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INTRODUCTION

On December 15th, 1944, the 75,000 U.S. soldiers stationed in the Ardennes went to bed without fear. Crushing German losses along the eastern and western fronts had reduced the powerful German war machine to a shadow of its former self. Europe had been largely liberated and Germany was now fighting on its own soil. The Ardennes forest was thickly wooded, making large-scale military maneuvers difficult. Nobody seriously believed that Germany could ever muster the forces for another offensive in any case.

The Germans thought differently.



At 5:30 A.M. on December 16th, the Germans launched a massive attack that caught the Allies completely by surprise. Over 250,000 German troops, well supported by armor and artillery, poured into the region. American troops, unprepared and vastly outnumbered, were pushed back and a massive pocket was formed in the Allied lines: The Bulge.

You now take control of one side of this battle. As the Germans you must push forward and try to break past the Allied defenses. As the Allies your job is to contain the Germans and hold out for the reinforcements that will allow you to strike back. In either case the war will be fought your way.

Getting Started

If you want to get a quick start, refer to the "Bootcamp" section of the manual, which begins on page 10. It provides a step-by-step battle plan to familiarize you with the screens and basic features of a CLOSE COMBAT: BATTLE OF THE BULGE scenario. If, however, you prefer to familiarize yourself with the game as a whole, turn to the "Main Screen" on page 9.

SYSTEM REQUIREMENTS

To play CLOSE COMBAT: BATTLE OF THE BULGE, be sure your system meets the following system requirements:

- Pentium 200 MHz IBM PC or compatible
- 32 MB of RAM
- Windows® 95 or 98 - NOTE: This is a Windows game and was not designed to be played on Windows® NT systems. Multitasking is not recommended when playing CLOSE COMBAT: BATTLE OF THE BULGE
- An **Uncompressed** hard drive with 100 MB free for the "Recommended" install
- 4 X CD-ROM drive or faster
- A SVGA video adapter with 4 MB of memory and a Color SVGA Monitor
- A Windows compatible mouse

In addition to the basic system requirements, the game requires that DirectX 6.1 be installed to your hard drive. The option to install DirectX 6.1 appears during the game installation. At the end of installation, you are prompted to register CLOSE COMBAT: BATTLE OF THE BULGE electronically. For network play, you need a DirectPlay compatible network adapter.

Installing the Game

You must install CLOSE COMBAT: BATTLE OF THE BULGE game files to your hard drive and have the CLOSE COMBAT: BATTLE OF THE BULGE CD in your CD-ROM drive to play this game or use the Scenario Builder.

To install the game, insert the CD into the CD-ROM drive. When the pop-up window appears, click on the Install option. If you have disabled the Windows Autorun, or if it does not function, Explore the CD and double-click on the Setup icon. Follow all on-screen prompts to complete the installation.

Starting the Game

The CLOSE COMBAT: BATTLE OF THE BULGE Autorun program displays a menu with the options to run the game, the Scenario Builder, Install DirectX, Uninstall the game, or view the README.TXT file, every time the CD-ROM drive is closed with the CD in place. CLOSE COMBAT: BATTLE OF THE BULGE can also be started by opening the Start menu, selecting Programs and choosing the folder where CLOSE COMBAT: BATTLE OF THE BULGE was installed and double-clicking on the CLOSE COMBAT: BATTLE OF THE BULGE program item. The other item in that folder is the Scenario Builder program which can be used to create or edit scenarios on your own.



For complete and specific "how to play" information, please refer to the rest of the manual. Some changes were made too late to include in this manual. Please read the README.TXT file in your game directory for more information.

Screen saver utilities should be turned off before starting to play CLOSE COMBAT: BATTLE OF THE BULGE.

Uninstalling the Game

To uninstall the game, select that option from the Autorun menu, or choose Settings from the Windows Start Button, and select Control Panel. In the Control Panel, select Add/Remove Programs, left-click on CLOSE COMBAT: BATTLE OF THE BULGE, and click on the Add/Remove button. The game and all of its components are then removed from your hard drive, except for your saved games and/or edited scenarios.

Saving Games

CLOSE COMBAT: BATTLE OF THE BULGE requires space on your hard drive for Saved Games and temporary files. Each saved game can take up to 1.25 Kb Mb of hard drive space, though most will be much smaller.

Electronic Registration

If you did not register your copy of CLOSE COMBAT: BATTLE OF THE BULGE after installation and wish to do so later:

1. From your desktop select the Start button, click on Programs, click on CLOSE COMBAT: BATTLE OF THE BULGE and click on Register for Free Stuff.
2. Follow all on screen prompts.

Electronic Documentation

If you do not already have the Adobe Acrobat Reader, you can install the software following these instructions. Insert the game CD in your CD-ROM drive. Explore the CD, and double-click on the ACROWIN folder, located in the root directory. Double-click on the file entitled ACROREAD.EXE and follow the on-screen prompts.

Once Acrobat Reader is installed on your system, you can read README.PDF by opening the folder on your hard drive in which you installed the Adobe Acrobat reader, and double-clicking on the file ACROREAD.EXE. From the File menu of Adobe Acrobat, you may open the README.PDF located in the root directory of your game CD.

TROUBLESHOOTING

This section provides information that should help you solve some common problems.

Sound and Video Cards

This product requires Windows 95/98, DirectX compliant sound and video cards. If you experience problems with sound or video while using this product please contact the manufacturer of your sound or video card for the latest DirectX compliant drivers. If such drivers are not used, this product may not run properly on your system.

DirectX 6.1 Setup

This game requires DirectX 6.1. If you do not have DirectX 6.1, then it can be installed or reinstalled from the CD. Installing DirectX 6.1 is an option when installing the game. It can also be installed by exploring the game CD, and opening the DIRECTX folder. Double click on DXSETUPEXE to start the DirectX 6.1 install.

Using either the Install DirectX 6.1 button from the Autorun or DXSETUPEXE, you can install DirectX 6.1, reinstall DirectX 6.1, test your drivers certification, or reinstate your previous audio and video driver as described following.

DirectX Disclaimer

CLOSE COMBAT: BATTLE OF THE BULGE utilizes Microsoft's DirectX sound and video drivers. DirectX is a programming tool created by Microsoft, and the installation of DirectX may cause video problems and system anomalies with computers using video drivers that aren't DirectX compliant. DirectX is a Microsoft product, and as such, this publisher cannot be responsible for changes that might occur to your computer system due to its installation. For DirectX related problems that cannot be fixed by updating to your video card's latest Windows driver set, you must contact either Microsoft or the manufacturer of your video card for further technical support or service.

Microsoft retains all intellectual property rights to DirectX. The user has been granted a limited license to use DirectX with Microsoft operating system products.

CONTACTING TECHNICAL SUPPORT

The Ubi Soft technical support department is available to assist you with any issues regarding the product you purchased. Technical support can be reached via e-mail, U.S. mail, fax, or phone. The technical staff supports the entire line of products from Ubi Soft.

When contacting technical support, please provide as much information as you can about your computer system and the problem you are experiencing.



The following information is necessary to provide you with technical assistance:

- Your first and last name
- Phone number, fax number, mailing address, and e-mail address
- Name of the product, version, platform, and format. Example: CLOSE COMBAT: BATTLE OF THE BULGE /Windows 95/98/CD-ROM
- Brief description of your problem.
- Type of computer including name brand (Mac or PC). If you cannot find the name of your computer say IBM PC Clone. Example:
I have a Dell PC Pentium 200 MHz
Memory: 64 MB of RAM
Hard disk: 12 GB hard disk
Video card: ATI Matrox Millenia 8 MB video card
CD-ROM Drive: I have a 4x Panasonic CD drive
DVD-ROM: I have a 2nd generation Phillips DVD-ROM drive
Sound Card: Creative Labs 16 bit sound card
- If using a network please mention the type of network being used.
- Modem type and speed. Example: US Robotics 56K Flex internal modem
- Version of Windows or Macintosh operating system.
- If you are having a printing problem specify the name, make, and model of the printer you are using. Example: HP Deskjet 870 CSI .

Check our Web site, <http://www.ubisoft.com>, for answers to frequently asked questions and other technical support information. Go to the support section to get FAQs, downloads, patches, and other useful files.

Technical Support Call Center

Main technical support number: (919) 460-9778

Note when calling: Call (919) 460-9778 between 9:00 A.M. and 9:00 P.M. Eastern Standard time, Monday through Friday (excluding holidays), to speak to a technical support representative. Please be at your computer when you call.

Technical Support E-mail

support@ubisoft.com

Mailing Address:

Ubi Soft Entertainment
Attn: Customer Support
2000 Aerial Center
Morrisville, NC 27560

Attn: CLOSE COMBAT: BATTLE OF THE BULGE

Note: When corresponding via mail please include the following:

- First and last name
- Phone number where we can reach you, fax number, and e-mail address (if available).
- Name of the product, version, platform, operating system software, and format.
- Platform meaning: IBM PC or Macintosh
- Format meaning: Floppy disks, CD-ROM, or DVD-ROM
- Operating system software: Windows® 95/98, Macintosh® System version number

Copy Protection

In order to play CLOSE COMBAT: BATTLE OF THE BULGE, the game CD must be in the CD-ROM drive.

GAME PLAY

CLOSE COMBAT: BATTLE OF THE BULGE is a real time strategy game that puts the emphasis on REAL. During a battle you command up to 15 units ranging from squads of infantry to heavy tanks. The soldiers under your command act like real soldiers. If you order them to exert themselves they get tired, if the enemy shoots at them they keep their heads down, and when in danger they get scared. If a soldier becomes too scared he may stop listening to orders; he may even surrender or desert.

Your units have the same strengths and weaknesses that they do in real life, so in planning your strategy you need to think about what would work in the real world. Historically, real world tanks had a hard time detecting enemy infantry, and enemy infantry could easily sneak up on a tank and use explosives to disable or destroy it. Real world tanks used infantry to scout ahead of them; you are well advised to do the same.

Your goal during each battle is to do more than just kill the enemy. The Bulge was a battle about ground, about taking it, and about defending it. Each map has a certain number of important strategic spots called "Victory Locations", and success or failure is determined by who holds them when a fight ends.

During Campaigns and Operations you have both strategic command of the war and tactical control of every engagement. At the strategic level you direct your Battle Groups along the network of roads that connects the towns and villages of the Ardennes region. You must deal with issues of supply, allocate sparse resources, and control your overall battle strategy.

QUICK START

Double click on the icon and start the game.



Once the game is started, go to the main screen and select Play a Game. If this is your first time playing, you should consider playing the Boot Camp tutorial first.



Once on the Command screen if you want to jump in quickly, choose a Battle listed in the window on the upper left hand side rather than a Campaign or Operation. Once you have decided which battle you want to play, double click on it.

This brings you to the Battle Group screen where you can look at the units you'll be fighting the Battle with. You can rename them if you want using the button on the bottom of

the screen. By clicking on units you can also look at their Experience Level and Morale.

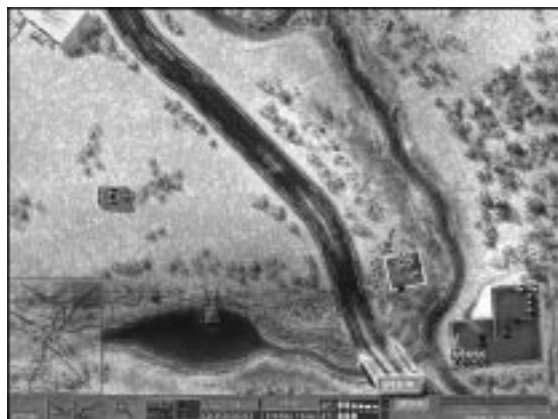


When you're ready to fight select Next from the lower right hand corner; this displays the Battle screen. When you first appear on the Battle screen the action is frozen. This represents the pre-battle phase where you can place your troops. The darkened portion of the map represents where the enemy starts, the lightly shaded portion starts as no man's land, and the unshaded portion is yours.



Place your troops to your best advantage; left click on a unit and drag it to move it. You may also give orders to units during this stage. Right click on a unit to give it an order. When placing AT guns, which usually cannot move, it is useful to give them a Fire order and move the cursor around to check their fields of fire. You can cancel the firing order by ordering the gun to Defend or Ambush. Infantry should usually start in cover either in buildings, woods, or ditches. Command

teams improve the performance of other teams nearby. To see the area over which a command team has influence, press the **Space** bar. The green circle displayed represents the extent of the team's command and control.



When you are satisfied with your troop placement press the Begin button on the tool bar on the bottom of the screen.

Keep in mind while playing that F5-F7 control your pop up menus and that you can issue orders to a unit by right-clicking on it. Air strikes and Artillery can each be used only once per Battle if they are available at all.

MAIN SCREEN



Play a Game

Left-clicking on the Play a Game option selects the Command screen. From the Command screen you may load a saved game or select any of the single player Battles, Operations, or Campaigns.

Boot Camp (Training)

The Boot Camp option selects the boot camp screen where you may choose to play any of the five training scenarios. The tutorials include pop up windows directing your actions and are designed to teach basic unit commands and tactics as well as strategic control. It is highly recommended that all players play through all five boot camps.

Create a Scenario

While CLOSE COMBAT: BATTLE OF THE BULGE comes with a large number of pre-made battles, operations, and campaigns, an easy to use tool has been provided for creating your own battles, operations, and campaigns.

Multiplayer

While the AI computer opponent in the single player game does present a worthy opponent, there is something uniquely satisfying about outthinking a human being. CLOSE COMBAT: BATTLE OF THE BULGE presents a number of options allowing two human players to square off.

BOOT CAMP



Boot Camp is an online tutorial that teaches basic unit commands and fundamental tactics. There are five boot camps; it is recommended that new players complete them in order from top to bottom. During the boot camps you can always repeat the previous instruction by pressing **Ctrl+H**. You may exit boot camp at any time by pressing the **ESC** key.

Quick Tour

This explains how to give orders to a unit as well as basic targeting. Remember that right-clicking on a unit selects the unit and creates an order menu. Orders may be canceled by right-clicking again, or by left-clicking off of the menu.

Monitors/Toolbars

This segment shows how to call in Air Strikes and Artillery Support, as well as monitoring team abilities and status. The prime things to remember from this boot camp are that the **F5** key toggles the Team Monitor, **F6** toggles the Insert Map, and **F7** toggles the Soldier Monitor.

Viewing the Terrain

This explains moving your view around the map and the effects of terrain. The important things to remember are that you can left-click in the popup menu to shift your view. Zoom in and out with the ZOOM buttons on the bottom of the screen. The properties of the various terrain types are also discussed.



Buildings provide great cover for infantry. Buildings greater than 1 story have a number on them. For purposes of determining line of sight all units in a building are assumed to be on the top floor. A building roof becomes invisible when you have men inside so you can see what's going on.

Infantry Tactics

This is a demonstration of basic infantry strategy including the use of two or more teams to lay down suppression fire, and how to use smoke to cover advancing infantry. Basic mortar use is also covered.

Armor Tactics

This segment is short, but teaches a vital lesson. Tanks are extremely vulnerable to infantry at close range and bad at detecting them. To protect against these two failings, armor works best when supported by infantry.

THE COMMAND SCREEN



The Command screen has three panels. The top left panel allows you to select from any of the pre-made battles, operations, and campaigns. A Battle is a single engagement between German and American forces. It takes place on a single map, and the forces available to each side are fixed when the Battle begins. An Operation is a fight between two Battle Groups on the strategic screen. Operations usually involve multiple engagements. A Campaign uses the strategic

screen and has multiple Battle Groups on each side.

To load a saved game or to play a custom scenario, select it from the list in the lower left hand panel. Saved games and scenarios may also be deleted by selecting them and hitting the delete button.

The right hand panel controls the parameters for new single and multiplayer games. At the top of the window you may select between playing either the Germans or the Americans.

Below that are two sliders indicating the Difficulty Level for each side. Recruit level difficulty provides better forces with higher morale. Veterans play at normal levels of force strength. At Heroic difficulty the particular side starts with weakened forces. The Difficulty level also controls how quickly reinforcements pools regenerate over time.

Below the Difficulty Level indicators are the Realism Settings. You can change the indicators by clicking in the adjacent check-boxes.

ALWAYS SEE ENEMY: Does exactly what it sounds like it should do. A side with this option chosen knows where the enemy is at all times. This can be an extremely useful option for new players to enable as they learn the game.

NEVER ACT ON OWN INITIATIVE: Your soldiers never do anything unless they are ordered to.

ALWAYS HAVE FULL ENEMY INFO: With this selected the player always has access to the tool bar info of enemy units. This does not extend to Soldier Monitor information.

ALWAYS OBEY ORDERS: With this selected your units always obey orders. This is for when you tire of your soldiers' senses of self-preservation.

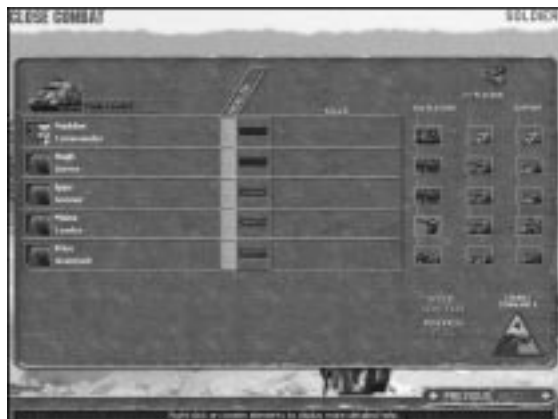
Below the Realism Settings are the Victory Condition settings. These determine what is required to win a battle, and are largely self-explanatory. The two-minute warning option allows a player who has no victory locations two minutes to capture one.

The View Map tab along the bottom of the screen allows you to view the map used in a particular battle.

THE BATTLE GROUP SCREEN



Once you have selected your fight you gain access to the Battle Group screen; this shows all the forces available for a particular battle. Left-clicking on any of the units listed selects the unit, showing its Experience Level, Morale, and armament in the bottom panel, as well as giving you a chance to rename the unit. The Soldier screen is also available this shows the Health, Morale, Leadership, Intelligence, Strength, and Experience of each soldier in the unit. Health represents the physical status of the soldier.



Morale indicates the willingness of a soldier to fight on. Soldiers with high morale are braver and are more willing to face danger than men with poor morale.

Leadership represents the ability of a man to improve the morale of the men around him and to keep his team together. However, when a unit leader with a high leadership level dies it can have a devastating effect on unit morale.

Intelligence reflects how likely the soldier is to go berserk or panic in a firefight. Intelligent men are less likely to make such fatal errors.

Strength determines how quickly the soldier becomes fatigued when moving, and affects how severe his wounds are if he is shot. The stronger the man, the longer he can keep going.

Experience is vital for a soldier and can affect a wide range of his abilities, ranging from how good a shot he is, to how well he can hide himself in Ambush, to how well he conserves ammo. More experienced soldiers do just about everything better than green troops.

BATTLEFIELD CONTROLS

Basic Unit Orders



Right-clicking on any unit brings up a popup menu listing possible orders for that unit. These orders are: Move, Move Fast, Sneak, Fire, Smoke, Defend, and Ambush. Order options that a unit cannot perform are marked. For example, a tank that has blown a tread can neither Move, Move Fast nor Sneak. An order may then be selected by left-clicking on the order option. If you change your mind and do not wish to issue an order, either right or left-clicking on the map removes the popup menu. Orders may also be given by key commands once the unit is selected.

Hot key Orders

All orders can also be given by hot key commands. To give an order by hot key left click on the unit, then press the appropriate key.

Z	Move	B	Smoke
X	Move Fast	N	Defend
C	Sneak	M	Ambush
V	Fire		

Movement Orders

Units have three movement commands: Sneak, Move, and Move Fast. When the movement order is selected, place the cursor where you want the selected unit to go and left click. A colored dot appears on the map marking the unit's destination. The unit attempts to reach its destination by whatever movement type you have selected. The color of the dot corresponds with the type of movement order given.

Move	Blue
Sneak	Yellow
Move Fast	Purple

Once created the destination dot can be dragged to another location by left-clicking and holding the left mouse button on it.

Sneak

When Sneaking, your men move forward cautiously and quietly. Sneak is the slowest of all movement types. In addition to being stealthy themselves, sneaking troops have an improved chance at finding concealed enemies. Sneaking troops never initiate combat; this makes sneaking undesirable in potential close combat situations.

When a squad of men has moved to a location using Sneak movement, they then prepare to Ambush the enemy.

Move

This orders infantry to cautiously advance. Infantry on the move are not quite as stealthy nor as observant as men who are sneaking, but they are faster. Moving infantry initiates combat if the opportunity arises

When infantry reach a location they have Moved to they then Defend the area.

Move Fast

These orders cause infantry to move as quickly as they can. While running, soldiers focus on getting to their destination and do not try to use cover at all. They engage in hand to hand combat if the enemy gets in their way. Running men are not observant and tire quickly.

Infantry that Move Fast will Defend once at their destination.



Vehicles

Vehicles are not stealthy, particularly tanks. However, a sneaking tank is at maximum watchfulness and at its slowest speed. A tank on the move is somewhat faster and slightly less observant. A tank that is sneaking or moving attempts to maintain its original armor arc as much as possible. For example, a tank that is facing the enemy could be ordered to back up using the Move command.

Tanks ordered to Move Fast turn to face their destination and then move there at maximum possible speed.

Tanks can fire while following any movement order, although their rate of fire decreases.

Indirect Paths/Waypoints



Rather than move in a straight line, it is possible to order infantry and vehicles to follow an indirect route. Routes are determined by setting waypoints. To set waypoints, right click on a unit as normal and determine which type of movement, then press and hold the shift key and plot the path you wish the unit to take. Each number represents a point the unit passes through on its way to its destination. When you have completed your path, release the shift key and the unit proceeds as ordered.

Fire

While your soldiers are capable at firing on their own initiative it is often useful to direct

their fire. The Fire option brings up a targeting circle. The targeting circle is connected to the firing unit by a colored line.

When the circle is not sitting above an enemy unit it appears as a thin white circle. When placed on an enemy unit the circle either turns green, yellow, red, or black. This color corresponds with the chance that a shot will kill the enemy unit.



Green100-60%

Yellow59-30%

Red29-10%

Black9-0%

When deciding whether or not to order a unit to Fire it is important to consider the situation. If a unit is laying down suppression fire it doesn't have to actually kill the enemy to have the desired effect. On the other hand, a small Bazooka team waiting in ambush while an armored column approaches had better wait for a killing shot.

Line of Sight and Range

The color of the line connecting the targeting circle to the firing unit indicates line of sight.

For direct fire weapons the line is light green for clear lines of sight, dark green for lines of sight obscured by foliage or smoke, and red for lines of sight that are blocked. Infantry line of sight is determined for each soldier individually, so enemies visible to one soldier might not be seen by another.

For indirect firing weapons the connecting line is orange for targets in line of sight and brown for targets beyond line of sight. Teams that fire indirect weapons, such as mortar squads, do not need line of sight to hit their targets. However, having line of sight greatly increases the accuracy of indirect fire.

The number by the targeting circle represents the distance from the firing unit. This distance is particularly important for infantry who's anti-tank weapons and flamethrowers have short effective ranges. The distance number by the targeting circle also indicates range effects.

GreenWithin effective range.

YellowThe distance is too close or too far away; the weapon has reduced effectiveness.



BlackThe distance is too close or too far away for the weapon to fire at all.

If a line of sight is obstructed, a white number appears along the targeting line indicating the range to the obstruction. If a line of sight is partly obstructed by foliage and then completely blocked further along, both ranges are indicated.

Partial obstruction by foliage or smoke prevents the attacker from specifically targeting enemies, but the firing unit can lay down fire in the hopes of suppressing the enemy or getting lucky.

Smoke



There are times in battle when the ability to conceal yourself from the enemy, even partly, can be the difference between victory and death. Vehicles and infantry on both sides are often equipped with smoke grenades. Units hiding behind smoke are harder to detect, and if they are detected it is impossible to target them specifically. Smoke has roughly the same effect as partial obstruction by foliage; units may still fire in a general area behind smoke in the hopes of suppressing the enemy.

The Smoke command brings up a targeting circle for firing smoke grenades. Mortar teams can lay down smoke virtually anywhere on the map, a standing soldier can throw smoke grenades 30 meters, and a prone infantryman can throw 15 meters

Some vehicles and artillery have the ability to fire smoke rounds, which can reach out to

the weapon's maximum range. If a unit has smoke rounds, the Smoke command is available on the unit menu.

Defend



Units that have been ordered to Defend stop, seek whatever cover is available, and engage any target of opportunity. When ordered to Defend a blue arc appears above the unit; this indicates the direction of facing. To change the direction of defensive facing, left click the highlighted arc; a blue circle appears above the unit. Move the cursor to the arc, drag the arc to the point on the circle that you wish the unit to face, and left click again. AT guns and tanks rotate to face that direction and

infantry seeks cover defending from that direction. Defending units engage enemies not in the blue arc, but only if those enemies are very close. Units that are defending will fire on targets of opportunity that they have at least a 30% chance of killing. That's equivalent to a yellow or green targeting circle.

Defend is the default setting for tanks. When not under specific orders, tanks Defend the area in front of them.

Ambush

Ordering a unit to Ambush is similar to the order to Defend. As in Defend the units stop in place and seek cover, but ambushing units only attack when an enemy comes within 30 meters. When a unit is ordered to Ambush a green arc appears above the unit. This works in the same way as the blue arc in the Defend order. To change the direction that the unit is ordered to ambush, left click on the green arc, move the arc to the proper facing, and left click again to release.

It is vital for any successful commander to understand the importance of the Ambush order. Infantry are generally far more effective at close range, and many anti-tank weapons are more effective from the side or rear. Keeping bazooka and concealed AT guns hidden until the right moment can be critical to success.

Group Orders

Orders may be issued to multiple units at the same time. To select the units to be given orders, left click on the screen and drag the cursor. This creates a darkened area on the map; release the left mouse button when all the units you wish to order are inside the darkened area. A second way for a group to be formed is to hold down the shift key



and then left click on each unit you wish to give an order.

Any order given to one unit is given to all selected units. If ordered to move, they attempt to maintain their current relative positions when they reach their destinations. Remember that if you give the order to Fire, line of sight is individually determined for each unit, and for each soldier in each unit.

Once created, up to 9 groups can be saved into memory by pressing CTRL (1-9) while the group is selected. To later recall the group press the corresponding number (1-9) without pressing CTRL. If the number is pressed a second time it centers the map on the group.

To end giving orders to multiple units, simply create a darkened selector box around a single unit.

OTHER CONTROLS

When first on the battlefield screen, the game is frozen because combat has not yet started. This allows time to survey the battlefield, place units, set options, and plan strategy.

Artillery and Air Strikes

If available, Artillery and Air Strikes can be selected from the icons on the tool bar on the lower left side of the screen. A new targeting crosshair appears; left click on where you want the air strike or artillery barrage to occur. It is important to remember that once Artillery or an Air Strike is used, it is not available for the rest of that engagement.

Air Strikes are carried out by a single plane making one pass over the location. The type of plane is randomly determined from a list of four available to each side. The plane comes from a randomly determined direction and strafes and/or drops bombs in the target area. Air Strikes are not available at the start of the battle. Air Strikes become available 5-12 minutes into the battle for the Americans and 8-12 minutes for the Germans.

German Planes

Bf-109.....Two types of machine guns

Ar-2348 large bombs

Me-262.....3.7cm cannon, and 1 large bomb

FW-190.....Machine guns, 2cm cannon, 3.7 cm cannon, and 1 large bomb

American Planes

P-385 cal machine guns, and one large bomb

P-475 cal machine guns, and rockets

P-515 cal machine guns

B-2610 large bombs



Artillery barrages are called in the same way Air Strikes are. Artillery barrages consist of four 80mm mortars, all firing at once. This battery of mortars fires between 40 and 60 rounds. Like on-board unit's mortar fire, artillery fire is not always accurate, so be careful not to call in artillery that would endanger your own troops. If it is available during a battle, the artillery option appears after 0-2 minutes for both sides.

Truce / Flee Options

The Truce command offers the enemy a chance to call it a draw. If the enemy offers a truce you may accept by clicking the Truce button. If one side offers a truce and the other does not accept the offer fighting continues. If a truce is agreed to, both sides may recover their wounded. The battlefield remains contested and in mixed control. An option to Flee becomes available at this point.

Combat Messages



The Combat Messages window informs you of the situation on the battlefield. If the message regards a unit you may center the view on that unit by clicking on the message.

Options

The Options button appears in the lower left hand corner of the map. Options is made up of three panels, Game Play, General, and About. These can be selected using the tabs on the top of the screen.

The top two options on the Game Play options control battlefield graphics. Remove Killed Soldiers removes the corpses of the dead so that you can concentrate on the living, and Remove Trees makes the foliage on trees invisible, although it still affects line of sight.

In the center of the Game Play panel the Status Indicators control the highlighted bar and colored outlines of friendly units. These can be set to reflect any number of conditions, ranging from morale, to ammunition supply, to unit health. Set these to whatever you feel you need to know about your men.

Below the Status Indicators are toggles for:

Team Data.....**F5**
Insert Map**F6**
Soldier Monitor**F7**

Team data



Defaults as on and displays all the teams on your side of the battle on the bottom of the screen and shows their current status. You may also select a team by clicking on it from this window. Team Data can also be turned on and off with the **F5** key.

Insert Map



This is a miniature map of the battlefield that appears on the screen. This map may be repositioned on the screen by right-clicking and dragging it. Left-clicking on a portion of the Insert Map centers the screen in that location. The highlighted rectangle on the Insert Map represents the current screen. The Insert Map can be toggled with the **F6** key.



Soldier Monitor

Schlieffe	LEADER	DEAD
DEAD		0 rnds.
Broit	ASSIST.LDR.	WINDED
SEEKING COVER	AP	224 rnds.
Schöndorff	SOLDAT	WINDED
FIRING	AP	187 rnds.
Bredow	SOLDAT	DEAD
DEAD		0 rnds.
Schröter	SOLDAT	INJURED
RELOADING	HE	3 rnds.
Unruh	SOLDAT	INCAP.
UNCONSCIOUS	AP	0 rnds.
Schellenberg	SOLDAT	WINDED
NO TARGET	AP	95 rnds.

This gives detailed reports on whatever unit is currently selected, showing the weapon type, ammunition level, and state of morale for every man in the unit. If a soldier has low morale or comes under fire, his current action can be very different from what you order him to do. The Soldier Monitor can be turned on and off with the **F7 key**. The Soldier Monitor may also be repositioned on the screen by right-clicking and dragging it.

Possible Morale States

- Healthy.....Soldier is in good health and good spirits.
- InjuredSoldier is hurt.
- IncapacitatedSeriously injured.
- DeadSomeone back home is getting a telegram.
- Winded.....Soldier is tired but able to recover with a short break.
- FatiguedSoldier is completely exhausted and cannot act.
- Panicked.....The soldier is losing it. His combat efficiency is dramatically diminished. He may calm down given time, but you might want to keep the squad around him until he relaxes.
- Broken.....The soldier has stopped obeying orders and is thinking about making a run for it. As with panicked soldiers, he may calm down given time, and the presence of a battlefield commander and his unit may help bring him around.
- Routed.....This soldier has decided to make a run for it; he cannot be recovered.
- SuppressedThe soldier is taking cover from enemy fire while firing back.
- Pinned.....The soldier is taking heavy fire and is spending more time hiding than firing.
- CoweringThe soldier is staying put, keeping his head down, and will only fire occasionally.
- Stunned.....An explosion has temporarily knocked the soldier out.
- Heroic.....Soldier is feeling confident and is at an increased level of performance.
- FanaticMore than confident, the soldier takes chances and is gunning for a medal.
- BerserkThe soldier feels invulnerable and attacks the enemy without fear. Such displays of fearlessness inspire those around him.

The General sub-screen under Options provides such options as Game Speed, Screen Resolution and Scroll Speed. This screen also allows for the music, cut scene and sounds to be toggled on an off. It also controls what language German units will speak.

Zoom Level



Zoom control is in the lower left hand corner of the map beside the Options button. Aside from the default zoom option, the map can be zoomed out, at which point all units are represented by colored boxes. While it is generally easier to control the game from the default zoom level, the zoomed out map is often useful for planning initial placement or to get a brief glimpse of how the battle is progressing. One of the best

uses for the maximum zoom out level is to check the areas affected by your command teams. The **Space** bar shows the command radius of each commander, making it easy to see who is benefiting from officers and who is not.

Unit Status



Unit status takes up the bottom center of the screen. It shows the type of unit, what it is doing, the health of its men, and how effective it is against infantry and tanks at various ranges. The ranges denoted are 20, 40, 80, 160, 320, and 640 meters. The top graph marked AP represents effectiveness against infantry and the lower AT against tanks. The graph below demonstrates how an infantry squad can be highly effective against a tank, but only if they can get in at close range.

The Color of the faces indicates the status of the men in the Unit.

GreenHealthy



YellowInjured
OrangeIncapacitated
BlackPanicked
WhiteSurrendered
Red.....Dead

COMMAND AND MORALE

While each unit has some kind of officer or non-com who leads his troops into battle, each unit's fighting effectiveness and morale is improved by being close to a higher ranking commander, who can direct the efforts of those men under his command. Keeping battlefield commanders near units on the front improves performance and morale dramatically. The higher ranking a commander the larger the area of battlefield he is able to administer. Pressing the **Space** bar on the battlefield shows the command radius of command personnel. The color of the circle indicates the quality of the commander.

GreenHigh
YellowMedium
Red Low
BlackVery Low

During the placement phase and during battle it is often useful to zoom the map out and make sure that your commanders are positioned to provide leadership to the troops.

As a battle progresses, some soldier may lose morale. Receiving enemy fire, having their officers die, being flanked or ambushed, or being around too many dead bodies, can all sap a soldier's will to fight. Eventually a soldier may panic, run from the fight, or even surrender to the enemy. Convincing enemy troops to surrender by breaking their morale can be a very efficient way to win battles.

Aside from competent command, you can improve soldiers' morale by successfully ambushing the enemy. Infantry that manage to destroy enemy tanks also get a large morale boost.

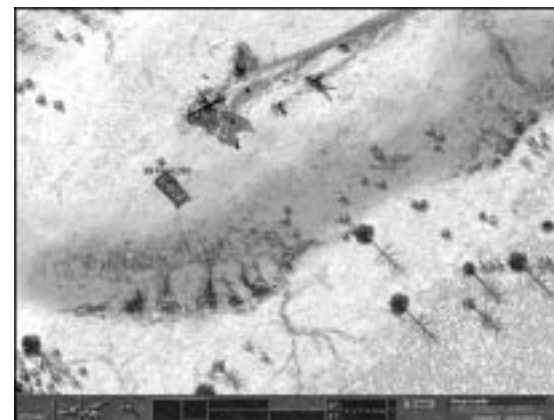
Rallying

Occasionally, a soldier may get separated from his unit. This can happen from either panic or simple fortunes of war. If this happens, the soldier attempts to find his way back to his unit. This process can be hastened by moving the unit closer to their lost man. The presence of a commander can also assist in keeping groups together and bringing in separated men.

THE BATTLEFIELD

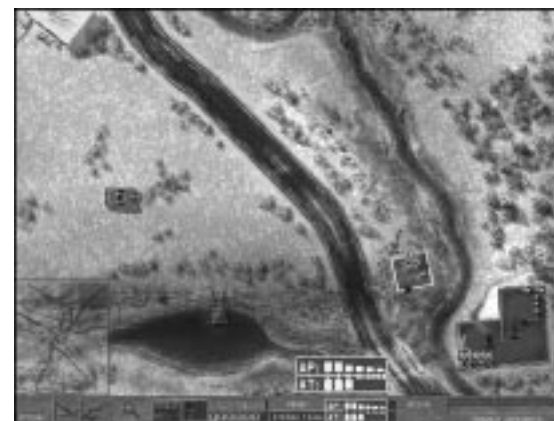
In many cases, the terrain of a battlefield can be the best resource a commander has. A clump of trees, an abandoned house, or a drainage ditch can all be powerful tools in the right hands. Right-click and hold button down with the cursor over a terrain feature to get information about it. Details are displayed in the lower-left corner of the screen.

Hills



Holding the high ground is an old military maxim and it does have its benefits. Units on top of hills can see over obstacles, giving them a good view and line of sight. Also moving uphill slows units down and moving downhill is generally faster. This is useful if you don't want enemies to reach you, or to make a quick get away. However, perhaps the most useful trait of hills is that hills block line of sight. Units can hide behind hills to avoid detection and to protect their flanks.

Gullies, Trenches, and Gun Pits



While units cannot cross deep water, shallow water can generally be crossed. Depressions in the earth left by running water can also serve as excellent natural protection. Gullies and trenches conceal soldiers and make them harder to hit, but they can become death traps if the enemy can flank the position and fire down the trench.

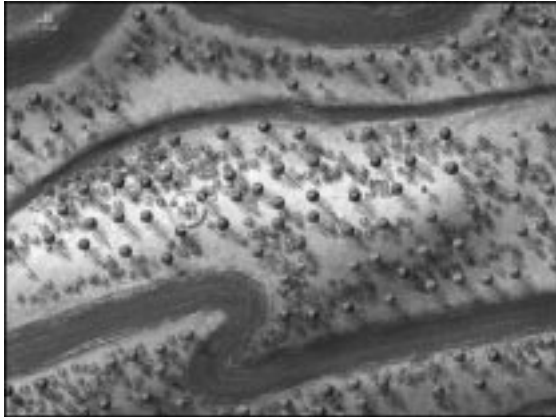
Gun pits are circular trenches dug for mortars and AT guns.

In Campaigns or Operations, if



a Battle Group does not move for a turn they are considered to be resting. If a resting Battle Group is attacked, any Infantry or AT gun it places in the open automatically starts in either a trench or a gun pit.

Forests



Forests provide something of a mixed blessing. Troops moving through forests have a great deal of cover. Tree trunks block fire, and the foliage of the trees prevents units from being specifically targeted. This cover works both ways, so units have a hard time firing out of forests. This unusual nature makes forests a natural place for flamethrowers, which can use the cover to approach the enemy. The ability for infantry to hide in forests make them dangerous place for

tanks, and tanks should avoid forests unless absolutely necessary. Remember that the CTRL+T command can be used to hide the foliage of forests. The foliage is still there and affects the game, but it makes it much easier for the player to see units.

Buildings



The key to understanding how to use and deal with buildings is that buildings are incredibly useful to units inside them, particularly infantry. Building roofs provide cover from mortar fire, building walls provide good concealment and hard cover from enemy fire, and tall buildings allow clear fields of fire over low-level obstructions. This makes them extremely valuable for infantry and AT gun units, and a menace to tanks. A tank on its own gener-

ally cannot detect infantry in a building until it is within Ambush range. A wise commander will go to great lengths to avoid putting a tank anywhere near a building that has not been checked out by friendly infantry first.

When approaching a building it is often useful to deploy smoke to allow units to advance without fear of detection. It is also good practice to fire machine guns at buildings as your infantry approach to suppress any units that might be in the building.

Because AT guns have limited mobility and are vulnerable to mortar fire, buildings are generally a good choice for placement. Unfortunately, placing an AT gun in a building also tends to limit its field of fire.

While all buildings conceal troops from the enemy, the stronger the building the more cover it offers from enemy fire. Wooden buildings provide no protection from cannon fire and only limited protection from other kinds of attacks. Stone buildings provide greater protection, and protects against small caliber cannon attacks. The few purpose-built military installations found in the Ardennes provide shelter from all but the most punishing attacks.

Rubble

Rubble can be treated like buildings in most cases, but in the absence of a roof, mortar fire becomes a factor.

Roads

Roads provide a simple trade off. Moving along a road is generally faster than slogging through snow or mud, but roads are, by their very nature, flat open places without obstacles to hide behind.

Scrub

Not every plant is a tree, and sometimes a bush is all that a soldier needs to hide behind as he lies in wait for the enemy. However, once he is discovered, that soldier may find that a bush cannot stop a bullet.



Mine Fields



Mine fields are used to defend areas and slow the enemy without using valuable and vulnerable manpower. You do not place mine fields, they are automatically deployed if available in a battle. Mine fields can be detected by expanding out to maximum zoom where mine fields are noted in red. Units crossing mines can be damaged or even destroyed. There are several ways to deal with mine fields. The fastest way is with a tank equipped with mine rolling equipment, giant

devices pushed in front of the tank to detonate mines before the tank passes over them. Mine rollers are unusual pieces of equipment and their rolling equipment only detonates mines directly in front of the tank, making turning or backing up dangerous maneuvers.

Engineer units are also skilled at removing mines. Engineers passing through a minefield while ordered to **Sneak** disarm any mines they come across. While they won't disarm the mines, other infantry types can **Sneak** across mine fields with only a small chance of detonating mines. Infantry that are **Moving** or **Moving Fast** face great danger from mines.

Finally, if all else fails, concentrated mortar or artillery fire can be used to detonate mine fields, but this is not a very efficient solution and some mines may be missed.

ENDING A BATTLE

Battles can end in a number of different ways. In single battle games, many of these possible endings can be deselected in the lower right hand corner of the Command Screen.

Victory Locations



On each map there are a number of victory locations. Victory locations represent either important strategic locations or other points of political interest. If either side controls all victory locations on a map, the opposing force is given two minutes to recapture at least one location or be forced to retreat off the map if the Two Minute option is selected. Each victory location is marked with a flag. Victory locations controlled by neither side are represented by a mixed flag. To capture a

victory location, move any unit other than a sniper to the location. Victory locations are also used to score a battle. Each victory location is worth between 1-3 points depending on its position and font size. Victory locations with larger fonts are worth more points. Victory locations along map borders are generally worth only one point.

Truce

A battle may be ended if both sides agree to end it. To propose a truce, click the **Truce** button on the tool bar in the lower right hand corner. Only when both players agree to a truce is the fighting stopped. Once a truce is offered, you may accept by pressing the **Truce** button.

Flee

Once you have proposed a truce, you then have the option to **Flee**. Choosing to **Flee** automatically causes the Battle Group to disband and concludes the current Battle. The forces do not return to the force pool.

Time

In battles with a time limit, the engagement ends when the clock runs out.

Morale Failure

When you play a battle, either historical or one you have made with the scenario editor, the **Force Morale** end-of-battle option is always disabled. When you play an Operation or Campaign, either historical or self-made, the **Force Morale** end-of-battle option is always enabled.

If the total morale of either side's troops drops too low, the battle ends. If you wish to



never have your troops panic or run away, toggle the Soldiers Always Obey Orders option On on the Command screen.

If a battle ends because of a truce or time-out, the battlefield is still split between the forces. In Campaigns or Operations, the deployments for the following cycle is based on how far each side pushed during the previous battle.

If a battle ends because of a morale failure, the Battle Group that retreats loses 1-3 victory locations. If the retreating side still has any victory locations left, the field continues to be split based on previous positions; otherwise, the losing side is pushed off the map.

If a Battle Group is pushed off of a map, it is disbanded. If the Battle Group was still in supply when it was disbanded, there is a 75% chance that each unit makes it back to be added to the Battle Group's force pool.

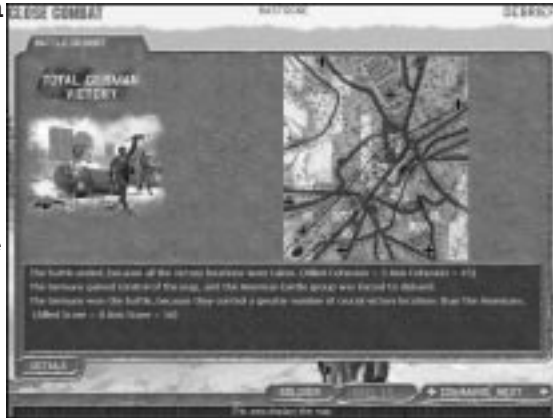
If one side destroys all enemy units, they hold the field. This very rarely happens because the losing side generally breaks from morale failure first.

Debriefing Screen

When a battle ends the Debriefing Screen appears. The Debriefing Screen indicates which side won, why they won, and what areas they controlled on the map. Lightened portions of the map indicate areas that ended under your control.

The Details button on the lower left hand side of the screen changes the

debriefing screen to show specific casualty figures for both sides. The Text button returns to the original screen.



The Soldier button allows you to see how your individual soldiers performed in battle. Use the Next Team button in the lower left hand corner of the screen to cycle through your units.

The Campaign Debrief tab at the top of the screen brings up a map of the Campaign area showing the regions each side controls, and listing the current Campaign score. The Details button on the Campaign Debrief screen lists the total losses incurred on each side during the entire campaign.

When you are done viewing the battle results, the Next button advances you to the next battle or strategic turn.

TACTICS

Suppression

Suppression is the term used to describe the fact that people keep their heads down while they are being shot at. A soldier desperately seeking cover is not shooting at the enemy.



Typical suppression strategy is to have one or two units Fire on the enemy while another unit advances closer. When the advancing unit has reached its position, a unit further back moves up. With their rapid fire and large ammunition supplies, machine guns are excellent at suppressing enemy troops, and mortar attacks can force advancing infantry to hit the dirt without exposing your troops at all.

Take this example: You want to attack an enemy building that contains a force of enemy troops and you have a machine



gun team and two infantry teams to attack with.

After setting up in a suitable location, the machine gun can open fire on the building. Both infantry units would want to fire as well. This large volume of fire would keep the enemy away from doors and windows. After a few seconds, one of the firing infantry units would move up then resume firing, allowing the second infantry unit to also move up. By switching off, both infantry units can approach the building in relative safety.

When suppressing the enemy, be careful not to walk your own troops into the line of fire. Soldiers can be accidentally killed by friendly units.

Flanking



Flanking describes any attack made from a direction that the enemy is not facing. Units that are being shot at from more than one direction have a hard time finding cover and quickly lose morale. Units being flanked also have a difficult time returning fire when attacked from multiple directions.

Take the previous example:

A flanking attack would begin with suppression fire as previous, but instead of leap

frogging, one of the infantry units would move to the side of the building. Once in position it would open fire.

Flanking is not only a powerful tool against infantry, but in many cases can be the only way to deal with the thick front armor of enemy tanks.

STRATEGIC LEVEL

The Strategic screen controls the movements of Battle Groups for Operation and Campaign play. At this level, you determine the battle plan, not for squads of men on the battlefield, but for "The Bulge" itself. Each of the Battle Groups represents the much larger military units that fought at "The Bulge". The result of a battle group in combat represents the success or failure of the entire formation.

Will you allow the Germans to advance in the hopes of then cutting their supply lines?

Will you achieve what Germany historically could not?

"Lets have the guts to let the Krauts go all the way to Paris. Then we'll really cut them off and chew them up."

-General George Patton

The Strategic Map

The Strategic Map shows the general region that most of the Battle of the Bulge was fought over.



During a particular Campaign or Operation, some or all of the Strategic Map may be available. Each available region has its own colored square in its center. This square denotes who controls the region or if that region is currently contested. It also shows where supply depots are. Regions are connected by roads. A Battle Group cannot move to another region, unless a road connects them and they control the victory location connected with the road they are leaving from.

American Control.....White Star on Green

German ControlBlack Cross

Mixed Control1/2 White star 1/2 Black Cross.

American Supply DepotGreen Barrel

German Supply DepotGray Barrel

Visible enemy and friendly Battle Groups are visible on the Strategic screen. You can look at any Battle Group by left-clicking on it. This displays the units that make up the Battle Group on the task bar at the bottom of the screen. Click on any unit in the Battle Group to examine the Soldier screen for that unit.

American and German Battle Groups also show a star or cross above them. The color of this icon displays the approximate relative firepower of each Battle Group .

Green.....Strong AT and AP

YellowModerate AT and strong AP

Orange.....Moderate AT and AP



RedWeak AT and moderate AP
BlackVery weak AT and weak AP

Units with low firepower are best used defensively, to prevent enemy advance while your stronger units attack. Even the heaviest armored column can be held at bay by a properly led infantry group.

Strategic Calendar

At the top left hand corner of the Strategic Map is the Strategic Calendar showing the current date and time. Clicking on dates on the strategic map shows where and when friendly reinforcements are likely to arrive.

Battle Groups

Battle Groups represent a force roughly the size of the lead element in a regimental combat group. These Battle Groups are composed of various forces; infantry, tanks, and other vehicles and support teams. A full strength Battle Group has 15 units. As combat occurs, Battle Groups take losses, and these are replaced from a limited pool of reinforcements. Reinforcement pools slowly replenish as the days pass.

Repair and Replacement

Tanks that have been damaged and infantry units that have taken losses are able to make some repairs in the field. All damaged tanks are assigned for field repair after each battle. 40% of damaged tanks can be made functional, but the rest are either too damaged for repair and/or scrapped for parts to repair the 40% that survive.

Any infantry unit that has 60% or more of its soldiers killed or seriously wounded is disbanded and its survivors either sent to other units or rotated to the rear. Infantry units that take less the 60% losses are assumed to find replacement men from disbanded infantry units or from new men brought up from the rear.

Scrapped tanks and disbanded infantry units must be replaced from the units reserve force pool.

Replacements do not strictly come forward from "rear" areas. They are also supplied from the larger organization which your Battle Group belongs to. Even when surrounded, your Battle Group can receive replacements because it is assumed they are being sent over from company or division HQ, which has been surrounded along with your Battle Group.

Disbanding

Battle Groups are disbanded whenever the player chooses or whenever they are forced to leave a map either through loss of victory locations or from morale failure. If a Battle Group that disbands is in supply when it disbands all of its units are returned to its reinforcement pool. If you have only one Battle Group remaining you may not willingly disband it.

Disbanding a weakened Battle Group that is in supply can be an excellent way of clearing a road for better-equipped Battle Groups moving up. This allows the weakened Battle

Group to reform in the rear

If a Battle Group voluntarily disbands while it is out of supply, it loses all of its vehicles and 50% of its remaining infantry units are captured before they return to the group's supply pool.

If an unsupplied Battle Group is forced to disband involuntarily, because it is forced off a map, it loses all of its vehicles, and 75% of its infantry units are captured. This can be a crippling loss.

Reforming and Reinforcements

When a unit disbands, it tries to reform on the map on the morning of the following day. During player-generated scenarios, if it is the first time a unit is deploying to the map it attempts to arrive where the user specified. If the unit can't enter there or there was another friendly unit on the location use the next rule. If the unit is reforming or can't form on the designated map it finds the closest open, "friendly" supply depot to it's initial deploy location and deploys there. Note: If that supply depot is enemy controlled the Battle Group attacks onto the map.

In pre-generated Campaigns and Operations the unit arrives at a pre-designated point. If that point is blocked by a friendly unit see the user-generated campaign rules. If that region is occupied by the enemy the Battle Group attacks onto the map.

Reinforcements are Battle Groups that are added to a Campaign after the Campaign starts.

Supply

Units receive fuel and ammunition from friendly supply dumps. A unit can receive supplies from any friendly dump that it can trace a path back to that passes only through friendly uncontested territory. This is the line of supply, and if you can cut it you can drastically reduce the combat efficiency of the unit you have cut off. A unit that has been cut off is described as "out of supply." For each turn that an unsupplied unit engages in combat, it drops one supply level in ammunition and fuel. Loss of ammunition supply cuts ammunition starting levels during battles. Loss of fuel won't affect tanks immediately. However, once fuel supplies reach Low, there is an increasing chance that each vehicle begins each battle out of fuel and thus immobile.

Fuel Levels

In Supply

HighNormal

NormalNormal

Low30% Chance for vehicle immobility.

None60% Chance for vehicle immobility



Ammunition Levels

In Supply

High:100% Optimum

Normal80% Optimum

Low60% Optimum

None.....30% Optimum

A Battle Group that is out of supply and is low on fuel can capture fuel from enemy supply dumps. To use enemy fuel, the Battle Group must occupy the dump; once it leaves the dump, the fuel supply starts to diminish as normal. Enemy supply dumps only provide fuel on site; no supply line is created. Unfortunately, enemy supply dumps do not provide ammunition.

In addition to loss of supplies, units that are out of supply have a more difficult time replacing losses. A Battle Group whose ammunition supply has reached "low" only has a 75% chance for lost tanks to be replaced from the force pool. A Battle Group whose supply level has reached "none" is unable to replace tanks at all until it gets re-supplied. Units whose ammunition supply reaches none only replace 75% of their infantry losses.

Strategic Turns

Each strategic turn represents several hours of fighting. There are two strategic turns over the course of a day. During each strategic turn, you may move each Battle Group you control, and assign any remaining air strike, artillery support or air re-supplies you like. If you feel it necessary, you may also disband any Battle Groups. When you have finished your turn, hit **Execute**; this brings up the Strategic Results screen. The game is automatically saved at this point. After reviewing the results of your decision you play out any consequent battles in random order.

Moving Battle Groups



To move a Battle Group, left click and drag it to an adjacent territory connected by a road. Battle Groups in uncontested territories may move along any connecting road. In areas that are of mixed control you may only move along roads for which you hold the victory locations.

Note: Each side is only allowed to have one Battle Group in each region at a time.



You may move a Battle Group into a region that you already occupy. However, if the group currently in the region does not move out of it, the other group will not advance. If you order two units into the same location, the orders issued to the second unit cancel out the orders given to the first. It is possible for more than one unit to use a road, so units may switch places.

When you are done making your moves and have assigned

any support options you may finalize your orders with the **Execute** command.

All movement on each turn happens simultaneously. If two adjacent enemy forces move at each other, the battle occurs on the map of the slower Battle Group. Armor groups are faster than mechanized groups, and mechanized groups are faster than infantry. If the German and American Battle Groups are the same speed, the tie goes to the Germans and the battle is fought on the American map.



Note: In Operations and Campaigns that start on the 16th, the Americans cannot move during the first strategic turn; this is the result of the total German surprise at the start of The Bulge. Furthermore, on the 16th through the 18th, each American battle group has a 20% chance of being randomly redirected by the German saboteurs of Operation Greif.

The Strategic Results screen indicates the outcome of the moves for the turn, if any battles are to occur, and if any units were redirected. To fight the battles listed, or to advance to the next strategic turn left-click on Next.

Resting and Digging In

A Battle Group that does not move during a strategic turn is considered to have rested. Battle groups that have rested recover lost morale and have time to dig in.

If a battle group that is resting is attacked, it defends its map from prepared positions. When an infantry or support unit is placed on an open stretch of ground, a trench or gun pit are placed under them, providing cover where there was previously none. These fortifications are permanent, and appear on the battlefield in future battles. Enemy troops are unaware of field fortifications until they have a line of sight, so what may appear to an attacker as an open field on a map could actually be a vast network of enemy trenches.

Infantry trenches are dug based on the unit's facing, so it is important to establish facing before hitting Begin.

Air Strikes and Artillery Support



Air Strikes and Artillery support are available from buttons on the lower left hand corner of the map. The number by the various support options indicates the number of support missions available each day. It is important to remember that there are two turns in a day. If an Artillery support or Air Strike is assigned but not used during a battle, then the support mission is returned for use in a later battle. To assign support, click on the appropriate symbol and drag it to the unit you

wish to support. Artillery and Air Strike support is assigned to units, not to regions. A unit may have both Artillery and Air Strike support for a battle, but never more than one of each. To remove a support mission from a unit and place it back in the available pool, left click on the tab that appears above the unit on the strategic map.

Air Supply

Fuel and ammunition levels drop quickly for units that are out of supply. However, these cut-off units can still be supplied via air drop. Air Supply are assigned and removed in exactly the same way that Air Strikes and Artillery are assigned, by left-clicking and dragging from the pool of available missions each day. Units that receive Air Supply have their ammunition and fuel levels set to high. It should be noted that when using the historical weather option, Air Supply drops are rarely available. The Germans may only drop supplies on the 24th-26th and only one drop per day. The Americans can make one drop per day on the 25th-27th and the 29th-31st.

Intelligence

When on the strategic map screen you are usually unable to see the enemy. On a clear day, American forces can see the entire German force. Otherwise, the only enemy battle groups you can detect on the map are ones that you have fought with during the previous turn. German spies have a 5% chance per strategic turn of detecting American units, regardless of where they are on the map.

Weather

Weather affects the availability of Air Strikes, Artillery support and Air Supply. Generally, the clearer the weather, the more support that is available. Pre-generated scenarios use the real life weather conditions of The Bulge. User created scenarios can opt for random



weather effects.

Winning Campaigns and Operations

Campaigns and Operations continue until the pre-determined ending date, or until one side has complete control of all map squares. If a strategic layer game ends because of time out, then each side totals points for every victory location on every map in the scenario and the player with the most points wins. Remember, each victory location is worth between 1-3 points. The only exception in scoring is during the Grand Campaign in the Campaign section. When playing the Grand Campaign your score is based not on total victory location points, but on how each player does compared to how each side performed historically.

Strategy Tips

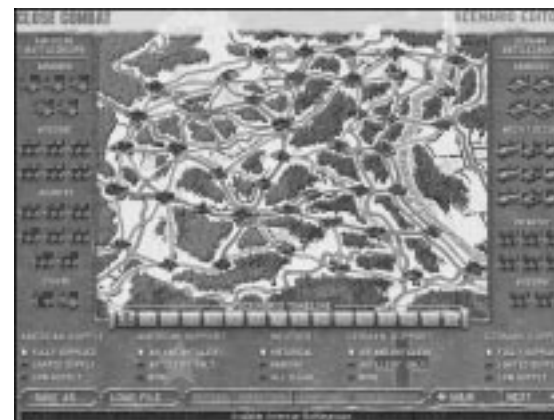
If an enemy advances, attempt to cut off his route of supply. Units with diminished ammunition supplies are far easier to deal with, and a battle group forced to disband while cut off takes heavy losses. In the same light, avoid allowing your troops to be cut off if at all possible.

Remember, on the battle map, that if the fight ends in a truce or time out the person who controls the Victory Locations associated with the roads can access the roads.

If you assign Artillery support or Air Strikes to a unit early in the day, and you appear to be winning the battle without calling on them, keep them in reserve. Unused Air Strikes and Artillery support missions are returned to you for use later during the same day.

One of the reasons that the Allies did not believe that Germany would attack in the Ardennes was the fact that the region was heavily forested, and that the few narrow roads would not support a large scale invasion. They were almost correct. During much of The Bulge, the roads were frozen not only in ice but in wall to wall traffic. You will quickly learn that to command in The Bulge, it is almost as important to be a good traffic planner as it is to be a good tactician.

SCENARIO EDITOR



The Scenario Editor is a very easy to use feature that allows you to design your own Campaigns and operations. It is strongly suggested that you become familiar with the strategic screen and play a few Campaigns before designing your own.

The Map

The map screen shows the entire strategic map, but all of the location boxes are blacked out. Left click on a location to rotate through all its possible control and supply states.

The possible starting states are:

- American control (no supply depot)
- German control (no supply depot)
- Split control (no supply depot)
- American control (American supply depot)
- Split control (American supply depot)
- German control (American supply depot)
- German control (German supply depot)
- Split control (German supply depot)
- American control (German supply depot)

Every map must be contiguous; there should be a possible path from every region to every other region. Avoid unconnected islands. For Campaigns and Operations each side must also have a Supply depot.



Once you have set all of the initial starting states on the map, you should turn your attention to the date bar. The date bar starts with two sliding markers, one on each side. These represent the starting and ending dates of your campaign. To change the starting and ending dates, click and drag the bars to the dates that you would like.



If you click on a date, a small green arrow appears over it. This arrow represents the date that battle groups appear on the map. Changing the date allows you to have reinforcements arrive during different days of the campaign. Dates that you have set reinforcements to arrive are marked with an R.



When looking at the Scenario Editor map, you will only see the units that first appear on the date that is currently selected.

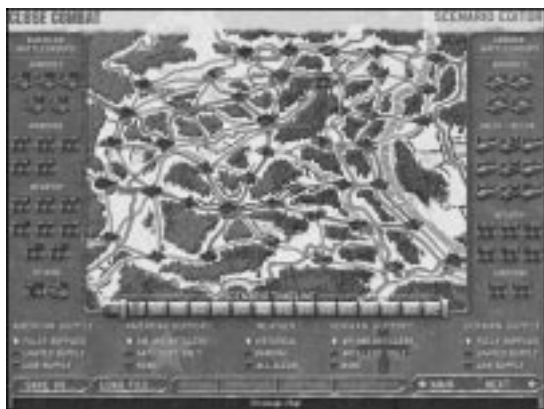
To place a battle group left click on it, and then drag it to the location you wish it to start at. Remember that each side can have only one battle group at each location. Each side must have at least one battle group appear at some time during the campaign.

Once you have selected the battle groups you wish to appear you can set the levels of available supplies for each side. This effects ammunition and fuel levels for each side, and at Low Supply there is a chance for tanks and vehicles to be out of fuel during each battle.

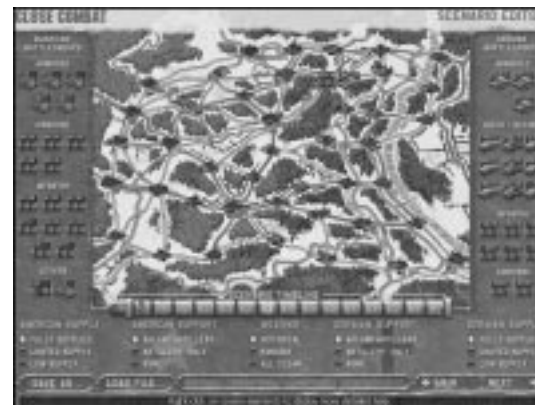
You can also set the availability of artillery and air support, as well as the weather, from the buttons on the bottom of the screen. When you are done, you may save the scenario you have created.

Scenarios that consist of just one map are Battles. Scenarios which contain both multiple maps and/or multiple battlegroups are Operations or Campaigns. In all cases, multi-map battles require all maps included in the scenario to be contiguous, in other words, you must be able to trace along a road from any map in the scenario to any other map in the scenario. Any map left unclaimed is inaccessible to the user once the game has started.

Example Battle



Suppose you want to create a Battle with the Americans defending St. Vith on December 17th. Click on the St. Vith region once, turning it into an American map. Move the two date bars so that the 17th is lit, then choose an American unit you wish to have defend from this list of available units. Click on the unit and drag it to the St. Vith map.



Choose a German attacker and drag that unit to the field.

If you want the defenders of St Vith to be short on supplies you can lower their supply level.

Now all you need to do is save the game. A popup window appears asking for the name of the battle as well as a short description. Once you've named and saved it, this battle is available on the command screen.



To create Operations and Campaigns all you need to do is add more maps, giving each side at least one supply depot, and more battle groups. Remember that you can have units appear on the strategic map after the first day by clicking on the date you want them to appear and then placing them. There is a green arrow partially obscuring the date the units are appearing.

UNITS

The fighting along the Ardennes was conducted by hundreds of thousands of men using a wide array of weapons and vehicles.

Infantry

Light Infantry

Light infantry are armed with rifles and grenades. Because they are less encumbered, light infantry can travel good distances without becoming tired. This makes them well suited for attacking flanks and probing open territory.

Medium Infantry

Medium infantry have rifles, grenades, and light automatic weapons like the BAR. Medium infantry are well rounded, in terms of both mobility and fire power.



Heavy Infantry

Heavy infantry have even more firepower, such as flamethrowers and demolition charges. Well suited to close combat, heavy infantry can also be quite effective against tanks if they can get close enough. Because of the heavy weight of their gear, heavy infantry are slow and can quickly become winded.

Sniper

Snipers are deadly long range shooters who work alone. They are more accurate at long range, are more likely to target enemy leaders, and are more likely to kill, but they have a low rate of fire. Snipers are easily suppressed once they are discovered and should switch positions regularly. Remember that the talent of a sniper is not in the amount of enemies he kills directly; by targeting officers and suppressing enemy troops at long range, he can sap enemy morale and reduce their efficiency. Snipers cannot capture victory locations.

Scout

Scouts are used for infiltrating enemy lines to check deployments and set ambushes. They are quick and stealthy. They are faster and less likely to be discovered than average infantry. They are very effective at close range but not effective at long range. Scouts are particularly valuable in urban combat.

AT Infantry

Infantry anti-tank teams are armed with weapons like the Panzerschreck and the Bazooka. Infantry AT weapons generally have a low rate of fire, and limited ammunition. They are often only effective against the sides or rear of enemy armor. AT teams must use concealment and surprise to be effective.

Basic Infantry Tactics

During the Battle of the Bulge the ratio between infantry and tanks was hundreds to one. Infantry being the principal component of the battle, it is vital that you use them properly. Infantry are extremely vulnerable to virtually every other unit when in the open. They should always be kept under some kind of cover: buildings, trenches, forest, or smoke if necessary. When facing armor, infantry should assume Ambush positions and attack from the side or rear.

Secondary Weapons

In addition to their primary weapons, many soldiers carry secondary specialist weapons like explosive grenades, and demolition charges. The number of these weapons available for each unit is listed on the Battle Group screen. When the opportunity arises to use these weapons your soldiers do so automatically.

Mortars

Mortar crews engage the enemy with indirect fire, lobbing powerful explosive shells great distances. While a mortar team is more accurate while firing at targets they can see, they are often best positioned well away from the front line where they can hammer enemy infantry and light vehicles from safety. Avoid setting mortars up directly under trees where branches might detonate a round right over the firing team.

The heavier a mortar is, the slower the rate of fire but the more powerful the shell. Heavy and medium mortars are powerful enough to be used against buildings. Mortars can also lend vital support to friendly units by dropping smoke at great distance.

Mortars are also effective against light vehicles, particularly open topped vehicles such as half-tracks.

Mortar Tactics

A mortar is more of a tool than a weapon. It is important to understand that in most cases, the inaccurate nature of mortars make them only marginally useful at killing. Mortars are useless against any tank with an armored top and only kill an infantryman if the shell it launches lands very close. Aside from its immense power to suppress infantry, where the mortar shines is in destroying AT guns in the open, and for dropping smoke anywhere on the map.

Nothing lessens the blow of enemy ambush like the power to shower your units in smoke while they pull a hasty retreat.

AT guns make good targets for mortars. AT guns are unarmored, generally immobile, and need line of sight to return fire. When an AT gun is detected in the open, it is often wise to pull your troops back and simply pound the gun until it is disabled. If the gun is defended by a building, dropping smoke in front of the building can temporarily disable it.

Machine Guns

Machine guns are highly effective against infantry and light vehicles and are extremely effective at suppression. However, machine gun crews can only move their weapons slowly and require time to set up the weapon when they reach a new position. Because they are difficult to move and slow to set up, machine guns are often set up in buildings or other such cover locations to prevent them from being destroyed by mortar fire.

Machine Gun Tactics

Machine guns are powerful weapons and are even more useful in that they generally do not require close supervision. Place machine guns in well protected areas, preferably with a roof and a wide field of fire, and they can work wonders against enemy infantry and light vehicles. Successful Ambush attack by machine guns can be devastating. If a machine gun draws the attention of enemy armor, it is definitely time to retreat.

Flame-Thrower

These are very effective against both infantry and armor, but have a very short range and limited shots. They are heavy and slow moving, but don't require a setup period and can be fired on the run. As might be imagined, flame-throwers tend to set fires. Troops with flame-throwers are extremely vulnerable and can actually explode if hit.



Flame-Thrower Tactics



Flame-thrower teams require a great deal of support from other friendly infantry. Their short range and vulnerability require either total surprise or that the enemy be well suppressed. When fighting armor, other infantry units can provide support to flame thrower teams by fixing the enemy's attention elsewhere.

Anti Tank Guns

Anti-tank guns are field pieces, modern cannons placed in the field to deal with enemy armor. AT guns are generally immobile, although smaller versions can be dragged about by their infantry crews. Inexpensive to produce but unarmored, AT guns require a mix of surprise and proper placement to be effective. AT guns can be highly effective against infantry, but are often better left hiding in wait for enemy armor that friendly infantry is unable to deal with.

AT Gun Tactics

There are two schools of thought regarding AT gun tactics. The first school says that AT guns should be placed on hills and in other places with wide views and wide fields of fire. This ensures that the AT gun has a chance to target and hopefully destroy the enemy, but it also leaves the gun vulnerable to return fire or mortar bombardment.

The alternative is to conceal AT guns in buildings. This provides both concealment for the gun and protection for the crew. The downside to this strategy is that the AT gun's field of fire is generally very restricted, and the building only offers limited protection against tank rounds.

Crews

Vehicle Crews have little value outside the vehicle and generally try to leave the battlefield after abandoning their vehicle.

Gun crews are armed. If the gun runs out of ammo they will defend the gun; if the gun is destroyed they try to leave as vehicle crews do.

Vehicles

CLOSE COMBAT: THE BULGE contains a wide variety of Allied and German vehicles

Half-tracks and Light Vehicles

Half-tracks and other light vehicles allow the rapid deployment of heavy anti-infantry support and occasional anti-armor weapons. However, vehicles like half-tracks and armored cars are only lightly armored and vulnerable not only to anti-tank weapons but to rifle fire as well.

Light Vehicle Tactics

Light vehicles have traded off armor for speed. Use that speed to launch flanking attacks and to reinforce infantry and tanks from a distance. Never bring a light vehicle anywhere near an enemy tank. Remember to stay on the move as well or risk drawing enemy mortar fire, which can punch right through the top of an armored car or half-track.

Tanks

A tank is virtually invulnerable to small arms fire. Tanks can carry machine guns to use against infantry, high explosive charges (HE) for longer ranged attacks against infantry (like a hand grenade with a greater range), and armor piercing rounds (AP) that are effective against all but the heaviest tanks. While tanks may seem like the lords of the battlefield, a tank is vulnerable to properly armed infantry who can get close enough. Tanks are well placed behind advancing infantry, lending their considerable firepower while allowing the infantry to ferret out anti-tank teams and other infantry that might lie in wait.

When not in immediate danger, tank crews generally keep portholes and the top hatch open, this allows maximum visibility, although it does allow the possibility of surprise attacks while partly vulnerable, particularly from snipers. Once danger is recognized, such ports are closed, affording protection but limiting visibility.

As a general rule, tanks have much heavier armor on the front than they do on the sides or rear. Please refer to page @ for an explanation of how movement affects facing.

Heavy Tanks

These are bigger, slower, more powerful tanks. Heavy tanks have thick front armor that is usually sufficient to make them immune to lesser tanks. The front armor of a German King Tiger heavy tank could take a great many direct hits from an American Sherman tank without being damaged. Heavy tanks share the same vulnerability to infantry as do regular tanks.

Mobile Guns

These weapons have large guns that can fire AP rounds like tanks, but they are not heavily armored. They have good firepower, but little defense, and cost less than tanks. Mobile guns generally have no turret, firing only forward over a limited arc. While not nearly as flexible as tanks, their powerful forward guns are often the only way of dealing with armor from the front.



Flamethrower Tanks.

These are very effective against both infantry and armor but have a very short range. Because of their severe range limitations and modest armor, FT Tanks need to stay away from conventional tanks using buildings, foliage, smoke, and hills for cover until they can get close enough to strike.

Basic Armor Tactics

While great books have been written about the high art of tank vs. tank warfare, the basic principal is very simple. Whenever possible, be positioned in such a way so that you are shooting at an enemy's weak side or rear armor while he is shooting at your thick front armor.

Also remember that infantry cannot harm tanks at long range but can destroy them with a close range ambush on the sides or rear. To avoid this, tanks should act as support vehicles, using infantry to ferret out enemy infantry and concealed AT guns. Once the enemy is found, the tank can then blast away from range.

MULTIPLAYER



Multiplayer games operate by having one player, called the Host, start a game. The second player Joins the game that the host creates. To play a multiplayer game, the computer that hosts the game and the joining computer must both have a copy of the game CD.

Internet TCP: Using this type of connection, you can play the game with another player over a LAN (Local Area Network), or over the Internet.

Internet UDP: Faster though slightly less stable then TCP, players may

elect to connect over the Internet or a LAN using the UDP protocol.

Modem: Two computers with modems can connect over phone lines.

Serial Connection: You can also link to another player over a null-modem cable.

Using a TCP Connection

After both players have connected through their ISPs, both should select Multiplayer from the Main Screen. From the Multiplayer screen, select Internet TCP button.

If you are playing over a LAN, you can join any game listed. To join a game, left click on it, then left click on Join, or simply double click on the game you want to join. To get a current list of available games click the Search for Games button.

If you want to join an Internet game, select the Host IP button and enter the host's IP address. The host's IP address appears on the bottom of their screen. You need to find out from the host player what their IP address is. When you are done, select ready and wait for the host to start the game.

If you want to host the game, click on the Host button. Your IP address appears on the bottom of the screen. You must inform the second player of your IP address so that they can join. After electing to host a game the Select a Battle button brings you to the Command Screen where you can select the battle, operation, or campaign and realism settings. When you have made your selections, select Ready. When the second player has joined, select Next to start the game.

Using a UDP Connection

Other than selecting then using the different protocol, connecting with UDP is virtually the same as using TCP.

Using a Serial Connection

Power down both machines and connect their serial ports with a null-modem cable. Start the game, select Multiplayer, then Serial Connection. A box appears requesting port, baud rate, stop bits, parity, and flow control. Other than the port, these settings need to be the same for both machines. Once this is done, players may Host and Join as in TCP games.

Using a Modem Connection:

To connect via a modem, both players select multiplayer, then select the modem connection method. The player hosting the game should select Host, verify their modem from the pop up list, and click the Answer button. To Join a game, click on the Call button. When the popup menu appears, either click on the host's name and click on Join, or double click on the host's name.

Communicating with Your Opponent

You can send messages to other players at any time.

To send a message during play, click the CHAT button or press ENTER. Type in your message and then press ENTER. The message appears briefly on the other player's screen.

HISTORICAL OVERVIEW

By the fall of 1944, the outcome of the Second World War was obvious to most people. The Allies had made their landing at Normandy, and had liberated most of Europe. To the East, Russia had recovered from the shock of the German attack, and was using its vast



industrial might and massive population to push forward. German losses were approaching four million men. Germany still had approximately 10 million men in uniform, but most lacked the training and experience of those who had already died. German industry was stronger than might be expected given the level of Allied strategic bombing, but it was on the decline. At home, an assassination plot by Hitler's own officers had almost succeeded in killing him.

Faced with threats from all sides the German OKW (Oberkommando der Wehrmacht, the military general staff) decided that they had to go on the offensive to have any hope for victory. Due to the wide open geography, and the size of the Russian army, there was no way that Germany could launch a meaningful offensive to the east. Compared to the Russians, the Allied forces in Western Europe were much weaker, and the Allies were having serious problems getting supplies to the front. The OKW believed that they could use the same blitzkrieg tactics that had been used to open the war to retake the strategic city of Antwerp. Retaking Antwerp would cut off Allied units along the German border, and further confound the Allied supply problem. The Germans also hoped to convince America and England to accept a separate peace. This plan was called "Watch on the Rhine", and was kept an absolute secret. Even the generals leading the attack were only briefed a few days before the attack was to begin.



The Plan was simple. Three armies would break through the Ardennes front and Blitz towards Antwerp. The 7th Army led by General Brandenberger would advance along the south and protect the flank. North of Brandenberger, the Fifth Panzer Army under General Manteuffel would advance. The newly created 6th SS Panzer Army commanded by General Dietrich would spearhead the assault along the north. It was also hoped that by launching

the attack in winter, bad weather would counter American air superiority. Some German leaders believed these forces could arrive in Antwerp in a week.

In preparation for Watch on the Rhine, the infamous commando Otto Skorzeny was ordered to infiltrate the American lines with English speaking German troops in an operation code named Greif.

The hundreds of thousands of men, thousands of tanks and trucks, and other assorted equipment that made up Watch on the Rhine were slowly moved up at night. Often the sound of advance was covered by the sound of airplanes.

Allied intelligence completely failed to detect the build up. The 75,000 men stationed

along the 80 some odd miles of the Ardennes had no idea what was coming. The Ardennes was considered a relatively safe posting. A total of six divisions were positioned along the front, half of those divisions were young men fresh out of training. The remaining divisions had seen hard fighting and were in the Ardennes to rest and to receive replacements for the men they had lost.

The German attack began at 5:30 A.M. on December 16th, 1944. Along the northern end of the front Sepp Dietrich began the battle with a massive artillery barrage followed by a rapid advance. Further south, Manteuffel simply slid across the line and infiltrated silently into the thinly held American lines.

Watch on the Rhine was a massive success on the first two days. The American forces were caught completely off guard. Outnumbered and ill-prepared American units were forced to retreat or were overrun. In places such as Clervaux, American forces fought desperate losing battles to delay the enemy so forces further back would have time to prepare.

The Germans sped forward, in one case the commander of the lead element of the 6th SS Panzer Army ordered his tanks over a known minefield simply because he was unwilling to take the time to go around or have it cleared. During this time, elements in the 6th SS Panzer Army also often shot American POWs rather than take the time to have them moved to the rear. News of the killings enraged U.S. troops.

By the end of the second day both sides were beginning to feel the effect of the limited road network in the Ardennes. Traffic jams had formed as men and supplies filled the roads. The road network greatly aided American attempts to slow the Germans down. American forces managed to hold up far larger German units because the terrain prevented the Germans from bringing their numbers to bear. Meanwhile, Allied leadership was taking swift action. Armored divisions from the north and south, as well as reserve airborne units, were immediately dispatched to reinforce the Ardennes.

Between the 18th and the 21st the nature of the battle began to change. While the Americans were still largely in disarray, concerted efforts were being taken to hold strategic points including St. Vith and Bastogne. Increasing American resistance, traffic problems, and critical gasoline shortages began to bog down the Germans. Behind the American lines the existence of the German commando teams of Operation Greif had been discovered, and inspired paranoia and panic as far back as Paris.

Another advantage that the Germans had during the Ardennes offensive was their preparation for the cold weather. Having learned hard lessons about the power of cold on the Russian front, the Germans came prepared for the weather. American forces were not nearly as well equipped. American winter gear was not sufficient to keep out the cold, so many soldiers stuffed paper between layers of clothing to try and keep warm. Americans gathered sheets to cut into hastily made parkas for camouflage.

On December 21st St. Vith was finally overwhelmed by massive German numerical superiority. However, while the city was lost, in many ways St. Vith was an American victory. The Watch on the Rhine plan had called for St. Vith to fall on the first day.

Bastogne almost suffered the same fate, but rapid reinforcements by the 101st Airborne



Division helped to hold the town. The defense of Bastogne was so solid that the Germans chose simply to bypass it. By the 22nd Bastogne was surrounded on all sides, however the city's defenders refused to surrender.

Slowly what had started as a classic German Blitzkrieg had turned into a set battle as American reinforcements shored up the lines. With surprise and numerical superiority lost, the Germans could not push past the Allies. The situation was made worse for Germany as the weather started to improve. Allied combat air support took a heavy toll on German forces. Still, the Germans fought tenaciously.

By December 26th the Siege of Bastogne was lifted; it spelled the beginning of the end for Germany. By January 8th the high command realized the situation was hopeless and began issuing orders withdrawing the troops. The last great German offensive had failed.

Total losses for the Bulge are hard to calculate, but America suffered almost 82,000 wounded or dead. British forces suffered 1400 Casualties. German losses totaled approximately 100,000. Over 700 U.S. armored fighting vehicles were lost. German armor losses are not known exactly but were almost as high.

FACTS

German Initial Forces: 250,000 Infantry; 1900 Artillery Pieces; Just under 1000 armored vehicles.

American strength in the Ardennes at the start of the battle: 75,000 Infantry; 500 Artillery Pieces; Just over 400 armored vehicles.

By the time it was over, 600,000 Americans and 500,000 Germans had participated in The Battle of The Bulge.

The most common allied tank at the time of the battle of the Bulge was the M-4 Sherman Tank. While individually inferior in terms of fire power and armor compared to most German tanks, the M-4 was mass produced in numbers that Germany could never dream of matching. Over 40,000 Sherman tanks were produced.

The frozen ground of the Ardennes was almost impossible to dig through. To build fox-holes, American troops often used TNT to blast open the ground. The G.I.'s then had to dig swiftly before the exposed ground froze over.

The German code name used when planning the Ardennes assault was "Watch on the Rhine." This rather defensive sounding name was selected in the hope of confusing any possible allied agents.

THE MALMADY MASSACRE

On December 17th, 1944, an American truck convoy encountered elements of Battle Group Peiper at Baugnez, a crossroads south east of Malmedy. German tanks easily subdued the convoy, and the Americans surrendered.

Approximately 130 of the prisoners were herded into a field where they were ordered to stand in a tight formation. Tanks were moved in to cover the prisoners. The Germans then opened fire on the prisoners with pistols and machine guns. Some Americans escaped, but most fell dead or wounded. After the firing stopped, the Germans passed through the pile of bodies shooting anyone they thought might still be alive. By the time the killing was over 86 of the surrendered U.S. soldiers were dead. The Malmedy Massacre was the worst atrocity committed against U.S. troops in Europe during the war.

OPERATION GREIF:

On October 20th, 1944, Adolf Hitler personally briefed Otto Skorzeny on his plans for Watch on the Rhine. Hitler also briefed Skorzeny on his special role in the battle, as the commander of Operation Greif. (Greif translates to Griffin). Under Operation Greif, Germans fluent in English, wearing American uniforms, and driving American tanks and jeeps, would infiltrate American lines and secure bridges on the Meuse river. In addition, portions of this commando force would break off to sow fear and confusion by issuing false orders, and disrupting communications.

Given less than two months notice to prepare, Greif seemed doomed from the start. Only 10 men could fluently speak unaccented English, and only 2 tanks, and a spattering of other American vehicles could be found. What little time was available was used to teach the commandos to understand a few basic military commands in English, and how to say "yes, no, and O.K." Other important lessons included, how to chew gum, and how to open cigarette packs like an American.

While the lack of armor effectively eliminated any chance of Greif being able to capture and hold bridges, a number of jeeps did manage to infiltrate American lines. These jeeps managed to cause a fair amount of chaos in the form of a destroyed ammunition dump, cut phone lines, exaggerated reports of German strength causing US troops to retreat in panic, removed road signs, and false minefield flags. Ironically, it was not the successful commando teams that truly caused the greatest disruption, but the unsuccessful ones.

Some of Skorzeny's jeep teams were stopped and captured. Their interrogations caused a panic. On an already confusing front Americans were now asking each other trivia questions to determine who was and wasn't really an American. Roads were clogged as checkpoints were set up. Security around General Eisenhower became stifling after a commando "confessed" that teams had been assigned to assassinate him.

THE SIEGE OF BASTOGNE:

On December 22, the situation at Bastogne was grim. The city was surrounded. Rifle ammunition and food were in short supply, and artillery ammunition stocks were so low that each gun was rationed only a few rounds per day.

Despite the seemingly dire situation, morale in the city was high. It was known that reinforcements from General Patton were en route to lift the siege, and the army had promised to airdrop supplies as soon as the weather cleared. Morale was also kept high by the presence of the 101st Airborne Division. As an Airborne unit, the men of the 101st were trained for operating behind enemy lines, and their confidence permeated the town.



The city was controlled by Brigadier General Anthony McAuliffe, acting commanding officer of the 101st. McAuliffe was in command only because the 101st's normal commander had been recalled to the states for a conference. Nobody had ever expected the 101st to be needed for combat.

Just before noon on the 22nd, Two German officers and two enlisted men delivered an ultimatum under flag of truce. It read in part:

To The U.S.A. Commander of the encircled town of Bastogne:

The fortune of war is changing. This time strong German armored units have encircled the U.S.A. forces in and near Bastogne...

There is only one possibility to save the encircled U.S.A. troops from total annihilation: that is honorable surrender of the encircled town...

The message also included a two-hour time limit for a response after which:

If this proposal should be rejected one German Artillery Corps and six heavy A.A. Battalions are ready to annihilate the U.S.A. troops in and near Bastogne...

All the serious civilian losses caused by this artillery fire would not correspond with the well-known American humanity...

-The German Commander

After reading the surrender demand McAuliffe said "Ah Nuts!" and dropped the surrender demand on the floor. Some time later McAuliffe was reminded that the German messengers were still waiting for a reply.

"What should I tell them?" McAuliffe asked his staff.

"That first remark of yours would be hard to beat General." Remarked an officer.

Later an amused American Colonel named Harper delivered General McAuliffe's official response.

To the German Commander: Nuts! -The American Commander

Although fluent in English, the German officer who had delivered the message was unable to understand the reply. When asked if the response meant yes or no the Colonel Harper replied:

"If you don't understand what 'Nuts' means, in plain English it is the same as 'Go to hell'. And I will tell you something else, if you continue to attack we will kill every German that tries to break into this city.

To this the German officer merely saluted and replied, "We will kill many Americans..."

Without thinking at all, Colonel Harper responded "On your way bud, and good luck to you!" Harper could never explain what could possibly have possessed him to wish the Germans good luck...

Despite continued fighting Bastogne received its promised air drop the following day, December 23rd, and the siege on Bastogne was lifted on December 26th.

BIOGRAPHICAL MATERIAL

DWIGHT D. EISENHOWER 1890-1969



Future president of the United States, Dwight D. Eisenhower held rank as Supreme Commander of Allied forces in Europe at the time of the Battle of the Bulge. Eisenhower was granted full authority by both United States and Great Britain to prosecute the war. Eisenhower's swift deployment of reinforcements at the beginning of the battle was decisive in holding the Germans back. Eisenhower viewed the German offensive as a chance for the Allies to weaken German forces without having to deal with the massive defenses Germany had constructed along its border.

GEORGE PATTON 1885-1945



One of the most eccentric figures of the Second World War. Nicknamed "Blood and Guts", Patton was known for his aggressive style. Patton became famous after his success in the war in Africa. However, an incident where he had struck an enlisted man badly damaged his reputation. At the start of The Bulge Patton believed that the German offensive was just a diversion to draw troops away from his own planned offensive, and was reluctant to release the 10th armored division. However, after the full scale of the threat was realized, Patton saw the opportunities presented as clearly as Eisenhower did.

JOSEF DIETRICH



General Josef Dietrich commanded the 6th Panzer Army, tasked with spearheading the attack. Originally attached to Hitler's personal security detachment, Dietrich had no formal officer training, apparently achieving his rank because of their friendship. To make up for his lack of training Dietrich was supplied with a top rate command staff. Dietrich's 6th SS Panzer Army had only been formed a few months before the Ardennes offensive began. After the war, Dietrich was sentenced to life in prison for war crimes, however he was paroled in 1956.

BARON HASSO VON MANTEUFFEL 1897-1978



Hasso Von Manteuffel was given charge of the 5th Panzer Army in September on 1944. An experienced leader, having fought in both Russia and in Africa, Manteuffel openly argued against the grandiose plans for Watch on The Rhine. Manteuffel advocated a smaller more achievable offensive. Manteuffel's resistance to the plan was very dangerous at the time, given Hitler's state of mind after the July assassination plot against him. Despite his best efforts, Manteuffel was only able to effect small changes to this plan.



JOCHEN PEIPER 1915-1991



Lieutenant Colonel Jochen Peiper was the commander of Battle Group Peiper, the spearhead of Dietrich's 6th Panzer Army. Commissioned in 1936 Peiper developed his reputation as a tank commander on the eastern front, having participated in such battles as Kharkov and Kursk. Peiper was an SS officer with a record for brutality against civilians. During the Battle of The Bulge there were numerous incidents of units under Peiper's command refusing to accept the surrender of American troops, and in many cases killing civilians and prisoners of war. Peiper survived the war, and in 1946 was tried and sentenced to death for war crimes. His sentence was later commuted in 1951, and he was eventually paroled in 1956.

OTTO SKORZENY 1908- 1975



Skorzeny was an SS officer who became infamous for his daring and successful commando operations. The most famous of his operations were, the rescue of the deposed Italian dictator Benito Mussolini in 1943, and the arrest of the Hungarian regent Admiral Horthy after the admiral declared a separate peace with Russia. During the Battle of the Bulge Skorzeny was placed in charge of Operation Greif, a plan to put English-speaking commandos in American uniforms behind Allied lines. Skorzeny survived the war and was tried and acquitted for war crimes.

HARDWARE

M3 Half-Track



A half-track is a hybrid vehicle with two wheels in the front and tracks in the rear. The M3 HT usually mounted a machine gun in a ring turret. M3 were also effective as mortar carriers. While they do possess tank treads in the rear, half-tracks are very thinly armored and can even be damaged or destroyed by rifle fire.

M8



The M8 was a six wheeled armored car used often as a command vehicle. Well armed for such a light vehicle, the M8 mounts a 37mm gun along with two machine guns. The M8 is a wheeled vehicle, and thus lacks armor protection. The M8 must use its speed, as high as 55 MPH, to defend itself. A version of the M8 removed the turret and replaced it with a single ring mounted machine gun. This version called the M20 was used for both transport and as a command vehicle.

M5A1



The M5A1 was a fast light tank. Armed with a 37 mm gun and two machine guns the M5A1 is well suited for work against enemy light vehicles and infantry. However, its main gun is inadequate for anti-armor combat.

M24



A late model American light tank, the M24 is not quite as fast as the M5A1, but mounts a 75 MM gun and three machine guns. It also carried somewhat better armor than earlier American light tanks.

M4 Sherman



The workhorse American tank, there were almost 50,000 M4 produced. The M4 saw numerous variations as modifications and upgrades were made to the vehicle. The original M4 mounted a 75mm gun and three machine guns and had lighter armor than its German counterparts. The 75mm gun proved largely inadequate and most modifications centered around increasing firepower. Later M4 were upgraded with a long barreled, high velocity, 76mm gun; and some were even modified to mount a 105mm howitzer. Other modified versions, including a version designed to clear mine fields were also produced.

M7



Designed to provide self-propelled artillery support, the M7 tank mounts a 105mm Howitzer on a turret-less tank chassis. The M7 also has a machine gun on a ring mount. The M7 is slow and only moderately armored.

M10



Based on an M4 hull, the M10 mounts a 76.2 mm cannon in an open topped turret. It also carries a machine gun mounted on the rear of the turret. Aside from its open top, the M10 is reasonably well armored.

M18 Hell Cat



Although lightly armored, the American M18 Hell Cat mounts a high velocity 76mm gun. The M18 also boasts a powerful engine, and is one of the fastest armored vehicles of the Second World War.

M36



Similar to the M10, the M36 was an open topped armored vehicle intended for use against enemy armor. The M36 has a larger turret to support its 90mm cannon. The armor of the M36 is roughly similar to the M10.



Sd Ffz 234 Puma



The Sd Ffz 234 is a fast armored car that mounts eight wheels. Armed with a 50mm gun and a machine gun, the 234 is capable of damaging American tanks. However, like all light vehicles, the 234 is poorly armored.

The Sd Ffz 232 armored car is similar to the 234, but mounts only a 20mm gun. The 232 is used as a communication vehicle.

Sd Kfz 250/251 Half-Tracks



The German 250 and 251 Half Track series were commonly used as troop transports and support vehicles. Originally mounting a forwards machine gun and a second removable MG on a rear mount, the Half-Tracks saw numerous versions mounting various AT guns, rockets, and flame throwers.

Marder III



The Marder III was a hybrid light tank destroyer made from German chassis, but using captured Russian 76.2mm gun. It also carried a German made machine gun. The Marder III had an open top and almost no back armor to speak of making it particularly vulnerable to mortar and infantry attack. Despite appearance the gun is not in a turret but fixed forward.

Hetzer



The Hetzer was a light tank destroyer mounting a 75mm gun in a fixed forward position and a roof machine gun. Unlike the Marder III, the Hetzer enjoyed good armor protection and an enclosed roof. An interesting innovation was that the Hetzer's machine gun could be remote operated from the safety of the compartment.

StuG IIIG / StuH 42



Designed as an infantry support vehicle and, if necessary, a tank killer. The StuG III mounts a 75mm cannon mounted in the chassis as well as a machine gun. The StuG III is somewhat under armored for a tank destroyer. A more powerful version was later introduced, the StuH 42

which was utilized more as mobile artillery since it mounted a 105mm howitzer in place of the 75mm gun. The StuH 42 also mounted far better armor protection than the StuG III, 10cm in the front.

Mark IVG



Armed with a 75mm gun and a pair of machine guns, the Mark IV tank mixed good firepower, speed, and armor protection. Although somewhat outclassed by the German Panther, the Mark IV was easily a match for any American tank in the Ardennes.

Mark V Panther



Built in response to improvements in Russian tank design, the Panther tank is considered by many to be the best tank design of the war. Faster, and better armored than the Mark IV, the Panther makes maximum use of its long-barreled 75mm cannon.

Mark VI Tiger



The Tiger is a truly massive tank with front armor 10cm thick, and a powerful 88mm cannon. Capable of destroying many enemy tanks simply by blowing through their front armor; the Tiger was limited only by its slow ground speed and slow turret rotation. The Tiger also carried two machine guns for infantry combat.

Mark VIB Tiger II and King Tiger



Weighing in at a massive 70 tons, the Tiger II was the heaviest tank to see service in the Second World War. With 15cm of front armor the Tiger II can simply ignore most attackers, while its high-powered 88mm cannon and two machine guns flatten any opposition. Fortunately for the allies, Germany could only produce a few hundred Tiger II tanks before the end of the war.



Many of Germany's most successful tanks also saw conversion into tank destroyers. The JagdPanzer IV mounts a powerful 88mm cannon and a machine gun for infantry defense. The JagdPanzer IV is reasonably well armored for its role.

JagdPanther



Another successful conversion of a German tank into a tank destroyer, the JagdPanther trades its turret for an 88mm gun and thick front armor. Reasonably fast, the JagdPanther is an extremely well rounded tank destroyer.

JagdTiger



With front armor more than twice as thick as a Tiger, and a massive 128mm main gun, the only hope allied armored forces had to deal with the JagdTiger was to come in under cover and flank it. The allies were fortunate that Germany was only able to produce a limited number of



these deadly tank killers.

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