

HISTORYLINE



1914-1918

Instructions



*Blue
Byte*

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System Requirements

IBM PC and Compatibles

Historyline 1914-1918 can be run on all PCs/ATs which have at least an 80286 or compatible processor. In addition you will need a VGA-Graphics Card and 7 Megabytes of free memory on the hard disk on which you are going to install Historyline 1914-1918. You can use MS-DOS 3.3 or higher for the operating system. A compatible operating system (e.g. B. DR-DOS) will meet the software requirements.

When starting Historyline 1914-1918 you must have at least 580 Kilobytes free DOS memory available. If you do not have this amount of free memory, you should remove all resident programs and drivers which are normally already loaded by your configuration systems "CONFIG.SYS" and "AUTOEXEC.BAT" when you start your computer. For details of how to increase your work memory, please consult your system's manual.

Historyline 1914-1918 does not require any other specifications such as add-on memory.

Amiga

Historyline 1914-1918 has been carefully developed to match all technical specifications and will run on all Kickstart versions from 1.2 upwards, and on all Amigas. You will also need at least 1 Megabyte of memory (at least 512 K Chip Ram, 512 K Fast Ram) to play Historyline 1914-1918. The program recognises additional memory automatically and if necessary makes use of it and additional disk drives. Since at least 400 Kilobytes Chip Ram must be available to start Historyline 1914-1918, you should observe the following points if your Amiga has only 512 K of built-in Chip Ram:

1. Additional disk drives may require Chip Ram (approx. 25 Kilobytes each). If you have problems starting the program you should turn off all additional disk drives.
2. Each open window or loaded program may require Chip Ram. Closing all windows and programs before starting Historyline 1914-1918 should erase any problems.
3. If you are working with Kickstart 2.0 or higher, the size of the Workbench screen may use up some memory. Reducing the picture size or using fewer colours can save a great deal of Chip Ram.
4. If 400 Kilobytes of Chip Ram are available and Historyline 1914-1918 does not start, it is possible that the free memory is only available in small amounts. If so, you will have to start the Amiga again.

As with Battle Isle, there is a special program version for owners of Turbo Cards (68020/030/040). In addition to having a faster program speed, this version will be usable on any new Amigas or processors developed in the future.

Loading Instructions

PCs and Compatibles

PLEASE NOTE!!! Before attempting to install Historyline 1914-1918, you must make a backup copy of the original disks. Historyline 1914-1918 disks have no copying protection and can be copied on any PC; the best way is from your command interface. Your MS-DOS manual explains in detail how to copy discs.

As Historyline 1914-1918 requires a large amount of data, it must first be installed on your hard disk. To make the installation as easy as possible, you will find an installation program on the first disk. Please observe the following instructions exactly to ensure that the installation is carried out without any problems:

Hard Disk Installation

Step 1.

Turn your computer on and boot it as normal.

Step 2.

When booting is complete, insert the first disk of Historyline 1914-1918 in one of your disk drives.

Step 3.

Enter the letter appropriate to this drive followed by a colon, and press the "Return" key. For your internal drive you will use the letter "A". If you are connected to a second drive, this usually has the letter "B".

Step 4.

Enter the name of the installation program (INSTALL) and confirm by pressing the "Return" key.

Step 5.

After the program has started, you must enter the installation path. If you do not want to use the pre-defined path, alter it as you wish. Confirm the path with the “Return” key and the program will begin installation. If you want to leave the installation program before installing, press the Escape key.

Step 6.

As soon as the program has been completely installed, you can start it by entering “HL14-18” followed by “Return”. Historyline 1914-1918 will recognise your PC’s configuration automatically and will adjust to it.

After an incorrect command, Historyline 1914-1918 will return to the command interface.

- a) If the message “Not enough memory” appears at the start, check the memory configuration of your computer. If you have been working with resident or other memory-intensive programs, they must be removed.
- b) If the message “File not found” appears at the start or during the program, you should carry out the whole installation again. It is probable that a file has been incorrectly installed owing to an internal error.
- c) If a message appears which is not explained here, please consult your dealer.

Amiga

Before attempting to load Historyline1914-1918, please ensure you have made a backup copy of the original disks. Historyline 1914-1918 disks have no copying protection and can be copied on any Amiga. The backup copy should be made from the Workbench; your Amiga manual explains in detail how to copy disks. To store scores you will need a disk with the name “HLS”; simply format the disk from your Workbench and give it the name “HLS”.

If you own an Amiga 1000, you will have to load your Kickstart after turning on your computer. Historyline 1914-1918 can be run on all system versions from Kickstart 1.2 upwards.

As soon as the instruction to insert the Workbench disk appears, insert your

own Workbench disk into the internal drive. When you are on the Workbench, insert the first Historyline 1914-1918 disk into the internal drive or one of your external drives. As soon as the disk symbol “HL1” appears, you can open the disk by double clicking on the disk icon. The window contains three symbols representing the following:

1. Introduction - this is the Introduction to Historyline 1914-1918, which tells you how the First World War came about. Following this, the main program of Historyline 1914-1918 will be loaded directly.
2. HL 1914-1918 - by double clicking on this symbol you can enter the main program without going through the Introduction.
3. Install - is the symbol of the Installation Program on your hard disk. The next section tells you more about hard disk installation.

Hard Disk Installation

Historyline 1914-1918 can be easily installed on your hard disk. It also offers an additional feature. When you install the program on your hard disk, the Installation Program automatically makes available a so-called Turbo Card from which a faster processor of the type 68020/68030/68040 can be accessed. There is a special version of the program on the disks for these “accelerators” which makes use of the additional capacity offered by these processors. If you already have a Turbo Card but do not have a hard disk, you will still be able to enjoy the increased speed, as Historyline 1914-1918 will run without trouble on these computers too. However, the ultimate speed can only be obtained on the hard disk.

To avoid problems while installing, please observe the following instructions carefully:

Step 1.

Boot your Amiga as normal from your hard disk. As soon as the Workbench symbol appears, you can insert the first Historyline 1914-1918 disk in one of your disk drives.

Step 2.

Open the disk by giving double clicking on its symbol. After a short time, several data symbols, so-called icons, will appear in the open window. One of these icons has the name “Install” and represents the Installation Program of Blue Byte games.

Step 3.

Start your Installation Program by double clicking on the icon.

Step 4.

In the Installation Window you will see two ways of entering information. In the upper box you should enter the name of the disk drive which contains the Historyline 1914-1918 disk. Normally this will be the “DFO” drive, and the box is already marked “DFO”. Should the source disk be in one of your external drives, then enter the appropriate label (DF1-DF3). Confirm the entry with the “Return” key.

The lower box is intended for the target drive. As the hard disk is usually labelled “DHO”, the box has already been labelled accordingly. If you should wish to install Historyline 1914-1918 on another partition, enter the name which corresponds to your configuration. As you are no doubt a tidy-minded person and will want to keep Historyline 1914-1918 in a drawer or sub-directory, you can enter the name of a drawer after the name of your drive. If this drawer already exists, Historyline 1914-1918 will simply be installed in that drawer. If the directory does not exist, the installation program will create a directory with this name and will create the appropriate icon. You can also enter nested sub-directories by entering their names one after the other; the names must simply be separated by “/”.

When you are satisfied that your entries are correct, you can begin installation. You will see three buttons in the bottom row of the Installation Program. The button marked “Packed” tells the program to copy the data for Historyline 1914-1918 directly from the floppy disk onto the hard disk. This saves valuable storage space on the hard disk, but results in slightly longer loading times. The second button marked “Unpacked” tells the Installation Program that you wish to copy the data in their original form onto the hard disk. This

shortens loading times, but you will need at least 8 Megaytes free memory on your hard disk. The third button is used to quit the program.

Step 5.

The installation program will now copy all the necessary data from the floppy disk onto your hard drive, displaying the file names and the time elapsed. You may be instructed to insert further disks. If you do not have a second drive, replace the first disk with the second one. The installation program will realise that you have inserted the second floppy disk and will continue with the installation. After a short time the program will inform you by means of a text message that installation has been successfully completed. If an error is indicated please check the following before trying again:

- a) You may have made a wrong entry in one of the two boxes. Correct this error by making a new entry as described in Step 4.
- b) You cannot write on the hard disk: your hard disk may contain defective data from other programs. Consult your hard disk manual to correct this fault and begin again from Step 1 after restoring all the data.
- c) You cannot write on the hard disk: your hard disk may not have sufficient space to contain all the data from Historyline 1914-1918. Delete the data you no longer require from the hard drive. Altogether, installation of Historyline 1914-1918 requires approx. 5 Megaytes in its packed form or 8 Megaytes unpacked.
- d) Data cannot be read from the Historyline 1914-1918 disk. Your disk has probably been damaged. Consult your dealer to correct this.

Step 6.

When the program has been successfully installed, you can start a test run. In the installation file you will see two program symbols. If you press the icon marked "Introduction", Historyline 1914-1918, including the Introduction, will start. By double clicking on the "HL 1914-1918" icon you will start only the main program. Any the personal data which you then enter into your installed Historyline 1914-1918 will be written on the hard disk.

PLEASE NOTE!!! In the past it has often happened that the installed program did not start from the hard disk because the memory was insufficient. This is usually caused by having too little Chip-RAM available. Whenever you start Historyline 1914-1918 no other program requiring Chip RAM (e.g. art programs) should be running in the background. If you have installed only 512 Megabytes Chip RAM in your Amiga, then a second drive will also require a considerable amount of memory. If possible, turn off your second drive. Remove the drive completely by disconnecting it from the computer as described in your manual.

If you still have no success, close all windows before starting Historyline 1914-1918. Open the file in which Historyline 1914-1918 is installed. Place the Historyline 1914-1918 program icon on the Workbench screen and close all windows. Start Historyline 1914-1918 by double clicking on the program icon.

Philosophy of the Game

In Battle Isle we succeeded in making a distinction between a brutal war game and a complex strategic simulation, in which intellectual prowess is the most important element. It may be assumed that a strategy game based on one of the greatest and bloodiest wars in history would be bound to contain elements glorifying war, and superficially this might seem to be true. However, the interested player will realise that this attitude ignores the most important aspects of HISTORYLINE:

The historical background.

Basing a game of strategy on the terrible First World War is a daring enterprise. However, the most important features of the game are not warlike acts but tactical reasoning and entertainment value. All the people involved in developing the game abhor violence and its dreadful consequences in war. However, pacifism should not be used as an excuse to distort reality or conceal facts. Never before has entertainment software been so consciously designed to present knowledge and facts to the player in a graphic manner. We have put a lot of effort into presenting the facts in an easily understood manner so as to guarantee historical accuracy. To those who insist that computer games are not a suitable medium for transmitting educational knowledge, we would simply point out the parallels to film and comics. A few decades ago, films and comics were invariably called “trash”, “nonsense” and “idiotic rubbish”; today they are central to education and are regarded as art.

We would like “Historyline 1914-1918” to become the foundation of a similar development in computer games and to meet Blue Byte customers’ demands for high quality. If you like - or dislike - the concept and design of this first Historyline program, we would be happy to receive any constructive criticism.

Your



Team.

Historyline versus Battle Isle

Those who know Battle Isle will ask what is the difference between it and Historyline 1914-1918. To save you having to read the manual from cover to cover, the differences are listed and explained below:

1. The hexagons showing the range of a unit or its targets in action have been dropped to make way for an important improvement. The landscape is now simply darkened, making controlling the game considerably easier.
2. Units which have already been used are no longer covered with a pattern, making them practically unrecognisable, but instead are shown in a “mouse-grey” colour.
3. The general map has been doubled in size, making geographical features more easily recognisable.
4. In calculating the results of battles, the distance from the target is significant. In general, accuracy decreases as the distance increases. This was necessary because of the number of different artillery weapons.
5. In addition to units used to build depots, there are also sapper units which dig trenches. These defences were of enormous importance in the First World War in protecting the infantrymen from artillery fire. The same units are also able to fill in trenches again to enable other units to advance more easily. You should pay particular attention to these units, and should not be afraid to dig or fill in trenches.
6. In Battle Isle, the provision of energy plays a complex role. Whereas, in Battle Isle, each building contained a certain amount of energy which could be used, here the buildings themselves are used to supply energy. Each building delivers a certain amount of energy in each game cycle to a shared “account”, which can be drawn on from any building. This method of distributing resources also replaces the “Aldinium” energy crystal of Battle Isle.
7. Historyline 1914-1918 contains approximately twice as many types of unit as Battle Isle. Although few of them are to be seen on the first maps, you

will be come across a huge number of units in the course of your campaign. Since the capabilities of each unit are closely matched to authentic events, the units are generally more specialised than those used in Battle Isle. The Weapons Manual gives details of some areas of specialisation.

8. The landscape reflects geological peculiarities, and the range of the units is therefore difficult to predict. This is made even more difficult as a result of the limited mobility of the First World War units. Always try to make use of fast transport vehicles and do not forget to keep them protected!



Principles of the Game

As in chess, you move a number of figures with various properties over a board. Your only aim is to make your opponent incapable of doing battle. You can do this either by capturing the enemy's Headquarters (similar to Checkmate), or by beating all the enemy figures. However, the properties of the figures are not as easily described as in chess. Instead of different movements, the units in Historyline 1914-1918 have varying ranges and are sensitive to certain features of the terrain. In chess, any figure can capture any other. Since Historyline 1914-1918 contains all kinds of units, from simple infantrymen to heavy battle cruisers, such a rule would not reflect the reality of the situation. Whether a unit is victorious in a battle is determined by its type, strength and experience. The surrounding units and their position in relation to enemy units are important factors in deciding the outcome of a battle.

In chess, as in other board games, certain tactical options are sacrificed in order to make the rules more straightforward. Because computer technology can today incorporate complex inter-relationships into an easy to play game, Historyline 1914-1918 has adopted a different philosophy. For example, it does not split the game into moves; both players can move their figures simultaneously, since they give their units orders which the troops then carry out independently. This would be difficult to do in a board game, but Historyline 1914-1918 was specially developed with the computer in mind.

Historyline 1914-1918 can be played with two players, this makes the game even more enjoyable. So that one player does not have to wait for the other, the game has been divided into so-called command cycles. While one player is only able to move his units, the other can carry out operations with his troops. An operation can consist of attacking an enemy unit, or digging trenches or similar tasks. Thus both players in the two-player mode can be "active" simultaneously and neither must waste time waiting for the other.

As soon as a player has completed all the moves he wants to make, he indicates this on the computer. Only when both players are ready to change their command cycle will the computer change the possible moves; this

means that the player who was only able to move his troops is now able to send them into action, and the other player can immediately move his unit. You can only plan all the moves, whether the unit is going into action or can only move. That is to say, you can deploy all the units and can see most of their operations. However, the moves are only carried out when both players are ready to change the command mode. This is particularly true for the player who is in the operation cycle; all the planned attacks will be carried out after the cycle has been changed.

The Menus

After a short loading time you will find yourself in the menu section of Historyline 1914-1918. Here you can perform a number of actions which are important in the game. You can control the menu by using the keyboard, the mouse or a joystick. When the cursor is on one of the menu items, an explanatory text will appear at the bottom edge. Next to the text is an exit symbol, this will enable you to return to the current menu. The Escape key and the right mouse key have the same effect.

The various option menus are:

Main Menu

You will see six items in the Main Menu. Three of these take you into other menus, in which you can take decisions important to the game.

Start

This enables you to enter the game with the options described in the menu. When you have entered the password for the first one-player map you will be asked before the game begins which side you want to represent. Germany represents the Central European Powers, and France represents the Allies.

Map

This allows you to enter the password by means of the keyboard, which means you can choose the various landscapes directly. The password to the next area of countryside is automatically entered when you have successfully completed a battle. You will find the passwords for all the two-player maps in the Appendix.

In the one-player mode, the next password depends on the side you choose before the first map appears. If you are on the side of the Central European



The main menu

Powers you will therefore receive different maps to the one on the Allied side.

Game Values

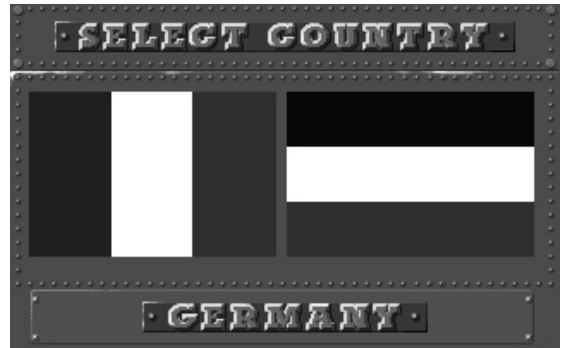
Here you can take decisions which among other things affect the difficulty level.

Control

As there are a number of ways in which you can control Historyline 1914-1918, you can enter the relevant information here.

Extras

From this sub-menu you can see the best Historyline players or load a score which has been saved.



The playing side selection screen



The game play options menu

Game Values Menu

Battle on/off

In Historyline 1914-1918, considerable calculations are necessary to show the outcome of battles. As some computers can take quite a long time to show all the battle sequences, you can reduce this time by using a simpler method. If you have a fast computer or prefer a

more spectacular style of presentation, select “Battle on”.

Player A

This allows you to see if the player who is playing on the left of the screen is to be controlled by the computer or manually.

Player B

This allows you to see if the player who is playing on the right of the screen is to be controlled by the computer or manually.

Depot View

Usually you can see into all the enemy's transporters and buildings to see which units they contain. Historyline 1914-1918 can be made more difficult if you are only able to see into your own buildings/transporters or into neutral ones. You will also be credited with extra points.

Move Limit

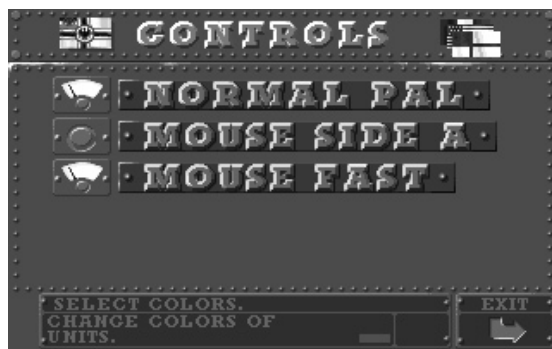
Whichever command cycle you are in, you can make as many moves as you wish. The game becomes more difficult if the number of moves you can make is limited. An experienced player can thus precisely determine the level of difficulty. The smaller the number of moves, the higher the score at the end of a map.

Operating Menu

Palette

This allows you to choose the colour range for the game. In the "Normal Palette" the first player's units are coloured beige and the second player's are coloured green. Unfortunately, many people suffer from a kind of colour-blindness which

means that they cannot distinguish these colours very well. To help these players distinguish the units, there is a "Bright Palette" in which the units are coloured blue and yellow. For those who do not suffer from this colour-blindness, it is simply a matter of taste which palette you choose. There is another palette for PC owners who have a monochrome monitor or a portable PC with a monochrome display. This "Monochrome Palette" should help you to distinguish the "Goodies" from the "Baddies".



The operating Menu

Mouse

This allows you to decide which player will be using the mouse. Player A has the left-hand side of the screen, Player B the right-hand side.

Mouse Sensitivity

The sensitivity of a mouse depends on its “guts”, i.e. the hardware; you can determine the speed with which the mouse can be operated.

Extras Menu

Show List

Shows you the five highest scores stored on the map in the main menu.

Load Game

When you want to continue with a game you have saved, you can do so by pressing the appropriate key from 0-9. Once the saved position has been loaded, the game will resume from that point.



The extras menu



Campaign Mode

As you have already discovered in the description of the menu, Historyline 1914-1918 is played in a kind of campaign mode. After you have chosen the first map for one of the opposing forces, the maps represent intervals of two months. As you will gather from the title of the game, the First World War lasted for four years, which means that you will have 24 maps in front of you before you receive the final pieces of information relating to the outcome of the War. The strategic prerequisites for a successful campaign are very different, depending which side, Central European Powers or Allies, you have chosen. If, for example, you have successfully completed Historyline 1914-1918 on the German side, it is interesting to find out if you are able to develop your strategic talents on the other side as well.

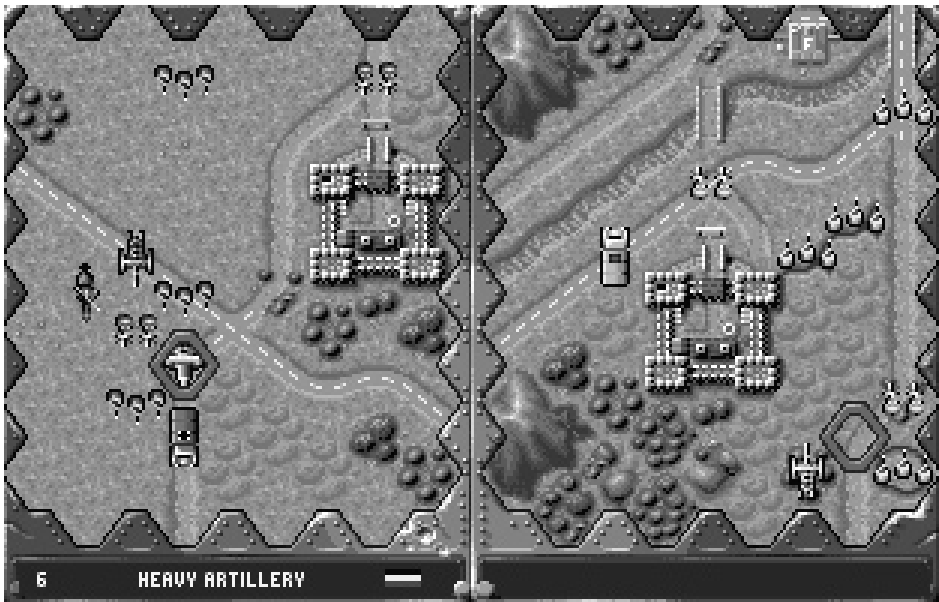
The chronological sequence of the maps is of vital importance. During the First World War a large number of weapons were invented or improved; thus, the new units which you will find on each map are presented in detail.

After each battle you will be informed of various important - and sometimes not so important - events which have occurred in the intervening two months. In the case of some extraordinarily important events you can look forward to film-style animation. You are then returned to the main menu and, if you have won the battle, you will find the access code for the next map in the password enter box.

The Playing Field

Each player possesses a so-called tactical display. The left-hand display shows Player A's section of the map, the right-hand side shows Player B's section. Directly underneath is the status line which provides you with important information about your own or the enemy's operations which are relevant to you. Any errors, e.g. incorrect entries etc., are also shown here. As soon as the cursor is above a unit, you can read in the status line the current troop strength, the troops' experience and the name of the unit.

Apart from these, the screen does not contain any important details, so that your overview is not unnecessarily restricted.



The playing area with both tactical over- head displays

The Controls

Experienced players of games of strategy will notice that certain symbols used to control the game are absent from the screen. In Historyline 1914-1918, all movements are integrated into the cursor, allowing an optimum overview of the map sections. At the beginning of the game, you will see the cursor in both tactical displays in the form of the perimeter of a six-sided figure. You can move this cursor along the figure with the joystick. The direction of the joystick corresponds to the direction of the cursor. When the cursor reaches the edge of the display, the map moves a small distance in the desired direction. When the cursor reaches the edge of the whole map you will not be able to move the cursor any further.



Exit symbol

When you press the fire button, the cursor will change into an "X". The "X" in the cursor indicates that you will exit the function as soon as you release the fire button and the joystick returns to its normal position. You will then return to the normal operation mode and the cursor will revert to its normal shape.

If you hold the fire button and move the joystick in one of the four possible directions, the cursor will assume other shapes. The new shape will depend on various factors.

A symbol will only appear in the cursor if the resulting action is possible. Don't be surprised, therefore, if the same symbol does not always appear when you move the joystick in a certain direction. This means that the computer has taken over part of the choice in order to prevent controlling errors.

1. The map represents the view of the whole map over the whole playing area. You can not only move the section of the tactical display quickly and accurately, but can also gain a quick view of the general state of play. In addition to a rough depiction of the geographical features you will also see all the units and the position of depots, factories and Headquarters.



Over-head map symbol



Contents symbol

2. The chest is the symbol for looking inside a building or a vehicle. This symbol can only be obtained when the cursor is positioned above a building (Headquarters, factory, depot) or above a transporter. You can then look into the interior of the building or vehicle and can carry out further actions; more about this later.

3. The question mark represents information, and you will receive important data relating to the box under the cursor. If the cursor is not on either a unit or part of a building, you will be given general information.



Information symbol

If the cursor is on a unit, you will be given its important values.



Movement symbol

4. The movement symbol can only be obtained when your cursor is on a unit. You must also be in the movement cycle of the game. If you choose this symbol, inform the unit under the cursor that you wish to move it. Your tactical display will then indicate the range of the unit.

5. The fist is similar to the movement symbol. Here too your cursor must be on a unit and you must be in the so-called action mode. It informs the unit that you wish to deploy it. In most cases, this means an attack on an enemy unit. As is the case when you move a unit, the tactical display will show you all the ways in which you can carry out an attack.



Action symbol



Symbol to change mode

6. The double arrow indicates that you have executed all your moves and that you wish to change your current playing cycle.

7. The spanner will only appear when you look at the inventory of a building. It indicates that you wish to repair the unit under the cursor.



Repair symbol



Production symbol

8. Like the spanner, the hammer can only be used inside a building. It indicates that you wish a unit to be created.

The General Map



An over- head map in detail

The General Map contains a number of important pieces of information which require some explanation. All roads are coloured light grey, tracks over fields are coloured beige, and railway tracks are shown in brown. This gives you an instant overview of the road and rail network and the quickest communication routes. The units are normally shown in the colour appropriate to your side; however, they turn into a grey dot when they receive an order from you. You can therefore see at once whether you have already deployed all your units.

Buildings are shown in the colour of the occupier, except for neutral buildings, which are white. “H” indicates the headquarters, “D” a depot and “F” a factory.

By using the General Map you can rapidly move to other points in the area; simply move the square cursor onto the place you wish to go to and press the fire button.

When you are looking at a map for the first time, it is advisable to study the situation thoroughly with the help of the General Map. Be sure to look into all the buildings and transport vehicles before planning your first moves. Reaching a building can itself be an important preliminary decision.

Moving the units



The range of movement for a unit is indicated

When you move the cursor onto the desired destination and press the fire button, you will see the route which the unit will take to reach that destination. Press the fire button again and the unit will move to its destination. Remember, when you press the fire button the second time, the cursor must still be at the desired destination, otherwise you will be shown the complete range again so that you can choose another destination. If you want to interrupt the move, place the cursor on an area which is not within your range, and press the fire button twice in close succession. When you

To move a unit, place the cursor in your tactical display on one of your troops. As soon as you press the fire button, you will see the exit symbol as a cursor. If you now move the joystick upwards while pressing the fire button, you will see the movement cursor. To see the range of the unit, release the fire button. All the areas to which you can move the unit are now shown in normal brightness.



The path of the unit is indicated

have moved the unit, the computer will prevent the unit from being moved again; you will recognise this by the fact that the unit will turn “mouse-grey”.

You can also take units out of buildings and transporters. First, call up the Inventory of the building or vehicle. The units can then be taken out of the building as normal. However, the range of the units will be limited, so as to prevent them from proceeding directly to the Front. As soon as you have moved a unit, it will appear again in the Inventory. You can leave the building again by selecting the cursor’s exit symbol. Units can also be moved into buildings or transporters. Buildings and transport vehicles are shown as possible destinations, provided they are within your range. Simply choose the area as your destination and the unit will move into the building or vehicle.

It is advisable to move units with limited range by employing transport units. First move the unit to a transport unit which has not yet been moved, and then move the transport unit itself. You can not move the transport unit first and then put the other unit into the vehicle, since the transport unit will only have received the order to move towards the destination, but is not yet at that destination.

Don’t forget that you only plan your moves, so your unit will not reach the destination until the next change in the command cycle. However, it may be that the unit will never reach the destination, as it may be destroyed by the enemy.

Carrying out an operation



The targets are indicated

Move the cursor to one of your units and press the fire button. When you see the exit symbol in the cursor, move the joystick up while pressing the fire button. You will now see the fist in the cursor. Release the fire button, and all the destinations which you can reach will be shown. These areas will appear lighter than the areas outside your range. Select your destination by moving the cursor to the appropriate hexagon and pressing the fire button. Your unit has now memorised the destination and cannot take part in any other operation. An enemy unit must normally be attacked several times before it can be destroyed. However, in a large-scale battle it is difficult to identify the units

which are already attacking the enemy. If you move the cursor onto one of the units which have already been used, you will see the unit which is to be attacked.

Not all units can actively take part in an attack. Depot builders can not attack the enemy, but can only construct depots. This is done in the same way as an attack on a unit. However, the hexagons do not show the available destinations but indicate all the hexagons on which depots can be constructed. Each depot builder constructs only half of a depot; the other half must either be built in the next move, or by another builder.

The sapper units are used to dig and fill in trenches, and are controlled in exactly the same way as the depot builders. Do not underestimate the effectiveness of trenches; in the First World War, many battles were decided by means of so-called “static warfare”, which occurred between the lines of trenches.

Repair of units



Repairs can be performed in depots or factories

During the action cycle you can use any of the buildings to repair those units which have been damaged. To do this, place the cursor on the building in which the damaged unit is located, and hold down the fire button. If you move the joystick to the left, you will see a chest in the cursor; now release the fire button, and you will see all the units in the building. Move the cursor to a damaged unit, hold down the fire button, move the joystick downwards and release the fire button again. The unit will immediately turn grey, showing that the unit cannot be used because it is being repaired.

Of course, repairing units consumes energy. Irrespective of how badly a unit has been damaged or what kind of unit it is, you will require 15 units of energy to repair it. The exception to this is the depot builder, who requires 50 units of energy. If there is insufficient energy available in the building, you will be told you have made an error.

The repair of units is very important. Strong units should be repaired constantly so that they can gain more battle experience. Only then will your units be able to hold their own in battle and withstand debilitating skirmishes.

Constructing units

Units can be built in factories during the action cycle as reinforcements for the Front. First select the Inventory of the factory, as you do when repairing a unit. Move the cursor to an empty space for units. If you move the joystick to the left while pressing the fire button, you will see the construction symbol, a hammer, in the cursor. Release the firing button, and all the units will be shown which can be built with the available energy. On many of the maps not every kind of unit can be built, so don't be surprised if you cannot build a unit even when you have enough energy available.

When you have chosen a suitable unit, select it with the cursor, hold the fire button down, move the joystick to the left, and release the fire button. The unit, coloured grey, will now appear in the space you have selected. During the next movement cycle you will be able to take the unit out of the factory.



Change of mode

When you have carefully entered all your planned moves, you will want to change the cycle. First, move the cursor to an area which is not occupied by a building or a transport vehicle. If you press the fire button on this “empty” square and hold the joystick to the left, you will see a double arrow in the cursor. This is the symbol for a change of cycle. By releasing the fire button, you can tell the computer that you have entered all your moves and now wish to change the mode. If you forget an important move, you can interrupt the process by pressing the fire button; you can then enter more moves. The computer will not allow the cycle to be changed until your opponent has also confirmed that he has made all his moves.

To confirm the change of cycle, use the keyboard. The computer will tell you to press “F1” to confirm that you wish to change the cycle. After the cycle has changed, all attacks and any buildings captured will be shown.

Selecting the symbol for the change of cycle has another important function:

The computer must carry out a large number of calculations if it is to come anywhere near being on a par with a human opponent. However, whilst you are entering your moves it has very little calculation time; only when you have confirmed that you want to change the mode, does the computer gain more time. You should therefore always select the symbol for a change of mode as soon as you have issued all your orders.

Loading and Saving a game

As many of the maps in Historyline 1914-1918 take several hours to play, you can save the game at almost any point and continue it later by loading the state of play.

Loading

Loading the state of play is done through the Main Menu. Go from the Main Menu into the sub-menu “EXTRAS” and from there to the option “LOAD GAME”. You will then be asked to choose a number between 0 and 9. Simply press the appropriate key on your keyboard. Historyline 1914-1918 will then give you further instructions to reconstruct the state of play. After a short loading time, you will find yourself back in the game with the data you have saved.

Saving

To save the state of play, you must actually be playing the game. When both players are ready to change mode, do not press “F1” as normal to confirm this, but “D” for “disk”. Historyline 1914-1918 will then ask you to enter a number between 0 and 9, using the keyboard. When you have pressed one of the keys, you may be asked to insert your state of play disk. When you have inserted the correct disk, it will automatically be recognised and the game saved onto it.



Buildings

In addition to the Headquarters, Historyline 1914-1918 contains two other types of buildings which are vital to the game. The first of these are the depots, which are either already situated on the map or can be built by a specialist unit. The others are the factories, which are similar in shape to the depots, but are able to produce new units. All three types of building must be provided with energy to be able to carry out their task of repairing or producing units. The energy represents raw materials of various kinds, and is supplied by the buildings themselves. During each command cycle you will be credited with amounts of energy for each of the buildings in your possession. Because of this, and because they can act as bases, they are important strategic targets which you should try to gain possession of as soon as possible. Even if a building already belongs to your opponent, you should try to capture it for yourself. In Historyline 1914-1918, all infantrymen and cavalrymen can capture buildings. When you want to capture one of your opponent's factories or depots, you should plan your attack as carefully as possible. In most cases, the defender enjoys a considerable advantage because he can have his units repaired. An attack will be most likely to be successful if you have a vastly larger number of troops. When choosing your troops for the attack, you should also consider their experience; a small number of experienced units is likely to carry out an attack more easily than a larger number of "rookies". You should be particularly careful when planning an attack on a building which, because of its geographical position, cannot be approached from all sides.

The Headquarters

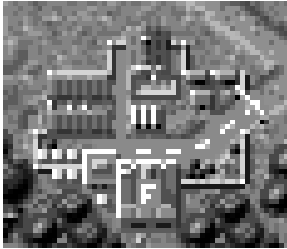
The Headquarters building is the most important strategic target for your opponent. The colour of the barrier in the topmost hexagon indicates which player the Headquarters belongs to. The aim is to win the game by occupying this hexagon.

On large maps, you should always leave at least two units at your Headquarters to prevent your opponent from transporting troops to the building and

occupying it. On the other hand, if you move towards your opponent's Headquarters, this may make him withdraw troops from a battle in order to defend it. In this way you may sacrifice some units, but your task will be easier on the battle ground.

The Factory

Like the Headquarters, the factories are already situated on the map. A barrier in the right-hand hexagon indicates which player currently occupies the factory. A factory can be occupied by moving infantry or cavalry troops to the right-hand hexagon. All the units which are in the factory at the time will become the property of the occupier.



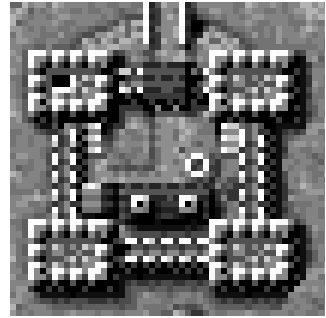
A neutral factory

If the barrier is white, the factory is neutral. Units can be moved into the factory by moving them to the appropriate hexagon.

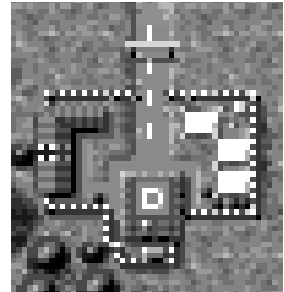
The Depot

Depots are not already indicated on the map, since they must be built by a specialist unit. To do this, you will need sufficient empty space. As a depot occupies four hexagons and can only be built on flat ground, maps which contain a lot of rugged terrain only have a few places where depots can be built. To build a depot, activate the unit of depot builders, just as you would if attacking an enemy unit. The computer will then indicate all the places where a depot can be built. Since a unit can only build half a depot in one move, you will either need two units to build the depot in one move, or use one unit over two moves. After building the depot, the unit will not have enough energy to build more depots. However, you can provide the unit with more materials by having it repaired in a factory or at Headquarters.

A depot built by you belongs to you immediately,



The headquarters



A captured depot



without having to be captured. It is supplied with energy from the common energy “account” while being built, so that you can repair units at once. The depot can not manufacture units. Some of the maps already contain depots which have to be captured. You can also capture the enemy’s depots by occupying them with suitable troops.

As land units can not proceed past a depot, they can also act as barriers. In this case, you should consider their positioning very carefully, as they may hamper your freedom to move.

Energy Supply

As already pointed out, repairing and manufacturing units requires energy. This energy is a type of raw material which allows you to manufacture all parts of a unit. Every building, whether Headquarters, factory or depot, supplies an amount of energy each command cycle. The amount of energy which a particular base produces depends on the size and position of the building. When you view the contents of a building, you can also see the amount of energy which it will contribute to your “energy budget” in each cycle.

The General Instructions give some information about the energy supply.



The Terrain

Geographical features are an important feature of Historyline 1914-1918. When moving units, the various types of terrain can increase or diminish the units' range.

Many land units can move quickly over firm terrain, such as roads, while forests or mountains can prove insurmountable obstacles. The basic rule is: the heavier a unit, the smaller its range and the less likely it is to be able to travel across mountains.

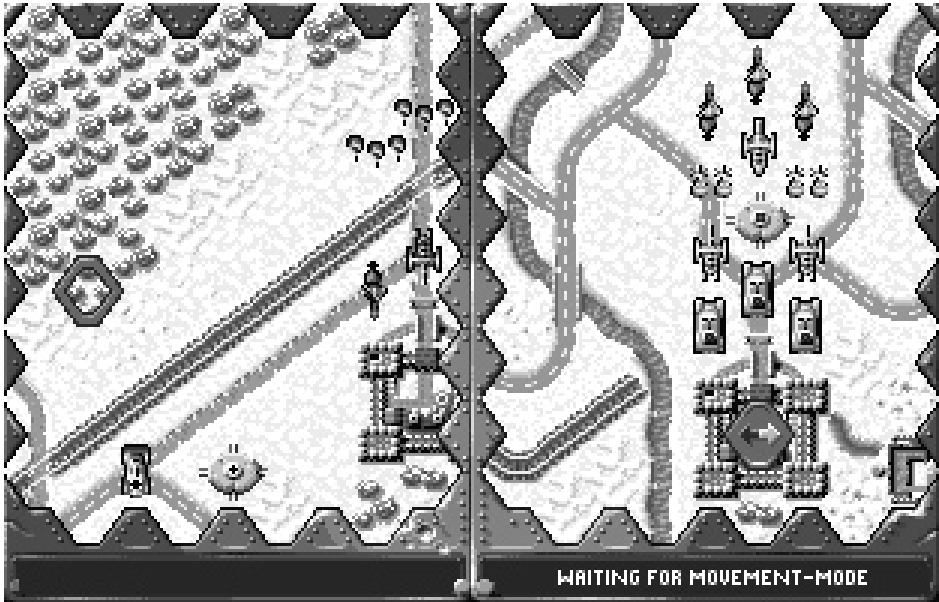
To naval units, the depth of the water is vital. As a rule of thumb, the heavier a ship is, the more slowly it moves in shallow water; the lighter it is, the smaller its range in deep water. This means, for example, that no heavy naval units can travel over shallow water. Light units on the other hand cannot travel on the open sea, the swell and the lack of navigational aids would make their task too difficult.

The trains can, of course, only travel on rails. All units should take particular care when they are involved in battles in winter.

The terrain is also important when you are attacking the enemy. Units on the road are much easier targets than those in a forest. The difference in elevation between units is also an important consideration in the outcome of a battle. The unit on the higher level usually has the advantage. Experience will show you how the various units move on each type of terrain and in battle.

The Seasons

In the one-player mode, you will play a map every two months over the four years of the War, so that some of the maps are set in winter. This affects the area covered by the map, which in turn affects range and battle power. Only experience will show, how well your strategy can deal with these more difficult circumstances.



A scenario in winter

Combat Position

Although a large number of tactical measures play an important role in Historyline 1914-1918, the most important aspect is the outcome of battles between opposing units. The successful or unsuccessful outcome of a battle depends largely on the combat position. In the following explanation, the unit carrying out the action is referred to as the “attacker”, whose target is the “defender”.

The combat position is important both to the attacker and the defender. Basically, the position of the attacker will have an effect on his attack values, and that of the defender will affect his defence values.

Pincer Movement

For the attacker, this means that every additional unit positioned around the defender would also be capable of attacking him, is added to the attack values. Such a position is described as a pincer movement. Thus, the pincer movement increases the attack value of the attacking unit. A unit which is positioned directly behind the defender doubles the attack capability of the attacker; units at the sides increase the value by a smaller amount. However, pincer movements have no effect on the attacking strength of long-range weapons. The pincer movement will only be effective if the attack proceeds from one hexagon to the next; it would be unfair to add 50% or 100% to the already high attack values of units such as the heavy artillery.

Remember that a pincer movement will not transform a weak unit into some sort of wonder weapon; a transport unit, for example, will seldom be able to inflict significant damage on a tank. Even when you have completely surrounded the defender, you will need to use a strong unit to carry out the attack.

Blocking

How can the defender avoid being hemmed in? For one thing, it will not be easy for the attacker to move his units near to or behind his opponent. Also, every additional one of the defender’s units which are positioned next to the

defender and the attacker increase his defence value. This tactic is referred to as blocking. Like the pincer movement, blocking can not prevent attacks with long-range weapons. The basic defence value of the defender is again increased. Each “blocking” unit increases the defence capacity by one quarter.

Distance

The various artillery weapons played a very important role in the First World War. However, in general the guns’ accuracy decreased as their distance from the target increased, and this is also true in Historyline 1914-1918. Experience will show you the optimum distance from the target.



Experience

The quality of a unit is dependent not only on its fire power, range and armour, but also the unit's battle experience. When one of your units is involved in a battle and inflicts damage on the enemy, the unit will receive one experience point. If your unit manages to destroy completely a whole enemy unit, you will receive two additional points. The battle experience is shown in the status line. The more experience points a unit has gathered, the more dangerous it is to the enemy, as experience has a decisive effect on the outcome of a battle. In addition to the "accuracy" of the unit being enhanced, its "skill" in avoiding enemy fire is also increased.

Try to ensure that all your units gain sufficient experience! In the early stages of the game you should not attack heavily armoured enemy units with units of your own which possess less fire power, as your unit will not be able to destroy a single vehicle. If you are attacking one of the enemy's units which has already been weakened, you should attack with a unit which is capable of destroying the enemy unit completely. Your unit will then immediately receive two experience points.

Unit Information

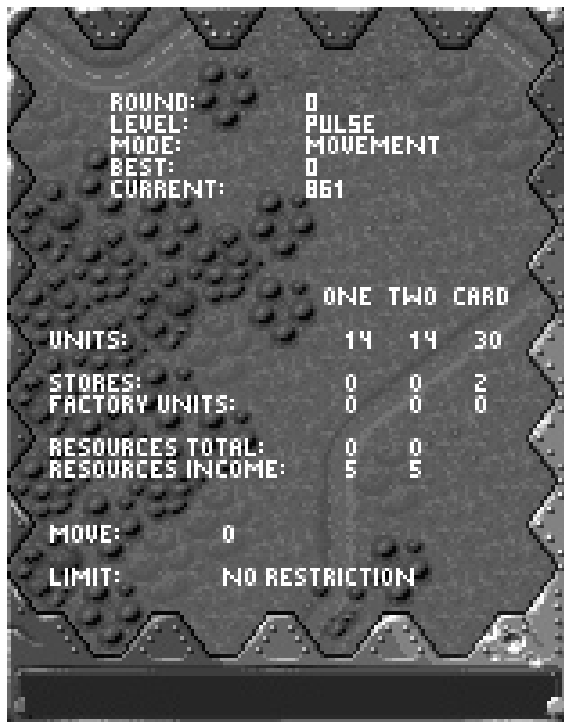


When you select the question mark above a unit, you will access an information display which gives you details of all the units. Under the large picture of the unit is some important technical information. Reading from the top, this shows:

1. Fire power and range against airborne targets.
2. Fire power and range against ground targets.
3. Fire power and range against naval targets.
4. Armour of unit.
5. Range of unit over ideal terrain.
6. Weight of unit (vital when loading on a transporter).
7. Maximum group strength.

You can not obtain any information about your opponents' units.

General Information



ROUND:	0	PULSE	
LEVEL:	0	MOVEMENT	
MODE:	0		
BEST:	0		
CURRENT:	861		

	ONE	TWO	CARD
UNITS:	14	14	30
STORES:	0	0	2
FACTORY UNITS:	0	0	0
RESOURCES TOTAL:	0	0	
RESOURCES INCOME:	5	5	
MOVE:	0		
LIMIT:	NO RESTRICTION		

An example of some general information

To obtain precise information about the current state of play, select the question mark when the cursor is above a unit. You will then obtain a large amount of numerical information, as follows:

1. “Round” gives the number of previous command cycles which have already been used in the current game.
2. “Level” is the program’s internal level number.
3. “Mode” shows which mode your command centre is currently in. If it shows “Move”, you can order your troops to move; otherwise you can plan your attacks and other manoeuvres.

4. “Best” is the abbreviation for “Best Score”, which shows the highest score achieved on this map.

5. “Present” is the current score.

6. The large information box provides information about the relative position of the players. You can see how many units, depots and factories, shown in the third column of the box, belong to the two players and which can still be captured. Units, depots or factories which appear in the third column of the box do not belong to either player, but may be captured.

7. “Total energy” tells you how much energy is currently available to build and repair units.

- 8. "Energy credits" shows the amount of energy which will be credited to your account in each command cycle.
- 9. "Moves" shows the number of moves which you have already made.
- 10 "Limit" gives you information about the limitation on moves contained in the main menu.



Scoring

After a playing for a long time, you need to know more than simply who won or lost; so each of the maps has a list of the highest-scoring winners. If you want to play to gain the highest score, you must of course understand the scoring system.

The defence values of all the units on the map added together are the starting point from which the score is calculated. The current score can be seen in General Information. As soon as a unit disappears, whether friend or foe, the score decreases. This means that your final score will be reduced when you destroy enemy troops, but if you win the game by totally destroying all the enemy's units, you will gain extra points to compensate. In addition, the options contained in the Score Menu also have a positive effect on the final score.

The points which can be gained are;

- | | |
|-------------------------------|---------------|
| - All units destroyed: | +500 points |
| - With concealed inventories: | +100 points |
| - Limit of 4 moves: | Points x 4 |
| - Limit of 8 moves: | Points x 3 |
| - Limit of 16 moves: | Points x 2 |
| - Maximum possible score: | 32,500 points |

General Strategy

Two important factors determine whether you win or lose: one is your “global strategy”, the other is your behaviour on the battle ground itself. “global strategy” means the sequence of capturing buildings. To determine how this is to be done, you must evaluate when and with what losses the buildings can be captured. These factors will be affected by the contents and the tactical position of the building. If, for example, a well-equipped factory can be occupied by you before the enemy, and you will incur acceptable losses, you should capture it first. In evaluating depots you should consider not only the units it contains but also its energy supply.

Despite the importance of buildings, success in small-scale battles is always decisive to the outcome of the game. Your superiority is dependent on the position of your units. Both the offensive and defensive capabilities of your units can be greatly enhanced by making use of geographical features. Some basic rules are:

1. Avoid roads and flat, open countryside. Such terrain increases your offensive power to some extent, but it also greatly reduces your defensive capability.
2. Always try to have difficult terrain near the battle line and at your rear, so as to avoid being hemmed in.
3. Buildings which can be used to repair units should always be close at hand.
4. At the front line you should always have heavy defensive weapons or units which can defend themselves against an enemy attack. You should always ensure to have anti-aircraft guns available when being attacked from the air.
5. Your second line should comprise units with long-range weapons. If you do not have enough units of this sort, use units which have a long range or can travel over difficult terrain.
6. Your third line should comprise of long-range weapons (e.g. artillery or armed trains).



7. You should always keep some long-range, large-capacity transport vehicles in reserve. If it becomes clear that your units cannot hold out, you can then quickly withdraw with the units you have left.

Appendix

Use of keyboard

Cursor control: Player A:

Cursor up	=	Joystick up
Cursor down	=	Joystick down
Cursor left	=	Joystick left
Cursor right	=	Joystick right
Space bar	=	Fire button

Cursor control: Player B:

D	=	Joystick up
C	=	Joystick down
X	=	Joystick left
V	=	Joystick right
Strg. or Ctrl.	=	Fire button

The following additional options can be accessed by using the function keys:

F1	=	Confirmation of mode change
F2	=	Music on/off
F3	=	Sounds on/off
F4	=	Displays Program Version Number
F5	=	Joystick 1 on/off
F6	=	Joystick 2 on/off
F7	=	Mouse on/off
F8	=	Mouse speed
F9	=	Battle on/off

Keys F5/F6 can be used specifically to switch a joystick on or off, if the program's automatic joystick recognition does not function (the cursor cannot be steered). This may happen if your Hardware does not keep within certain tolerances.

Two-player cards

The passwords to the two-player cards contained in Historyline 1914-1918 are:

TRACK, HUSAR, BEAST, PLATE, LIGHT, SCROL, VIRUS, BISON, DRUCK, TROLL, UBOOT, DROID, GRAND, ROYAL, WATER, SKILL, SKULL, AUDIO, SPELL, CAMEL, FLAGS, STORY, SCOUT, GREEN

Glossary

Action Mode

In this mode a player can only order his units to attack. He can also have units repaired and produced.

Movement Mode

In this mode a player can only order his units to move.

Blocking

A defensive position which increases the defensive values of units during battle.

Cursor

Normally, the cursor shows the position on your computer at which the next letter appears. In Historyline 1914-1918 the cursor is the means by which all the functions are carried out. It is similar to a mouse pointer, but is controlled not by a mouse but by the keyboard or joystick.

Depot

A type of supply base where units can be repaired.

Unit

A group of up to six identical vehicles which are shown collectively on the tactical map.

Factory

A building in which units can be repaired or produced.

Battle

In Historyline 1914-1918 a battle is a clash of several enemy units which results in fighting.

Headquarters

A large building for each player. Units can be repaired at the Headquarters.

Inventory

Indicates the contents of a building or transporter.

Pincer

An attacking manoeuvre which considerably increases the offensive values of the units in battle.

Score

At the end of the game the winner is given a score which reflects the quality of his playing. The highest scores on each map are stored.

Range

The maximum distance which a unit can travel over ideal terrain.

Firing Range

The distance over which a unit can attack.

Shop

See Inventory.

Tactical Overview

The Tactical Overview shows a section of the whole map on which all the units and geographical features are displayed. Each of the six-sided figures represents an area with particular features.

Credits

Main Program

Production

Blue Byte

Head of Production

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Programming and Design

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Graphics

Janos Toth

Layout and Animation

Thorsten Knop

Selection of Units

Thomas Hertzler

Level Design

Janos Toth

Christoph Werner

Thorsten Knop

Music Programming

Oliver Koenig

Music

Haiko Ruttmann

Opening and Closing Credits

Script and Design

Bernhard Ewers

Thorsten Knop

Program

Bernhard Ewers

Graphics

Thorsten Knop

Christoph Werner

Music Sound Track

Haiko Ruttmann

Intermediate Sequences

Idea

Lothar Schmitt

Research and Texts

Ulrich Albert Springmann

Ralf J. Kraft

Program

Bernhard Ewers

Oliver Koenig

Graphics

Thorsten Knop

Christoph Werner

Music Sound Track

Haiko Ruttman

Documentation

Instructions

Lothar Schmitt

Weapons Manual

Thomas Hertzler

Graphics

Thorsten Knop

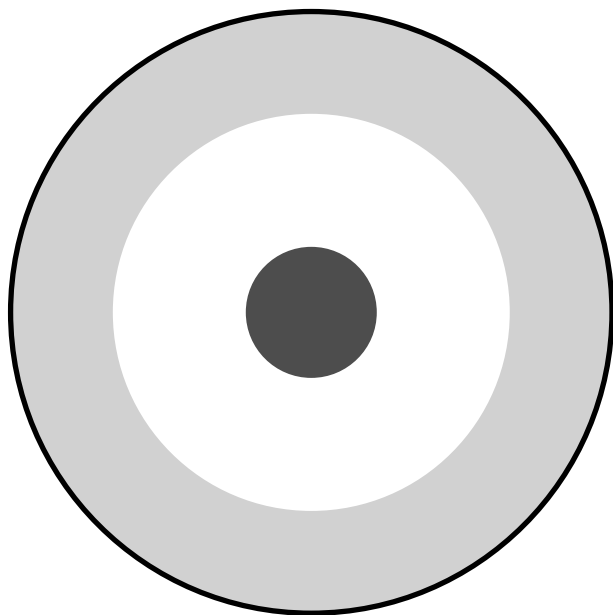
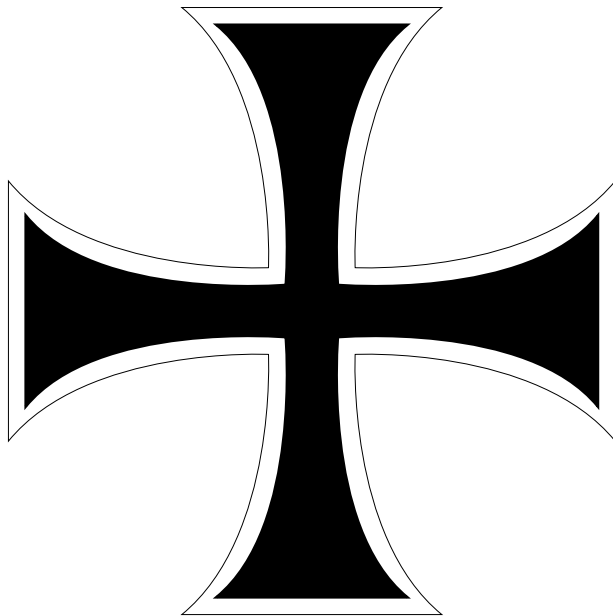
Janos Toth

Translation service

Polylang

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and everyone who helped us in the development of the “Historyline
1914-1918” project.



HISTORYLINE



1914-1918

Description of Units



Ground Troops



Tanks



Airplanes



Ships



HISTORYLINE 1914-1918
“DESCRIPTION OF UNITS”

Author & Layout Thomas Hertzler
Scans Janos Toth
Translation by Polylang Sheffield

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Foreword

This booklet is intended as a technical reference to help you play the game. It contains the historical specifications of all the units in Historyline 1914-1918, together with their characteristics in the game.

In researching the game, we have made every effort to make the details as accurate as possible - however, it was not easy to find reliable sources of information on the First World War, and we therefore cannot guarantee the historical accuracy of every unit. You will also find that the actual historical qualities or quantities of particular units may not be reflected in the game; these modifications were necessary to improve the game's "flow" and playability.

If you would like to find out more information, you will find a list of reference works on the last page, many of which provide precise technical details of planes, tanks and ships.

In addition, we would recommend anyone who is seriously interested in the First World War to read "All Quiet on the Western Front" by Erich Maria Remarque, which gives a savage description of everyday life and death of young soldiers on the Western Front.

The Author,
Mülheim an der Ruhr,
18 October 1992.

Explanation of the Data Sheet

(A) + This lists all the relevant features of the game. The descriptions are self-explanatory; you should however note the following points:

(B)

- Attack values are always shown in the following order: range of weapon / effectiveness of weapon.
- If the range is given as zero, but the effectiveness is greater than zero, this means that the unit can defend itself but is not able to attack.
- If two numbers are given under "weight", the second number is an indication of the loading capacity of a transport unit.

(C) Shows the party which has deployed the unit.

(D) Is an illustration of the unit as shown on the game card.

(E) Is an illustration of the unit turned through 60°, as shown on the game card.

(F) Is a picture strip showing the various types of terrain. The areas marked with a cross cannot be driven/sailed on or flown over by the units. Reading from the top you will see:

- deep water
- shallow water
- plain, road/bridge
- forest
- mountains, narrow bridges
- trenches, barbed wire, barriers
- tracks

Tactical Data		
Attack value against airborne targets	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 5px; margin: 5px;">(C)</div> <div style="margin: 0 10px;">(F) -></div> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin: 5px;">(D)</div> <div style="border: 1px solid black; padding: 5px; margin: 5px;">(E)</div> </div> </div>	
Attack value against targets on water		
Attack value against targets on ground		
Defence value		
Speed		
Weight		
Strength of group		
Production costs		



Infantry

German Soldier



British Soldier



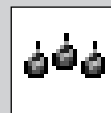
French Soldier



At the outbreak of the First World War, the soldiers set off for the Front amid popular jubilation. Soon, however, the euphoria was to subside. In this war, the soldier was confronted by many new dangers; no where on the Front was safe, and it usually took two weeks for the soldiers to be relieved. Huge numbers of machine guns, attacks from the air, heavy- calibre artillery and poison gas were among the dangers with which the soldier was permanently threatened. A further element was the disastrous trench warfare at the Western Front, which had never been experienced before. For almost four years the Front moved backwards and forwards only marginally. In general, particularly towards the end of the War, the Allied troops had better provisions than their opponents.

Tactical Data

Attack value against airborne targets	-/-
Attack value against targets on water	01/30
Attack value against targets on ground	01/30
Defence value	20
Speed	4
Weight	1
Strength of Group	6
Production costs	35





Elite Infantry

III.: Machine gun detachment with water-cooled MG.



The elite infantry was composed of troops who were old enough to have “gained experience”. The recruits were cannon-fodder, and were given only meagre chances of survival. The elite infantry was always deployed when it was necessary to carry out tactically important actions. They were almost always better equipped and specially trained.

Tactical Data

Attack value against airborne targets	01/15
Attack value against targets on water	01/43
Attack value against targets on ground	01/43
Defence value	25
Speed	4
Weight	1
Strength of Group	6
Production costs	50














Cavalry



III.: German Cavalry.

Initially, mounted troops were successfully deployed in reconnaissance work; as the Western Front became rigidly fixed, however, the cavalry grew worthless. Despite this, almost all the armies continued to maintain cavalry troops up to the outbreak of the Second World War. Their chief advantages were speed, and the fact that horses do not require any spare parts, fuel or oil.

Tactical Data								
Attack value against airborne targets	-/-							
Attack value against targets on water	-/-							
Attack value against targets on ground	01/33							
Defence value	20							
Speed	6							
Weight	2							
Strength of Group	6							
Production costs	50							






Anti-Tank Weapons

PAK

Ill.: Anti-Tank Gun, probably 3.7 cm calibre, with periscopic sight.



Until the last months of the War, tanks were used only by the Allies. To combat the tanks, the Central European Powers set up short-range batteries with low wheels. Special anti-tank shells were developed which were capable of penetrating the armour plating of most tanks. Among other means of combatting tanks was the 13 mm anti-tank gun.

Tactical Data			
Attack value against airborne targets	-/-		
Attack value against targets on water	02/50		
Attack value against targets on ground	02/50		
Defence value	25	 	
Speed	2		
Weight	2		
Strength of Group	6		
Production costs	53		



Sappers



III.: Sappers laying track.

Sappers dug trenches and battery emplacements, built bridges, and laid roads and rail lines. Sappers not only had to carry out heavy physical work, but were also often under enemy fire. In HL 1914-1918 these units, which are lightly armed and can only defend themselves, are only used to dig and fill in trenches; they cannot build or destroy roads, bridges, track or buildings.

Tactical Data			
Attack value against airborne targets	-/-		
Attack value against targets on water	01/25		
Attack value against targets on ground	01/25		
Defence value	20		
Speed	4		
Weight	1		
Strength of Group	6		
Production costs	45		






Supply Depot Construction Unit

III.: Depot under construction.

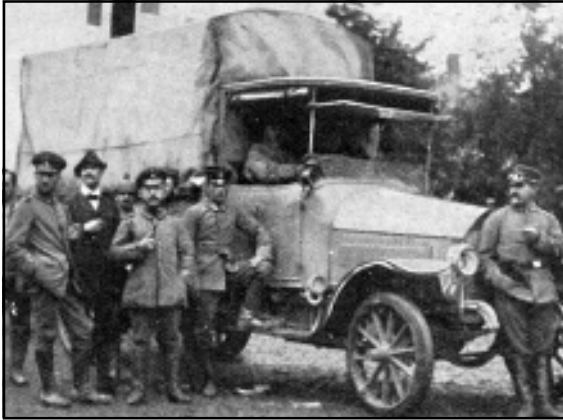


In order to make supply routes shorter, large depots containing ammunition, food, fuel, heating material, building materials and other supplies were erected at a safe distance from the Front. Minor repairs to equipment were also carried out here. The depots were erected by motorised construction units, which in HL 1914-1918 are not armed.




Tactical Data		
Attack value against airborne targets	-/-	
Attack value against targets on water	-/-	
Attack value against targets on ground	-/-	
Defence value	20	 
Speed	6	
Weight	4	
Strength of Group	6	
Production costs	105	



Transport of Supplies



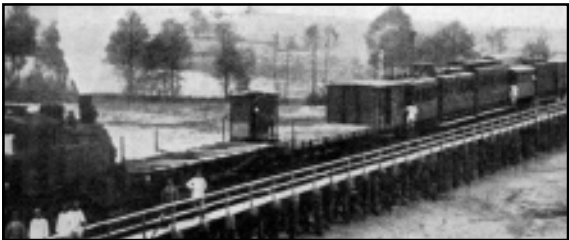
Trucks were increasingly used in addition to horse-drawn carts for transporting munitions, infantry troops and supplies. These trucks were not able to travel across rough terrain (the illustration shows their small rubber tyres), but could only travel over solid ground. These units were not armed.

Tactical Data			  	
Attack value against airborne targets	-/-			
Attack value against targets on water	-/-			
Attack value against targets on ground	-/-			
Defence value	20			
Speed	7			
Weight	9/4			
Strength of Group	6			
Production costs	45			



Supply Train

All.: Freight Train with passenger and goods wagons.



Supplies had to be transported over large distances, and motorised transport was not yet highly developed, so ordinary freight trains were employed for the purpose. The trains also took tanks and heavy artillery to their positions. These transport trains were usually not armed. In addition to the normal routes there was also a field route used to transport weaponry and munitions between the depots and the Front.

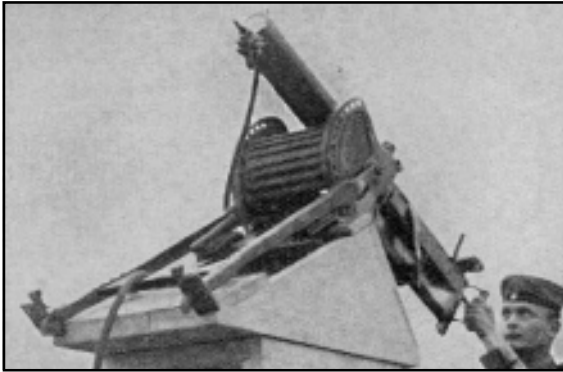
Tactical Data

Attack value against airborne targets	-/-
Attack value against targets on water	-/-
Attack value against targets on ground	-/-
Defence value	25
Speed	7
Weight	35/15
Strength of Group	1
Production costs	90






Static


Anti-aircraft emplacement



III.: Standard machine gun on improvised tripod.

The armies were comparatively slow to recognise the importance of airplanes; in the opinion of the Generals they should only be used for reconnaissance work. It is thus no wonder that, at the outbreak of war, there were practically no weapons for use against planes. As the danger from the air began to increase, standard machine guns were mounted on simple wooden supports. Later, special machine guns were used which fired small shells. Nevertheless, it was not easy to shoot down a moving plane, and large quantities of ammunition were required.

Tactical Data		
Attack value against airborne targets	02/30	
Attack value against targets on water	25	
Attack value against targets on ground	25	 
Defence value	25	
Speed	2	
Weight	2	
Strength of Group	6	
Production costs	50	





Mobile Anti-aircraft emplacement

III.: Anti-aircraft gun mounted on truck.

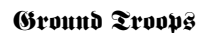


The great disadvantage of the early anti-aircraft guns was that they were static and difficult to move. A great number of static guns were needed if a large area was to be defended satisfactorily. To make the guns mobile, they were placed on trucks. Since it is not easy to hit a moving airplane from the ground, shells loaded with explosive were used in place of ordinary ammunition; when they reached a certain height, these shells exploded into thousands of small fragments.

Tactical Data



Attack value against airborne targets	04/35
Attack value against targets on water	40
Attack value against targets on ground	40
Defence value	25
Speed	7
Weight	4
Strength of Group	6
Production costs	62





III.: Russian 76.2 mm calibre Light Field Artillery with crew.

Artillery was among the most important weaponry in the First World War. At first there were no planes to intervene in the war on the ground, and even later in the War their bomb load was extremely small. There was a huge variety of calibres and barrel length, not all of which can be described here. HL 1914-1918 contains guns of three different calibres. The light field guns in HL 1914-1918 have barrels up to 75 mm calibre. This type of gun was comparatively easy to move and were deployed with some success against attacking troops. Their range and effectiveness however were small. The crew had to take the guns dangerously close to the front line to be sure they did not fire into their own ranks. Because of their weight and size, however, their firing position could be changed very rapidly.

Tactical Data		
Attack value against airborne targets	-/-	
Attack value against targets on water	03/45	
Attack value against targets on ground	03/45	
Defence value	25	
Speed	2	
Weight	3	
Strength of Group	6	
Production costs	55	









Medium Field Artillery



Ill.: Medium Gun in firing position.



In HL 1914-1918, medium artillery includes guns from 75 mm to 150 mm calibre. Together with the light artillery, these guns were an important tactical element in battle; before an attack started, fire was directed at the enemy lines and then broken off to allow the infantry to advance. When defending, the guns set up a barrage of fire to stop the attacking troops and to deplete their numbers. By the end of the War, many of the German guns were worn out and had become inaccurate as a result of the terrible shortage of raw materials, and many shells landed among the German soldiers.

Tactical Data			       
Attack value against airborne targets	-/-		
Attack value against targets on water	05/55		
Attack value against targets on ground	05/55		
Defence value	27		
Speed	1		
Weight	4		
Strength of Group	6		
Production costs	70		







Heavy Field Artillery



III.: Heavy Field Gun (probably 150 mm).

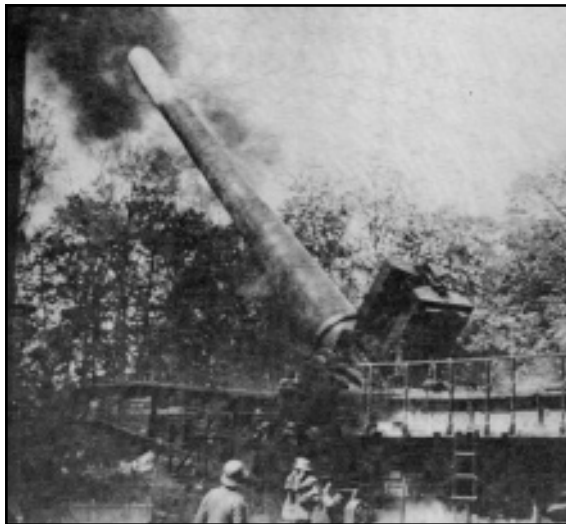
These guns could not be moved without a strong cart or truck. In addition, the ground on which the gun was positioned had to be sufficiently firm so that the gun did not sink into the earth. A 21 cm gun had a range of up to 100 km, so that they were able to fire behind the enemy, for example on supply routes and command posts. As the shells weighed several hundred kilograms, the guns' rate of fire was not high. All these facts made the heavy artillery primarily a strategic weapon.

Tactical Data			   
Attack value against airborne targets	-/-		
Attack value against targets on water	06/70		
Attack value against targets on ground	06/70		
Defence value	25		
Speed	1		
Weight	5		
Strength of Group	6		
Production costs	85		



Train-mounted artillery

III.: 38 cm long-barrelled gun being fired.



Train-mounted artillery were huge cannons mounted on railway wagons, and had a range of 100 km or more. As well as the 38cm long-barrelled gun (illustrated), there were also 42 cm mortars, used primarily to attack fortified emplacements and obstacles. The shells used with "Big Bertha" weighed up to 1160 kilograms and produced as much energy as a 200 ton goods train travelling at 90 km/hour. The great disadvantages of these guns were their slow rate of fire, the extremely high cost per shot fired, and the short life expectancy of the barrels. The train-mounted guns were, even more so than the heavy artillery, strategic weapons.

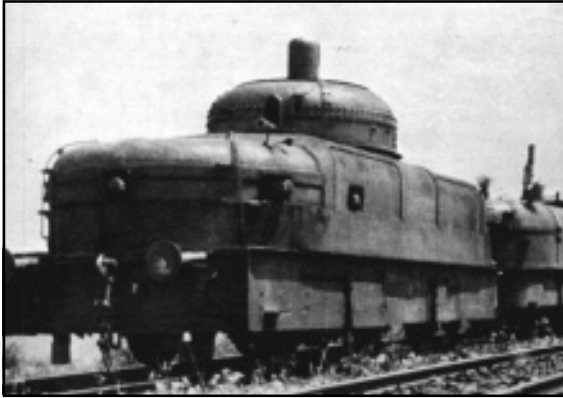
Tactical Data

Attack value against airborne targets	-/-
Attack value against targets on water	07/90
Attack value against targets on ground	07/90
Defence value	40
Speed	5
Weight	35
Strength of Group	1
Production costs	125









Armoured Train



III.: Gun wagon of an armoured train, probably on the Eastern Front.

The armoured trains were protected by extremely thick armour plating and carried a number of guns and machine guns. No expense was spared in the trains' armaments or armour plating. They were unbreachable fortresses which could only be stopped by being derailed. Naturally, they were not designed to attack but to support other units, for reconnaissance, patrolling or taking part in battles near towns, all of which tasks they performed well. They were also sent out ahead of ordinary goods trains to clear the way for them. In the First World War, armoured trains were chiefly used on the Eastern Front.

Tactical Data			
Attack value against airborne targets	02/20		
Attack value against targets on water	02/60		
Attack value against targets on ground	02/60		
Defence value	60	 	
Speed	6		
Weight	40		
Strength of Group	1		
Production costs	100		
			



Bunker

Ill.: Armed bunker with raised observation sight, gun barrels retracted.



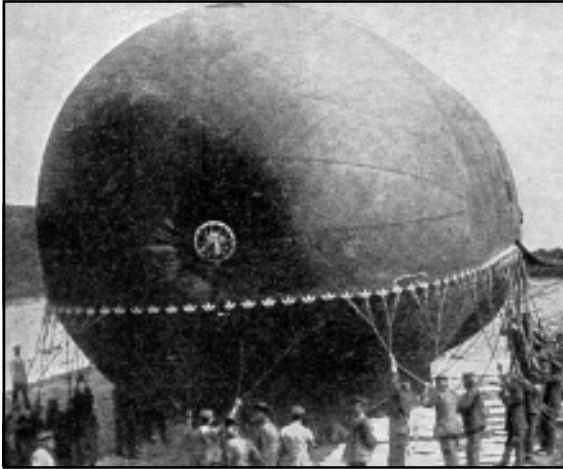
Before the War, the Belgians and French built defensive emplacements like that illustrated along their eastern borders. It was impossible to gain superiority on a broad front, as Count Alfred von Schlieffen, who gave his name to the famous Schlieffen Plan, realised very early in the War. Instead, a number of strategically placed emplacements, for example at Namur and Antwerp, were selected and “opened up” by means of the largest-calibre guns available. The bunkers and forts were built of metre-thick reinforced concrete often reaching several metres underground. In addition to light or medium artillery, they also had machine guns for use in close combat and could be completely self-sufficient for short periods of time.

Tactical Data

Attack value against airborne targets	-/-
Attack value against targets on water	03/60
Attack value against targets on ground	03/60
Defence value	85
Speed	-
Weight	-
Strength of Group	3
Production costs	-







Static Balloon



III.: Balloon, held down by ground troops, before rising. The observer sat in a gondola under the balloon and had a parachute so that he could jump out in case enemy airplanes appeared.

Balloons were used chiefly to observe the enemy and gave instructions to the artillery concerning range and direction of fire. They were usually defended by anti-aircraft guns and fighter planes. In HL 1914-1918 the balloons are used only as obstacles to force enemy pilots to fly over certain points. Balloons were both round and cigar-shaped.

Tactical Data			   	
Attack value against airborne targets	-/-			
Attack value against targets on water	-/-			
Attack value against targets on ground	-/-			
Defence value	15			
Speed	1			
Weight	1			
Strength of Group	3			
Production costs	30			



German Armoured Car (Panzerspähwagen)

SPECIFICATION

Type: German Armoured Reconnaissance Car.

Manufacturer: not known.

Engine: internal combustion engine.

Dimensions: not known.

Performance: maximum speed (on roads) 8.5 km/hour, maximum range (on road) 60 km.

Armaments: 3-4-man crew, two 7.62 mm machine guns, all-round armour plating, thickness not known.

First made: before the War.



Little is known about the German armoured car shown in the illustration. It is known that it was used for reconnaissance work and was similar in performance to the French Charron. They had ancilliary tracks which were attached to the wheels to enable the vehicle to travel over rough terrain.

Tactical Data

Attack value against airborne targets	-/-
Attack value against targets on water	01/35
Attack value against targets on ground	01/35
Defence value	30
Speed	6
Weight	3
Strength of Group	6
Production costs	55



AV7 Tank (Sturmpanzerwagen)



The AV7 was the first and only tank used by the German Army in the First World War. With armour plating up to 30mm thick it was the best-protected armoured car of its time, and its six machine guns and its Belgian 5.7cm gun made it extremely powerful in battle. Despite several successful operations, only 20 had been built by the end of the War, as the powers- that-be underestimated for a long time the significance of tanks.

SPECIFICATION

Type: AV7 Tank.

Manufacturer: Daimler.

Engine: two 100 hp Daimler petrol engines.

Dimensions: length 7.35 m, width 3.10 m, height 3.40 m, battle weight 32 t.

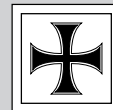
Performance: maximum speed on road 12 km/hour, maximum range on road 35 km.

Armaments: 18-man crew, one 57 mm cannon, six 7.62 mm machine guns, maximum thickness of armour plating 30mm.

First made: 1918.

Tactical Data

Attack value against airborne targets	-/-
Attack value against targets on water	01/60
Attack value against targets on ground	01/60
Defence value	55
Speed	4
Weight	5
Strength of Group	6
Production costs	90





Charron Armoured Car

SPECIFICATION

Type: Charron Armoured Car

Manufacturer: not known.

Engine: internal combustion engine.

Dimensions: not known.

Performance: maximum speed on road probably 30-40 km/hour.

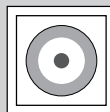
First made: 1914.



The fully armoured Charron was developed in France in 1914. It was equipped with a machine gun, but despite the semi-circular steel supports which were attached to the sides and could be placed under the wheels if necessary, it was incapable of surmounting any significant obstacles. It was however faster than the later tracked vehicles. As a reconnaissance vehicle it performed well for the Allies.

Tactical Data

Attack value against airborne targets	-/-
Attack value against targets on water	01/35
Attack value against targets on ground	01/35
Defence value	30
Speed	6
Weight	3
Strength of Group	6
Production costs	56





A black and white photograph of a large, heavily armored military vehicle, likely a tank or assault vehicle, positioned in a field. The vehicle features a prominent turret and a large, angled front armor plate.

Type: St.-Chamond Tank.

Manufacturer: Compagnie des Forges et Acieries de la Marine et d'Homecourt-St. Chamond.

Engine: Panhard 4-cylinder petrol engine.

Dimensions: length 8.83 m, width 2.67 m, height 2.36 m, battle weight 28 t.

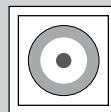
Performance: maximum speed on road 8.5 km/hour, maximum range on road 60 km.

Armaments: 9-man crew, one 75 mm gun, four 8 mm machine guns, maximum thickness of armour plating 17 mm.

First made: 1916.

When the British first brought their tanks across the Channel, it transpired that the French had also secretly been working on developing a tank. The St.-Chamond was designed as a mobile fortress, as is clear from the technical data. Nevertheless, manufacture of the St.-Chamond was discontinued after 400 had been made, in favour of the lighter and smaller Renault FT 17.

Attack value against airborne targets	-/-
Attack value against targets on water	01/55
Attack value against targets on ground	01/60
Defence value	40
Speed	4
Weight	5
Strength of Group	6
Production costs	90





Renault FT 17 Light Tank

SPECIFICATION

Type: Renault FT 17 Light Tank.

Manufacturer: Renault.

Engine: Renault 4-cylinder petrol engine.

Dimensions: length 5.00 m, width 1.74 m, height 2.14 m, fighting weight 6.5 t.

Performance: maximum speed on road 7.6 km/hour, maximum range on road 60km.

Armaments: 2-man crew, one 37 mm gun or one 8mm machine gun, maximum thickness of armour plating 16 mm.

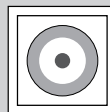
First made: 1917.



In contrast to the large tanks, the FT 17 did not need to travel across trenches but instead was short enough to be able to drive through them. Its advanced, compact construction is noteworthy and was later copied by many tank manufacturers. After the War, Renault exported its tanks to the USA and USSR, who used them to equip their first tank regiments.

Tactical Data

Attack value against airborne targets	-/-
Attack value against targets on water	01/40
Attack value against targets on ground	01/40
Defence value	35
Speed	5
Weight	3
Strength of Group	6
Production costs	51





Battle Tank Mark 1



The British Mark 1 was the first battle tank in the world, and was deployed at the Battle of the Somme on 15 September 1916, where it struck terror into the German Infantry. For most models the British and French made a “male” version - equipped with guns and machine guns - and a “female” version, which was armed only with machine guns. The tactical value of these early models was, however, extremely small, as they often became stuck in the mud or broke down.

SPECIFICATION

Type: Tank MK 1, “male” version: illustration shows “female” version.

Manufacturer: Foster & Metropolitan Carriage and Wagon Company.

Engine: Daimler 6-cylinder petrol engine (built under licence).

Dimensions: length 8.05 m, width 4.19 m, height 2.49 m, battle weight 28 t.

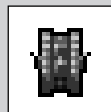
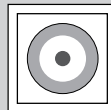
Performance: maximum speed on road 5 km/hour, maximum range on road 40 km.

Armaments: 8-man crew, two 57 mm guns, four 7.93 mm machine guns, maximum thickness of armour plating 10 mm.

First made: 1916.

Tactical Data

Attack value against airborne targets	-/-
Attack value against targets on water	01/50
Attack value against targets on ground	01/50
Defence value	40
Speed	4
Weight	4
Strength of Group	6
Production costs	85





Battle Tank Mark IV

SPECIFICATION

Type: Tank Mark IV

Manufacturer: Foster & Metropolitan Carriage and Wagon Company.

Engine: Daimler 6-cylinder petrol engine (built under licence).

Dimensions: length 8.18 m, width 4.12 m, height 2.49 m battle weight 28.5 t.

Performance: maximum speed on road 6 km/hour, maximum range on road 55 km.

Armaments: 7-man crew, two 57 mm guns, four 7.92 mm machine guns, maximum thickness of armour plating 12 mm.

First made: 1917.



The MK IV was a development of the British MK series. In addition to a few slight technical modifications it had better armour and was more manoeuvrable than its predecessors; its range on the road was raised to 55 km. Practically no modifications were made to the armaments. The German Forces used some captured MK IVs in their own regiments.

Tactical Data

Attack value against airborne targets	-/-	
Attack value against targets on water	01/55	
Attack value against targets on ground	01/55	
Defence value	45	
Speed	4	
Weight	5	
Strength of Group	6	
Production costs	95	

Fokker C.I

Single Seater Fighting Scout

SPECIFICATION

Powerplant: 80 hp Oberursel U.O. 7 cylinder rotary engine.

Dimensions: span 8.53 m, length 6.75 m, height 3.12 m.

Weight: empty approx. 500 kg, take-off 562 kg.

Performance: maximum speed 132 km/h, service ceiling 3100 m.

Armaments: one fixed 7.92 mm Spandau machine gun synchronised to fire through the propeller.




History: first flew end of May 1915.











The fact that it was the first plane to be able to fire through the propeller without damaging it made the E.I a feared opponent. Indeed, it was with the E.I that the era of aerial battles began; previously, the pilots had merely shot at each other with pistols or had simply waved to each other. With the E.I, Boelke and Immelmann developed the ground rules for modern aerial warfare and thus became heroes.

Tactical Data

Attack value against airborne targets	01/20
Attack value against targets on water	01/13
Attack value against targets on ground	01/11
Defence value	15
Speed	7
Weight	-
Strength of Group	6
Production costs	80







Fokker E.III

Single Seater Fighting Scout



The E.I was constantly modified to maintain its superiority. The planes were equipped with two machine guns (for a time Immelman flew a version with three) and a more powerful engine. The 300 E.III's which were built shot down approximately 1000 Allied planes, giving rise to the expression "Fokker plague". After 1916, however, the monoplane was left behind by its Allied opponents, which were continually being improved.

SPECIFICATION

Powerplant: 100 hp Oberursel U.I 7-cylinder rotary engine.

Dimensions: span 9.52 m, length 7.3 m, height 2.79 m.

Weight: empty approx. 500 kg, take-off 635 kg.

Performance: maximum speed 134 km/h, service ceiling 3500 m.

Armaments: two fixed 7.92 mm Spandau machine guns synchronised to fire through the propeller.

History: first flew September 1915.

Tactical Data

Attack value against airborne targets	01/25
Attack value against targets on water	01/17
Attack value against targets on ground	01/15
Defence value	15
Speed	7
Weight	-
Strength of Group	6
Production costs	85





Albatross D.III

Single Seater Fighter Scout

SPECIFICATION

Powerplant: water-cooled Mercedes 6-cylinder DIIIa, 162/177 hp.

Dimensions: span 9.05 m, length 7.33 m, height 2.98 m.

Weight: empty 661 kg, take-off 886 kg.

Performance: maximum speed 175 km/h, service ceiling 5500 m, max. flying time 2 hours.

Armaments: two synchronised 7.92 mm Spandau machine guns.

History: first flew approx. October 1916.



The D.III had a hand in “Bloody April” 1917, in which the Allied Air Forces suffered high losses. After the Allies had down-graded the “single-decker”, the D.III was introduced at the right moment to give the Germans air superiority again in the first half of 1917. Noteworthy features of the plane were the aerodynamic shape of the fuselage, and the fact that it was equipped with two machine guns at a time when its British and French counterparts had only one. Richthofen, Göring and Boelke flew the D.III and achieved many air victories with it.

Tactical Data

Attack value against airborne targets	01/35
Attack value against targets on water	01/18
Attack value against targets on ground	01/16
Defence value	20
Speed	9
Weight	-
Strength of Group	6
Production costs	90





Fokker Dr.I

Single Seater Fighter Scout



SPECIFICATION

Powerplant: usually 110 hp Le Rhone 9-cylinder rotary engine or 110 hp or 200 hp engines of various types.

Dimensions: span 7.71 m, length 5.77 m, height 2.95 m.

Weight: empty 410 kg, take-off 585 kg.

The red triplane of Manfred Freiherr von Richthofen is probably the most famous plane of the War. It was in this model that he achieved a record number of aerial victories. The plane's performance was not exceptional, but it was extremely manoeuvrable and its light construction gave it a rapid rate of climb. The fame of the Dr.I is chiefly attributable to the excellent pilots who flew it. Its British counterpart, the Sopwith Triplane, was also very manoeuvrable.

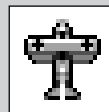
Performance: maximum speed 165 km/h, climb rate 220 m/min, service ceiling 6100 m, max. flying time 1.5 hours.

Armaments: two synchronised 7.92mm Spandau machine guns.

History: first flew approx. June 1917.

Tactical Data

Attack value against airborne targets	01/40
Attack value against targets on water	01/22
Attack value against targets on ground	01/19
Defence value	20
Speed	8
Weight	-
Strength of Group	6
Production costs	92





Fokker D.VII

Single Seater Fighter Scout

SPECIFICATION

Powerplant: (D.VII) water-cooled Mercedes six-cylinder D III, 160 hp, (D.VIIF) 185 hp BMW IIIa.

Dimensions: span 8.9 m, length 6.95 m, height 2.75 m.

Weight: empty 670 kg, take-off 900 kg.

Performance: maximum speed 189 km/h, service ceiling 6000 m, max. flying time 1.5 hours.

Armaments: two synchronised 7.92 mm Spandau machine guns.

History: first flew January 1918.



The D.VII was a machine with extraordinary characteristics. It was fast, manoeuvrable and robust, and was regarded as the best plane of the First World War. It was introduced too late, however, to break the air superiority of the Allies. After the War the victorious Allies demanded that all remaining D.VIIs should be surrendered or destroyed - a telling testimony to the effectiveness of the plane.

Tactical Data

Attack value against airborne targets	01/45
Attack value against targets on water	01/25
Attack value against targets on ground	01/20
Defence value	25
Speed	10
Weight	-
Strength of Group	6
Production costs	95



Junkers J 4-10

Two Seater Low Level Fighter



The J 4-10 was the first all-metal plane of the War, employing the typical corrugated iron construction last used in the JU- 52. Its all-metal construction and its 470 kg of 5 mm-thick armour plating for the crew, engine and tank meant that it could intervene in battles on the ground and withstand infantry attacks. From this point of view the J 4-10 was the precursor of modern-day low level fighters.

SPECIFICATION

Powerplant: water-cooled 200 hp Benz Bz IV six-cylinder engine.

Dimensions: span 16 m, length 9.1 m, height 3.4 m.

Weight: take-off 2178 kg.

Performance: maximum speed 155 km/h, service ceiling 4000m, range 310 km.

Armaments: one 7.92 mm manual machine gun in the rear cockpit and either two downward-firing MGs to the left of the observer or two Spandau machine guns firing forward through the propeller; small load of fragmentation bombs or smoke bombs and grenades.

History: first flew probably May 1917.

Tactical Data

Attack value against airborne targets	01/25
Attack value against targets on water	01/65
Attack value against targets on ground	01/55
Defence value	30
Speed	8
Weight	-
Strength of Group	6
Production costs	90



Gotha G Vb

Heavy Bomber

SPECIFICATION

Powerplant: two water-cooled Mercedes six-cylinder D IVa, 260 hp.

Dimensions: span 23.7m, length 12.35m, height 3.95m.

Weight: empty 2400 kg, take-off 3966 kg.

Performance: maximum speed 140 km/h, service ceiling 6500 m, range 840 km.

Armaments: two manual 7.92 mm machine guns in front and rear cockpits, racks under lower wings for 500 kg bombs.





History: first flew Spring 1917.



The Gotha G Vb - the G stood for “Grossflugzeug” - was the last version of a series of bombers bearing the name of the Gothaer Waggonfabrik. It had two 260 hp Mercedes engines and a top speed of 140 km/hour. It was used as a tactical bomber over the battle area and, among other missions, to bomb South- East England.

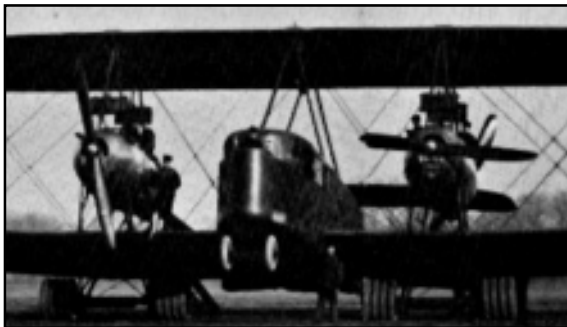
Tactical Data

Attack value against airborne targets	01/20
Attack value against targets on water	01/65
Attack value against targets on ground	01/55
Defence value	25
Speed	7
Weight	-
Strength of Group	3
Production costs	100





Zeppelin (Staaken) R VI Heavy Bomber



The R-Series planes from the Zeppelin-Werke were the largest planes in the First World War. Although only capable of a maximum speed of 130 km/h, these giant planes were able to remain airborne for up to 10 hours. They carried a load of up to 2000 kg, which was enormous at the time - a contemporary fighter plane weighed between 600 and 1000 kg. With its range and bomb load the R VI put every other bomber in the shade. Only 18 R VIs were built, and they were used on the Eastern Front and to attack Great Britain.

SPECIFICATION

Powerplant: four water-cooled 260 hp Mercedes D IVa six-cylinder in-line engines.

Dimensions: span 42.2 m length 22.1 m, height 6.3 m.

Weight: empty 6900-7350 kg, max. weight 11460 kg.

Performance: maximum speed 130 km/h at sea level, rate of climb 100 m/min, service ceiling approx. 3800 m, range approx. 800 km, max. flying time, depending on bomb load, 7-10 hours.

Armaments: two 7.92 mm manual machine guns in front cockpit, two manual guns in rear cockpit and one situated beneath the plane at the rear, fuselage bomb bay for up to 18 100 kg bombs, maximum load 2000 kg.

History: first flew June 1917.

Tactical Data

Attack value against airborne targets	01/25
Attack value against targets on water	01/75
Attack value against targets on ground	01/65
Defence value	30
Speed	7
Weight	-
Strength of Group	3
Production costs	115





D.H.2 Single Seater Scout

SPECIFICATION

Powerplant: 100 hp Gnome Monosoupape 9-cylinder radial engine.

Dimensions: span 8.61 m, length 7.68m, height 2.9 m.

Weight: empty 520 kg, take-off 654 kg.

Performance: maximum speed 150 km/h, service ceiling 4420 m, range 354 km.

Armaments: one 7.62 mm Lewis machine gun, operated by the pilot, to the left or right of the windscreen.

History: first flew Spring 1915.



The D.H.1 was built by Geoffrey de Havilland in 1915 for Airco (Aircraft Manufacturing Co.) The D.H.2 first flew in Spring 1915. At first the pilot had to fire a hand gun while steering the plane with the other hand; later a fixed machine gun was mounted in the front cockpit. The D.H.2 was equal in performance to the Fokker E.III and helped to bring the “Fokker Plague” to an end. Approximately 450 were built, 300 of which were deployed in France.

Tactical Data

Attack value against airborne targets	01/17
Attack value against targets on water	01/13
Attack value against targets on ground	01/11
Defence value	15
Speed	7
Weight	-
Strength of Group	6
Production costs	85



Maurane-Saulnier D

Single Seater Fighter



SPECIFICATION

Powerplant: one 80 hp Gnome or 110 hp Le Rhone 9C or 9Ja nine-cylinder rotary engine.

Dimensions: span 8.3 m, length 6.7 m, height 2.5 m.

Weight: empty 370 kg, take-off 510 kg.

This single-decker, with its considerable speed of 165 km/hour, was used by the French, British and Russians. In April 1915 the French flying ace Garros was shot down in one of these planes and the Germans saw the bullet deflectors on the propeller blades, which allowed the pilot to fire through the propeller. Fokker, who had encountered the same problem, solved it by developing the synchronised machine gun. Until the E.I came into service, the Germans had nothing to compare with this plane.

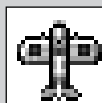
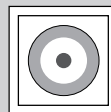
Performance: maximum speed 165 km/h, rate of climb 250 m/min, service ceiling 4000 m, range 225 km.

Armaments: initially non-synchronised machine gun with bullet deflector, later replaced by synchronised 7.7 mm Lewis or 7.7 mm Vickers gun.

History: first flew April 1914.

Tactical Data

Attack value against airborne targets	01/15
Attack value against targets on water	01/11
Attack value against targets on ground	01/10
Defence value	15
Speed	7
Weight	-
Strength of Group	6
Production costs	80





Nieuport XVII

Single Seater Fighter

SPECIFICATION

Powerplant: 110 hp Le Rhone 9J or 120 hp 9Jb nine-cylinder rotary engine.

Dimensions: span 8.22 m, length 5.74 m, height 2.33 m.

Weight: empty 320 kg, take-off 535 kg.

Performance: maximum speed 176 km/h, service ceiling 5300 m, range 300 km.

Armaments: the first series had one 7.7 mm Lewis machine gun on the upper wing, later one synchronised 7.7 mm Vickers machine gun mounted on the nose.

History: first flew probably January 1916.



Air aces such as Nungesser, Guynemer, Ball and Bishop flew the Nieuport XVII for a long time. It was manoeuvrable, had a good climb rate and all in all was vastly superior to the E.I. The most serious drawback of the XI and XVI, the weak lower wing, had been rectified, creating an excellent plane. At first, an non-synchronised machine gun was mounted on the upper wing; later, as synchronised guns became available, this was replaced.

Tactical Data

Attack value against airborne targets	01/20
Attack value against targets on water	01/14
Attack value against targets on ground	01/12
Defence value	15
Speed	8
Weight	-
Strength of Group	6
Production costs	85



Spad VII

Single Seater Fighter



The Spad VII exceeded the expectations of the military leaders to such an extent that, after an initial order of 268, approximately 6000 planes were eventually built. Particularly noteworthy was the liquid-cooled Hispano-Suiza V-8 engine, which made the plane balanced in flight and gave it a remarkable top speed. The one serious defect was its outdated armament of only one machine gun.

SPECIFICATION

Powerplant: one water-cooled 150 hp (later up to 200 hp) Hispano-Suiza 8Aa V-8 engine.

Dimensions: span 7.81 m, length 6.18 m, height 2.13 m.

Weight: empty 510 kg, maximum weight 740 kg.

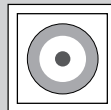
Performance: maximum speed 192 km/h, rate of climb 275 m/min, service ceiling 5300 m, range approx. 360 km.

Armaments: one 7.65 mm Vickers gun to the right of the pilot.

History: first flew April 1916.

Tactical Data

Attack value against airborne targets	01/25
Attack value against targets on water	01/15
Attack value against targets on ground	01/12
Defence value	20
Speed	9
Weight	-
Strength of Group	6
Production costs	90





S.E. 5a

Single Seater Fighter Scout

SPECIFICATION

Powerplant: one water-cooled 200-240 hp Hispano-Suiza V-8 engine.

Dimensions: span 8.11 m, length 6.38 m, height 2.89 m.

Weight: empty 639 kg, max. weight 902 kg.

Performance: maximum speed 193 km/h, rate of climb 235 m/min, service ceiling 5940 m, range 480 m.

Armaments: one Vickers 7.7 mm gun with Constaninesco synchronised gear on the fuselage and one 7.7 mm Lewis Gun on the upper wing; bomb racks under fuselage for four 11 kg bombs.

History: first flew November 1916.



Initially fitted with unreliable engines, the S.E.5a became one of the most successful scouts of the War. The plane was easier to fly than the Camel, could climb faster and could withstand more direct hits. The armaments consisted of two machine guns, a Lewis on the upper wing and a synchronised Vickers on the engine, both aimed at a point 45 m in front of the plane. Among the air aces who flew this model were Ball, Bishop, Mannock and McCudden.

Tactical Data

Attack value against airborne targets	01/35
Attack value against targets on water	01/20
Attack value against targets on ground	01/14
Defence value	20
Speed	9
Weight	-
Strength of Group	6
Production costs	91



Spad XIII

Single Seater Fighter Scout



The Spad XIII was a development of the Spad VII with a more powerful engine, and a second machine gun. No fewer than 18 French squadrons and many of the 16 squadrons in the American Expeditionary Corps were equipped with the "XIII". It was very fast, reliable and so rugged that it could get pilots home safely even after being hit. About 8500 were built, many of which were exported after the War.

SPECIFICATION

Powerplant: one water-cooled Hispano-Suiza 8Be 220 hp V-8 engine.

Dimensions: span 8.2 m, length 6.3 m, height 2.42 m.

Weight: empty 570 kg, max. weight 820-845 kg.

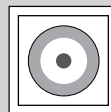
Performance: maximum speed 220 km/h, rate of climb 460 m/min, service ceiling 6650 m, range 33-350 km.

Armaments: two 7.65 mm Vickers in front of pilot.

History: first flew April 1917.

Tactical Data

Attack value against airborne targets	01/40
Attack value against targets on water	01/24
Attack value against targets on ground	01/19
Defence value	25
Speed	10
Weight	-
Strength of Group	6
Production costs	92





Sopwith Camel

Single Seater Fighter Scout

SPECIFICATION

Powerplant: usually one 130 hp Clerget 9B nine-cylinder rotary engine.

Dimensions: span 8.53m, length 5.72m, height 2.59m.

Weight: empty 422 kg, max. weight 659 kg.

Performance: maximum speed 182 km/h, climb rate approx. 305 m/min, service ceiling 5790 m, range 400 km.

Armaments: two synchronised 7.7mm Vickers on nose in front of pilot, optional external racks for four 11 kg bombs under lower wing.




History: first flew December 1916.




This, the most famous fighter of the First World War, destroyed more enemy planes than any other model. It was while flying a Camel that the Canadian pilot Roy Brown shot down the "Red Baron" Manfred von Richthofen on 21 April 1918. As a result of the power which the rotary engine produced, the Camel could perform incredibly sharp turns and was generally extremely nimble. It did, however, need an experienced pilot, and a considerable number of inexperienced pilots crashed in Camels.

Tactical Data

Attack value against airborne targets	01/40
Attack value against targets on water	01/25
Attack value against targets on ground	01/20
Defence value	20
Speed	9
Weight	-
Strength of Group	6
Production costs	95







Voisin III (22)

Two Seater Bomber



This plane scored the first hit of the War on 5 October 1914. Despite its fragile appearance it was in fact sturdy. The armaments often included a machine gun on the fuselage, operated by a standing observer. Later models had 37 mm and 47 mm guns for ground attack. When the “single deckers” came on the scene, the Voisin Bombers’ chances of survival plummeted.

SPECIFICATION

Powerplant: one water-cooled 120 hp Salmson 9M nine-cylinder engine.

Dimensions: span 15.9 m, length 9.53 m, height 3.66 m.

Weight: empty approx. 750 kg, max. weight approx. 1140 kg.

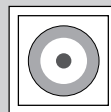
Performance: maximum speed 120 -132 km/h, service ceiling 2980-3600 m, range 330-500 km.

Armaments: one Hotchkiss 7.7mm machine gun in front cockpit, bomb load 60 kg.

History: first flew February 1914.

Tactical Data

Attack value against airborne targets	01/15
Attack value against targets on water	01/55
Attack value against targets on ground	01/45
Defence value	15
Speed	7
Weight	-
Strength of Group	3
Production costs	85





Handley Page 0/400

Heavy Bomber

SPECIFICATION

Powerplant: two water-cooled 360 hp
Rolls-Royce Eagle VIII V-12 engines.

Dimensions: span 30.48 m, length 19.16
m, height 6.7 m.

Weight: empty 3857 kg, take-off 6060 kg.

Performance: maximum speed 156 km/h,
service ceiling 2590 m, range 1046 km.

Armaments: 7.7 twin Lewis machine guns
in nose and at mid-upper position, single
Lewis firing through trapdoor, eight 113 kg
or sixteen 55 kg bombs internal bomb load.

History: first flew late 1916.



Frederick Handley Page opened his first airplane factory in Barking in 1909. His prototype won the tender for the 0/100 and created one of the best bombers of the War. In 1916 the 0/100 was converted to become the 0/400. The plane's defensive armaments were good - up to 5 machine guns - and could carry eight 113 kg bombs. To reduce losses by enemy fighters, bombing missions were later carried out at night.

Tactical Data

Attack value against airborne targets	01/25
Attack value against targets on water	01/75
Attack value against targets on ground	01/65
Defence value	30
Speed	7
Weight	-
Strength of Group	3
Production costs	115



SPECIFICATION

Dimensions: span 12.95 m, length 9.35 m, height 3.35 m

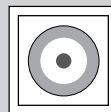
Weight: empty 1043 kg, take-off 1575 kg.

Performance: maximum speed 219 km/h, rate of climb 306 m/min, service ceiling: approx. 6096 m, range 676 km.

Armaments: one fixed Vickers 7.62 mm on the nose and a 7.62 mm twin Vickers in rear cockpit, up to 209 kg bombs under fuselage and wing.

History: first flew December 1916.

Attack value against airborne targets	01/22
Attack value against targets on water	01/65
Attack value against targets on ground	01/55
Defence value	25
Speed	8
Weight	-
Strength of Group	6
Production costs	90





Patrol Boat

SPECIFICATION

German Patrol Boat.

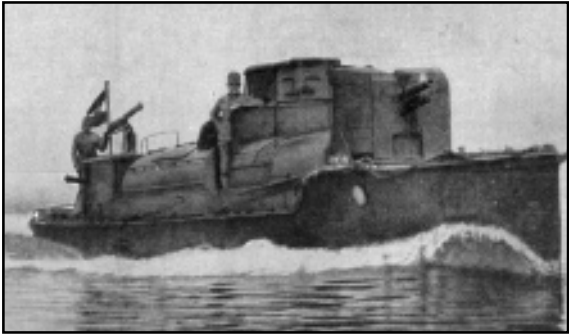
Engine: not known.

Dimensions: not known.

Performance: not known.

Armaments: light ship's artillery and machine guns.

Crew: 6 to 12 men.



The boat shown above is the type of patrol boat used in HL 1914-1918. These were small, partly armoured fast boats with light armament and machine guns. Patrol boats were used on rivers and on the coast for reconnaissance and guard duties. Their poor armament and armour plating were compensated for by their manoeuvrability.

Tactical Data

Attack value against airborne targets	01/20
Attack value against targets on water	02/45
Attack value against targets on ground	02/40
Defence value	40
Speed	7
Weight	-
Strength of Group	6
Production costs	-



Torpedo Boat



SPECIFICATION

German Torpedo Boat "G137"




Engine: Parson Turbines, total power 7950 kW (10800 hp).

Dimensions: length 71.5 m, width 7.65 m, draught 3.22 m.

Performance: maximum speed 33.9 knots.

Armaments: 3 torpedo tubes, one 8.8 cm gun and three 5.2 cm rapid fire guns.

Crew: 3 officers and 78 men.

Tactical Data				
Attack value against airborne targets	01/25			
Attack value against targets on water	02/65			
Attack value against targets on ground	02/40			
Defence value	60			
Speed	6			
Weight	-			
Strength of Group	6			
Production costs	-			



Torpedo Boat Destroyer



SPECIFICATION

German Torpedo Boat Destroyer "B 111"

Engine: Two sets of marine turbines, total power 29995 kW (40700 hp).

Dimensions: length 98.0 m, width 9.35 m, draught 3.83 m, displacement 1843 t.

Performance: maximum speed 37.4 knots, range at 20 knots 2620 naut. miles

Armaments: four 10.5 cm and six 50 mm torpedo tubes with 8 torpedoes.

Crew: 4 officers and 110 men.



The torpedo boat destroyers were larger, faster and more heavily armed than the torpedo boats. They were all-purpose fighting ships, well suited to defending big ships from torpedo attack, engaging enemy transport ships and submarines and carrying out reconnaissance work. The torpedo boat destroyer developed into the destroyer, which soon replaced its predecessor.

Tactical Data

Attack value against airborne targets	02/25
Attack value against targets on water	03/70
Attack value against targets on ground	03/50
Defence value	70
Speed	6
Weight	-
Strength of Group	1
Production costs	-



Battleship

(Ship of the Line)



SPECIFICATION

French Service Ship "BRENNUS"

Engine: Steam engines, total power 10300 kW (14000 psi).

Dimensions: length 114.5 m, width 20.4 m, draught 8.0 m, displacement 11,370 t.

Performance: maximum speed 17 knots, range at 10 knots 4000 naut. miles.

Battleships or 'Ships of the Line' were the largest fighting ships and had very good armour plating and the heaviest artillery available. Their guns had a very long range and were extremely destructive. Because of their great weight, these ships were slower than destroyers or torpedo boats. On 31 May 1916 large numbers of battle ships were involved in the biggest naval battle of the time; at the Skagerrak the Imperial Fleet was forced to defend itself against the numerically superior Grand Fleet.

Armaments: three 34 cm guns, ten 16.4 cm, four 6.5 cm and 14 4.7 cm rapid fire guns, 17 machine guns, 4 torpedo tubes.

Crew: not known.

Tactical Data

Attack value against airborne targets	02/35
Attack value against targets on water	07/95
Attack value against targets on ground	07/70
Defence value	80
Speed	5
Weight	-
Strength of Group	1
Production costs	-





Transport Ship

SPECIFICATION

British passenger steamer "CITY OF NEW YORK", 1917-1919 American troopship "PLATTSBURG"

Engine: Two triple expansion engines, total power 13616 kW (18500 psi).

Dimensions: length 170.6 m, width 19.3 m, displacement 10499 register tons.

Performance: maximum speed 20 knots.

Armaments: none.



Crew: crew and 1740 passengers.






The destiny of the British Empire had always been intimately bound up with seafaring. Many important raw materials came from overseas, without which the British would not have been able to conduct the War. Great Britain possessed a large number of transport and troop ships, which were augmented from 1917 by American vessels. German cargo ships were confined during the War to the Baltic. The governments confiscated or chartered many ships for an indefinite period, in order to transport the enormous amounts of raw materials and supplies.

Tactical Data

Attack value against airborne targets	-/-
Attack value against targets on water	-/-
Attack value against targets on ground	-/-
Defence value	65
Speed	5
Weight	-
Strength of Group	1
Production costs	-

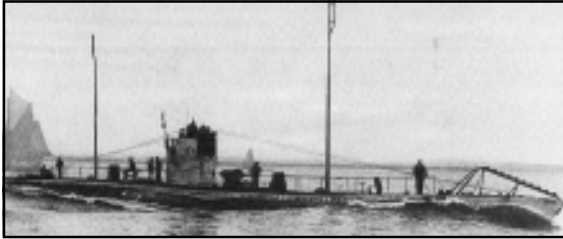








Submarine



As long as no immediate danger threatened, the U-boats travelled on the surface using their diesel engines and recharged their batteries in readiness for diving. Their chief weapons were torpedoes. For attacking unarmed targets, for example freighters, most types of U-boat had deck armaments. In the early years of the War, U-boats were a promising and dangerous weapon, which could only be attacked by ramming. As the War progressed, defences against the U-boats were improved and their task became more difficult.

SPECIFICATION

German U-Boat "UB 49"

Engine: two 6-cylinder MAN 4-stroke diesel engines, total power 810 kW (1100 hp).

Dimensions: length 55.30 m, width above diving tanks 5.80 m, draught 3.68 m, displacement on surface / underwater 516 t / 651 t.

Performance: maximum speed on surface / under water 13.6 knots / 6 knots, range on surface at 6 knots 9040 naut. miles, diving depth 50 m.

Armaments: 4 bow tubes and 1 stern tube; 10 torpedoes and one 8.8 cm submarine gun.

Crew: 3 officers and 31 men.

Tactical Data

Attack value against airborne targets	-/-
Attack value against targets on water	02/80
Attack value against targets on ground	-/-
Defence value	75
Speed	5
Weight	-
Strength of Group	1
Production costs	-

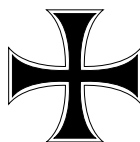
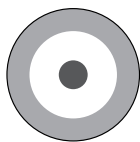


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"Elite Infantry"	E	"Fokker E.III"	A
"Cavalry"	E	"Albatross D.III"	A
"Anti-Tank Guns, PAK"	E	"Fokker Dr.I"	A
"Sappers"	E	"Fokker D.VII"	A
"Supply Depot, Construction Unit"	E	"Junkers J 4-10"	C
"Transport of Supplies"	E	"Gotha Bomber"	B
"Supply Train"	F	"Zeppelin Staaken"	D
"Static Anti-aircraft Emplacement"	E	"D.H.2"	A
"Mobile Anti-aircraft Emplacement"	F	"Morane-Saulnier N"	C
"Light Field Artillery"	F	"Nieuport XVII"	C
"Medium Field Artillery"	E	"Spad VII"	B
"Heavy Field Artillery"	E	"S.E.5a"	A
"Train-mounted Artillery"	G	"Spad XIII"	B
"Armoured Train"	J	"Sopwith Camel"	A
"Bunker"	K	"Voisin III (LA)"	C
"Static Balloon"	E	"D.H.4"	C
		"Handley Page 0400"	A
"German Armoured Car"	E		
"A7V Tank"	I	"Patrol Boat"	E
"Charron Armoured Car"	I	"Torpedo Boat"	H
"St. Chamond Tank (16)"	F	"Torpedo Boat Destroyer"	H
"Renault FT 17 Light Tank"	I	"Battleship (Ship of the Line)"	H
"Battle Tank Mark I."	I	"Transport Ship"	H
"Battle Tank Mark IV."	F	"Submarine"	H

We would like to thank Mr. Hans W. Cada for placing at our disposal his collection of original issues of the "Illustrierte Geschichte des Weltkrieges" of 1914-1918.





HISTORYLINE



1914-1918



Airco D.H.2 Scout



38-cm-Train-Gun



German Battleship "Braunschweig"



Royal Aircraft Factory SE5A Scout



Tank Mk IV



German Submarine "UB49"



Fokker D.VII Scout



Char d'Assault St. Chamond, Model 16



Patrol Boat