attrition Infantry Technologies, for more details.

[21.4] UNIT ORGANISATION

[21.41] The smallest component used in HOI 3 is the Brigade, but with a few exceptions you will always want to organise your Brigades into Divisions.

[21.42] Divisions are organised into Corps, which are then organised into Armies, and then organised into Groups.

[21.43] At the top of the Organisational structure is the Theatre, which is the highest level of organisation in that region.

[21.44] Units at every level are commanded by a certain grade of Commander. A Brigadier General (or national equivalent) commands a Brigade, though these lowest generals are not represented in the game, Major Generals command Divisions, Lieutenant Generals command Corps, Generals command Armies, and Field Marshals command Groups and Theatres. See Case [29.62] for more information about the command structure.

[21.45] Airwings are the smallest Air Unit, which contains about 100 aircraft. Air Units may be grouped to contain one or more Airwings. When you see these units on the Map, each Airwing is shown with an "x," like a Brigade. Because there is no larger organisational unit other than the unofficial "groups" of Air Units, you will never see anything larger than the Airwing in a stack. Air Units can, however, be assigned to Theatre HQs.

[21.46] Large ships, down to the Light Cruiser level, exist as individual ships per unit. But Destroyers, Submarines, and Transport Ships are each assumed to contain several of the ships within each unit. Each ship is shown with an "x," like a Brigade, in the Unit Interface. Ships are also always considered part of a Fleet, so you will see Fleets on the Map marked with the "xx" for a Fleet, even if it only contains one ship.

[21.5] MOVING A CORPS AND ARMY EFFECTIVELY

A well-played game will demonstrate how a corps works together as a unit over the space of two or more provinces, naturally flanking and enveloping the enemy as a part of its fluidic function. Think of a military unit as a balloon. As it presses against the enemy (some hard object), it stops only at the point of contact. The rest of the balloon wraps around the "enemy," partially enveloping it. That's what military units do in the field, and that's what group- and corps-level units should do in HOI 3.

You should regularly check your units' arrival times, to see how close they are to moving forward and reaching their objective. Sometimes, in combat, you'll notice these indicators are not quite correct – a unit which advances in combat may occupy the enemy held province before the indicator says it will, because the combat throws indicators off. Tooltips will show you the destination. If you want to see the ultimate destination (at the end of its movement orders) you can click on the unit. Multiple units can be selected with a select box to see each of their destinations together.

Try to maintain a relatively coherent front line – not something jagged, which makes it hard to defend. If one unit is getting too far ahead, you might consider slowing it down to let the other units catch up. Sometimes, if the left-behind units are no longer moving forward, you might even consider withdrawing a unit one province if it's too far forward, which exposes it to attack. Forming a line of units from province to province – a linked defensive line – is called "tying in."

When moving your units, think ahead. Where do you want your troops in a week? In a month? Make sure your estimates are realistic, but be prepared to adjust if things don't go as planned. Planning ahead is very important for Headquarters, because if they fall behind your advancing troops, they may not get the benefit they need from HQ support.

Combat maps historically would show the boundary of responsibility between one corps and the next, and between one army and the next, etc.

HOI 3 does not show this with a line, but you can see the responsibility areas by selecting the HQ and seeing which units pulse with a bright blue border. Using this feature, you can "see" the corps and army boundaries in your mind's eye.

[21.6] REGROUPING

You've heard the term "fall back and regroup?" When units become separated in the confusion of combat, they lose their ability to work together effectively. When you get a chance, it's important to attempt to regroup – get your divisions together in the same vicinity with their proper corps, get your corps sequenced properly so one corps doesn't overlap with another, etc. In this way, you restore your ability to perform combined actions as a united corps, and you remain able to assign only one task to the units of one corps.

Alternatively, if your units are too much of a mess to sort out, or if they're all locked in combat and can't regroup, you can re-assign their commands so that corps trade divisions with each other until all a corps' newly assigned units are together.

[21.7] EFFECTS OF LOW ORGANISATION

[21.71] If your ships, planes or land units have very low organisation, they will be unable to move. This threshold may be different for different types of units (i.e. ships may become unable to move at higher organisation levels).

[22.0] HQ UNITS

[22.1] HEADQUARTERS (HQ) CONCEPT

General Rule
Most Land Units at the start of any game will be "attached" to a Headquarters, which is its connection to the army command, and has a number of important functions.

Commentry
The idea of "Headquarters Units" is familiar to players of past HOI games, but the concept has changed dramatically with HOI 3. From now on, this is your way of making sense of a crowded battlefield, as well as handing off Units to the AI to direct toward your Objectives if you need to concentrate on something else.

[22.11] Operating as an individual Unit

It is possible for units to exist on the Map without being part of a Headquarters command structure, but this is not the preferred method of fighting, especially since HOI 3 has built-in Leader bonuses which come from every level of command and provide experience to every other level of command. A Division or Brigade which is operating as an individual unit does not communicate any of this benefit to or from higher levels – does not receive the Leader bonuses, nor pass along the Combat Experience, both of which play a critical role in helping a player win wars.

Lower HQ commands which are not attached to higher HQ commands also lose some of their benefits.

[22.2] MANAGING HQ'S

Commentary;
Headquarters represent your way to avoid all the micromanagement presented by the sheer number of units in HOI 3. It's meant to help you manage your armies without becoming overloaded. It's customizable, so you can take on as much responsibility, or as little, as you want.

General Rule
HQs allow the player to shunt off less important theatres to AI control, freeing you to concentrate on important battles, the management of your economy, or whatever. The AI is no substitute for intelligent control by a player, so keep an eye on it and be ready to issue "corrective action." But wise and selective use of the HQs under AI command can actually be a great benefit to you. In fact, some feedback from beta-testing indicated players were impressed by how well the HQ intelligence managed a battlefront.

Cases;
[22.21] You can carefully manage the Theatres, telling them when to attack and where, using the stances and the axis of attack commands. Watch closely, and detach units which are "going off the reservation" so that you don't allow the AI to make unwise decisions for you. Alternatively, you can manage the HQs below Theatre level, and direct individual corps and armies for more limited goals which you select yourself.

[22.22] The only way for you to exercise "fine control" over how each unit moves is to remove the AI control, and not use your HQs as command devices. The HQs still benefit your units by adding combat bonuses from your commanders, but you're controlling their troops from your commander's chair, not through the filter of an HQ commander. The HQ AI command is a tool which you can use, if you want to. It allows you to move whole armies and corps as a unit, but won't allow you the freedom to make minor adjustments to individual units under that command unless you take the AI control off.

[22.23] "HQ's are not built in the Production Screen, but are instantly created from a button on the unit interface for any unit below Army Group level which is not already attached to an HQ. They appear to be free, but they require: 1) Leadership, 100 officers 2) MP and IC to bring them up to full-strength.

[22.24] An HQ requires more IC days than a Brigade of Infantry, but their combat stats are not as good, so do not create more than you need. You can maximize the efficiency of your HQ's by arranging your forces with five Divisions in each Corps, and five Corps in each Army." – Mark Potter (Potski), Durham, UK

[22.25] Theatres, unlike the Manual says, cannot be created by the player, though other HQs can be. However, the player can tell the AI when to re-assess which Theatres need to be there, where the boundaries should be, and which units will be assigned to each. This reallocation is ordered through buttons at the bottom of the Production Interface.

[22.3] ORGANIZING YOUR ARMIES & HQS

Commentary;
If you really want to impose control over your units before combat, you'd be best advised to start in the 1936 or 1938 scenario before the war starts.

This way you can shift your HQ organization and your unit deployment in order to match your style and strategy, as well as building a few units "to taste." Otherwise, you're locked into the starting position on the ground when the bullets start flying, and must make the best of it (these are all historical deployments, and you may start at war).

HOI 3 divisions and brigades – the whole structure, really – is very modular. You can mix and match just about anything.

In early games, brigades are often organised three to a division. This allows you to put as many as four divisions into a typical combat, equaling 12 combat brigades. If you want to switch brigades from one division to another, you can split them out of the command using the "reorganise" button, and put them back in using the "organize" button.

Divisions, brigades and HQs can also be re-named. Brigades are numbered at game start, generally as a way of keeping track of what division they're with. You can re-name them once you switch them into new units. Otherwise, it might start to look really confusing. It's recommended that you maintain as much of the original structure as possible, or else this can become a nightmare.

The number of brigades you should have in each division may partly be dictated by your own preferences, and partly by your own limitations in terms of the amount of territory you must defend, etc. However, if you expect to have a large number of divisions and brigades in combat along your front, there are some mathematical realities you should consider as you construct your divisions.

Some countries, in later games, will acquire the doctrine tech which allows you to have up to five brigades in a division. It's best to use some of these slots for support brigades – throw an engineer or artillery brigade in there, or both. But if you use all five slots for combat brigades, and you end up with a divisional combat front of five, then you'll only have two divisions (10 combat brigades) in a typical battle, instead of three or four.

If you alternate paired divisions in 4-brigade, 5-brigade groups (nine brigades total), then they will allow you to fit a third large division into the combat front, with the potential of getting 13 or 14 combat brigades into a typical frontage. Likewise, providing one or more support brigade to the two-division set would allow that third large division to fit. So long as the available frontage is 10, your goal should always be to avoid having only 10 combat brigades in there, and using clever organization of divisions to allow you to "shoehorn" extra divisions in there, with extra brigades. You do the math.

In the Supplement to the Strategy Guide (available on the Paradox Forum), we'll discuss what unit types are most effective, and how to use support brigades to increase the potency of your divisions without increasing their combat frontage.

If you have brigades which are just not useful to you (or ships), you may find it more beneficial to disband them and return the manpower used by those units into your manpower pool. These units also consume supplies and (during peacetime) consumer goods, so even obsolete units take up resources which may not be in good supply. However, be very careful as you do this. Upgrading is usually a better option (except for ships), because it turns your obsolete land or air units into well-equipped modern units for an IC cost that is less than building that modern unit from scratch. Even older ships may be upgraded in some ways (AA, ASW, etc.), and may prove more useful on duty than in the scrap heap.

Be careful as you use the "integrate (merge)" and "reorganise" buttons, because if you begin attaching divisions and corps to higher headquarters commands without regard to geography or mission, you may soon find that you've created a confusing mess that looks like spaghetti! A command structure should look ordered, and it should make sense. You shouldn't have units under an HQ's command if they're too distant. These should be organised under a different command. You also shouldn't have any units that have a completely different mission from the main headquarters – that is, units which are designed to move and attack should have a different headquarters from units which are meant to act as defensive reserves or partisan-suppressing garrisons.

Cases;
[22.31] There is a way to automatically select all units attached underneath an HQ unit. Click on the bar just above the listing of units under the HQ's command (the one which says how many divisions and corps, etc. are under the HQ's command). This will open all of them so you can either give orders to all of them, or can select or de-select certain units from the list. The selected units will all display with the pulsing glow which indicates it's under the selected HQ's control, but in this case you could issue orders to the whole set, or perform a number of other allowable group options.

[22.4] SETTING HQ PRIORITIES

Whether on AI control or not, an HQ only benefits the units under its command if it is within "radio range" to them. Technology can improve this range. It's indicated by a little HQ icon in the upper right of the HQ's unit interface, which should show you a tooltip with its range. The units themselves will indicate through a similar icon whether they're in range or not (green is, brown is not). You should try to keep the HQs within range of their units if you're managing them manually.

A blue dot indicates what portions of the front each Corps HQ or higher has responsibility for. That HQ's provinces will have a bright blue dot, whereas other HQs' dots show as a faded blue.

An HQ under AI control is defined as being on Attack or Defense (two stances for each), which you can set in the HQ Interface. Blitzing is the most aggressive stance, and the HQ will attack anytime it thinks it has a chance. Attack is the next most aggressive. On Defense stance, it will mostly prepare to defend against attacks, but it may attack if it sees good odds. Only on Prepare stance will an HQ never attack, and will only prepare to meet an enemy attack.

When a unit is under AI control you can set its objectives to either defend or attack (according to stance). If you set fewer objectives, you should choose only major targets so as not to confuse the AI. To exercise more fine control on where it will launch its attacks (on offense) you can shift-rightclick to set their axis of advance. This tells them what path to take (in general) to reach their objective.

Whether you're in AI control or manual, you should only set one mission for any one corps. No corps should be split between two missions, such as attacking an objective on the one hand, and defending a position on the other – the AI has enough trouble interpreting your orders as it is. Even under manual control, it is wise to keep the corps together so the HQ doesn't have to decide between staying on one side or the other of a breach.

[22.5] HQS IN COMBAT

Generally, you will not want to involve your HQs in combat. They are all but worthless, as combat units, plus they're very vulnerable to damage and shattering. Keep them close enough to support your combats, but don't send them in with the divisions they're with.

The HQ should be ready to move after their divisions if they advance, though they should be wary of following into a narrow breakthrough where they might be caught. Radio range will normally reach units that have broken through a province or two into enemy territory.

Best practice is probably to keep them a province away from the fighting, but this is not always necessary. Higher-level HQs, with longer radio ranges, should always be behind the front line by one or more provinces, because there's absolutely no reason to have them close to the fighting.

HQs do have the advantage of being fast, which makes them useful. They can move out of the way quickly, if they're threatened. On the other hand, they can also be used to block an enemy move, or to occupy territory. This is a very dangerous tactic, though, and you should only use them this way if you're sure you can protect them in time, or if you have no other choice. HQs shatter very easily.

HQs can be used to pin an enemy unit, but it's very risky. Be ready to pull them back as soon as they start getting close to the point where they would shatter. It may be that you won't have achieved your purpose by then, but that's part of the risk too.

[22.6] SUMMARY OF HQ COMMANDER BENEFITS

[22.61] A Division Commander uses both his skill and his traits to improve his Division's combat efficiency.

[22.62] A Corps Commander uses his skill (at full effect) to improve the efficiency of the rotation of damaged units out of battle, replacing them with reserves; and passes HALF of his Trait bonus down to his subordinate Divisions.

[22.63] An Army Commander uses his skill (at full effect) to improve the Organization of all units under his command; and passes ONE-QUARTER of his Trait bonus down to his subordinate Divisions.

[22.64] An Army Group Commander uses his skill (at full effect) to reduce the Supply Consumption of all units under his command; and passes ONE-EIGTH of his Trait bonus down to his subordinate Divisions.

[22.65] A Theatre Commander uses his skill (at full effect) to reduce the Unit Cooperation (stacking) penalty for all units under his command, and passes ONE-SIXTEENTH of his Trait bonus down to his subordinate Divisions.

[22.65] This assumes that the subordinate units are IN COMMAND RANGE of the HQ.

[22.66] See Case [23.0] for more information on commanders / leaders.

[22.8] HQ'S AND AIR & NAVAL UNITS

[22.81] Navies and Air Units can be placed under corps command for maximum bonuses, but the AI wont be so effective at using them as with a Theater HQ. (Air units attached to a defensive stanced corp with an own province set as objective will perform intercept missions though).

[22.82] Also note, that the leader benefits vanish when you do not have an appropriate leader for your stack size, which is 4/8/12/16 for air units and 6/12/18/30 for naval units.

[22.83] Since the air stacking penalty is huge (10% for every aircraft after the first), you will actually never want a stack of more than four planes and thus never have to promote an air leader beyond the basic rank.

[22.84] The situation is different though for naval leaders, since some fleets tend to be bigger than the basic size of six due to the smaller stacking penalty.

[22.85] Naval and air units might get re-organized by the AI once put unter Theater AI control. All AI control beneath that level leaves the organisation untouched.

[22.9] RADIO COMMAND

[22.91] Base communication distances for your troops to receive bonuses from the command hierarchy:

* Corps 200 Km
* Army 400 Km
* Army Group 600 Km
* Theater Commander 2000 Km

[22.92] According to the manual range can be increased through research. There is nothing in the technology files to suggest this though. It might be a bug.

[23.0] LEADERS

Commentary;
The computer should default to "auto-assigning" commanders to your units. However, you can change these assignments at any time (unless the unit is in combat). It may be a good idea to optimize your command structure, so your most talented leaders are leading your most important units. The auto-assign AI should take the leaders' traits into account, but you should make sure the most valuable panzer leaders are in charge of the most valuable armoured units. Sometimes, this is most effectively done by spending a few minutes with your Army Leaders page in the Statistics tab. Order your commanders by rank/grade, and take note of which ones at each level have the highest skill and the best traits. Also take note of whether they're already assigned. Then go through your most important units and make sure they have good commanders – if not, or if you'd prefer to have one of your "stars" there, replace the existing commander with your choice.

You can also promote or demote officers ("demotion" doesn't necessarily mean you're punishing the guy – some commanders were giving temporary assignments, and could be reduced to their permanent grade without it seeming like punishment – Gen. Eisenhower's permanent grade for much of the war was Lieutenant Colonel!). It's important to have enough generals at each level to command your different levels of HQ, because each assignment requires a particular rank.

Sometimes, you will want to promote your most experienced commanders to a higher level, as these are the officers most likely to succeed at a higher level. You may sometimes find they perform badly at higher levels, and you may want to place them back where they were.

Officers have a "historic promotion date," where they traditionally assumed that command level. If you promote a historic officer too quickly, it's possible he may never live up to his historical legend.

"Leaders do not lose skill when promoted or demoted, although their experience is reset, so you are free to adjust ranks to put your generals whereever you want. Remember traits when setting up chains of command. Trait effects are halved for each level away from divisional command, but leaders' effects add to each other. If you have a leader with the same trait at every level in the chain the combined bonus will be 194.25%. If you want to cut down on supply usage consider stacking logistics wizards, or pile on offensive generals for large attack bonuses." – David Ballantyne (Darkrenown), Paisley, Scotland

You can "cultivate" highly skilled commanders, so that they become more valuable to you over time, by placing them in command of units which are going into battle. Remember that even corps and army commanders (and group and theatre commanders) receive a portion of the experience from battles taking place within their range of command. Make use of these tactics to improve your generals' skills.

[23.1] LEADERSHIP CONCEPTS

General Rule
In HOI 3, it is intended that every unit down to the Division level should have a Commander, and that each level of Commander will contribute skills and Traits to the overall battle situation.

Further, you are allowed to construct a "Chain of Command" from the very top of your country's military (the Commander-in-Chief – i.e. You) through Theatre Commanders to Army Commanders, down to Division Commanders on the bottom. Different commanders have different levels of responsibility, and each has the ability to take independent command of the units under his command and to fight without your having to tell him what to do.

Leaders will gain Experience, and can gain in Skill points as they do so. Leaders can also be Promoted, which allows them to Command larger types of Units (Corps, for instance, rather than Divisions), but they start over in gaining Skill at their Promoted rank.

[23.11] Leader Train & Skill bonuses

Leader Traits and Skill also provide bonuses. The Skill rating of Commanders at each level affects a different aspect of the units. For each level up the chain of command, the bonus applied for every unit is only half of the previous level, and so a Division Commander's Division gets the full benefit, while a Corps Commander only provides half that bonus, but provides it to every Unit under his command. If there are five Leaders in the chain of command, a Division could theoretically benefit from five bonuses, which on a practical level would equal nearly two full bonuses once all the halving is subtracted out. Skilled Leaders can modify the level at which a unit will Shatter.

Panzer Leader trait adds his combined arms bonus on top of any existing combined arms bonus.

[23.12] Assigning Commanders

If you click on the Unit Interface for any unit, you can then click on the slot where the name of the Commander is displayed, whether there is a name or it's blank, and then choose a Commander from the list to take charge of that unit. If you're replacing a Commander, he will go back into the Commander Pool.

[23.13] Leader Experience & Skill

Experience in Combat will gradually increase a leader's skills. Experience is shared by all commanders involved in a battle, even if they're located at Group Command 200 miles behind the front lines. Commanders "on the ground" and "at the front" will gain more, but all will benefit.

Any time any portion of a Leader's command structure (underneath his level, not above) is in combat, he gains experience.

When his experience level reaches 100, it is set back to zero and his skill level increases.

[23.14] Promotions

Sometimes there will be a need for more Commanders of higher grade, who can take on higher responsibilities. This will often happen as your army grows. To Promote a Commander to a higher level of Generalship, click on the Unit he currently Commands, and click the Promote button in the Commander Pool screen. That Commander will no longer be eligible to Command the Unit he was in charge of. Instead, he can now take over a Unit one level higher than where he was. Beware: he may lose some Skill and Experience, then he will begin building experience in his new Command.

These Promotions are necessary to Command Air Units and Fleets also, even though they don't have the grade restrictions Land Units do.

[23.15] Leader Skill Contribution with HQ Structure Table, See Charts and tables

[23.16] Leader Traits Effects Table, See Charts and tables

[23.2] SKILL LEVELS

General Rule;
Every leader in the game has a skill level. The effect of the leader skill level is a function of where the leader is in the command heirachy:

Cases;
[23.11] Theater: Reduce stacking penalty by 1% per leader skill level.

[23.12] Army Group: Decrease supply consumption by 5% per leader skill level.

[23.13] Army: Increase organization by 1% per leader skill level.

[23.14] Corps: Improve handling of reserve units in combat (?? unknown value)

[23.15] Division: Increase combat efficiency by 5% per leader skill level.

(Note that the manual is possibly incorrect on the effect of Theater Generals: It has been found that the coordination penalty does not apply to the number brigades in a battle, but to the number of divisions in a battle over five.)

[23.3] TRAIT EFFECTS

General Rule
Generals can have distinct traits that offer various benefits on the units he commands. Traits can be modded and added/deleted from file /common/traits.txt, of course leader files should be modded accordingly.

Cases;
[23.21] Traits cascade down the chain of command to a diminishing effect:

* Division: 100% effect

* Corps: 50% effect

* Army: 25% effect

* Army Group: 12.5% effect

* Theater: 6.25% effect

This means that, for example, at the divisional level the trait modifier is granted 100% to all brigades in that division. While this may seem to be the best scenario, this effect is only applied to a limited number of divisions. Meanwhile, while the theater bonus is rather low, it could be passed onto hundreds of divisions.

For example: If your Division commander, Corps commander, Army commander, Army group commander and Theater Commander all have the Offensive Doctrine trait, it gives division a combat modifier of 10% + 5% + 2.5% + 1.25% + 0,625% = 19.375%, when attacking.

[23.22] The OLD GUARD trait affects all commanders, as follows; Leaders with Old Guard trait gain experience 50% slower

[23.4] LAND TRAITS

Cases;
[23.41] Trickster This trait gives a 10% higher chance of a suprise combat event

[23.42] Logistics Wizard Troops under a leader with Logistics wizard trait consume 25% less supplies while stationary (not moving or attacking)

[23.43] Defensive Doctrine Gives a 10% combat modifier when defending

[23.44] Offensive Doctrine Gives a 10% combat modifier when attacking

[23.45] Winter Specialist Reduces attrition in frozen and snow by 50%

[23.46] Engineer Gives a 10% combat modifier to attacks across rivers

[23.47] Fortress Buster Gives a 10% combat modifier to attacks against fortified provinces

[23.48] Panzer_ Leader Increases the combined arms bonus 10%

[23.49] Commando Decreases the negative effect of being out of supply 20%

[23.5] NAVAL TRAITS

Cases;
[23.51] Seawolf Gives a 10% combat modifier to submarines

[23.52] Blockade Runner Makes it easier for your ships to disengage combat by setting the disengage timer to 1

[23.53] Superior Tactician Provides a spread out bonus of 10%

[23.54] Spotter Increases the chance of spotting enemy fleets by 10%

[23.6] AIR TRAITS

Cases;
[23.61] Tank Buster Reduces the defending divisions softness by 20%

[23.62] Carpet Bomber Gives a 10% combat modifier to strategic bombing

[23.63] Night Flyer Gives a 10% combat modifier to air-to-air attacks

[23.64] Fleet Destroyer Gives a 10% combat modifier to naval bombing

[24.0] LAND UNIT INTERFACE

[24.1] CLICKING ON A DIVISION – UPPER SECTION

General Rule
When you click on a Division (click again to cycle through multiple Divisions in a stack), the Land Unit Interface will appear in the upper left-hand corner of the screen.

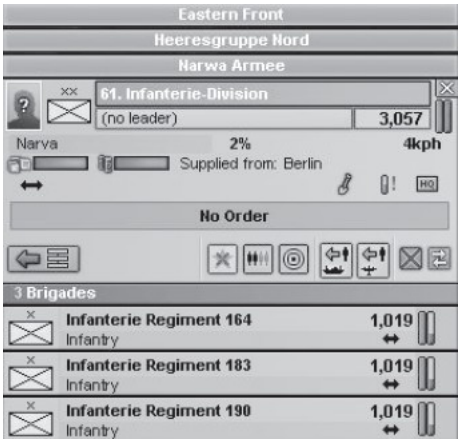
If the unit you clicked on has more than the "xx" designation for a Division next to its commander's face, then you've clicked on a Headquarters (See Case [28.2]). If so, click on a "xx" unit listed in the Headquarters' Unit Interface so that you can see a Division.

Cases;
[24.11] At the very top-left, you will see a picture of the Division's Leader. Next to it, on the right, is the unit's military symbol, and next to that is the Division's name. Below the unit's name is the name of the Leader who commands the unit.

[24.4] To the right of that is the total manpower strength of the Division, and two coloured columns: the gold-coloured one indicates Strength and the green column represents Organisation. Above these is the "x" button, which will close the Interface.

[24.42] Below that top row, you will see on the left which province the unit is in, to the right of which is the rate of Attrition being experienced by the unit, and on the far right is the maximum speed of the unit (in kilometers per hour).

[24.44] Underneath that are two coloured rows. The first shows Supply status (Supplied or Unsupplied), and the second shows Fuel status (Fueled or Unfueled). Tooltips will indicate what, if anything, your unit lacks. If either of these indicators shows red instead of green, even partial red, the unit does not have sufficient Supply to perform its duties at top capacity and its Organisation and Manpower may begin to suffer. If it lacks Fuel, it may not be able to move as quickly as it could otherwise.



[24.15] On the right, slightly below these bars, is a spot which mayor may not display a shovel. If a shovel is shown, it means the unit is "dug in" and has special modifiers for Defence. A tooltipwill indicate how dug-in it is, the maximum dig-in value, andhow much benefit the unit will receive from it. Dug-In units are discussed in [29.66].

[24.47] Other modifiers may be shown with their own icons. Other icons which may appear here will indicate if the Unit is a Reserve Unit, and will indicate whether it is within Radio range of its Headquarters.

[24.2] CLICKING ON A DIVISION – MIDDLE SECTION

General Rule
Below this, a dark bar will display any Orders assigned to the unit, and underneath that, a row of several buttons.

Commentary;
There are times when you may want to use the priority buttons on the unit interface to prioritize some units for reinforcement and upgrade, and to cause others to become ineligible. Basically, if you're unable to fully fund either reinforcement or upgrade with your available IC (or both), you can exercise control over which units get the benefit of what you have. You may want to set certain units on important parts of the front to priority so they'll be ready when they're needed. You may also want to set units in "backwater" portions of your empire not to upgrade or reinforce.

Always make sure to turn these settings off when the need for them is no longer present. For instance, if you have a unit that's set not to reinforce because their theatre is inactive, but later that becomes an active theatre, you don't want that unit at 2/3 strength because you've been denying them any reinforcements. Likewise, you don't want to deny these units access to the latest technology if you finally have the IC to make it available. Make a mental note to check on this from time to time – a routine unit survey across your whole empire.

Cases;
[24.21] The first button on the left shows an arrow pointing toward or away from a Chain of Command icon. If the arrow is green and pointing toward the chain, clicking on it will allow you to assign it to any of your Headquarters. If the arrow is red and points away from the structure grid, clicking it will remove the unit from its assigned Headquarters structure, and make it independent of any outside command.

[24.22] The next button to the right, which is only visible if the unit is not part of a command, allows you to create a new Headquarters, and the current Division would be assigned to it.

The next seven buttons, from left to right, are as follows.

[24.23] The first will either display a green star or a gray star with a red "x" over it. The latter indicates that it is not prioritized for unit upgrades and reinforcements. The former means that the unit is prioritized over other units for preference in upgrades and reinforcements. You should select your most important or best-positioned units for priority.

[24.24] The next button over – with four soldier images – determines whether this unit will be eligible to receive available Reinforcement.

Sometimes, it is preferable to prevent some units from reinforcing so that you don't dilute the reinforcements by sending them to units which do not need them as badly.

[24.25] The next button is a dot and circle inside a circle, and determines whether this unit will be eligible to receive available Upgrades. As with Reinforcement, you'll want your most important units to be Upgraded first.

[24.26] The next button over allows this unit to be loaded onto a Naval Transport (See Case [25.8]).

[24.27] The next button over allows this unit to be loaded onto an Air Transport (See Case [36.2]).

[24.28] The next button over is an "x" which allows you to disband the unit.

[24.29] The last button is of two arrows facing opposite directions, which allows you to reorganise the Brigades in the unit, possibly detaching one or more Brigades to form their own unit.

[24.3] CLICKING ON A DIVISION – LOWER SECTION

General Rule
Immediately under the row of buttons is a dark gray bar, which will say how many Brigades are currently attached to that Division.

Cases;
[24.31] Underneath that, you'll see each Brigade, listed individually, along with its military symbol on the left, then its unit name, with its unit type listed underneath it.

[24.32] To the right, you'll see the number of men assigned to the unit, and then the Brigade's individual Strength bar (brown) and Organisation bar (green). The cumulative total of all the values for these bars should be reflected in the Division's Strength bar and Organisation bar at the top of the Interface. Individual Brigades may suffer higher casualties than others, which is why each is shown individually. You can left-click on a Brigade for more details.

[24.4] – LAND UNIT MENU

General Rule
The military unit menu initially shows the highest level of command, by clicking on the symbols next to the name you will see the subordinate units.

Cases;
[24.41] In this case you can see the Paris HQ consist of the 7th Army, which in turn consists of 4 divisions. If you click on any military formation you will get a box which displays the location and commander, as well as another dialog box appearing displaying more detail about the military unit.

This displays the status of the 4th Infantry division. The details of this are as follows;

[24.42] The command structure is displayed at the top, in this case this division is part of the 7th army, which is in turn part of the Paris HQ.

[24.43] The next row contains a picture of the commander (if he exists), the unit symbol, the unit name, the commander and the strength (in number of men).

The unit symbol is an infantry division.

The unit name is 4the Infantry Division
The commander is Audet
The unit strength is 4,485 men.
The unit name can be changed by clicking on the unit name box and entering the new name.

[24.44] The next row contains the following

Unit location (Soissons),

The supply level (in this case fully supplied)

Where is being supplied from (Paris in this case)

The speed of the unit (4 kph)

[24.45] The Orders row contains the unit orders, in this case none.

[24.46] The next row contains the following;

Attach / disattach symbol, which allows you to change who this unit reports to.

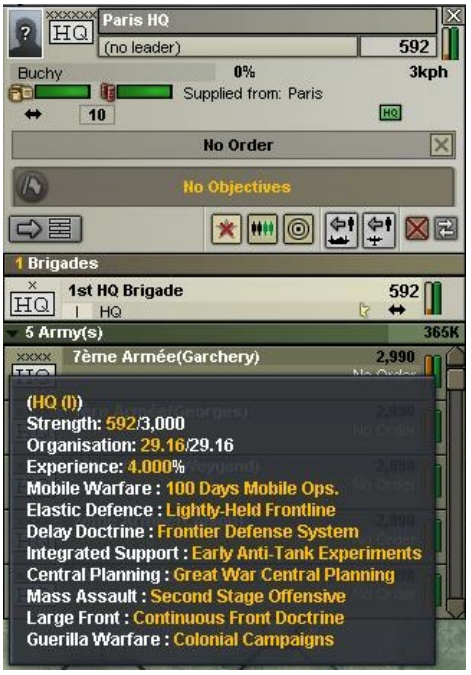
Disband symbol

[24.47] The finall set of rows contain the subordinate brigades, in this case 3 infantry brigades,

[24.5] HQ UNIT'S & HQ SUB-MENU

This shows the same menu for a HQ unit, in this case the Paris HQ. It is similar to the division display, except it has an additional set of rows containing the subordinate units, in this case armies.

You can get additional details about your units, as follows;



The rows are as follows;

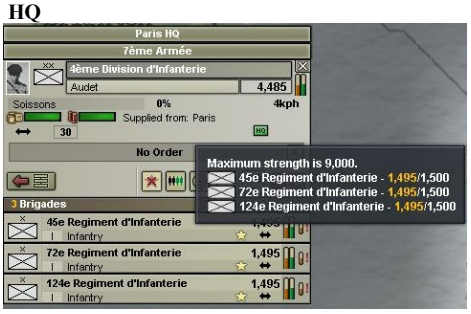
Strength : Existing / Full
Organinsation
Experience : 4%
The following rows are all doctrine based, showing you the current doctrine.

[24.6] COMMANDER DETAILS & HQ'S

Cases;

You can obtain additional details of the commander, in this case Garchery.

HQ



You can list the brigades attached to the HQ, showing current and maximum strength. IN this case the unit is almost at full strength.

[24.7] COMMAND LOCATION & BRIGADE SUB-MENU

Another sub-menu shows the locations of the commanding units. In this case the 4th infantry division is with its commanding HQ, 7th Army, which is 100km away from its respective command unit, Paris HQ.

Brigade Sub-Menu

Each Brigade has the following sub-menu, showing the same type of info as the HQ sub-menu.

[25.0] LAND UNITS

[25.1] THE LAND UNIT

[25.11] An hourglass icon in the land unit interface will show if a unit is under "combat delay," meaning it's recently been attacking, and it must wait to attack again. A tooltip will show how long it must wait.

[25.12] When you order a land unit to move, its movement is indicated on the Land Unit Interface with a green arrow in two locations. If you hover your mouse cursor over the arrow, a tooltip will tell you to which adjacent province it's moving, and when it's due to arrive there. It won't tell you its final destination. A similar indicator in the top left of the interface will indicate other things, such as if the unit is under attack.

[25.13] Disbanding a unit will keep you from having to pay to supply and reinforce that unit, and it will also return its current manpower strength to the pool. The IC you spent to build it will not be restored, though.

[25.14] Land Unit Counter

A Division's counter displays the military symbol for its primary unit (i.e. Infantry for mostly Infantry Brigades). The Commander is listed on the counter's side.

In this case we see 2 counters in a single hex, the top counter is an infantry division which is owned by the French Nation. Its nominal strength is 1 for attack and 2 for defence.

This units ia a HQ, in this case an Army level. The commander is Garchery, its owned by France and has a strength of 0 for attack and 1 for defence.

[25.2] COMBAT WIDTH, COMBINE ARMS AND SUPPORT UNITS.

[25.21] Combat Width (Fronts)

Each provincial border, with each other province, generally has enough Combat Frontage to allow three or four Divisions' Combat Brigades to be on the Front at once. This battlefield is represented as several "squares," with each Brigade occupying one full square.

Divisions are never separated in Combat. They attack together and Retreat together. Even if all but one of the squares along the Combat Front is occupied, another whole Division (all of its Combat Brigades) may still "squeeze" onto the battlefield, so the actual Combat Front may be one or two squares wider than standard.

Some brigades may have a combat width wider than 1.

[25.24] Support Units

Some Brigades are not meant to ever intentionally engage in front-line Combat, and will instead support the Combat Brigades from behind the lines. If they ever operate as individual Brigades, they will be very vulnerable.

[25.3] COMBINED ARMS

Commentary;

The concept of "combined arms" means having a mixture of mutually supporting types of units. For instance, on the battlefield infantry likes to have tanks because of the extra firepower they provide, and it's even nice to travel behind a tank so you can use it like a moving wall. The tanks like having infantry nearby because if an enemy soldier is hiding nearby with an anti-tank rifle, the infantry can respond more quickly and effectively than the limited anti-personnel weapons on a tank. Either infantry or armour is more vulnerable, and less versatile on the whole, without the other present to contribute to what each does best.

HOI 3 represents this combined arms factor as a combat modifier, given to units which have a mixture of approximately 1/3 of one type of unit or the other (i.e. hard or soft). This is represented as a "softness" value – anything between 66 and 33 percent is considered to have combined arms.

The combined arms bonus is not a small factor – it's one of the most substantial positive modifiers for combat. If you can bring these diverse units into combat, it will be worth it. Either build your units with this in mind, assign them to HQs in sets, or have them travel together so they go into combat together. Keep in mind different travel speeds may make this difficult for HQs or yourself to manage.

Cases;

[25.31] Combined Arms Units

Divisions which have a Softness rating between 33 and 66 percent, meaning they use a mixture of armoured and infantry or other brigades, are considered "Combined Arms" units and will get a bonus in Combat. Even if your unit was not constructed in this way, you can integrate Brigade Attachments to accomplish the same before going into battle.

[25.32] Combined Arms Table

To ensure you obtain the combined arms bonus you need to ensure your division has the correct over-all softness. This table provides some examples of Divisional structures which are eligible for the combined arms bonus.

Br #1	Br #2	Br #3	Br #4	Br #5	Result
Lt Arm 30%	Lt Arm 30%	Mot 90%	AC 80%	SP art 70%	Yes 60%
Arm 20%	Mech 75%	Mech 75%	AC 80%	SP art 70%	Yes 64%
Hv Arm 10%	Mech 75%	Mot 90%	AC 80%	SP art 70%	Yes 65%
Lt Arm 30%	Mot 90%	Mot 90%	Tk Dest 30%	SP art 70%	Yes 62%
Arm 20%	Mot 90%		AC 80%	SP art 70%	Yes 65%
Lt Arm 10%	Mech 75%		AC 80%	SP art 70%	Yes 63.8%

The important thing is to check your division structure to ensure you achieve the required combined arms bonus. Its all to easy to miss out, especially if you mix your attack with infantry.

[25.33] The entire division must have a softness rating between 33% and 66%. This means pure infantry and pure armor divisions will not benefit from the combined arms combat benefit of base +20% (plus modifiers). On the division build screen, the teddy bear will show you the softness of your combinations, with the teddy bear lighting up a little when you have reached the CA thresholds.

[25.34] Said modifiers can signifigantly increase combined arms combat effectiveness. Panzer Leader increases CA by +10% (+5% for the corps commander, +2.5% for the army command, etc...) and +10% added for the combined arms tech under the land doctrine Superior Firepower tree. These are not percentile increases, but percentile changes. So a division of two L Arm and 1 Mot Inf led by a panzer leader with a corp HQ in range with a Lt Gen who also has Panzer leader will grant a +35% bonus to the division during combat. +20% base, +10% Division General, +5% Corps General = +35%.

* Summary of CA combat effectiveness factors:
* Base Combined Arms bonus: +20%
* Combined Arms Warfare Doctrine: +10%
* Mj Gen (Div lvl) Panzer Leader: +10%
* Lt Gen (Corps lvl) Panzer Leader: +5%
* Gen (Army lvl) Panzer Leader: +2.5%
* FM (Armygrp lvl) Panzer Leader: +1.25%
* FM (Theater lvl) Panzer Leader: +0.625%
* Net possible effect = 49.30%

[25.4] UNIT DESCRIPTIONS

General Rule
Keep in mind that not all of these Brigade types are available to all countries at the beginning of the game. Some of them are so specialized that only some major powers had them by the end of the war. You may prioritize your Land Combat Technologies to produce some of these units, if you wish. Most of these Units had some shared capability – some Infantry in Armoured Brigades, and some Artillery in Infantry Brigades, which is represented by its "soft" and "hard" components.

[25.41] Land Unit Types

• Armoured – Armoured units are comprised mainly of tanks, though they may have lighter units attached. There are different types of Armoured units, from Light Armour to Super Heavy Armour.

• Mountain – A Mountain Brigade is specially trained to fight in mountainous conditions, and they get special Combat bonuses during Combat in their preferred environment; rather, they don't have a penalty, whereas everyone else does.

• Infantry – The backbone of any World War II army was its ground-pounding Infantry – the "boots on the ground" – who might not be very specialized, but were the core of the fighting forces. Infantry Brigades were often paired with specialized Brigades, such as Artillery or Armoured Cars. Infantry stationed away from the front might be paired with Military Police or Anti-Aircraft Brigades.

• Cavalry – Up until just before World War II, many of the world's armies considered horses, not tanks, to be their highly mobile forces of maneuver. World War II saw a small number of Cavalry battles, some of them infamous, but in the mid-1930s, when HOI 3 starts off, there were quite a few operational Cavalry Brigades around the world. Cavalry was used much the same as Armoured units were used throughout World War II – they had the maneuverability, but they also desperately lacked protection. Those armies who hadn't realized by the time war started that Cavalry was obsolete in the main theatre of Combat found it out the hard way.

• Militia – These often consisted of conscripted soldiers who were locally raised and trained, and possess Infantry-like rifle training but not much else. These units were useful for maintaining order and for filling in when absolutely necessary, but normally could not be counted on to be professional military units.

• Garrison – Like Militia, these were soldiers who didn't have the Combat training or experience of front-line units, but whose duties mostly included keeping order, manning Fortresses, and protecting important cities and other locations behind the lines.

• Armoured Car – These Brigades often performed a role somewhere between the Cavalry and the Armoured Brigades. Useful for scouting and protected well enough so they wouldn't get slaughtered by Infantry, the AC Brigades add a bit of heft to an Infantry Division, and add a little flexibility to an Armoured Division.

• Motorised – This is basically an Infantry Brigade with the added benefit and liability of being mounted on trucks. These Brigades could move more quickly than a standard Infantry Brigade while fulfilling the same role a little more rapidly, and whose speed could be a significant advantage in battle. The liability would be its reliance on Fuel to move.

• Mechanised – An Infantry Brigade that has been mounted on half-tracks and other lightly armoured vehicles, often with some heavier units to supplement their firepower. These relatively well-protected units were vulnerable to airpower, but otherwise were more durable than Infantry units, and had the firepower to punch through where run-of-the-mill Infantry would have a tough time.

• Anti-Tank – Brigades of Infantry armed with large numbers of small, but high-velocity anti-tank guns which could be positioned in ambushes or along the front lines in order to take advantage of Armoured targets of opportunity. Sometimes, the Infantry would carry handheld anti-tank rifles, sneak up to where the enemy tanks were, and surprise them.

• Tank Destroyer – A heavily Armoured tank with a heavy-bore or high-velocity (or both) gun meant to punch through standard tank armour. Brigades supplied with packs of these were better off than regular anti-tank units because they were self-propelled and had armour to protect them from Infantry and even from Armoured attacks.

• Anti-Air – Once the importance of airpower on the modern battlefield had been proven, especially toward the end of the war, many Divisions made sure to have special anti-aircraft Brigades in order to offer protection against preying aircraft.

• Artillery – Howitzers and field artillery have long had a telling impact on the art of warfare. By the modern age, Artillery was often a force in itself, and its careful application on the Infantry or Armoured battlefield proved very useful.

• Engineer – A Brigade of specially trained engineers that are skilled at working out problems, building things quickly, and making the impossible happen; they can come in handy when facing off against Fortresses and Rivers alike. Engineers are great on defence, too, by providing bonuses to Entrenchment. Engineers can add to the overall speed of a Division, and they can especially help during river crossings.

• Military Police – Military Police are a more inexpensive Unit to produce than Garrison or Militia, because they aren't trained for Combat, but they are more effective than those other Units at opposing and Suppressing Partisans and rebels.

• Marines – Infantry units skilled at operation at sea and Amphibious Invasions. These were the mainstay of Pacific battles on both sides, but particularly on the United States side, where the Marines were always the first units to go in and secure a beachhead.

• Paratroops – A light-Infantry Brigade specially trained to parachute into a Combat area, and surprise the enemy with a force behind their lines. Paratroops are generally very light in combat, and therefore can be vulnerable. It's hoped these units would be deployed in a way so that they can be quickly supported after the initial surprise wears off.

[25.42] Land Unit Combat & Movement Chart, See Charts and table

[25.43] Land Unit Miscellaneous Chart, See Charts and tables

[25.44] Land Unit Nomenclature Key, See Charts and Table

[25.5] LAND UNIT UPGRADES

A Brigade's Combat values and statistics do not always remain the same after it's produced. As Research develops improvements to Doctrines or equipment, they will be added to existing units in the form of Upgrades, so long as those units are made eligible to receive the Upgrades, and the Upgrades are funded with IC. These Upgrades may change the unit's values and statistics. Brigades, Divisions, or other whole command structures may be prioritized or excluded from Upgrades by using the buttons described on the Land Unit Interface.

[25.6] RESERVE UNITS

General Rule
Part of the process of preparing for war is to build up your military. Some countries may have an easy time of this, others may not. One option for countries which don't have a lot of spare IC – especially countries whose consumer goods demands are so heavy there's not much left for the military – may be to build reserve units which will begin at much reduced strength, but which will reinforce and grow in strength as the country mobilizes by steps. They can help build your military potential without quickly increasing the expenses needed to maintain them.

Of course, once War seems near, you will have to find Money and Supplies to Mobilize these Divisions. It is also accepting a calculated risk, because it takes time for these units to develop up to their full useful Strength.

Be careful when building a large reserve army to save on costs. Your country may be small enough that, though you can build lots of reserves at minimum mobilization, you will have trouble managing them once they begin to mobilize. Partially mobilized reserves could quickly bankrupt you if you don't have the supplies or peacetime supply of consumer goods they require. Going to war quickly, or rushing the mobilization at the last minute before war, may be an economic necessity, and can be a dangerous, expensive, risky game.

On the other hand, if you can fake out your neighbor, it's at least possible that he may go through this same process – fearing your attack, and instead bankrupting himself while you sit by and watch! But that is, at best, a risky game of its own.

There will also be a sudden intense draw on your manpower if you have a lot of reserve divisions mobilizing, because during peacetime you'll have to provide both, consumer goods and funds for reinforcement.

During wartime, you'll only have to worry about reinforcing these units, but if you're only mobilizing your reserve divisions after war has been declared, that's a problem in itself.

Cases

[25.61] A unit built as a Reserve unit costs less to build than a normal unit, depending on your Mobilization level (See Case [8.8]).

[25.62] It will remain at some level of reduced Strength until fully Mobilized (i.e. it is waiting for war). These Divisions will cost less in Supplies, because they are made of fewer men, but also have lower Strength and Organisation values. These units may increase their Strength and Organisation once the country's army is Mobilized. Once war is declared, these restrictions are lifted, and the unit rises to normal Strength and Organisation over time.

[25.63] Please note, IC must be allocated to Reinforcements (See Case [5.4]) in order to bring Reserve Units up in Strength. Otherwise, they will remain understrength.

[25.64] Please note there are two types of units referred to as "reserve:" combat and divisions. Reserve units become regular Divisions after Mobilization, but any unit can be a "reserve" in Combat, since they are merely units waiting for an opportunity to fight.

[25.65] Reserves use less consumer goods during peacetime, proportional to their strength, so their need will go up as you change your laws to mobilize for war.

[25.7] BRIGADE TRANSFERS

Brigades are assigned to a certain Division when produced, but they may also be detached and reassigned later. This allows the player to change the structure of their army to match the situation, or to adapt to unforeseen circumstances.

[25.8] EMBARKING TROOPS ON SHIPS

General Rule

Often, it may be necessary to load Divisions onto ships, either for an Amphibious Assault or simply to move them to a new base overseas.

Commentary;

Some areas just have such low infrastructure, or such adverse terrain, that it's easier and more time effective to keep a transport nearby and move them by ship. It may seem like it would take more time to do the whole loading process, and then moving by sea, but if you test it you'll often find it takes much longer to move overland through certain provinces. This process is complicated by the need for a naval base to load your units onto a transport. Your units will have to get to the naval base, and will need to move along the coast to the next naval base, unless you're moving into enemy territory.

Cases;

[25.81] In order to load a Division onto a Transport Ship, click on the Division you wish to embark.

[25.82] One of the organisational buttons will not be grayed out if there is a Transport Ship at a Seaport in the Division's current province. Click the button, and the unit will be loaded immediately.

[25.83] Keep in mind that each Transport has a Transport Capability of a certain "Weight," and if a Division is too "heavy" it may need to lose some Weight by leaving a Brigade behind.

[25.84] To unload the unit, select the fleet, and then click on the unit as shown at the bottom of the Naval Unit Interface. One of the organisational buttons will allow you to Unload the Division. Embarked troops never unload themselves on arrival - you must unload them where you want them.

[25.85] The Transport will carry Supplies for the unit while they are embarked. However for every day the Transport has embarked troops, its Organisation will drop.

For more information on Amphibious Assaults, See Case [37.1].

[25.9] PINNING (FIXING) THE ENEMY

General Rule;

When you launch an attack at one point along the front, you can expect that the enemy will attempt to hit you along your flanks from adjacent provinces. The more exposed your attack is (i.e. the more successful your thrust is in penetrating the enemy lines), the more vulnerable your main thrust will be to being flanked.

This is why you should always attempt to "pin" or "fix" the flanks of your main thrust by attacking, which has the effect of preventing that unit from moving in another direction. In HOI 3, once you declare your intentions, the enemy may react as quickly as one hour later, so your opportunity to pin the enemy comes at the same time as the main attack, or else they may already come into combat with your main thrust.

Sometimes, this may be your intention. It has the result of sacrificing your main thrust by allowing it to be flanked, but there is a certain logic to allowing the enemy to attack and then attacking his flank. If you truly wanted to develop your initial attack into a breakthrough attempt, you would never want to do this.

The pinning attack does not have to be strong, nor even intended to defeat the enemy. All you're trying to do is keep him from moving for a period of time. Once pinning has achieved its purpose, you can let go.

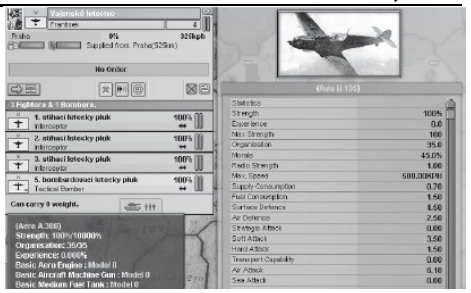
[26.0] AIR UNITS

[26.1] UNIT DESIGN CONCEPT

Airwings are the smallest Air Unit, which contains about 100 aircraft. Air Units may be grouped to contain one or more Airwings. When you see these units on the Map, each Airwing is shown with an "x," like a Brigade. Because there is no larger organisational unit other than the unofficial "groups" of Air Units, you will never see anything larger than the Airwing in a stack. Air Units can, however, be assigned to HQs.

[26.2] AIR UNIT INTERFACE

If you click on an Airbase where air units are based, or if you click through the stacks in a province where aircraft are based, you will see the Air Unit Interface. Most of the Interface is designed exactly like the Land Unit Interface, and so most of these indicators will be familiar to you. At the top, to the right of the Leader's name, is the number of Airwings assigned to this Air Unit. The dark bar underneath the organisational buttons shows how many Airwings of each type are assigned to the Air Unit. The Unit indicators themselves are very similar to the Land Unit Interface, and should be self-explanatory.



A Czech Air Unit. To the right is information on a specific Fighter Wing, which is accessed by clicking on the Wing in the Air Unit Interface. More information, as shown underneath the Air Unit Interface, can be shown in a Tooltip which is accessed by hovering your mouse cursor over the Wing in the Air Unit Interface.

At the bottom of the Interface is the Transport Weight Capacity, which is the Weight of units the combined Air Unit can carry. This requires at least one Airwing of Transport Planes; otherwise, the Transport Weight Capacity will always be zero.

If an Air Transport has embarked Paratroops, those will be shown by Division underneath the Transport Weight Capacity.

Disbanding a unit will keep you from having to pay to supply and reinforce that unit, and it will also return its current manpower strength to the pool. The IC you spent to build it will not be restored, though.

[26.3] UNIT DESCRIPTIONS

• Interceptor – The basic Fighter design, which is meant to be able to not only shoot down enemy Bombers by intercepting them en route to the target, but can also tangle with enemy Escort Fighters or enemy Air Superiority Missions.

• Multi-Role – Some aircraft were designed to handle a number of jobs, and so were basically "jack of all trades, master of none." A Multi-Role Airwing is effective in Air Superiority fights, but not as good as an Interceptor Airwing. They're also okay at Tactical Bombing or Close Air Support, but not as good as specialized Bombers.

• Tactical Bomber – Small, two-engine Bombers with a relatively small payload of Bombs, but which could move quickly and hit targets with precision. They work in the role of Strategic Bombing too, but they're just not as good at it as a real Strategic Bomber because of their small payload and inadequate range.

• Close Air Support – Small, maneuverable dive bombers or low-level attack planes that were specialized for supporting troops on the ground, primarily against tanks. Good to have around no matter who you were fighting.

• Naval Bomber – A type of aircraft, usually two- or four-engine, which is specialized or especially useful at long-range patrol and bombing ships. They may use torpedoes, or they may prefer level bombing. They also work great as scouts.

• Strategic Bomber – A large four-engine Bomber which could carry a large payload of Bombs deep into enemy territory and strike their cities, Resources, Factories, and major Installations. These Bombers could often protect themselves, but were always safest when accompanied by long-range Fighters.

• Flying Bombs & Rockets – These late-war technologies are basically long-range unmanned bombers used for Strategic Warfare purposes.

• Rocket Interceptor – One of the most advanced Technologies in the game allows construction of the Rocket Interceptor, which is often capable of slipping into a Bomber formation quickly enough to avoid being hit by defensive fire, while being able to fire rockets or cannons into enough Bombers to shoot a few down on each firing run.

• Carrier Air Group – Though not actually a unified Airwing of planes, like land-based units, the CAG is a mixture of aircraft meant to be able to strike Naval targets, as well as defend itself and the Aircraft Carrier from attack. A CAG cannot operate without an Aircraft Carrier, so if the Carrier is lost in Combat, so is the CAG.

[26.32] Standard Air Unit Combat & Movement Chart, See Tables.

[26.33] Standard Air Unit Miscellaneous Values Chart, See tables.

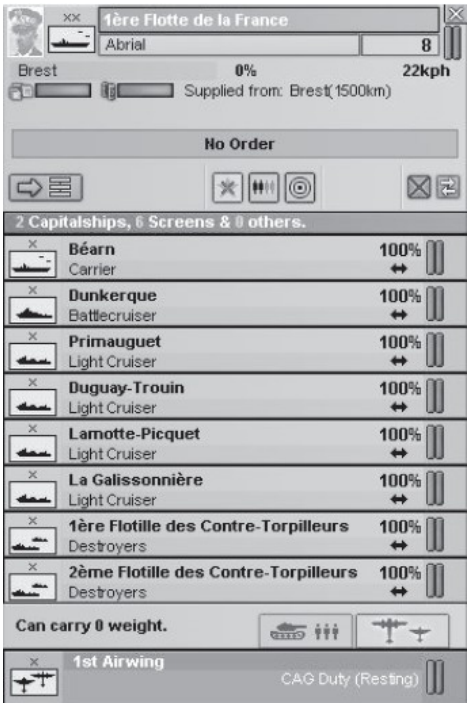
[26.4] AIR-WING UPGRADES

Incremental upgrades may add improvements to the Airwings' statistics or Combat values. Some Techs will make an old model of Airplane obsolete, and Upgrades will replace those old planes with a newer Model.

Allocating IC for Upgrades allows these improvements to be made to the units. Remember that non-essential units can be marked to not receive Upgrades (at least until all the other units have been Upgraded, which is how it worked historically), and other important units can be Prioritized to get their Upgrades first (these controls are on the Air Unit Interface), and must be funded with IC. An Air Unit must be resting and not assigned to Missions.

[26.5] CARRIER AIR GROUPS

The Carrier Air Group (CAG) is a type of Air Unit which operates like other Air Units, but which can either use an Airbase as its base for operations, or an Aircraft Carrier. Only CAGs may operate from Aircraft Carriers. See Case [10.7] for more about CAG operations.



A French CAG is shown, along with its Fleet, in the Naval Unit Interface.

[27.0] NAVAL UNITS

[27.1] NAVAL DESIGN CONCEPT

Ship types are designated as Capital Ships, Screens, or Other. Screens are meant to move ahead of the Capital Ships in battle to protect them while Capital Ships will generally try to close toward the Centreline and attack enemy Capital Ships from relatively long range. Support ships will generally try to avoid combat.

[27.2] NAVAL UNIT INTERFACE

The Naval Unit Interface is designed very much the same as the Air Unit Interface, which is very similar to the Land Unit Interface. The dark bar below the organisational buttons shows the number of Capital Ships, the number of Screens, and the number of Others (see: Naval Units for descriptions of ship categories).

The Naval Transport Capability is listed in the same manner as air units. If a Transport Ship has embarked Divisions, those will be shown unit by unit underneath the Transport Weight Capacity.

Disbanding a unit will keep you from having to pay to supply and reinforce that unit, and it will also return its current manpower strength to the pool. The IC you spent to build it will not be restored, though.

[27.3] UNIT DESCRIPTIONS

• Battleship – The mainstay of past wars, the Battleship still formed the core of most major powers' fleets in the mid-1930s. Some still held to the dream of a general fleet action between opposing Battleships on the high seas; others believed the Battleship had become a powerful support weapon, but would never again decide the outcome of major battles.

• Super-Heavy Battleship – This is a heavier version of the standard Battleship.

• Battlecruiser – A classic compromise design which made sense on paper but underperformed in practice. It is basically a Battleship design with less armour and more speed. The speed made it more versatile in combat, but the lack of armour made it very vulnerable when going head-to-head with enemy Battleships or airpower.

• Heavy Cruiser – Many fleets who couldn't afford Battleships were happy to have a few Heavy Cruisers around to form the core of their fleets. Strong enough to do everything but fight Battleships (not that some didn't try), the Heavy Cruiser could dominate a battle with smaller ships.

• Light Cruiser – As a small, fast ship with very little to no armour, the Light Cruiser was a fast strike vessel, and could act as a "heavy screen" to protect Capital Ships against direct attack. Great against Destroyers, but mismatched against larger vessels, the Light Cruiser was often best employed as a scout, rather than as a warship.

• Destroyers – Quick and nimble, these lightly-armed, lightly-armoured vessels were meant to protect Capital Ships by forming a screen around them. Often, though, this defensive role was best performed by making a daring attack upon the enemy formation by using their potent torpedo armament. Powerful in numbers, these little craft were not to be underestimated.

• Transport Ships –Troopships generally moved more quickly than your average cargo ship, and some of them were actually luxury liners before the war. Transport Ships have a large capacity for carrying military units, while leaving the more mundane Convoy duty to smaller and slower ships.

• Submarine – First tried in large numbers during World War I, their potential was demonstrated in a way that led some predict them to be the one weapon that would bring about victory or defeat for the British. Hard to detect, these boats could sneak in and deliver a killing blow before the enemy even knew they were there. Subs could be used against enemy Capital Ships or against enemy Convoys.

• Aircraft Carrier – Somewhat of a novelty in the time period in which HOI 3 starts, some predicted Aircraft Carriers could revolutionize warfare, while others refused to believe. Able to carry a Carrier Air Group (CAG), these vessels allowed a killing punch to be delivered from fairly long range, sometimes even before the enemy realized there was a threat nearby. Carriers were notoriously vulnerable to enemy surface action, though.

[27.4] NAVAL UPGRADES

Only certain components of naval ships may be Upgraded: Radar, Anti-Aircraft, and Anti-Submarine. Older classes of ships will remain obsolete, and Tech advances will only improve major components on newly-built ship classes.

[27.5] CARRIER AIR GROUPS

The advantage of having a Carrier Air Group (CAG) around your fleet is that if you happen to find an enemy Fleet nearby but can't catch them with ships, you still have a chance at striking a blow. Carrier Air Groups can protect a Fleet with airpower even when far beyond land-based airpower. The CAG packed a hefty punch when it was able to attack first.

See Case [10.7] for more about CAG operations.

A CAG whose carrier enters combat is automatically assumed to be actively defending the carrier.

[28.0] MILITARY MANAGEMENT

[28.1] MANAGEMENT CONCEPTS

General Rule
Hearts of Iron III is designed to take many of the tedious, routine tasks and possibly overwhelming numbers of units and orders out of the player's hands until the player is ready to handle them. It is for that purpose that we have created an integrated Headquarters and Theatre command structure, all of which can be handed over to the computer's Artificial Intelligence (AI).

Cases;
[28.11] The Headquarters command structure is so flexible you can make a battlefield promotion and designate a new Headquarters under a new General at any time.

[28.12] Any level of Headquarters may be turned over to AI control (which will also take over every HQ assigned to it).

[28.13] The Theatre command structure allows you to hand an HQ or individual Land, Air or Naval Units over to the computer's Artificial Intelligence (AI) to manage for you, according to specifications and guidelines you set.

[28.14] Note to HOI 2 veterans: Many of us, from many games of this type, are accustomed to moving stacks of divisions around the map without any regard to a central command structure. However, that is not how World War II was fought (few other wars either!), and the Headquarters command structure is central to World War II combat. It is recommended that you familiarize yourself with how Armies, Corps and Groups interact with each other, fight alongside each other, and coordinate with each other, so that you can make use of the built-in benefits HOI 3 provides to any integrated command structure.

[28.15] Management Concept Example (See Examples)

[28.2] HEADQUARTERS (HQS) & COMMAND STRUCTURE

General Rule
Headquarters can exist at several levels, and are linked together in a "chain of command," or HQ Command Structure.

Cases;
[28.21] When looking at any Division which is part of a Headquarters command structure, you will see one or more layers of dark-coloured bars on top of the Land Unit Interface, above the Division's unit name. Each layered bar is a higher Headquarters to which the unit is attached. If you click on the bar immediately above the Division name, you will be taken to the Corps or Army Headquarters, which is hopefully located nearby and the Map should have shifted so that you're looking at the location of the HQ.

[28.4] The Headquarters Interface will show the Headquarters itself, which is a non-combat Brigade of 3,000 men, and should then show each of the smaller units which have been placed under its command.

[28.23] Corps and Armies are somewhat interchangeable. They can both contain Divisions directly under their command structure; however, an Army may also contain Corps.

[28.24] Some Groups may even have Armies, Corps, and Divisions attached - all three! An HQ may have a maximum of 5 Land Units attached to it.

[28.25] Each of these lower-level units are shown in a list, which will also tell you how many of each command type there are – Armies, Corps, Divisions, etc.

[28.26] You can tell the command levels apart by the "x" designators. If you click on any of them above the Division level, you will see another Headquarters Interface, which may show units assigned underneath it while also showing the higher-level Headquarters you just came from.

[28.27] In this way, you can start to see the fluid nature of the Headquarters command structure: each unit flows into higher or lower structures smoothly, or at least they should. It's sort of like the folder structure you use on your computer in that you have a large folder at the top, with subfolders, and more subfolders (Divisions) inside those folders.

[28.28] You can move smoothly through the "unit hierarchy" and will always have a "road map" showing where you can go in either direction, up or down the chain of command.

[28.29] Only at the very top of any Headquarters command structure will you no longer have any higher-level Headquarters displayed in a bar on top of the Headquarters Interface. If your country's army is large enough to justify higher command, as any major power's army will be, the top of any command structure will ideally be a Group ("xxxxx") or Theatre ("xxxxxx") HQ, unless you're looking at the command structure in some colonial outpost.

[28.3] CREATING NEW HQS

General Rule
Any time you feel there should be a higher command structure (say you have three Armies operating along a front, but each one is the highest-level HQ on that front), you can always add one.

Cases;
[28.31] Any unit, from an unattached Division to an unattached Headquarters at any level below the Theatre level, may create an additional Headquarters unit at a higher level than itself out of the blue.

[28.32] This Headquarters unit will start as a Brigade of 600 men drawn automatically from your Manpower pool, and will have a General assigned to lead it. It will require 100 Officer points.

[28.33] If it is eligible for Reinforcements, it will grow in Strength to a maximum of 3,000 men.

[28.34] You may then attach each of the previously independent Armies to the new Group HQ, and there will be one commander whose responsibility it is to manage and help each subsidiary command. His Leader bonus will be passed down the line, and he will gain experience from every battle that occurs along the entire front.

[28.35] Keep in mind that Theatre Commanders serve a very important function: lessening the impact of Coordination Penalties that prevent large numbers of Divisions from operating in collaboration with one another. This penalty, unless offset by a Theatre Commander, can have such an impact in Combat that it can mean the difference between victory or defeat! Unless you have a Theatre Commander and an integrated command structure, you must learn to deal with that penalty in every battle.

[28.36] Therefore, given the previous example, it would be worthwhile to create an additional level of command – a Theatre HQ – above the Group you just formed. That way, every unit gets the benefit not only of the Group Commander, who adds bonuses of his own, but also the bonuses from the Theatre Commander. See Case [28.8] for more information about Theatres.

[28.4] RADIO COMMUNICATION RANGE

[28.41] Each level of Headquarters (Army, Group, Corps, etc.) has a certain range for its radios, which allow it to maintain contact with its assigned Units.

[28.42] Units located outside this range are unable to get the special advantages provided by HQ Commanders (a different advantage at each level, shown in [29.62]).

[28.43] The radio range of Headquarters can be increased through Technology Advances.

[28.5] AUTOMATING BELOW THEATRE LEVEL

[28.51] A Headquarters does not have to be a Theatre to be given its own Objectives and AI instructions. Any level of Headquarters can be Automated independently (though all of its assigned units follow the assignment).

[28.52] In the middle of the Headquarters Unit Interface will be a grayed-out flag, on the left. Clicking that flag will turn Automation on, and the flag will turn bright green.

[28.53] You will then be asked to set a Stance. You do not have to set Objectives, but it makes sense to do so. To set a province as an Objective, right-click on a province while the HQ Unit is selected. This sets that province as an Objective, and a bright green flag will show in the province in Theatre Mapmode (not in any other). The HQ Unit will indicate that province is now an Objective.

[28.54] Objectives in your territory are defensive Objectives. Those in enemy territory are Objectives to capture. Any HQ can set a Stance, as described in Case [28.86].

[28.55] The space just under the Objectives list will show your forces' estimated power versus what your Commander believes the enemy's power is. He's giving his impression of the odds for his success in taking the assigned Objectives.

[28.56] Automation may be canceled at any time by clicking the bright green flag in the HQ Unit Interface again. This can only be done at the level at which it was initiated.

[28.6] OFFICERS

Commentary
You control your supply of officers through the leadership sliders, but otherwise the situation is the same as with manpower. If you face a critical shortage of officers, many of the solutions are the same – laws, or the reduction of the numbers of units. The quickest way of getting more officers is to disband HQ units, hopefully by re-shuffling units to other HQs. If you get to the point where you need to eliminate one stage of HQ for a unit entirely (i.e. so that it does not have a corps HQ, for instance), that will begin to harm your combat effectiveness. On the other hand, not having enough officers does that also.

[28.8] THEATRES & HQ COMMAND

A Theatre is a region of the battlefield, or a designated portion of the world, where a Commander of Field Marshal level can be charged with the independent direction of all military operations in that area. Establishing a Theatre makes it easier to issue orders to a region where you may not want to take full control of operations, and reduces the level of micromanagement, no matter the importance of the Theatre.

[28.81] Theatre Interface
A Theatre Command is just another Headquarters Command, which just happens to be at the top of its structure. Therefore, its Interface works exactly as described in Case [28.23] for lower level HQs. However, the difference is that at the Theatre can have units specifically requested and assigned to it for the completion of its duties.

The Theatre AI will make plans for seizing the Objectives you set, and will also advise you when additional Assets are needed to accomplish its goal. The Assets you send may be a combination of different "arms," such as Land and Naval forces, allowing the AI to plot out major overseas Invasions.

[28.82] Assigned Assets
You can designate certain Units (Assets) as Assigned to a Theatre simply by incorporating them into the HQ command structure of the Theatre. Units under construction can be assigned a Theatre before they are complete.

When you click on a Theatre Headquarters while it is under AI control, the HQ will flash bright green around its Counter edges, and all of the units under that Theatre's Command will begin flashing bright blue along their edges, allowing you to see the

extent of the Theatre's (or HQ's) responsibility without having to check the Theatre Mapmode.

[28.83] Objectives

You can set Objectives for each Theatre, which can be in your territory or in your enemy's. If it's in your territory, the goal will be to defend the Objective. If it's in enemy territory, the Theatre AI will attempt to seize the Objective, provided it's set to Full AI Control.

While the HQ Unit is selected, right-clicking on a province will set that province as an Objective to either be defended or captured. Once AI control is set, right-clicking will no longer issue Movement orders to the Unit (because the AI does that now).

[28.84] Asset Requests

When an HQ Commander believes he needs additional Brigades or Units, he will send a request which will show up below your Production Queue. If you agree, those units will be placed into Production and will be automatically assigned once they're ready. You are not forced to order this degree of automation, and can always independently assign units for Production and to Theatres.

If you approve the requested Brigades, Airwings or Ships, simply click the "Build All" button. The units will then be entered into the Production Queue and assigned to that Theatre in the Queue.

[28.85] Asset Request Example (See Examples)

[28.86] Stances

In order to leave "standing orders" for your Theatre or HQ Commanders, you can set a Stance. This Stance will determine what actions the AI will take in your absence when faced with a variety of situations. If you choose an aggressive Stance, the AI will probably attack when opportunity arises. In a defensive Stance, they may stand by no matter what the opportunity, and may even prompt you through a Pop-up Window to ask for more Assets.

The Stances are:

• Prepare – The Theatre or HQ will Repair, Reinforce, recover and stock up on Supplies in preparation for an Offensive or to defend against an expected enemy attack. There are few offensive moves planned, though targets of opportunity may be attacked.

• Defensive – The Theatre or HQ will prepare to defend against an enemy attack. All its priority is on beating them back and defending its Objectives from capture. Defensive stance may allow some offensive moves against targets of opportunity, however the Prepare stance will not allow any offensive moves.

• Offensive – The Theatre or HQ will move forward steadily but aggressively to seize its Objectives. Attacking the enemy becomes the priority, with the emphasis on pathways toward the assigned Objectives.

• Blitzing – The Theatre or HQ will seek narrow breakthroughs for exploitation and encirclement. It will not worry about dangers on the flanks or encircled pockets behind the lines – that's someone else's problem, and it probably won't matter by the time you win. Holes and weak spots will be covered by Infantry while the Armour and Motorised units rush ahead, or else the AI may prefer to keep a mobile reserve to crush resistance. This Stance works best if the Theatre has a lot of Motorised, Mechanised, or Armoured Divisions.

If an AI-controlled Theatre has too many Objectives for the Assigned Assets, it will let you know.

[28.87] Axis of Advance

If you have a HQ/Theatre selected, and they are under AI control, you can shift-rightclick on a province to set the Axis of Advance. This is the direction you are demanding the Commander take to achieve his Objectives.

[28.88] Creating Theatres

Theatre changes will not be automatic for the player, as they may disrupt your plans. Instead you can force updates from the production interface.

[28.9] DOCTRINES

[28.91] Land Doctrines

Your Research into Theoretical battlefield Doctrines will improve the way your military units fight. Some of these Techs are one-time only, with special effects.

On land, there are four major categories of Doctrines you can pursue in steps, with each step contributing some to supporting the overall Doctrine:

• Spearhead Doctrine – German-style doctrines focused on tanks, breakthroughs, and fast combat and movement. Mobility can extend to improving defence, too, through "elastic" strategies.

• Superior Firepower Doctrine – American-style doctrines with bigger divisions, combined arms, and a mechanised and motorised focus. If it won't budge, force it! It has a larger demand for Supplies.

• Grand Battle Plan Doctrine – British doctrines with counterattacks, reserve replacement, and infantry focus. Much planning, obviously, goes into these style of attacks, where every piece of the army has its role.

• Human Wave Doctrine – Soviet-style, built for an army made up mostly of Militia and Partisans, with the broad view that while most of these troops are expendable, the mass will always overwhelm the enemy and prevail.

[28.92] Naval Doctrines

Which Naval Doctrine you concentrate on will depend on your view of how your navy should be used. Think which of these elements you consider the most important core units of your Fleet, and that's what you should focus on.

• Carrier Doctrine – Using Aircraft Carriers as the main fighting force at sea, this Doctrine also improves the efficiency of support vessels which are meant to protect the Carriers. This is a highly mobile Doctrine which takes the war to the enemy.

• Sea Lane Defence Doctrine – This Doctrine protects your vital interests by concentration of heavy gunpower (battleships) where it's going to be most needed, while protecting the rest of these vital sea lanes with lighter patrol Ships. The "Battleship Admirals" would fall in this category, because they're looking to defend vital areas and hope for a decisive engagement with the enemy where their guns will prevail.

• Submarine/Raiding Doctrine – This Doctrine concentrates on those Ships (or boats) which are most likely to succeed in hitting the enemy Convoys. The Submarines and Cruisers will slip through the enemy defences by sheer numbers and will hit the vital shipping lanes.

[28.93] Air Doctrines

Air Doctrines are far more free-wheeling than either Naval or Land Doctrines, because the components of each do not depend directly upon the others (i.e. there are few pre-requisites).

You may Research parts of one Doctrinal path, and also parts of a different one. The individual Techs do support each other, though, making that one type of aircraft more useful overall to your war. Researching the same Doctrine also mutually-supports the other Techs in that category by improving the Practical and Theoretical Knowledge that will help with other Techs in the same Doctrine.

• Fighter Doctrine – Focusing on Air Superiority or Interception strategies, which can be either defensive or offensive (though in an offensive role you'll normally want bombers to go in once the way is clear).

• Tactical Doctrine – Focusing on attack through light bombers against enemy troops and Installations.

• Close Air Support (CAS) Doctrine – Concentrating on closely supporting battles as they happen, attacking the enemy troops on the front line.

• Heavy Bomber Doctrine – Taking the war to the enemy homeland by attacking factories and morale. This concentrates on Strategic Warfare more than on success on the tactical battlefield.

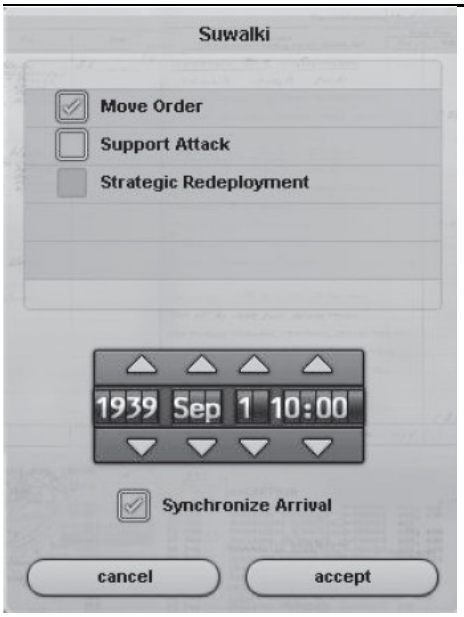
• Naval Airpower Doctrine – This Doctrine is meant mainly for powers that expect much of their war to be against the enemy navies and island bases.

[29.0] LAND WARFARE

[29.1] MOVEMENT IS ATTACK

[29.11] If you choose to move a land unit into a province where an enemy unit exists, you are ordering an attack. HOI 3 assumes "movement is attack," which means ordering movement into an adjacent province occupied by enemy units will immediately trigger Combat. The men on each side would already have been looking at each other across little more than a rifle-shot's distance, as there would not be a large "no-man's land" between opposing units, and you can assume once they start moving forward they will quickly meet enemy skirmishers.

[29.12] There is a more exact way of issuing Movement or Attack Orders for Land Units. Select the Units you want to order – individual units or a stack. Then control-rightclick on the province where you want to move or attack into. The Unit Orders Interface will appear.



You may issue an order through this Interface to simply "move and attack," but that is no different from issuing an attack command normally.

[29.13] Control-rightclick can either order the Unit(s) to Support an attack by other Units, or to move via Strategic Redeployment. See Case [20.9] for more about how Strategic Redeployment is handled, and how it can move your forces quickly "by rail."

[29.14] Support Attack is a command you can give to Units so that they will join an attack, but will remain in place once the battle is won – they will not move forward to follow the enemy's Retreat. Usually this is to avoid Supply shortages, or to keep a reserve force back so the Units which do advance are not cut off.

[29.2] COMBAT FRONTS & MAIN LINE

General Rule
For Hearts of Iron Veterans: The major concept change implemented for HOI 3 is that every unit has a "frontal footprint," called a Combat Width, and every battlefield has a limited amount of Frontage. Therefore, only a certain number of units have room to be on the Front Lines. This is a serious step forward in combat realism, but may require some adjustment in how combat is understood.

In HOI 3, every Land Unit is assumed to have a certain "Width" along which its Combat forces spread. This must be fit together with other Units along a Combat Front – the available space in which to engage the enemy.

Whole divisions enter combat, and if a division has support brigades they are considered in combat, not in the reserve.

[29.21] Province Border Frontage
Each provincial border has 10 Squares along its Combat Front. When combat begins, the primary combat elements of all the engaged units are assigned at random to these squares, with one Brigade per square. For purposes of multiple combat (See Case [29.4]), a province will have more squares on every side, and so a flanking attack from a second province can cause the Combat Front of the province to increase in Width, allowing more Divisions to move to the Front.

[29.22] In combat, divisions join as a unit in until the used width equals exceeds the available frontage. This can result in an overflow; for example, if two divisions of 4 width are in a combat where the total allowed frontage is 10, a third can join in bringing the total width to 12. It is not known yet what the join order is.

[29.23] BattleField Ranks
There are two ranks on any battlefield: Front and Reserve. There is only so much room on any battlefield, and once the space limit has been reached, the other Divisions must wait in line for a chance to move forward. These become the Reserves.

[29.24] Stacking Penalty
There is a Stacking Penalty which penalizes each side for each Brigade they have in either the Front or the Reserves. It becomes difficult to coordinate so many Units, but effective Leadership can counteract that.

[29.25] Typical Alignment
Due to the standard composition of most combat units, each Division will generally have three or four combat Brigades, which will take those Frontline Squares. Remaining Divisions will be placed in the Reserve rank. Generally, three Divisions are required to fully cover a province Front (with three to four Combat Brigades apiece).

Reserves are both Support units and units intentionally being kept out of combat, either because they are vulnerable or because they are meant to rush into any gaps that open and defeat the enemy before he can make progress.

[29.26] Units in Reserve
Divisions left in the Reserve will not be able to fight unless they are advanced to the Combat Front lines later in the battle. When Combat Events, Combat casualties, or other circumstances cause an open space of one or more squares to open up in the Combat Front, it allows a chance for each Division in the Reserve to move forward into that position and begin fighting. This chance is random for every Division, and once a Division is chosen, it then takes the vacant slot.

It is possible that a battle may be lost by those Units on the Combat Front without any of the Reserve Divisions having been able to participate in Combat. The Reserves must make way for the Retreat once the guys in the Front lines start Retreating, even if they're ready for a fight.

[29.3] COMBAT STATISTICS & VALUES

Land Units have a variety of Statistics and Combat Values. The Master Unit Values List in [10.2] has a chart showing most of these explanations.

• Strength – The number of soldiers assigned to the Unit. As the Unit's Strength is reduced by Combat or Attrition, the Strength is shown as a total number of soldiers and as a percentage of its full Strength.

• Organisation – The Unit's ability to operate the way it's supposed to. A Unit with low Organisation will be closer to Shattering or being forced to Withdraw, even if its Strength remains high.

• Effectiveness – There are two types of Effectiveness calculations: Attack and Defence. These are shown on the Unit Tooltips in the Combat Interface, which usually refers to them as the Attack Modifier or Defence Modifier. It is the same value, and is not to be confused with the other modifiers to Combat, such Weather, Experience, Leadership, etc.

• Combat Width – The amount of space along the "Combat Front" in each battle which is occupied by the Unit. Techs can reduce some Brigades' Combat Width, making it possible to fit more firepower into the same amount of space.

• Soft Attack – The Unit's capability against non-armoured targets.

• Hard Attack – The Unit's capability against armoured targets.

• Anti-Aircraft – The Unit's ability to shoot down attacking aircraft.

• Defensiveness – The Unit's ability to defend itself against attacking Land Units.

• Toughness – The Unit's ability to defend itself against defensive fire when it's attacking enemy Land Units.

• Suppression – The Unit's ability to prevent Partisan activity or rebellion within a province.

• Softness – The percentage of the Unit's Strength which is "soft" instead of "hard" (armoured) in nature. As explained in Case [28.86], this is taken into account in the targeting phase of each round of Combat, and is used to determine which of the attacker's values is used against the target.

When a unit reaches zero Organisation, it must Withdraw from Combat and begin Retreating, but since this is an organised retreat (unlike Shattering), a unit may be moved forward from the Reserve rank to take its place.

Both Strength and Organisation are calculated in Combat for the entire Division, while losses are spread out between the Division's individual Brigades. No Brigade may be forced to Withdraw, Shatter, or perform any other action or activity independently of the whole Division.

[29.31] Land Combat Example (See Examples)

[29.5] COMBAT EVENTS EFFECTS

General Rule
Combat Events are specific to either Attack or Defence, and will assist the attacker or defender in a specific way. Each of the Doctrines you can pursue for land combat has a specific Combat Event for attack and defence, though any Doctrine can produce any of the Combat Events.

Cases;
[29.51] Assault – The Attacker gets a bonus to the damage caused to the enemy.

```
attacker = 0.25
```

[29.52] Encirclement – This increases the battle's Combat Width by nearly half, allowing more units on both sides to be engaged in Combat.

```
combat_width = 5 (increased combat_width)
attacker = 0.25
defender = 0.05
```

[29.53] Delay – The Defender is able to hold the Attacker to a slower rate of movement on the battlefield.

```
movement_speed = -0.25                    #
attacker = -0.25
defender = -0.15
```

[29.54] Shock – The Defender suffers a negative modifier to the damage it inflicts.

```
defender = -0.25
```

[29.55] Counterattack – The Defender gets a bonus to the damage it inflicts.

```
defender = 0.25
```

[29.56] Tactical Withdrawal – This decreases the battlefield's Combat Width by nearly half, meaning that the Defender is able to hold some of the Attackers at a bottleneck (Terrain, more than likely), preventing an advance through more than a narrow avenue.

combat_width = -5 decreased combat_width
attacker = -0.25
defender = -0.05

[29.57] Breakthrough – This allows the Attacker to move more quickly on the battlefield, meaning it can advance more quickly against the enemy.

movement_speed = 0.25
attacker = 0.25
defender = 0.15

[29.58] Ambush – The Defender is able to lure the Attacker into a bad situation, and the Attacker will not have the ability to inflict as much damage that round.

attacker = -0.25

[29.6] MODIFIERS TO COMBAT EFFICIENCY

General Rule;
Efficiency is shown in the Battle Interface as the Attack or Defence Modifier. A variety of modifiers may affect the Efficiency.

[29.61] Stacking Penalty
The more Divisions involved in a combat, the harder it is for them to effectively coordinate. A skilled Theatre Commander may add to this ability, avoiding the penalty. This is basically a stacking penalty. Certain Doctrine Research and Tech Advances can also help.

The Stacking Penalty is approximately 1% per brigade, even if it is not in combat (reserve), and there will be a 1% reduction for every skill level of the Theatre Commander. As a result of this Penalty, an army comprised mostly of Support-heavy Divisions (i.e. only one Combat Brigade) may face problems with coordination.

[29.62] Effect of Leadership on Combat
Leaders apply their Experience (gained during each Combat), their Skill (gained through accumulated Experience) and their Traits when they lead a military unit. These leadership factors may make an important difference in combat, and may also make Combat Events more likely.

If a Leader with Traits or Skill levels is moved to a new command, he must get his "bearings" and become comfortable with his new command before his qualities become useable again.

[29.63] Traits (Land Leaders)
Like Ministers, commanders of combat units may also have Traits. These traits may give a specific advantage in Combat, or may help the Division to get into Combat in the first place (Advance bonuses, etc.). Remember that not all Traits are beneficial. See the chart in Case [28.2] for more detail.

[29.64] Terrain Conditions
The Terrain upon which a Combat occurs will provide penalties to some Units, or to all Units, depending on what type it is.

Certain Technologies can mitigate or eliminate combat penalties for certain Terrain types (for instance, the Marine Tech can reduce penalties for Amphibious Assaults).

[29.65] Weather Conditions
Certain Weather Conditions will affect Combat through negative modifiers to either defence or attack (See Case [6.2] for how these conditions come about).

[29.66] Entrenchment & Fortification
Entrenchment, or being "dug in," is the way many smaller military forces survive against much larger opponents. See Case [38.5].

An actual Fortress (Fort) is a more substantial form of "Entrenchment" which takes months or years to produce. See Case [38.6]

Both, Entrenchment and Fortification, provide a modifier to the Attacker's Efficiency (Attack Modifier), which will make it harder to hit and damage the defending Units.

[29.67] Multiple Combats
If a single province is being attacked from more than one adjacent province, the Combat Front will wrap around to encompass those flanks, thereby widening the field of battle. If this is happening, the defender will suffer a penalty in Combat.

[29.68] Shore Bombardment & Dissent
When a Shore Bombardment capable Ship (Light Cruiser or stronger) is in an adjacent seazone to enemy Land Units, it will use its Shore Bombardment value against the enemy, which will appear as a Modifier to Combat.

One of the most persistent Combat Modifiers is the rating of Dissent in the home country, which affects every Combat, Land, Air or Sea.

[29.69] Out of Supply
A Unit which is Out of Supply will have a serious penalty to defense (it also cannot attack). The same is true of Units which need Fuel but do not have sufficient Fuel.

[29.7] POST-COMBAT CONSIDERATIONS

[29.71] Retreat
Instead of simply having the losing side's units Retreat into the next province, HOI 3 tracks Retreat more carefully.

Individual Divisions will Retreat, and not the whole army. Each unit Retreats a certain distance through the province, per Round, at the rate at which the Attacker Advances. If the Attacker Advances 50% of the way through the province, the Defender Retreats through 50% of the province. In order to fully push the Defender out of the province, the Attacker must push it 100% of the way. In game terms, the percentage of the battle won is considered equivalent to the amount of the province's territory left to capture.

A unit that loses all of its Organisation is forced to begin Retreating. Some Units (such as those with a deficiency of Officers (See Case [29.74]) may be forced to Withdraw before their Organisation reaches zero.

For obvious reasons, a Retreating unit may never be ordered to Attack. Retreating Brigades also may not participate in a second Defensive battle.

[29.72] Damage to Infrastructure
Infrastructure suffers damage through what's called a Pushback Effect, which is more likely to happen the longer the Combat continues. So a Combat where the Attacker quickly wins and forces the defenders to retreat will cause little damage to Infrastructure (which further allows the Advance to proceed more quickly), whereas a Combat that drags on through many Rounds is likely to cause more damage to the province and its Infrastructure (and slows the Advance, which relies upon intact Infrastructure).

[29.73] Damage to Fortifications
A unit which is located in a Fortress province and is forced to "retreat" from a combat result will not actually retreat.

Instead, one level of the Fortress is destroyed, and combat continues with the new values of the reduced Fort (as if it were that level all along). Further retreat results cause more levels of the Fort to be destroyed, until the Fort no longer exists and the Unit is forced to retreat as normal.

[29.74] Officer Casualties
As your units take Combat losses, your Officers (and NCOs) will also take Combat losses, and must be replaced from the national pool (shown in the Information Bar at the top of your Main Screen). If your Officer corps is severely depleted, your Officers cannot perform their tasks, and your units will become more vulnerable to Shattering.

[29.75] Experience
A unit gains experience while in combat, helping it in future battles by means of a modifier to combat resolution. As a unit takes casualties, its experience is reduced accordingly, as inexperienced rookies replace the casualties. Unit Experience becomes a factor in Combat, by applying an Efficiency modifier to Attack or Defence.

Keep in mind that Leaders also gain Experience, but of a different type (See Case [28.2]).

[29.76] Recovery From Combat Damage
As with other things in HOI 3, Land Units will gradually repair any damage they receive in Combat. If the Unit is In Supply, it will recover Organisation at a rate related to the nation's Repair Rate (See Case [38.4]). Strength losses are recovered through gradual replacement of Manpower provided there is available Manpower, you have IC allocated for Reinforcements, and the Unit has not been set to not receive Reinforcement.

[29.77] Attack Delay
After combat, your units will experience a movement delay of 168 hours. You can reduce this delay by researching Operational Organization. For each level delay is reduced by 24 hours. As of 1.2 delay is linked to officer ratio. Any ratio over 100% up to 200% decreases the delay. Any ratio below 100 increase the delay.

- Attack delays are now reduced every hour during a battle to a minimum of one.

- Breakthroughs now impact attack delay. (Should be shorter as of 1.2)

[29.9] FLANKING ATTACKS

General Rule
In most games, an attack from a second direction (a Flank) just adds Combat penalties. Realistically, however, the defender would have protected themselves by being careful and anticipating the possibility. In HOI 3, this is represented by extending the Combat Front around to the sides of the battle – an attack on another Flank simply hits any additional units there (i.e. if the Flanks were guarded).

Commenatry;
When the enemy attacks your troops, and you're vulnerable, it's sometimes worth distracting them by attacking from another province, even at unfavorable odds. This will give the enemy a -50 multiple combat penalty in the first combat (the one you were worried about), and will contribute to the wearing down of the enemy. Their attack may end up being less successful, or they may even decide to stop the first attack in order to deal better with your second. In a perfect world, you could then stop your second attack – the one at unfavorable odds – and things return to the way they were before the enemy first threatened you! They can always try again, but then again so could you.

Cases;
[29.91] There is a penalty applied for defending on multiple fronts.

[29.92] In the event an active Attacker is itself attacked on its Flank (a Counterattack), there is a procedure used to determine how units react to the Flank Attack. The defender will shift Reserve units to fill the additional squares of the expanded Combat Front.

If you are attacked from another direction, in a new combat, you will suffer a serious combat penalty. It may be best to end the main attack, but don't do so automatically. If you had left some units out of the main combat, these might have been enough to field the new front, and your main attack may not suffer.

Multiple combat penalties only apply to one of the two battles, but which one is important to keep in mind.

[29.93] This has the effect of widening the Combat Front for the province: instead of being engaged on only one provincial border, the Front has spread to a second (or third) provincial border. This, obviously, allows more Brigades to be engaged at once, and is a good reason to keep Reserves around to protect against Flanking Attacks.

[29.94] If there is more than one Battle underway within a single province, a defeat on one Front is considered a defeat on all Fronts.

[30.7] There is a penalty to defence when being attacked from a second province (on a second front). The addition of new fronts adds other penalties. If a unit is completely encircled, there is an additional penalty.

[30.0] LAND COMBAT RESOLUTION

General Rule;
The actual progress of a battle is important for some players to understand, but less relevant to others – it depends on your style of play. When your eyes start glazing over, it's time to stop reading this subsection and just pick up the finer points by playing the game a few times.

Just to recap, the important unit values for direct combat are Soft Attack, Hard Attack, Softness, Defensiveness, Toughness, and Strength. There are two separate values called Attack and Defence Effectiveness (Attack or Defence Modifiers), which are generated by such "conditions" of Combat as Leadership, Weather, Terrain, and so on. You can see these Effectiveness values in a tool-tip by hovering your cursor over each Unit's symbol/name in the Combat Interface.

A Division's Hard and Soft Attack values are modified by multiplying them by the Division's Attack Effectiveness. A Division's Defensiveness and Toughness values are modified by multiplying them by the Division's Defence Effectiveness.

Remember that all combat is conducted between two Divisions, or single Brigades. Unless a Brigade exists by itself and is not assigned to a Division, a Brigade is ignored as an individual unit and is considered part of its Division.

[30.1] COMBAT ROUND

[30.11] Each one-hour period of combat is played out in a series of one-hour "rounds" and a series of "shots" and "phases" per round. The shots occur during the Firing Phase, which is where all the damage to units is inflicted. The phases after the Firing Phase resolve things that are not directly related to Unit-on-Unit Combat.

[30.12] Each round has five phases: firing, damage, shattering, push back, and reorganization. Combat has an "attacker" and a "defender" based on whichever side initiated combat.

[30.2] FIRING PHASE

Commentary;
As you can probably tell from the way the Firing Phase is set up, being outnumbered in the number of Divisions on the Combat Front can be dangerous, as can fighting Divisions whose Hard or Soft Attack greatly exceed your Defensiveness or Toughness. The latter is especially dangerous, because the enemy will overwhelm your Defensiveness or Toughness values while you will be unable to avoid being hit in the later rounds of Combat.

Cases;
[30.21] Only the Divisions that are on the Combat Front may participate in Combat during any particular round.

[30.22] Depending on who initiated the Combat, Divisions are either considered Attackers or Defenders: Attackers will be shown to the left of the Combat Interface, with Defenders on the right. Units still in Reserve cannot participate, though there is a chance they may move up and begin to engage later in the battle.

[30.23] The Firing Phase consists of a series of Shots, the number of which may vary from hour to hour, depending on the capability of the units involved. These are numbered as "Shot 1," then "Shot 2," and so on. The Firing Phase will continue until there are no more Divisions eligible to fire a Shot in the one-hour Round.

[30.24] Each Division has a number of shots it may be able to fire during a single Firing Phase. This number is largely dependent on its Soft and Hard Attack values, modified by its Effectiveness. It is also lightly affected by random factors.

[30.25] Every round, each Division will randomly select an enemy Division upon which to fire. Then, it randomly determines whether it will fire at that Division's Soft or Hard portion, the likelihood of which is determined by the target's Softness value. A Division firing on an Infantry Division with 70% Softness has a 70% chance of selecting its Soft portion, and a 30% chance of selecting its Hard portion. Once targets are selected for the round, it is determined whether that Division is allowed to fire that round.

[30.26] To determine firing allowance, the firing unit's Hard Attack or Soft Attack is modified by its Effectiveness, depending on whether it is firing at the target's Hard or Soft portion; Attackers have Attack Effectiveness and Defenders have Defensive Effectiveness. If the Attack value, modified by Attack Effectiveness, is greater than the number of the Shot, then it may fire (i.e. if a unit's modified Hard Attack is 7.8, rounded down, then it may fire if it is Shot 5, but not if it is Shot 8).

Keep in mind that even if a Division "sits out" a round because its attack values didn't exceed the shot number, it may still have a chance to fire in a later round using a different, higher value, if it has one. An example would be a Division with Hard Attack 2 sitting out Shot 3 against a Hard target, but then firing against a Soft target in round 6 using its modified Soft Attack value of 6.2.

[30.27] Once eligibility ("allowance") has been determined, those units fire at their targets. The target then has a chance to avoid being hit.

Defending Divisions use their Defensiveness value, multiplied by their Defence Effectiveness.

Attacking Divisions use their Toughness value, multiplied by their Defence Effectiveness.

[30.28] Similar to the way the resulting Attack values determine for how many rounds a Division can fire, the resulting Defensiveness or Toughness values allow a Division to avoid that number of shots from enemy Divisions during a single Firing Phase. So if a defending Division's modified Defensiveness is 6.3, it may avoid being hit by the first six shots aimed at it, while any additional shots would hit.

An attackers shot can normally be avoided 60% of the time when there is no defensivness or toughness to counter it, this is increased to 80% when the defender can counter the shot with its defesivness or toughness..

The result of this acivity is to determine the number of "Hits" each unit suffers.

[30.29] Firing Phase Summary;

The following sequence of events occurs in the firing phase:

1. Each side of the battle randomly targets an enemy division, and will keep that target for the entire round.

2. Each side of the battle will choose to attack the "soft" or "hard" aspect of its target based on its softness: a target with 70% softness has a 70% chance of receiving a soft attack.

3. Both sides of the battle will fire at each other in sequence. The number of shots fired is based on the attack values, modified by attack effectiveness, rounded down.

4. The target then defends against the shots fired:

1. Each division has defense points for the round, which are used to determined it the shot is a hit or a miss. The defender's "defense points", are its defense value multiplied by the defensive effectiveness, rounded down. When defending units fire shots back at the attacking unit, the attacker uses "defense points" from its toughness value multiplied by defensive effectiveness.

2. Each division will use one defense point for every shot fired at it. A defense point used creates an 80% chance the shot will miss.

3. If a division has used all defense points in the round, then every shot fired has a 60% chance of missing.

Example 1:A German infantry division (3 infantry brigades) is attacking a Polish militia division (3 militia brigades). The battle takes place in clear weather, on plains terrain, and there are no leader bonuses for either side. Firing Phase:

1. Both divisions target each other.

2. Both divisions are 100% soft, so softness values are used.

3. The German infantry division has a total soft attack of 6, while the the Polish militia division has a soft attack of 2. Both have 100% effectiveness because no modifiers (weather, terrain, leaders) are present. Thus, the Germans fire 6 shots in a round, while the Polish fire 2 shots.

4. The Polish militia division has a defensiveness of 13 while the Germany Infantry division has a toughness of 9. Practically, this means that both sides will never exceed the defensive points of the other side, thus all shots fired will have an 80% chance to miss.

Result: In each round, the German Infantry will hit at least 1 shot, while the Polish militia will hit 0 shots. Averaged out over time, the Germans will hit with 6 shots in five hours (1.2 shots/hour), while the Polish will hit with 2 shots in five hours (0.4 shots/hour).

[30.3] COMBAT DAMAGE PHASE

[30.31] Any Division which has been hit during the Firing Phase will suffer some damage. It is likely to suffer damage to Organisation, and may also suffer damage to its Strength.

[30.32] The amount of damage is dependent on the relevant values used during the shooting (i.e. Soft or Hard Attack), multiplied by the percentage of that Unit's Strength. Therefore a Unit at only 50 percent Strength would only inflict half of the damage it could have at full Strength.

[30.33] Damage is calculated based on the number of hits in the round. Each hit will cause 1 point of organization loss in the target and 15 points of strength loss in the target.

[30.34] Organization: A unit's capacity to stay engaged in combat. Once this reaches "1" they will retreat. Your organization is now effected by the number of officers you have.

[30.4] AFTER COMBAT PHASE'S

General Rule;
Once the Combat Phase is finished, the after-combat phases occur. The after-combat phases are conditional, only happening when certain conditions exist, so they may not happen at all in some hours of combat.

Cases;
[30.51] The after combat phases are the Shattering Phase (See Case [30.5]), Push-Back Phase (See Case [30.6]) and the Reorganisation Phase (See Case [30.7].

[30.5] SHATTERING PHASE

[30.51] During each Round of Combat, each Division is checked to see if it will Shatter.

[30.52] Generally, if a unit has lost most of its Strength or Organisation, and/or if it has a depleted Officer corps, there is a chance it will Shatter.

[30.53] Leadership, Officers (the staff) and unit Experience can help protect against Shattering, but any unit will eventually reach its breaking point.

[30.54] The survivors of a Shattered unit will automatically and immediately Withdraw from combat to their theatre HQ, where the unit must be "rebuilt" nearly from scratch (according to the Repair Rate, and relying upon available Manpower, etc.).

[30.55] Strength must be recovered through Reinforcements. The unit will retain whatever portion of its Experience survived the battle.

[30.56] Any Shattered unit which does not have a valid supply line instead Surrenders and is eliminated from the game.

[30.57] A "near miss" on a Shatter roll results in total Disorganisation, and the unit is immediately Withdrawn from Combat without any chance to replace the unit with a Reserve unit.

[30.6] PUSH-BACK PHASE

[30.61] In each Combat Round, there is a chance that a Push-back effect may occur.

[30.62] This is more likely to happen when the Defender has suffered serious Combat losses and has been forced to Withdraw.

[30.63] If it is determined a Push-back has occurred, some collateral damage is inflicted upon the Infrastructure and any Installations that exist within that province.

[30.7] REORGANISATION PHASE

[30.71] If a Combat Round ends with a vacant Combat Front square – either because of Combat losses, Withdrawal of a Unit, or Shattering of a Unit – there is a chance one of the Divisions being held in Reserve will be able to move forward and take over that square.

[30.72] It may also take any additional squares it needs to accommodate its Combat Width, which may widen the Combat Front.

[30.73] There is also a chance none of the Reserve Divisions will be able to move forward.

[30.8] OTHER CONSOLIDATIONS & ENDING COMBAT

[30.81] Things that may change for a Division from one hour of Combat to the next include Strength, due to losses due from damage, and Attack and Defence Effectiveness, which may change according to a number of conditions.

[30.82] A Division may also be forced to Withdraw from Combat due to Organisational losses, or other combat results.

[30.83] Combat ends when one side or another has Withdrawn all of its units, either as a Combat result or by voluntary Withdrawal.

[30.84] Whenever one side or the other no longer has any Brigades on the Front, that side is defeated and the Combat is over, even if the losing side still has Reserves.

[30.85] If the Reserves didn't make it into the Front rank, it's too late.

[30.9] COMBAT EXAMPLE

Summary;
When attacking, the higher a unit's modified hard or soft attack value is, the more likely it is to be able to shoot at and damage the enemy. The higher a target unit's defensiveness (or toughness, if attacking), the more likely it is to be able to defend against the shot, and avoid damage. Basically, this means that if the combined total of the attacker's modified values along the combat front are higher than the combined total of the defender's modified values along the combat front, the chances are good that significant damage will be inflicted upon the target (usually organisation, but some strength). Therefore, being outnumbered or outclassed (i.e. The enemy's unit values are stronger than yours) is very dangerous, and will probably result in eventual defeat. This is why numerical superiority is so important, as is supremacy of technology, which will increase unit values.

All combat on one front takes place as one battle, although a new flanking attack may create a multiple combat. Damage to each division divided between brigades, including support brigades. Each shot does damage to a single division, chosen randomly.

At most times, during battle, the value you must watch is your units' organisation, not their strength. Strength is important, of course, but most units which are forced to retreat still have significant strength remaining, but have lost most of their organisation. If a unit which has lost organisation can be moved back before it shatters, it can spend several hours or a couple of days recovering organisation and will then be almost as combat ready as it was before (absent a relatively small percentage of its strength – whatever was destroyed in the earlier combat).

Obviously, when a unit is greatly outnumbered, it is at a disadvantage because all damage is concentrated on fewer divisions, not spread out between them. The combat front concept limits this, thankfully, in a more realistic way. But a single unit, or a couple, cannot hope to hold out forever while being pummeled by several units, absorbing all the hits they can deal out. Factors such as entrenchment, fortification, good defensive values, etc. may help on the defense, and make a seemingly hopeless battle survivable.

Single brigades are ineffective due to their small attack value, which gets washed out by the defensive values of the enemy. Theoretically, single brigades fighting each other would have a better chance, but this is unlikely to ever happen.

Cases;

[30.91] The Attackers & Defenders

The attackers consist of 4 armoured divisions, each consisting of 1 x Armour, 2 x Motorised and 1 x SP Artillery. The combat values of each division are as follows;

	Arm	Mot	Mot	SP art	Total
Hard A	5.33	1.67	1.67	4.93	13.50
Soft A	5.33	4.40	4.40	8.93	23.06
Tough	7.00	5.40	5.40	6.60	24.40
Def	7.67	8.33	8.33	8.60	

The defenders consist of 3 infantry divisions, each with 3 x infantry brigades and a artillery brigade.

	Inf	Inf	Inf	Art	Total
Hard A	1.67	1.67	1.67	1.93	6.94
Soft A	4.40	4.40	4.40	4.13	17.33
Tough	5.40	5.40	5.40	1.20	

	Inf	Inf	Inf	Art	Total
Def	8.53	8.53	8.53	3.07	28.66

[30.92] Frontage
The standard frontage in each hex is 10.

For our defenders, each infantry division has a frontage of 3, so all 3 infantry divisions are involved in the combat.

Assuming the attackers have achieved the doctrine which reduces the armoured frontage to 1, the 4 divisions total 12. The first 3 divisions occupy 9 squares, because there is a empty square you are allowed to have an attacking frontage of 12. So all 4 divisions can attack.

The frontage is important, if attacking from multiple sides your attack frontage can increase. Each side add 5 to the attacking frontage, but does not increase the defending frontage.

[30.93] Attack & Defence Effectiveness
The resulting Hard and Soft Attack values are modified by the Effectiveness. Effectiveness is determined based on a range of modifiers which could affect attack and defence. For this example we will assume the effectiveness is 1 for both attacker and defender, which means when this value is multiplied by the hard and soft attack values, the values remain the same.

Some of the effectiveness modifiers include terrain, combined arms bonus, leadership and being attacked on the flank.

[30.94] Rounds, Phases & Shots
All combat is divided into 1 hour rounds. Each round consists of a number of phases, the main phase being the Firing Phase. During each Firing Phase there will be a number of shots, numbers 1 to a value which is greater than the highest possible Attack Value. See Shots below.

[30.95] Attack Values
Before the shots are conducted each Division will randomly be allocated to fire at an enemy Division. It will use "either" its HARD or SOFT attack value to do this. This is determined randomly, as follows;

Division firing on an Infantry Division with 70% Softness has a 70% chance of selecting its Soft portion, and a 30% chance of selecting its Hard portion.

Thus, if attacking a Division which has a high Softness, its important to have a good Soft Attack value. In our example combat the defenders have a softness of 100%, so the attackers will ONLY use its Soft Attack value, which is 20.63.

[30.96] Firing
Once targets are selected for the round, it is determined whether that Division is allowed to fire that round. Both sides fire at each other.

Each Shot is numbered from 1 and going up to a value greater than the modified attack value of a unit. If the attack value is greater than the "Shot Number", it may fire on the defender. Thus our attacker with an attack value of 20.63 will fire 20 times at the nominated defender in a single 1 hour round.

In our example the defender (infantry) will be firing at the armoured divisions, which have a softness of 67%. This means that 2 out of 3 shots will be using the Soft Attack Value of 17.33 and 1 out of 3 shot will be using the Hard Attack Value of 6.94. The number of shots will be about 14.

The next stage is avoid the shot. A Defender uses its defensiveness value to defend against a number of enemy shots. That number of shots which can be defended against is equal to its modified defensiveness value. The infantry have a value of 28.66, so can defend against 28 shots. The attacking armour can defend against 24.4 shots.

In summary we have 4 divisions shooting 20 times each, for a total number of shots of 80.

Each infantry division can defend against 28 shots and the armour can only fire 20 shots, thus all the attackers shots can be defended against.

When a shot is defended against, it is stopped 80% of the time, thus our 80 attacking shots is reduced to 16 HITS. One infantry division will be attacked by 2 armoured divisions, thus will suffer 8 HITS, each of the other infantry divisions will suffer 4 HITS each.

Each armoured division will be shot at 14 times, but can defend against 24 shots. So all the defenders shots can be defended against and are reduced by 80%. The defenders have a total of 42 shots, of which 8 will get through. Each armoured divisions (3 max) will be shot at 14 times, of which 2-3 HITS will be scored.

So the attackers inflict 16 HITS per round and the defenders inflict 8 HITS per round, on average.

Each hit will cause 1 point of organisation loss in the target and 15 points of strength loss in the target.

Thus, one infantry division will lose 8 organisation and 120 points of strength in each round and the other two will lose half that. As the standard organisation for most units is 30 (and assuming organisation is averaged and not cumulative in a division) that division can only survive for 3 rounds. As its not being hit twice each round it will fall apart by round 4, on average.

The armoured divisions can, on average, survive 15 to 20 rounds, so in this case they should easily win.

[30.99] Summary
The combat system is based on the number of shots which get past a units defensiveness or toughness. You increase the number of shots by increasing the number of units you have attacking or defending, or by increasing the attack values of each of your units.

The defender is limited to 10 wide frontage. The attacker has many options to increase its attack frontage. Attacking from multiple sides and have 4 units of 3 frontage helps to maximise the number of units which can attack.

You can increase the divisions attack value and if defence value by ensuring each division is as large as possible, while retaining a frontage of 3. You do this by having support units, so a division with 2 support units will increase attack and Defence values.

The other factor is matching hard and soft attack values. Most infantry have low hard attack values, so keeping your softness as low as possible for your armoured divisions will assist in preventing any damage to your attackers. If attacked it will help you defending. So if your armoured division has a softness of 50%, only half the shots will use the soft attack value and half the hard attack value. If the hard attack value is low this has a serious impact.

You should also ensure your armoured divisions have a well matched soft and hard attack value. In our example the hard attack value of the armoured has no value because the target is 100% softness.

[31.0] AIR WARFARE

[31.1] AIR ORDERS INTERFACE

General Rule
You must right-click on a "target" province or Seazone in order to give a movement order to an Air Unit (or a stack of them). The Air Orders Interface will appear. At the very top, you will see the name of the province where the unit is based.

Beneath this, on the left, is a list of Mission Orders you can give to your selected aircraft.

[31.2] AIR MISSIONS

Commentary;
When you're employing airpower against enemy troops, attacks upon larger stacks will have the most overall impact – you will kill more of the enemy, and reduce his strength more – but you may have a more significant impact against a single unit or a smaller stack that's in combat, because your reduction of enemy strength in a smaller battle may equal a larger percentage of the whole. That is, you will be more likely to cause the enemy to shatter and run, which may be a more important goal, even though you kill fewer enemy troops.

Would it be better to hit infrastructure next to the capital, or next to the units you're trying to place out of supply? Hitting next to the units allows you to select the units affected, whereas hitting near the capital simply allows random units to go out of supply. On the other hand, hitting provinces near the capital may have a longer-lasting and more far-reaching effect. Determine your tactics depending on what you most need.

Systematic bombing of enemy airfields may give you a reprieve from constant air attack, but you will have to keep it up over time to overcome the repair rate which makes these airfields operational again quickly. The strategy cannot be to completely destroy the enemy's ability to base his units, which technically is not possible, but instead to make it impossible for the enemy to repair his units because his airbases lack the capacity (because they've been bombed to levels lower than the number of aircraft they must support).

Don't put too much effort into destroying runways if you're about to conquer the province it's in. You might find that undestroyed airfield very useful! Generally, judge how quickly the airfield is repairing damage, and estimate how long before you might capture it. You don't have to have a fully operational runway, but at least one undamaged level will be most useful to you.

Because runway cratering missions (and others, perhaps) may accomplish everything you need very quickly (within 2-3 strikes), you should consider launching individual raids, not using the "continuous" checkbox. It's all reliant upon how much you can remember, and how much micromanagement you're willing to do.

On the other hand, remember that airbases are repairable, and so even a destroyed airbase may still be able to operate again within several hours' time. Take this into consideration before sending your units on a suicide mission. It may not matter at all in the whole calculation, but you should consider your options.

Even with concentrated air attacks, it is unlikely that airpower alone can completely destroy a land unit, or even cause it to retreat, unless the attacks are combined with an underway ground attack. However, it's certainly possible to use airpower "soften up" the enemy units before an attack. It's also a lot more useful if the enemy is having manpower shortages or if they're out of supply, because in those cases any damage you inflict is more likely to remain permanent.

If the enemy has a "salient" into your line (a pocket of troops that bulges out from their main line), you can bomb his infrastructure behind the line and cut him off from supply without permanently hurting your ability to get supply as you move forward – your supplies just travel around the bombed-out area, whereas his supplies have no choice but to go through the narrow passageway because your units cut off supply from any other direction. In most other cases, you must balance your immediate need to cut the enemy off from his supplies against your future need to use those same provinces to support your offensive into his territory.

Patrols over the sea may uncover attempted invasions, or targets of opportunity. When you need to use naval bombers or other air units to patrol over the ocean, you can set them to air superiority mission (not intercept) and they will fly at that location until redirected by you or forced to return. Yes, use air superiority even for bombers if they're flying patrol – setting them to naval strike will send them there, and they'll come back right away if they don't find anything. On the other hand, if you want your naval bombers to bomb anything they find, then you may prefer to send them on naval strike missions – this just may require more micromanagement. Be sure not to leave any airwings "hanging" on patrol, in case you need them for other duties, or they don't automatically return.

Setting fighters and interceptors to fighter missions depends on what you want to do. If you'd rather they not spend fuel and waste organisation flying constant missions, you can set them to air intercept.

They will arrive soon after enemy units are detected (though not right away – keep this in mind if the range is distant, or if you want immediate action). However, you must be able to detect the enemy first, and so air intercept does not work over enemy territory unless you have radar covering that area.

Air superiority sends your aircraft on "fighter sweeps," looking for enemy fighters or bombers. This is often ordered over enemy territory, but doesn't have to be. Air superiority missions fly constantly (depending on your night/day orders), and so can run into enemy air units that weren't previously spotted. But this also means they fly a pattern across whatever region (or cone, or area, etc.) you assign them to. If they're on the far end of their patrol pattern, and your enemy flies a mission where they just were, they may not be able to come back in time to catch them. Each mission has certain limitations, as noted.

Paratroops (Paradrop mission) sometimes are your only way to access some territory, especially if the option of amphibious invasion is blocked by enemy naval superiority.

Strategic bombers are most useful if IC or whatever is concentrated in certain provinces. If the IC is more dispersed, you'll have to pay more attention to re-assigning your missions (or turn it over to an HQ). Strategic bombers are your primary way of affecting enemy IC and resource production without having to conquer territory.

Cases;

[31.21] Missions

• Air Superiority – The Air Unit (which is presumed to be comprised mainly of Interceptors or Multi-Role Airwings) will fly to the specified target area with the intent of attacking any enemy Airwings it encounters.

• Air Intercept – The Air Unit is ready to respond (Scramble) whenever an enemy Air Unit is detected to be approaching the designated target area. This is like the Air Superiority Mission, but is less aggressive, and saves Airwing Organisation and Fuel.

• Strategic Bombing – A Bombing Mission meant to attack the enemy's home territory or Occupied Provinces (Hexes) in order to destroy Resources or Installations.

• Logistical Bombing – A Bombing Mission meant to attack the Infrastructure in a province (presumably to either slow an Advance, or to lessen Supply Throughput to enemy Units).

• Runway Cratering – An attack upon an enemy Airbase with the intent of destroying enemy Airwings on the ground and/or reducing the level of the Airbase.

• Installation Strike – A Mission to destroy Installations within a province.

• Ground Attack – This is a form of Close Air Support, meant to destroy the Strength and Organisation of enemy Land Units.

• Interdiction – This is a broader form of attack upon the enemy's Land Units, where Units behind the lines may also be targeted.

• Port Strike – The Air Unit will fly to the selected enemy Naval Base, and will attack both the Naval Base facilities and any Ships based there. This can be a particularly harrowing and dangerous Mission, because you may face enemy fighters and Anti-Aircraft fire from both the Ships and the Naval Base itself. Select the province containing your target Naval Base to begin the Mission.

• Naval Strike – The Air Unit will fly over the ocean and attempt to find enemy Naval Units to attack. The Air Unit will face Anti-Aircraft fire over the target, and may even face counterattack by a CAG or enemy land-based air cover (Air Superiority Missions assigned to enemy land-based fighters). Select a Seazone, Region at sea, Cone, or Area assignment for this type of Mission, concentrating your attack where you know or suspect there might be an enemy Fleet.

• Convoy Raiding – The Air Unit will fly over the ocean and attempt to find enemy Convoys to attack. Convoy Escorts may provide some resistance through Anti-Aircraft fire, but this is otherwise not a dangerous Mission unless there is air cover assigned by in-range enemy fighters. Select a Seazone, Region at sea, Cone, or Area assignment for this type of Mission, concentrating your attack where you know or suspect there might be a Convoy Route.

Reserve – At an Airbase with multiple Airwings of same-type aircraft, selecting an Airwing for Reserve will replace a damaged portion of the other Airwings with the Strength and Organisation of the Reserve Airwing. This is a way of backfilling losses and giving more staying power to Airwings on high-risk Missions. Select the province where the current Airbase is located for this Mission.

• Rebase – The aircraft will move their base of operations from the current Airbase to a new one. Select a province with the "new" Airbase, and select Rebase. It should not matter whether it's Day or Night, but make sure "Continuous" is not checked.

[31.22] Each attack Mission will result in the Air Unit attacking the target for a duration of 4 hours. If there is land-based Anti-Aircraft Installation (to whatever level), that AA Installation will fire at the Air Unit each hour.

[31.23] Obviously, Missions can only be pursued if the selected aircraft can perform them. If a stack of aircraft is selected, a Mission can be pursued if at least some of the units in the stack are capable of carrying it out, though only those aircraft will perform that Mission – other aircraft will support them in another role. Missions that cannot be performed by the selected aircraft will be either grayed out, or will not show up at all in the list.

[31.3] SPECIFIC ORDER CONTROLS

General Rule;
Next to the Mission Orders column, on the right, is an Area Selection tool. Don't be daunted, even if it looks like we've thrown you a map and compass and told you to plot a course! This tool can overwhelm you if you let it, but this shouldn't happen if you follow instructions carefully.

There are four ways you can direct your Mission, and each involves clicking on a starting province within the Air Unit's range:

[31.31] Province

The Mission will be flown over and limited to just one province you designate.

[31.32] Region

The Mission will be flown over a region of three or four Provinces (Hexes), a region you designate.

[31.33] Cone

The Mission will operate in a Cone starting at the province you designate, and will span outward in the direction you set with the Interface controls. You must use these controls to set other parameters for the Cone, setting the Range slider to show how many Kilometers out the planes will fly before turning onto the outside "leg" of their route, and setting the Angle slider to show how wide the Cone will be at its furthest extent.

[31.34] Area

The Mission will operate within a radius of the province you select, extending to a Range you set with that slider.

[31.35] You must then set your Air Mission's Stance and Priority.

Stance instructs it on whether it should actively look for the enemy, or seek not to be noticed. Priority sets the Air Mission's likelihood to receive Reinforcements to recoup losses it faces during its Missions.

[31.36] You can set whether these Air Units operate only during the Day, the Night, or if their Airwings continue acting on their orders 24 hours a day for the duration of their Mission.

Obviously, if they are set for Day and Night, they may not have time to recover between missions. It's assumed not all the unit operates 24 hours, but if the unit sees more than occasional combat it will not have the flexibility to rest and recover its strength.

[31.37] Underneath these controls are two Calendars, which you can use to set the beginning and ending dates for the Orders you are setting.

[31.38] At the very bottom of the Air Orders Interface is a checkbox which allows you to order the Unit to perform the Mission repeatedly ("Continuous"), and two buttons to "Cancel" (and disregard your orders) or "Accept."

[29.39] Air Combat Example (See Examples)

[31.4] DETECTION & AIR DEFENCE

General Rule;

Air Units are Detected when they Attack, when they enter friendly Airspace, when they are Spotted by friendly Ships, or when they come into range of friendly Radar Stations.

Enemy Air Units may also Spot the planes if they are in the same province.

Cases;

[31.41] Radar Stations

Radar Installations on the ground will, of course, assist in Detecting enemy Air Units and Air Missions. They also add a bonus to any friendly Air Units in Combat within its range.

[31.42] Air Unit Radar

Airsearch Radar and Navigation Radar (both aircraft mounted), fill a different role from land-based Radar Stations. They aid Air Units in their Combat Missions. Once Researched, improves certain Air Units' Detection capabilities against enemy Air Units, depending on which Aircraft type has the Radar installed.

Aircraft-mounted Radar improves certain Air Units' Attack and Defence values at Night, because it allows them to operate with some independence from eyesight-only navigation.

Airsearch Radar can be useful during the day, but is most helpful in fighting enemy Night Bombers. Strategic Bombers equipped with Navigation Radar have a bonus to their Strategic Bombing.

[31.43] Scrambling & Intercept

When incoming enemy Air Units are Detected entering friendly territory, a Scramble order is issued to any Air Units assigned to Air Superiority or Intercept.

Fighters assigned a Defensive Stance will wait until the enemy unit enters friendly Airspace before attempting an intercept. More aggressive Stances will attempt to Intercept even before the unit enters friendly Airspace.

[31.44] Anti-Aircraft

Any enemy Air Units passing through a province equipped with an Anti-Aircraft Installation will be attacked by that AA.

Each level of the AA Installation will get one opportunity to attack the Air Unit. These attacks will most likely cause a little damage to Strength for each level of AA, and a larger amount of damage to Organisation.

Land Units also have AA values, especially if the Division contains an Anti-Aircraft Brigade. This AA value is employed in the same way against enemy Air Units that attack that Land Unit, but only if the Land Unit is attacked.

[31.5] COMBAT STATISTICS & VALUES

[31.51] Air Units are always considered to be Brigade-sized, but they can be freely reassigned into whatever structure is desired.

[31.52] Organisation is very important to Air Units because it's what allows them to continue performing their Missions effectively.

[31.53] Every Airwing is assumed to have a Strength of about 100 planes. As with other types of Units, Strength for each Unit is assumed to be a percentage of that maximum.

[31.54] It is also assumed that not every plane flies on every Mission – that a proportion of the Airwing is held back and rotated into whatever continuing Mission they have.

[31.55] See the chart in [10.2] for more information about what each Combat value means, and how it's used in Combat. The chart lists values used in air-to-air as well as air-to-ground Combat.

[31.7] MODIFIERS TO EFFICIENCY

[31.71] Effect of Leadership on Combat

Leaders apply their Experience (gained during each Combat), their Skill (gained through accumulated Experience) and their Traits when they lead a military unit. These leadership factors may make an important difference in combat, and may also make Combat Events more likely.

[31.72] Traits (Air Leaders)

Like Ministers, commanders of combat units may also have Traits. These traits may give a specific advantage in Combat, or may help the Air Unit to get into Combat in the first place (Spotting bonuses, etc.). Remember that not all Traits are beneficial.

See the chart in [28.2] for more detail.

[31.73] Dissent

One of the most persistent Combat Modifiers is the rating of Dissent in the home country, which affects every Combat, Land, Air or Sea.

[31.74] Stacking will also have an effect on Combat Modifiers, see Case [31.8].

[31.8] AIR COMBAT STACKING PENALTY

[31.81] The more Airwings are in Combat during a Round, the more difficult it will be to coordinate their attacks. This is expressed as a penalty, which affects the Attack or Defence Modifier (Efficiency).

[31.82] The stacking penalty used for aircraft creates a normal distribution penalty whereby the maximum effectiveness of aircraft stacks is five. Any aircraft beyond that number become increasingly less effective.

# Wings	Penalty	Effective # Planes
1	-	100
2	10%	180
3	20%	240
4	30%	280
5	40%	300
6	50%	300
7	60%	280
8	70%	240
9	80%	180
10	90%	100

[31.83] Especially if you find two of your formations joined into the same combat – such as your interceptors responding to an attack upon your bombers – the added number of planes may combine to ruin all of your planes combat effectiveness. The solution would be to remove the least effective airwings from the fight. Hopefully, your bombers, for instance, have done much of what they came for, and you can leave the fighters to battle between themselves by retreating your bombers back to base. Remember to give them new orders, after breaking off combat.

[31.84] The stacking penalty is not all to it. Assuming there are bonuses from experience, leader or doctrine, the equilibrium shifts towards larger stacks. The following table lists number of effective airplanes in a stack with 30% and 50% bonus respectively.

# of wings	Effect # wings with No bonus	Effect # of wings with 30% bonus	Effect # of wings with 50% bonus
1	100	130	150
2	180	240	280
3	240	330	390
4	280	400	480
5	300	450	550
6	300	480	600
7	280	490	630
8	240	480	640
9	180	450	630
10	100	400	600

This shows three things:

1. The point of maximum effectiveness raises with the bonus.

2. Good tech can overcome larger numbers.

3. Large stacks are for those with good tech/leaders/experience. The additional fighting power gained by adding a wing is much higher for someone with good bonuses and the spread between the stacks with or w/o bonus is increasing over the number of wings in the stack.

[31.9] AIR MOVEMENT & INTERCEPT

[31.91] Aircraft have a speed, and if they can cross 3 provinces in an hour, they do so.

[31.92] Your trick to intercepting is either to have air superiority missions waiting when they get to their target (i.e. figure out where the enemy would probably attack, and protect it), or have fighters set to the Air Intercept mission.

[31.93] The bombers will hit on hour one, and stay through 4 hours (a total of 4 hours), which means your air units set to intercept will arrive and start fighting the enemy bombers for the 2nd, 3rd & 4th hour, even if they were 3 provinces away when the bombing started.

[32.0] AIR COMBAT RESOLUTION

General Rule
When enemy Air Units meet, or when Air Units attack Land or Naval Units, Combat ensues. This section discusses how that Combat is resolved.

Commentary;
As with land combat, your goal is to have a higher combined total of modified air attack (anti-air) values that are higher than the combined total of modified air defense values of the enemy. These may not be apparent in the interface, so you may just have to try combat with various enemy aircraft types and remember how each type fares against you.

Keep in mind that, as with land combat, the units' relative effectiveness may greatly modify their relative ability to fight each other. A completely inferior air unit, for instance, may have an advantage because of its effectiveness, whether this is because of stacking penalties, or whatever.

Don't stick around long enough to seriously deplete your combat strength. You spent a lot of hard earned money on these planes – if your enemy destroys a whole airwing in combat, you've permanently lost an important part of your warmaking ability.

[32.1] AIR COMBAT INTERFACES

[32.11] Like the Land Battle Interface, the Air Combat Interface shows a progress bar at the top indicating relative success in the battle.

[32.2] The country flags and Commanders are shown, as well as a row of icons indicating the Modifiers active during that round of battle.

[32.3] The two columns of combatants are headed by an indicator of how many Airwings are in each battle, or in the case of an air-to-ground battle, one side will show how many Land Units are being attacked. Each Unit's Strength and Organisation are shown.

[32.4] Tooltips provide more detailed information about Modifiers to Efficiency.

[32.2] FIRING PHASE

General Rule;
Air Combat is resolved in a way very similar to that described for Land Combat, except there are no Fronts, no Reserves, and no Phases other than the Firing Phase.

Cases;
[32.21] Each one-hour Round has a series of Shots. The values, multiplied by the Attack or Defence Modifier (Efficiency), determine how many Shots each Unit is eligible to try, and the values interact the same way.

[32.22] Targets are chosen randomly among those available.

[32.23] In air-to-air Combat, each side uses his modified Air Attack value against the other Units' modified Air Defence value.

[32.24] In air-to-ground Combat, the Airwing will use its Hard or Soft Attack value against the Land Unit's Air Defence value. The Land Units will use their Air Attack (Anti-Air) value against the Airwing's Surface Defence value.

[32.25] In the case of Installation Attacks, or Strategic Bombing Attacks, the Air Unit will use its Strategic Attack value.

[32.26] Attacks upon Ships would use the Sea Attack value against the Ship's Air Defence value, whereas the Ship would use its Air Attack value against the Airwing's Surface Defence value.

[32.3] COMBAT DAMAGE

[32.31] Damage is resolved in exactly the same way as with Land Combat, except that hits on Ships are modified by (divided by) the Ship's Hull value.

[32.32] Units which lose all their Organisation, or which fall below their set threshold for Organisation will Withdraw.

[32.33] In rare circumstances a Unit may be destroyed from losing all its Strength.

[32.4] ENDING COMBAT

[32.41] In air-to-air Combat, once all Air Units belonging to one side have either left Combat voluntarily, been destroyed, or been forced to Withdraw by lack of Organisation, the Combat will end.

[32.42] The same is true of air-to-ground Combat when either all Air Units have been destroyed, Withdrawn, or driven off, or the Mission duration comes to its end after four hours.

[32.5] RECOVERY FROM COMBAT DAMAGE

[32.51] As with other things in HOI 3, Air Units will gradually repair any damage they receive in Combat.

[32.52] If the Unit's Airbase is In Supply, it will recover Organisation at a rate related to the nation's Repair Rate (See Case [38.4]).

[32.53] Strength losses are recovered through gradual replacement, provided you have IC allocated for Reinforcements, and the Unit has not been set to not receive Reinforcement.

[32.6] AIR ATTACKS ON NAVAL UNITS

[32.61] Airwings may attack Ships, and will use their Sea Attack values against the Ship's Air Defence Value.

[32.62] Ships use their Air Attack (Anti-Air) value to return fire, and the Airwing uses its Surface Defence value to avoid being hit.

[32.7] AIR ATTACKS ON LAND UNITS

[32.71] Tactical Air and Close Air Support (CAS)
When Air Units are assigned to Tactical Air roles against enemy units, they will randomly select squares to bomb. The number of squares to be bombed will depend on what Air Doctrine they are using.

[31.72] Tactical & Close Support
Air Units assigned to attack Land Units (Close Air Support, Interdiction, etc.) will face not only any Anti-Aircraft Installations in the province, but also the Air Attack (Anti-Air) value of any Units they attack.

[31.73] Interdication v Ground Attack
Ground attack attacks the unit per se, and so reduces first organization then strength.

Interdiction threatens to attack the unit (and does so, but to a much lesser extent) with the purpose of making the unit take cover. Once the unit stops its activity and takes cover, it has accomplished it mission, move on the next unit and make them stop and take cover. With interdiction, you can stop units withdrawing from your pursuit (so you can cut them off) and you can stop the enemy's pursuit of your units. You can also delay reinforcements from reaching a battle's province.

[32.8] AIR COMBAT EXAMPLE

[32.81] Air unit attacking land units.
The attacker is a 1941 close support aircraft, attacking an enemy 1941 infantry division with 3 inf brigades.

The CAS has a soft attack value of 9 and an air defence value of 2.

The infantry division has a air attack value of 0.99 and an air defence value of 6.

The CAS will attack with a value of 9 against the infantry defence value of 6. 6 shots will be defended against and only 80% will convert to a Hit, 3 shots are not defended against and 60% will convert to a hit. This results in and average of 2.4 hits per round.

The infantry will attack with a value of 0.99 against the CAS defence value of 2. As all fractions are rounded down there is no result. If due to a modifier this value went up to 1, this would have a 20% chance of getting through and the average Hits would be 0.2.

Note : Its important to add a support brigade to get your infantry division Air Defence to 1, or more. Otherwise the chance of inflicting any losses on attacking air units is negligable.

Attackers Comparison : A tactical bomber has a soft attack value of 13.5, which means it inflicts 4.2 hits per round. It also will not suffer any hits. A multi-role has a soft attack of 6, which means it will only inflict 1.2 hits per round. It also suffers no losses.

Defenders Comparison : If the infantry division has an AA brigade, its air defence value goes up to 11.4. This means most enemy shots will be defended against resulting in only 1.8 hits from CAS, 3 hits from tactical bombers and the same 1.2 from multi-role. Its attack value is 3.39, which means it will inflict and average of 0.6 hits per round against any of the attacking enemy aircraft.

Summary : Air attacks will generally not suffer any losses from counter-attacking land units, unless they target a large stack of units with a lot of AA Brigades. AA Brigades dramatically reduce the effect of enemy air attacks. Multi-role aircraft have minimal value in ground attacks.

[32.82] Air units attacking Air units (Bombers)
The attacker is a 1941 interceptor, which is attacking a 1941 strategic bomber.

The interceptor has an air attack value of 14 and its air defence value is 5.5.

The strategic bomber has an air attack value of 3 and an air defence of 11.

The interceptor attacks with a value of 14 against the strategic bombers value of 11, resulting in and average of 3.4 hits per round.

The strategic bomber attacks with a value of 3 against the interceptors defence of 5.5, resulting in and average of 0.6 hits per round.

Attacker comparison : A Multi-role has an air attack of 9, which means it will inflict 1.8 hits against the strategic bomber. It will also suffer 0.6 hits per round.

Defenders comparison : A Tactical bomber has an air defence of 4.25, which means it will suffer 4.8 hits per round from the interceptor and 2.8 hits per round from the multi-role.

Summary : Interceptors will inflict heavy casualties against any type of bomber. Multi-roles are significantly less effective.

[33.0] NAVAL WARFARE

[33.1] NAVAL ORDERS INTERFACE

If you right-click on a Seazone when you have a Fleet selected, the Naval Orders Interface will appear. This will allow you to set Movement Orders and/or a Mission for the Fleet.

[33.11] Naval Missions

• Move Order – The Fleet will move to the selected Seazone and remain there.

• Rebase – If you select a Seazone or province with a Naval Base, the Fleet will change its operating Naval Base to the one you've selected. It may take a few days for the Fleet's Supply train to arrive and begin actively Supplying the Fleet.

• Reserve – The Fleet's Ships will be used to "backfill" Missions by another Fleet based out of the same Naval Base. For instance, if another Fleet has its Mission assigned as Patrol but its Ships are losing Organisation due to Combat or other factors, then the Reserve Fleet's Ships will be assigned to fill in for any Ships that might need to be rested or repaired. The Ships taken out of their Mission will be sent into the Reserve Fleet instead while they rest.

• Patrol – The Fleet will move to the selected Seazone, and will then randomly move into the neighboring Seazones, looking for enemy Ships or Aircraft. It will continue this pattern until its Range is used up.

• Intercept – The Fleet will remain in port until an enemy Fleet is detected nearby, at which point it will leave the Naval Base and attempt to Intercept the enemy Fleet.

• Sortie – The Fleet will leave its Naval Base and move to the selected province on a Patrol of sorts, but will then return to its Naval Base. A Sortie is a brief Patrol, usually meant for a specific purpose.

• Convoy Raiding – The movement pattern for Convoy Raiding is similar to the Patrol Mission, except that the Fleet will look for enemy Convoys (which are normally hidden from regular Naval Units). These Fleets are visible to enemy Fleets (i.e. they are not "off the map" like the Convoys), but they will not seek Combat with an enemy Fleet if they see them first. The enemy may still engage them.

• Transport – A Mission for loaded Transports (and accompanying Ships) only, this will take the loaded Land Units to another Naval Base which you select.

• Invasion – Another Mission for loaded Transports (and accompanying Ships) only. It is wisest to issue a Move Order to bring you close to the land province where you want to mount an Amphibious Assault (Invasion), and then once you're there, issue the Fleet an order to mount an Invasion of a specific province.

• Escort From-To – This mission is the opposite of Convoy Raiding. The Fleet will move across the Map along a Convoy Route, and will protect the Convoys along that route. If they Spot an enemy Fleet, they will attempt to engage, however if the enemy's Mission is Convoy Raiding, their Fleet will attempt to not enter Combat with the Escorting Fleet.

When giving Naval Mission Orders, you should also set a Stance and a Priority. The Stance will determine how spread out the Fleet will be – Aggressive seeks Combat, and so spreads out the formation to increase the likelihood of Spotting. Defensively Stanced Fleets do the opposite. Priority determines which Fleets receive Reinforcements and Repair first, provided they are not set not to receive Reinforcement, and they have Supply through their Naval Base.

[33.2] SEARCH, SPOTTING & DETECTION

Visibility is your Ship's likelihood of being detected, while Surface Detection is your ability to Detect other Ships (modified by Radar, etc.).

Fleets with an Aggressive Stance will spread out their formation, trying to detect enemy fleets. Fleets with a Defensive Stance are trying to keep from being Detected, and will be harder to Spot.

Radar Detection is possible within range of Ship Radar. Signals Intercept may also make it possible to determine the presence of a fleet. This can be conducted from ships with Radar, as well as from land-based Radar Stations.

If a Fleet enters within a certain radius of an enemy Naval Base, it risks Detection by patrol aircraft from that Naval Base.

[33.4] MODIFIERS TO COMBAT EFFICIENCY

[33.41] Stacking Penalty

The more Ships are in Combat during a Round, the more difficult it will be to coordinate their attacks. This is expressed as a penalty, which affects the Attack or Defence Modifier (Efficiency). As Ships Withdraw, or are sunk, the Stacking Penalty will reduce.

Higher level Admirals will reduce Stacking Penalties.

Naval units suffer a 2% base stacking penalty per unit past the first.

[33.42] Effect of Leadership on Combat

Leaders apply their Experience (gained during each Combat), their Skill (gained through accumulated Experience) and their Traits when they lead a military unit. These leadership factors may make an important difference in combat, and may also make Combat Events more likely.

A Naval Leader's Skill has a great influence on how well his Ships do in Combat. Unlike Air and Land Combat, where Skill is one of many factors, Skill is one of the leading factors in success in Naval Combat.

[33.43] Traits (Naval Leaders)

Like Ministers, commanders of Ships may also have Traits. These traits may give a specific advantage in Combat, or may help the Ship to get into Combat in the first place (Spotting bonuses, etc.). Remember that not all Traits are beneficial. If a Leader with a Trait is moved to a new command, he must get his "bearings" and become comfortable with his new command before his Trait becomes useable again.

[33.44] Weather at Sea

Storms (See Case [6.2]) also happen at sea, and can affect your modifiers during Naval Combat. Whenever the Wind Speed exceeds Gale Force (30 MPH), a Storm condition will exist, which can negatively affect Combat. Any Precipitation (Rain, Snow, Storm) will also reduce both, your Spotting ability and your Firing Range.

[33.45] Dissent

Dissent levels at home will impact your effectiveness in Naval Combat too.

[33.5] SUBMARINES

General Rule;
Submarines follow different rules in Combat than normal ships. A Submarine is assigned a Mission and a Stance, like other Naval Units. But Spotting is handled differently.

Commentary;
There was some confusion over whether submarines conducted combat "on map" or "off the map." Convoy attacks take place off the map. Submarine versus ship combat takes place "on the map" like other ship combat, but submarines may have a special positioning bonus because of their special capabilities.

Cases;
[33.51] Submarines can come into Naval Combat, under special circumstances.

[33.52] Against enemy Convoys, the Submarine operates automatically without you being advised of an actual Battle, as these Battles are usually over in the blink of an eye.

[33.53] Rather than receiving feedback on your battles in the form of a Combat Interface, you will find the results of normal Submarine Combat through pop-up Event boxes, unless they are combined in a Fleet with regular surface Ships.

[33.6] CONVOY/ESCORT RESERVES & DEPLOYMENT

Commentary;
If you set your "auto convoys" on, the computer will set up all your trade and supply convoys automatically, trying to meet the transport need for all the resources you have access to, all the trade deals you agree to, and all the supplies which units away from the homeland need. If you lack enough convoy ships to meet this total need, some of your convoys will be coloured red in the production screen, rather than green, indicating they are "inefficient."

If you want to manage your own convoys, there is a "create convoy" button, and you can arrange for everything but the trade convoys, which will still need to be automatic. However, this is not a necessary manual process – your best bet is to leave the convoys to automatic, and make adjustments if you see a need to.

Convoy efficiency is a measure of what percentage of the needed resources are able to be shipped. This could be impacted either by the supply of resources or the supply of transports needed for convoys. If convoy raiding losses have reduced the number of convoy ships assigned, and there's nothing left in the pool to replace them, the goods are just not going to go through. These inefficient convoys will show up as red. If the number before the slash ("/") matches the one after, the convoy is idle because there's nothing to ship.

Even if you're at peace, it might be nice to have some convoy escorts around before war starts, in case of unexpected declarations. You'll have to wait until you're at war to assign escorts to a convoy route. Escorts will sit in a pool until then. If you lack escorts, it can be helpful to assign regular navy ships to escort duty, as cruisers, battleships and aircraft carriers can provide at least some assistance, as can regular destroyer flotillas. Only light cruisers and destroyers will be effective against submarines, but surface raiders will be wise to avoid a battleship.

Convoy routes that are experiencing raids from submarines or surface raiders will change their route, hoping to avoid the enemy. This may only make the enemy's job more difficult, but at least you will not be a predictable target.

Cases;
As you construct new Convoy Transports (freighters) and Escorts, they will collect in a "reserve pool." When you use the "Create Convoy" process to start new Convoys, you will draw from this pool as you assign new ships to a Convoy.

[34.0] NAVAL COMBAT RESOLUTION

Commentary;
As in land and naval combat, your goal is to have a higher Sea Defense value than the targeting ships have in Sea Attack values. The more your numbers outnumber his, the better your chances of not taking damage. Naval critical hits can take ships down lots faster than normal combat, which means you can never predict with certainty that a superior force will come away the victor. Of course you will have difficulty taking on an overwhelming force for the reasons cited in the previous paragraph. But small or even medium disadvantages may sometimes be overcome by luck. Critical hits occur about 5 or 10 percent of the time, and dramatically increase the damage done by the hit.

[34.1] SHIP TYPES

[34.11] There are three Ship types – Capitals, Screens, and Other, excluding the "off the map" Convoys and Escorts – and they each cooperate in order to protect one another or achieve the goals of their mission.

[34.12] Capital Ships – your Battleships, Battlecruisers and Heavy Cruisers – will move to a position where they can best fire upon the enemy with their heavy guns.

[34.13] Screens – Destroyers and Light Cruisers – will attempt to position themselves to protect your Capital Ships.

[34.13] See the chart in [10.2] for more information about what each Combat value means, and how it's used in Combat. The chart lists values used in ship-to-ship as well as ship-to-air Combat.

[34.2] POSITIONING

[34.21] Once it's been determined two Fleets have found each other, each Ship does a "search roll" to determine its position relative to other Ships at the beginning of the first round. This search roll is modified by the Ship's Size (Capital Ships will have less variability in position), Stance (Aggressive, Defensive, Passive), and Naval Doctrines.

[34.22] Some Ships' position may place them outside the gun range of any opposing Ship, and so those Ships are not considered to be in Combat until they can get into range.

[34.23] However, most Ships will quickly attempt to get into Combat, unless they are a Transport or Aircraft Carrier, or if they are avoiding Combat for other reasons (such as massive Combat damage).

[34.24] More successful rolls will place the Ship closer to its optimal fighting Range.

[34.25] Positioning is largely how a Ship's likelihood to hit its target is calculated. The better its Positioning, the better able it is to inflict damage upon its target. This takes into account the Range between the two Ships, where the Ship closest to its optimal Combat Range has the better Position. This also takes into account other factors that might seem random, but which represent other real considerations, like which Ship can bring all of its guns to bear upon the enemy.

[34.3] RANGE & CENTRELINE

[34.31] Each Ship has an optimal fighting Range (the Range shown in the Ship chart), which is where it can best use its guns or torpedoes to cause damage to the enemy.

[34.32] Vulnerable Ships, like Transport Ships or Aircraft Carriers, have their Range set so they will always attempt to reach a Range outside of Combat (i.e. to flee).

[34.33] Badly damaged Ships will also attempt to Withdraw and leave Combat.

[34.34] In Combat, there is a "Centreline" in the middle of the Combat area, with the two enemies' Ships located on either side. In order to fight each other, each Ship wanting to join in Combat will need to approach the Centreline as quickly as possible so as to reach its optimal Range and begin doing damage.

[34.35] Screens will always place themselves between the Centreline and their Fleet's Capital Ships (or vulnerable "Other" Ships, like Carriers).

[34.36] Capital Ships will approach Combat behind the Screens, and generally have a Range allowing them to fight the enemy Capital Ships from their position near the Centreline, but behind their Screens.

[34.37] The only exception to the "rush to optimal Range" behavior is when the enemy Ships have a shorter Range than the Capital Ship, but there are no "high value" targets behind the enemy Screens that the Capital Ship wants to reach. In these cases, the Capital Ships will attempt to reach an ideal Range further than the enemy's optimal Range, so that the Capital Ships may fire, but the enemy cannot.

[34.4] SCREENS

[34.41] The role of Screens is to "screen" (protect) the Capital Ships from attack by enemy Screens or Capital Ships.

[34.42] Traditionally, these light units would use their light guns either against the enemy Screens (which normally have little armour, and therefore can be penetrated by small-caliber weapons), to harass the enemy Capital Ships with light gun damage, or to mount torpedo attacks upon the enemy Capital Ships.

[34.43] Light Cruisers and Destroyers fill the role of Screens. They will put themselves in between the Capital Ships and the enemy's Ships (no matter what size). To get closer to the Capital Ships, an enemy must first defeat the Screens.

[34.44] Once one side no longer has Screens, the other side's Screens will rush in to optimal Combat Range to the enemy Capital Ships and begin fighting them.

[34.45] If Screens are the only Ships involved in a Combat on one side, they do not protect anything – they just fight normally.

[34.46] Their behavior is really the same, since normal Combat places them in close contact with the enemy, preferably.

[34.47] Generally, Screens are faster than Capital Ships, and so are better able to reach and maintain their preferred Combat Range.

[34.5] NAVAL COMBAT INTERFACE

[34.51] When you have selected a Fleet which is in battle, there will be a bar at the bottom of the Naval Unit Interface, indicating as much (in the format: "Battle of ____"). If you click on that bar, the Naval Combat Interface will appear.

The Naval Battle Interface shows HMS Queen Elizabeth has cornered two older German Battleships and her Screens. Three British Ships are positioned to fire, but the German Destroyers are screening the targets. Tooltips at the top of the Interface show the Modifiers at play (Storm, Leadership, etc.). A Tooltip over a German Destroyer Flotilla shows it is targeting the Cruiser Achilles, and the Modifiers which specifically affect her firing.

[34.52] The name of the battle will appear at the very top, with an "x" button you can use to close the Interface. Immediately below the name will be a brown and green bar, showing the relative estimated Strength on each side of the battle.

[34.53] Below that estimate bar, you will see the flag of the navies involved, and the picture and name of the Leader of each Fleet. The Attacker will be on the left, and the Defender on the right.

[34.54] Underneath the icons which represent what Modifiers are in play during the battle, you will see a coloured bar showing how many total Ships are on each side (the more Ships, the higher the Stacking Penalty). The Attacker's Ships will be on the left, and the Defender's on the right. Underneath will be a list of every Unit, including Ships of Cruiser size or above, as well as Destroyer Flotillas or Submarine Subrons.

[34.55] A scrollbar allows you to view all Ships if there are too many to display. The name of the Ship or Flotilla will be displayed, along with its Strength and Organisation bars. The Ship itself will be represented by a generalized illustration of the appropriate size to indicate what type of Ship it is. This illustration will be dark if the Ship is not yet in Combat; if it is in Combat, it will be coloured with muzzle flashes coming from its front turret. Note: This is just a generalized image to say whether the Ship is in Combat or not; it's not meant to indicate that the forward turret of that Ship is able to fire, nor to indicate a relative heading with regard to the enemy Fleet.

[34.6] FIRING PHASE

[34.61] As with Land Combat, Naval Combat is fought in a series of one-hour Rounds, each with several opportunities for Shots.

[34.62] The first Round of combat is performed from the battle's starting positions, between any ships that have been determined to be within Range and in Combat.

[34.63] In subsequent Rounds, the ships will move toward the Centreline (unless they are attempting Evasion), and another round of Combat will occur between those units.

[34.64] Units not in Combat close toward the Centreline every Round.

[34.65] Every ship uses its Speed value to determine how fast it closes.

[34.66] Targets are chosen randomly from those Ships from those which are within range and Spotted.

[34.67] Ships will fire upon their target until it is destroyed or Withdraws, or until it is no longer in range or visible.

[34.68] Ships will use their Sea Attack values against the other ship's Sea Defence value, the calculations performed in exactly the same way as for Land and Air Combat except that they will be modified according to Positioning. Leader Skill also plays a more important role in Naval Combat than in other types of Combat. Doctrines may also be important factors.

[34.8] DAMAGE IN NAVAL COMBAT

[34.81] When a hit has been achieved in any of the Firing Phases, and the hit was not avoided, there is a good chance it will score Organisation damage against the target. There is a lesser chance of Strength damage.

[34.82] The amount of damage is determined by the firing Sea Attack value, multiplied by the firing Ship's Strength (i.e. reduced by Strength losses), and then divided by the target's Hull value.

[34.83] There is also a chance of a Critical Hit, which could quickly and dramatically damage a Ship's Organisation or Strength.

[34.84] Recovery From Combat Damage

As with other things in HOI 3, Ships will gradually repair any damage they receive in Combat. If the Ship's Naval Base is In Supply, the Ship will recover Organisation and Strength at a rate related to the nation's Repair Rate (See Case [38.4]). Ships whose Naval Bases are not sufficiently Supplied may have difficulty repairing.

[34.9] WITHDRAWAL & EVASION

[34.91] Certain ships will attempt to avoid combat, if they're vulnerable (like Aircraft Carriers), badly damaged, or simply outnumbered.

[34.92] Badly damaged Ships attempting to Withdraw may find their efforts more difficult as a result of their damage.

[34.93] In each round of Naval Combat there is a chance of accidentally breaking contact. Over time, the chance increases, making it more and more likely to happen, especially if one side or the other is attempting to Evade and escape. Night and/or bad Weather make it more likely to break contact, whether it's accidental or intentional. Interestingly, Combat doesn't automatically end even if Ships of both Fleets are attempting to Withdraw; it only makes it far more likely.

[34.94] Ships that have broken contact may still end up rejoining the Combat later.

[34.95] Ships in Storms or poor visibility may pass in and out of Combat over a matter of hours.

[34.96] Once contact is broken between two Fleets, they both remain in the same Seazone, but their Detection Level is lowered, so they are less likely to encounter each other right away.

[34.97] In each round of Naval Combat, there is a chance of accidentally breaking contact. Over time, the chance increases, making it more and more likely to happen, especially if one side or the other is attempting to evade and escape. Radar makes breaking contact less likely.

[34.98] If a Fleet loses all of its Organisation, it may be forced to Retreat to the nearest Naval Base.

[35.0] STRATEGIC WARFARE

Commentary;
Strategic bombing is one of the key ways to impact not just the enemy's industrial capacity (IC) and resources, but also her will to fight. Besides the tangible destruction of industrial targets, strategic bombing impacts your relative strategic warfare score.

Another key way to impact the enemy's industry and strategic warfare score (i.e. will to fight) is through sinking convoys, through convoy raiding, submarine attacks or airplane attacks. These will also lose the resources or supplies being carried by those convoys (or at least the portion you sunk).

Keep in mind that units other than strategic bombers have some strategic bombing value. Tactical bombers, for the most part, carried out the London Blitz (and the bombing of other British industrial and population centres) virtually by themselves.

The amount of assistance your allies provide to you – and its nearness to actual combat – will also affect your score.

An extension upon your strategic bombing ability may come in the form of rocket bombs, once you develop the appropriate technologies and build the units. These become a form of strategic bomber, and operate in much the same way. In order to develop them, you will first have to have constructed a Rocket Test Platform (at least one), which will allow research to go forward. This is somewhat of an investment, but the higher your level of test platforms, the faster your research and production will go forward.

Atomic and nuclear technologies are much the same – you must construct an atomic reactor (at 75 IC per level!), and then may proceed with research that will allow you to develop a bomb. Near the very end of the game, you may have been able to successfully research nuclear technologies, and to build an atomic bomb. A-Bombs must be employed smartly. You will have a limited supply, and the effect will be to relatively permanently eliminate certain IC, resources, etc. from the area where you bomb (so make sure you don't want the territory before you do so!). These detonations will have a definite impact on strategic warfare scores, though, and will affect the willingness of the enemy to continue the war.

Strategic warfare score aside, even if you don't make a meaningful impact upon the enemy's will to fight, strategic warfare means destroying the enemy's industry, which may bring her to her knees anyway.

[35.1] STRATEGIC WARFARE SCORE

Strategic Warfare involves using military power to weaken the enemy's resolve, and breaking its will to fight on. There are several aspects to Strategic Warfare.

Strategic Bombing, Convoy Raiding, and Nuclear Attacks are all factored into the Strategic Warfare considerations.

The overall effect of Strategic Warfare is to reduce the target country's National Unity which, if it goes low enough, causes the country to Break. Victories in battle have a Strategic Warfare effect, improving the morale and resolve of the country, just as defeats will reduce it.

Strategic Bombing will damage IC (temporarily – it will repair in time) and destroy Resources. Rockets and Nukes may cause damage to these things in the same way. Nukes may have greater impact than their strength alone.

A concerted Strategic Warfare effort may not necessarily bring a country to its knees on its own, though it may occur if the target country does not fight back. Failing to combat against Strategic Warfare will upset the balance of partial victories versus partial defeats, and will eventually wear down the country's National Unity.

No nation will be forced to Surrender without some "boots on the ground" taking Provinces (Hexes) and affecting the progress of the war.

The Strategic Warfare section of the Production Interface only tracks what is going on in your own country's Strategic Warfare situation. You may be about to cause your enemy to Break after pounding him badly with Rockets and Strategic Bombing, but if he slips just one Strategic Bombing raid or one Convoy Raid past your defences, your own Strategic Warfare tally may show a negative value (because it's not counting all your strikes against your enemy).

[35.2] ROCKETS

Rockets are special types of equipment (flying bombs or ballistic missiles) which are intended solely for Strategic Warfare purposes. Once Researched, they can attack enemy cities, and there is little that can be done to stop them.

Once developed, Rockets can be Produced in the Production Queue just like any other Unit. In all respects, a Rocket Unit acts as an Air Unit would, except that it cannot fight back if shot at. The Rockets are continually replaced, so they can fire again.

[35.21] Rocket Test Platforms

The only way to Research Advanced Rocketry Techs is to build Rocket Test Platforms, which is a prerequisite for Producing Rocket Units. These Platforms can be built up to 10 levels, with each level adding more to your Research benefit. They will also add to your speed of Production, the same way Research Knowledge always does. Rocket Test Platforms can be attacked and damaged, like other Installations.

[35.3] ATOMIC WEAPONS (NUKES)

General Rule;
Like Rockets, you may Produce Nuclear Bombs once you've acquired the Technology for them. These weapons will have an effect upon Installations, IC, Infrastructure, Resources and other things within a province, just like Strategic Bombing. But they can also cause massive damage to military Units in the target province, and may have an influence on National Unity.

Commentary;
Th e pinnacle of the research tree, of course, is the A-Bomb (called a nuclear bomb in the tech tree – it was an atomic bomb back then). Th e good news is any country can research the atomic bomb! Th e bad news is it will take a minimum of about 2000 days of research (that's almost 6 years!), and that's assuming it's not ahead of time research.

Plus, you also need a nuclear reactor built somewhere (and undamaged!), which requires 75 IC and a lot of time. Since some of the required techs are 1940, 1943, etc., you can assume that even starting research in 1936, and even considering concentrated research will increase your knowledge, which will reduce your research time gradually, it may still take 7 years or more for a country to research the whole branch, unless they're fortunate enough to have researched part of that tree prior to game start.

[35.31] Nuclear Reactors

The only way to Research Advanced Atomic Techs is to build Nuclear Reactors, which is a prerequisite for Producing Nuclear Bombs. These Reactors can be built up to 10 levels, with each level adding more to your Research benefit. They will also add to your speed of Production, the same way Research Knowledge always does. Nuclear Reactors can be attacked and damaged, like other Installations. You can build as many Reactors as you wish.

[36.0] PARATROOPS & AIR TRANSPORT

[36.1] PARADROP LANDINGS

Commentary;
Paratroops must be handled carefully, or else they will be destroyed or run ragged. When landed, they have a -30% combat penalty applied. This is in addition to whatever other penalties they might face, due to terrain, nighttime (don't land paratroops into combat at night – just don't!), etc.

It is always best to land paratroops into an unoccupied province behind or beside the enemy positions. This way, they don't have to suffer a combat penalty for being paradropped. They will take a bit to regain their bearings, and then can attack.

Sometimes, the enemy will attack the paratroops before they have the opportunity to attack as they intended. Plan for this. It becomes important to break through to where they've landed, or else paratroops can easily find themselves in danger for being out of supply for too long.

Consider airdropping supplies, if you can protect the transports. Definitely have an exit strategy (presumably an advance strategy) to get to the paratroops and keep them from being overwhelmed behind enemy lines.

Cases;
[36.11] When you want to mount a Paradrop, you must first Embark the Paratroop Division(s) onto a Transport Airwing, and then direct the Airwing to a target province, selecting the Paradrop Mission from the Air Orders Interface. You can also land the embarked Paratroops at a friendly Airbase.

[36.12] The Paratroops will load, allowing you to fly the Transport Planes to their destination Airbase, and then use the Unload button on the Land Unit Interface.

[36.13] Paratroop Divisions, like other Units, have a 30-day Supply which they can use once they are landed in a Paradrop location.

[36.2] EMBARKING TROOPS ON AIR TRANSPORTS

[36.21] In order to load a Paratroop Division onto a Transport Plane, click on the Division you wish to embark.

[36.22] One of the organisational buttons for Air Transport will not be grayed out if there is a Transport Airwing at an Airbase in the Division's current province.

[36.23] To unload the unit, select the Air Unit, and then click on the unit as shown at the bottom of the Air Unit Interface. One of the organisational buttons will allow you to Unload the Division.

For more information on Paradrops, See Case [36.1].

[37.0] AMPHIBIOUS & SEA TRANSPORT

Commentary;
If you are conquering enemy territory, you'll need to mount an amphibious invasion. If you can invade an enemy naval base, so much the better. The transport can then dock and you can load up again for your next assault.

If you've landed away from a naval base, your units will have to rely on their 30-day reserve supplies to move around once they've landed away from a naval base. If they can't reach one before then, they're in trouble.

Remember to ensure these units have been fully supplied for a while beforehand, or else you may be surprised to find they have less than a 30-day reserve!

You must plan ahead for amphibious invasions, because they're complicated ventures.

Mounting an amphibious invasion requires transports loaded with troops, preferably with escorting ships to keep them from being intercepted and sunk. The invasion itself is a naval mission given to the fleet after selecting the land province which it's targeting. Keep heavy surface ships around to provide shore bombardment.

If the troops are landing against opposition (you can check this by scouting with ships before the invasion arrives), they will face varying degrees of negative modifiers to attack values for every unit except marines. If you find they were directed toward a province where an enemy unit is, you can always call them off and redirect them to an undefended province, if another practical target exists.

It's wise to avoid opposed amphibious invasions at night, which could be disastrous, because your combat modifiers are already severely reduced. Use the calendar and clock on the Naval Orders Interface to decide what time the invasion should begin.

Don't invade near a large enemy force which can quickly respond to your invasion. Remember, if you land adjacent to the enemy, he can immediately pin you so you can't move.

When you're invading, it is critically important that you capture a port on your targeted land mass first. If, for instance, you want the oil province in Sarawak (near Brunei) in Borneo, you will first need to capture the port just a few provinces to the southeast along the coast. Otherwise, your amphibious invasion have captured an oilfield you can do nothing with!

You can't ship those resources out without a Naval Base. Moreover, your unit will be stuck there, because you have no way of landing supplies for it.

Its only source for supplies must be the nearby Naval Base.

[37.1] AMPHIBIOUS LANDINGS

[37.11] Once landed, each Division will have only 30 days of Supplies. This means that when units land, they must quickly establish communication with a Seaport, or else they will be out of Supply and will begin suffering Organisation loss.

[37.12] Even if the unit has access to a Naval Base, the unit may still suffer from being Out of Supply if the Base is too small to handle its required Supply.

[37.13] Naval Base access becomes critically important for the success of Amphibious Landings, and effectively limits the size of the landing to what can be supplied.

[37.14] For detailed information about how Amphibious Landings are ordered, See Case [33.11].

[37.2] SEA TRANSPORTS

[37.21] To load on a transport without a port Control right click. If you assign a transport to a "Transport" mission after completion the transport will return to is base but will still be on the "Transport" mission, any units loaded onto the transport will then be moved to the same location.

[38.0] BASES & REPAIR

[38.1] BASES

Commentary;
The size of the naval base determines how much supply may be shipped in or out, so it may be you will need more than one naval base to supply certain areas.

When you're expanding onto other continents or across an island chain, it's a good idea to produce a number of level 1 naval bases to place along your way. This will enable you to distribute supplies from more than one source, and the supplies can come from different directions, so the supply lines don't all conflict with each other in a big traffic jam.

Cases;
[38.11] Air and Naval units need Airbases and Naval Bases, respectively, in order to operate.

[38.12] Because they rely upon these Bases for Supply, they must return to their Base from time to time, depending upon their Range (how far they can go without refueling).

[38.13] When Airbases or Seaports are captured by the enemy, the units based there will automatically flee to the closest friendly Base.

[38.2] AIRBASE MANAGEMENT

Commentary;
A small airbase – even a level 1 base – can support the operation of multiple airwings. But they won't be able to recover losses or regain organisation, and so that's not a practical situation for long.

Building a large number of airwings without also increasing the size or number of airbases may put you in the awkward situation of not being able to effectively use all your shiny new planes. Increase the operational size of your airbases in areas where you're likely to need them, and be ready to prepare "forward airfields" as you advance your lines.

Short range aircraft are not useful if you lack the IC to build forward airfields near where you need to use them.

Air units operating near their base (within radio range) have a combat bonus.

After a major air battle check capacities at your airbases before sending damaged units there. Rebase quickly to somewhere they can repair, if the damage is that bad.

Cases;
[38.21] While there is no "stacking limit" for Air Units, the requirement for Supply imposes what is essentially a stacking limit, because once the number of based Airwings grows to a certain point, the Airbase will be unable to find enough Supplies for them.

[38.22] They can temporarily host above this defacto Stacking Limit because each Airbase keeps a 30-day Supply reserve for Air Units based there.

[38.3] NAVAL BASE MANAGEMENT

Commentary;
As with airbases, naval bases can only repair a number of ships, allowing them to regain strength and organisation, up to the level of the base. If your fleet has taken serious damage, send them to the nearest naval base with capacity to help, regardless of where their home base is. If the fleet needs to stay where it is, you can detach only those ships in need of repair, perhaps with an escort of one or two ships to protect it from attack on the way.

Only the first level of any base (air or naval) may be purchased in the production interface. Any improvements upon that initial base must be ordered through the province interface.

Cases;
A Naval Base's size affects how many Ships can Repair there at one time, and how many Ships can regain Organisation while in that Base. A Naval Base's size also determines the total Throughput of Supplies, which is handled through Convoys.

[38.4] REPAIR RATE

General Rule;
As Units and Installations take damage in Combat or from Bombing, they rely upon your Repair Rate to gradually repair the damage done, and bring them up to full Strength.

Cases;
[38.41] Repair Rate is a standard game formula which is modified by your Technology levels. The higher your Repair Rate, the faster your units will recover from Combat damage.

[38.5] ENTRENCHMENT

General Rules
Entrenchment, or being "dug in," is the way many smaller military forces survive against much larger opponents. By remaining still in a province for a period of days, including remaining on station during peacetime, a land unit will gain an extra degree of protection by preparing small fortifications such as foxholes, trenches, berms or barricades, which are collectively known as entrenchments.

Cases;
[38.51] A unit will earn a "Dig In" value, which will be shown on its Land Unit Interface and in the Unit Tooltip. A unit which is Digging In will gain one level per day to its maximum level.

[38.52] As soon as a unit moves voluntarily, it loses all Entrenchment it had gained, and must start over in its new location; even if it began to move and then stops, it is assumed to have left the previous entrenchments behind.

[38.53] A unit also loses some Entrenchment value (one level per Retreat order) if it is pushed back in combat.

[38.54] There is a Surprise Bonus which the attacker has a chance of getting if it's attacking a Unit which has not dug in during the first day of a battle.

[38.55] If you're not dug in yet, and you don't think the enemy will wait for you to dig in, you can use one unit to attack along every front where the enemy has units. Keep them busy until your other units have dug in. There's no way to use this same tactic again to allow the rest to dig in, because they'd have to leave their entrenchment which defeats the purpose. You could use adjacent units to keep the enemy busy, but in most cases you'd want those units to be entrenching too. This at least allows you to get a portion of your force deeply dug in. After 10 days, you can stop the attack and your other units will have as long to dig in as it takes the enemy to attack.

[38.56] Entrenchment provide a modifier to the Attacker's Efficiency (Attack Modifier), which will make it harder to hit and damage the defending Units.

[38.57] A unit may dig in by 2% per day, for a maximum of 10 days.

[38.6] FORTIFICATION

General Rule;
An actual Fortress (Fort) is a more substantial form of "Entrenchment" which takes months or years to produce.

Commentary;
Modern military doctrine often suggests that static defenses tie you down to that spot. Partly this is because of the lesson we now know about how the Maginot Line was bypassed and never attacked by the Germans. Obviously, if the enemy has tanks moving to either side of you, your fort is not going to keep you from being encircled and cut off. However, properly constructed, sited and used, a fort can become part of your "defensive terrain" – strategies which treat forts as terrain will be much more successful than strategies which treat forts as a standalone wall of defenses.

Enemy divisions will hesitate to attack a fort, even if it's just a small one, so having something there is better than nothing, on defense. Many people dislike static defenses, and I'm one of them. But if you can spare the IC, it's never a bad idea to have defensive lines somewhere, just in case you ever need them.

Coastal fortresses may be especially valuable where you have naval bases, or in other areas where it's the only place an enemy can logically land.

For instance, on an island, your opponent is going to have to gather expensive troop transports in order to transport enough strength to overcome your island defenders in the first place. Add a coastal fort to the mix, and there's a much better chance the enemy will be defeated without dislodging you.

Cases;
[38.61] In the Province Interface, you will see the province's Fortification value shown as a series of bright green rectangles after the Fort symbol.

[38.62] Fortifications (Forts) provide a similar, but far greater, level of protection. A Fort in an attacked province allows the defending units to shelter themselves from Strength and Organisation attacks.

[38.63] A Fort must be occupied by at least one friendly Unit in order to be useful. Otherwise, the Fort will fall to the enemy.

[38.64] Fortification, provide a modifier to the Attacker's Efficiency (Attack Modifier), which will make it harder to hit and damage the defending Units.

[38.65] Coastal forts do not protect against attacks from the land, and land forts do not protect against attacks from the sea (they're presumed to be located some distance from the ocean, so less able to protect against amphibious assaults). To fully protect a coastal province, you'll need both types of fort. Often, it's wisest to pick one or the other, and to guard against someone taking advantage of your vulnerability.

[39.0] VICTORY & VICTORY POINTS

Unless you complete a World Conquest (WC), there will usually not be a moment when you suddenly have "won the game."

Most players will determine in their own minds what their victory goals are, and will know when they've achieved them.

That said, there are set ways to "win the game." The HOI 3 Victory Point system awards a province's Victory Points to the Faction which Controls that province (regardless of who Owns the province). A running total of Victory Points is kept for each Faction, and is visible through the Statistics tab, or when you Resign from the game.

[40.0] MULTI-PLAYER

[40.1] STARTING A MULTIPLAYER GAME

Starting a Multiplayer game is not much different from starting a Single-Player game. Once you have clicked on the Multiplayer button in the Main Game Menu, you will come to a screen with various options for connecting with Multiplayer opponents. Hearts of Iron III supports Multiplayer games with as many as 32 players, though for practical purposes you can only have this many players on a LAN. Games played over the Internet are best limited to a dozen or fewer.

One player must always serve as the Host. The other players will be Clients. An ideal Host is the player with the highest speed and most reliable Internet connection. Due to the amount of data transmitted during a Multiplayer game, it is not practical to play over a conventional dialup modem.

[40.11] Preliminary Requirements

Before launching the game, each player should ensure that his system is set up to receive and transmit data. Many computers are set up so that Clients will not need to change any settings. However, firewall systems may block game transmissions, so an exception to the firewall rules will need to be made to play Multiplayer. Many people may want to play on a computer that is behind a router. Most routers include firewalls, which can also interfere with the game. A Host that is behind a router will almost certainly need to enable portforwarding to establish a connection with the Clients.

HOI 3 uses ports 1630-1635 and the UDP transfer protocol (or, if you're using the Metaserver, you will probably be asked to use port 1639 – check the Forum to be sure). You may need to ensure your firewall software permits HOI 3 to access the Internet, and that port-forwarding is enabled on your router, if applicable.

Due to the huge variety of software and hardware, we cannot provide comprehensive instructions on how to do this with your specific setup. For legal and practical reasons, we also cannot automate this process. Please refer to your router and firewall user guides to determine how to meet these requirements.

If you will be playing a game where players will connect directly over the Internet without using Paradox's free "Metaserver" matchmaking service, the Host will also need to determine his computer's current IP address and communicate this to the Clients.

[40.2] MULTIPLAYER START INTERFACE

When you first click Multiplayer from the Main Game Menu, you will see the Multiplayer Start Interface. First, you should type your Player Name into the entry field – this is the name other players will know you by.

[40.21] Host

To Host a game, select the "Host" button. This allows you to Host either by a LAN or by direct Internet communication. You may have to configure your firewall, or specifically open ports in order to do this properly. Visit the Paradox Forum for assistance with this.

You will be asked to choose a name for your game session.

Then, click "Host" again inside that interface, and you will be taken to the Multiplayer Lobby, where you will wait for the other players to arrive.

[40.22] Join LAN Game

To join a LAN game, first click the "Scan" button on the current interface. The Host's game should appear in the list box at the top of the menu. Highlight the name, and click on "Join LAN Game." This will take you to the Multiplayer Lobby.

[40.23] Join Internet Game

If you will be connecting to a Host directly over the Internet, click on "Join Internet Game," and you will be asked to enter the Host's IP address, which he should have supplied to you before play. Once you have done so, the computer will attempt to establish a connection with the Host, and you will be taken to the Multiplayer Lobby. If it cannot find it, wait a moment and try again, or contact the Host for more instructions.

[40.24] Metaserver

Paradox Interactive offers a free matchmaking service for finding Multiplayer opponents. Players will meet in the Metaserver chat lobby to arrange games. The Metaserver will help create and join games from there. Once the connection is established, the Metaserver releases the Host and players, who will play the game just as if they had established the connection directly over the Internet.

[40.3] MULTIPLAYER LOBBY

The Multiplayer Lobby is where players assemble before starting a Multiplayer game. All players have to be present and must choose a country to play before the game can start. This is controlled by the Host.

The Lobby is very similar to the screen you see when selecting a country for Single Player play. The panel on the left shows the same options for Bookmarked games or Saved games. In the middle is the map, showing the current world situation and what countries can be selected. On the right is a panel where each player's name and flag will show up as new players arrive in the Lobby.

If you are resuming a saved game, the Host should load the save first. The file will be loaded into the Host's computer, compressed, and then sent to each of the Clients' computers. Each Client will unpack and load the saved game, so that everybody has the same information at the outset. This process may take a few minutes, depending on Internet connection speeds. All players must have the save loaded before the game can begin.

At first, you will see a "Rebel" flag (black and red) next to the name you gave. When you pick a country, the flag next to your name will change to that country's flag. This operates the same as the Single Player selection interface.

Hearts of Iron III supports cooperative play, so two or more players may pick the same country. You'll have to work it out among yourselves who is to control what.

It's also polite to have an agreement beforehand that more than one player will play that country. Otherwise, showing up in another player's country can be considered rude.

With proper planning, cooperative play can take much of the pressure off the players, and allow for a very fun gaming experience!

You may chat with other players in the Lobby by clicking on the text box at the bottom-left of the screen, typing your message, and hitting the Enter key on your keyboard.

All players in the Lobby at that time will be able to see it. Private chat is only available inside the game, though many players will have alternate means of communicating privately outside of the game.

Once every player has selected a country, the Host's "Play" button will highlight in gold, indicating play can begin. It is customary for the Host to confirm through chat that everybody is ready. Then, by clicking the "Play" button, the Host initiates the game.

All players will see the game begin to load, and a window in the middle of the screen will show the process of each player being accepted into the game. Everything is paused, naturally.

As players are confirmed ready inside the game, each player's flag will highlight, indicating they are ready to play. The Host can then click "Start" and the game will begin.

[40.4] THE METASERVER

Paradox Interactive maintains a Multiplayer matching service for registered owners of HOI 3. When you register your copy of the game, you will be asked if you also want to register for the Metaserver. It takes only a minute or two to go through the steps, create a username and password, and begin using the Metaserver. There is no fee.

Once you have registered, click the "Metaserver" button from the Connection Types menu to connect to our service.

You will be asked to enter your username and password. You will arrive in the Metaserver's main chat lobby, where you will see a full listing of all the other players who are online and who might want to join a game. Make sure you're set to use Port 1639 with the Metaserver.

When you've found a few players willing to join a game, you may create a separate chat channel where you can discuss the details of Hosting and other items. Once everything is arranged, the person selected to Host will click the "Create Game" button to launch the game's Multiplayer Lobby. The other players will see the new game listed, and can then join it.

Because this is a free and public worldwide service that may be used by people of all ages, we ask that you remain polite and respectful of all other members when using the Metaserver. It is considered impolite to use inappropriate or vulgar language, and etiquette suggests that you not join a listed game without first discussing your intentions with the Host.

Once players have selected their countries using the same process as detailed for the Multiplayer Lobby earlier, the Host will click "Play" to start the game. The Metaserver will ensure that all players are correctly connected, and then will hand off the game to the Host. From that point forward, play will continue just as any other Multiplayer game would.

[40.5] MULTIPLAYER GAMEPLAY

The Artificial Intelligence designed for use in Single Player games of HOI 3 should provide an enjoyable challenge for any player, but many crave the incomparable experience of playing against a living, thinking human opponent. For this reason, Multiplayer games are more difficult, and present more complex gameplay.

It is recommended that you examine the hints contained in the Strategy Guide for more information on how to deal with Multiplayer gameplay. There is a more comprehensive section on the challenges of Multiplayer play in that volume.

[40.51] Multiplayer In-Game Chat

The major difference between Single-Player HOI 3 and Multiplayer is that you have a chat window. Press the Tab key on your keyboard to activate this feature. Close the chat window by using the "x" in the window. Text typed by you and others will appear on the screen, as far to the left as possible without obscuring open Interfaces. Each player's roundel will identify who is speaking.

[41.0] PLAYER GUIDE

[41.1] KNOW YOUR COUNTRY

First, it's important to know some things about how to run your country that are relevant both, during wartime, and at times of peace. Take a few moments to look at your country, both on the map and through several Mapmodes and Interfaces which are important to understanding your own land.

Take a look at your economy. The next chapter will explain a lot of things about the economy, and some of it may not make sense until you get to that chapter. But at least once you get there you'll have an idea of what it's talking about.

Check out your provinces. Notice what type of terrain each province has, and where the rivers run. See where your airbases and naval bases are. Do you have any other installations, like anti-aircraft or radar? Turn on the Victory Point mapmode and see where your country's victory points are located. Then turn on the Resources mapmode. A green province indicates you have industry (IC points) there. Little icons will show what resources are produced inside your country. Hover your mouse cursor over them and examine the tooltip to see how much each province produces, then check the tooltips in your resource stockpiles and see how much your country produces, total, and how much you're using.

All that gives you an idea of which provinces are most important to your country. Now, think back to your country's terrain and consider where the mountains, forests, marsh/swamps, jungles and rivers are – those terrain types are most helpful in forming defensive lines if you need them. How would you defend your most important provinces (especially those where your victory points or IC are located) if you were invaded?

Now, add to that an overview of your military forces. Make sure of what all your air, land and naval units are, where they are, and you must reorganise them the way you want them. Do you need to reposition them to be able to defend your country better, if you're at risk of invasion? The answer to that, largely, depends on what kinds of external threats you face, so…

[41.2] EXPAND YOUR HORIZONS

Now, take a look around the world and see what's around you. This is a basic "risk assessment." Where are the major military powers, in relation to you? Determine who is at war, where, and what they're doing about it. What countries may pose a threat to you, and who might be your best friends as allies?

In your survey of the world, take note of what countries typically supply certain resources. What's the distribution?

You would be wise to check over the region's terrain, infrastructure map, and see what the weather is doing. Continue to pay attention to the weather occasionally, so you don't get surprised. There will be "seasonal weather patterns" you should take into account – start learning what they are.

Start building a strategic planning "map" in your mind, or even draw one out on paper or digitally. Operations deserve detailed planning, and the more such long-term planning you can perform, the better able you will be to implement those plans, or to react when other countries challenge you.

Straits can be of massive strategic importance. For instance, if you want to prevent the Royal Navy from attacking your Baltic supply lines, as Germany, capturing Denmark is a valuable goal, because possessing it cuts off enemy access to the Baltic Sea. All straits have certain advantages.

Can you imagine how much more difficult it would be to manage a two-ocean navy, as the United States, if you did not have access through the Panama Canal? Or as the British if you did not have access through Gibraltar or Suez? British control of both Gibraltar and Suez causes the Italian Navy to be bottled up in the Mediterranean so she can't support Germany, and Germany cannot support her.

How is your international trade going to be impacted if you go to war?

Think… What trade routes might get cut off, how you could defend them, how you could do without them if you couldn't defend them?

Will you have lost trading partners because you're at war with them?

Will you have to send extra escort ships with your convoys to protect them?

How risky is that trade route, and is it possible to set up an alternative?

What resources might you have to stockpile in order to make it through "a cold winter?"

If you expect your trade routes (or colonies!) may be cut off during wartime, you should consider investing in a stronger navy, as well as in a large number of escorts. You won't be able to assign escorts until war is declared, but as soon as that happens, pause the game and assign them to all your important convoy routes. If some are more important than others, consider a higher percentage of escorts on that route, even if it leaves others unescorted.

If you're playing a colonial power, or if you're fighting one, keep in mind not just how many resources or IC exist, but where they exist. Take the Netherlands, for instance. During peacetime, the Dutch have plenty of crude oil and rare materials to make use of. However, if war comes, will they be able to use convoys to transport those resources home so they can make use of them? Will the British have access to India? These powers will also have to send supplies via convoy in order to maintain any military units they have stationed overseas. Colonial powers should always take these things into consideration, and do their best to plan for the day when they might need to protect their shipping lanes, or else make do without.

Their enemies will need to be ready to prey upon the convoy routes.

Now start planning your geopolitical struggle. Don't assume you'll have to go to war… but also don't assume you won't be forced into war!

Which countries will you cultivate as allies? Which faction will you try to join, if any? If your intent is conquest, what are your first targets? Who will become angry with you if you invade? Wars cause threat, and many countries may wonder if they're next. Who will go to war with you? If no one, who's your next target? Will you dare to risk global war, or try to get what you can before that happens?

If you're a western power, or a communist country, what can you do to control enemy aggression so that it doesn't build into global war? Can you build a coalition of major powers to put the world's aggressive powers in their place?

These are things you must consider at the start of any game, and which you should continue to watch as the game progresses. If you start in some of the later scenarios, after World War II has already begun in earnest, many of these questions will already be answered for you, and so what remains to plan is what major offensives or invasions you can mount against the enemy.

Note to HOI 2 veterans: It's important to remember this game is not HOI 2. In the old game, you could always count on various things happening on a particular date. If you were Germany, you didn't need to worry about another AI-controlled power declaring war on you until you provoked them. In HOI 3 you have no such assurance! World War II could spark at any time circumstances warrant, and it's possible that Italy or the Soviet Union might start trouble which messes up your own best-laid plans. Other ahistorical things may create opportunities or problems. You need to be on guard, and not assume things will always remain as they were in previous games.

[42.0] HISTORICAL NOTES

The odor of war was in the air throughout Europe and East Asia in the mid-1930s.

Never had the world as a whole been so agitated and anxious. Everyone feared a resurgence of war, yet most refused to think about the possibility. But denial would not make it go away. Strife increased through the 1920s and 1930s, so that by 1936 war already raged on two continents and threatened elsewhere. An uneasy and faltering peace threatened to collapse in Europe. Even the so-called "Pacific" Ocean roiled with suppressed tension.

The Russians had withdrawn from the Great War in 1917 while in the throes of two revolutions, stomping all vestiges of one of Europe's legendary absolute monarchies into the frozen mud of the steppes. Since then, the Russian people had suffered a short but bitter counter-revolutionary war at the hands of western powers, and emerged as the Soviet Union, which felt isolated and fearful of foreigners. Then came the disruptions of industrialization and the madness of Stalinist totalitarianism, making the Russians even more afraid of each other.

Massive China was a cauldron of competing warlords who fought with each other for supremacy when they were not fighting the insurgent communists or the intruding Japanese. Japan had decided her future lay in the conquest of China, but she had taken on more than she could handle.

The United States would not countenance the bloodbath in China, and so cut off Japan from badly needed oil and steel exports. In the minds of many of her leaders, Japan's only "escape route" from the China quagmire would be yet more war, to capture other lands for the rubber and oil resources she desperately needed.

But Japan had fallen into turmoil of its own, with political factions – aligned toward liberal democracy, communism, fascism, and even Navy versus Army cliques – vying for power. Assassination had become a political tool, and the military was on the verge of using a constitutional loophole to seize de facto control of the government.

And then there was Europe…

Socialism was nothing new to the countries of Europe. But the Bolshevik revolution in Russia had given Marxism and Leninism a spark of life worldwide, and ironically contributed to a resurgence of socialism as a moderate alternative to "extremist" communism. In the early 1920s,

Benito Mussolini had introduced a nationalistic form of populist socialism into Italy, calling it "fascism" in honor of the glories of ancient Rome. Into this tinderbox was tossed the economic crisis of the late '20s. The onset of the worldwide Great Depression enflamed and empowered each of these non-traditional ideologies, which stood against the conservative monarchies and liberal democracies across the continent.

Fascism of one shade or another took hold in Portugal, Spain, Austria, Hungary, Bulgaria, Romania, and elsewhere.

Even the more liberal governments began adopting authoritarian tendencies to combat rising socialist and communist movements in their countries. But it was in Germany where fascism fused with ardent racism to form the nationalist socialist Nazi party of Adolf Hitler, whose gains in the Weimar Republic elections emboldened him to demand appointment as Chancellor by President Hindenburg. The emergency powers previously employed by Depression-era governments to stabilize the foundering German economy were just what Hitler needed to seize total control over the German Reichstag and impose a dictatorship.

As members of the British Commonwealth, Australia and New Zealand also felt the coming of war. They remained resentful over their stinging losses in the Great War of 1914- 1918, but this looming conflict was more personal, brewing closer to their shores.

In similar manner, colonial lands throughout South Asia, the Middle East, and Africa also sensed a rise in tension. Virtually every scrap of land in those regions was subject to the dominance of a European power. Persia and Ethiopia were key standouts. The independence of Ethiopia tempted Mussolini into the first of several ventures of imperialist aggrandizement, but his armies were stunned when they failed to win the rapid victory they expected.

Only North and South America remained havens of self-absorptive ignorance. Busy with their own economic troubles, they enforced a distrustful disregard for anything beyond their shores. Most Americans in the United States were convinced they had pulled the Europeans' chestnuts out of the fire in 1917-18, and had then been rudely slapped with loan defaults which worsened their experience of the Great Depression. As such, they swore it would be a frigid day in Hell before they again involved themselves in a European war.

It is into this turbid environment that you are placed. You have the opportunity to craft a better world through artful diplomacy or violent initiative. One way or another, you are likely to end up at war despite your best efforts, and so you would be wise to steady yourself and prepare – a clash between "Hearts of Iron" awaits!

"The whole fury and might of the enemy must very soon be turned upon us. Hitler knows he will have to break us in this island or lose the war. If we can stand up to him, all of Europe may be free and the life of the world may move forward into broad, sunlit uplands. But if we fail, then the whole world, including the United States, including all that we have known and cared for will sink into the abyss of a new Dark Age made more sinister, and perhaps more protracted, by the lights of perverted science. Let us therefore brace ourselves to our duties, and so bear ourselves that, if the British Empire and its Commonwealth last for a thousand years, men will still say, 'This was their finest hour.'" – Winston Churchill, British Prime Minister 1939-45 (spoken June 18, 1940, just after the collapse of France)

[43.0] DESIGNERS NOTES

This is a World War II game designed by enthusiasts of World War II history. Every effort at maximizing both realism and playability has been made, and an excellent balance has been found.

The enormous number of Provinces (Hexes) allow more tactical movement of units in battle, which combines with an hourly turn format to allow detailed strategies of maneuver to form, with evening respites from air attacks and dawn assaults by the enemy from more than one direction at once.

It is the first strategy game of its type with a realistic supply system, which individually accounts for units of supply or fuel on its way to the units at the front, allowing interdiction of supply by the enemy, or interruption because of bottlenecks on muddy roads. The weather system is a complex simulation just by itself, and the impact of weather is realized on the battlefield. An intricate system of research and development for new weapons will make a difference over time. There is much here for those who seek historical detail and accuracy.

At the same time, no game has ever implemented this degree of flexibility for players who might otherwise be overwhelmed by the detail. The system of Theatre Commanders and Headquarters networks allow any player to set most or all of his war on "autopilot" while he or she concentrates on whatever elements they so desire. You have all the complex instruments of war at your fingertips if you want them, and you have the freedom to defer most or all of the minor decisions to artificial ministers or generals so you can enjoy the broad overview of the game, or learn how to play it gradually.

[44.0] INDEX

You will notice this reference manual uses a different numbering scheme. This section lists the original number scheme and the new scheme used in this reference guide. For a reason why I have done this look at the beginning of this document.