

COMBAT MISSION

**RED THUNDER**



BATTLEFRONT.COM

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## ■ INTRODUCTION

Few armed struggles have matched the scale or brutality as the conflict that commenced with Operation Barbarossa, and spread to engulf what has become known as the Eastern Front. At first, the German Wehrmacht's advance seemed inexorable, as their spearheads pressed further and further into the Soviet heartland. However, the Red Army juggernaut adapted and began to drive the invaders back, from the frigid outskirts of Moscow to the blasted remnants of Stalingrad. The initiative was forever tipped in the Red Army's balance after their decisive 1943 victory over the German Operation Zitadelle, known as the Battle of Kursk. In the spring of 1944 the Russians planned an operation that would eject the Wehrmacht from Soviet territory.

On June 22nd, 1944, the Soviets launched the single largest ground offensive that the world has ever seen: Operation Bagration. So massive was the attack that in just a few days the German Army Group Center effectively ceased to exist, leaving the Third Reich with roughly 400,000 casualties it could not replace. Soon after, the Soviets launched two other major offensives which nearly destroyed a second Army Group and cut off a third. By the end of the summer all Soviet territory was liberated, Romania and Finland knocked out of the war, Hungary invaded, the Balkans under threat, and the Baltic states all but cut off from the Reich. Germany, and its capital Berlin, were left within striking distance of the Red Army.

In *Combat Mission*, you are the commander on the ground in one of the most terrible conflicts to ever wrack the world. Can you lead your men to survival, or will they be yet another statistic of the Eastern Front?

## ■ WHAT'S NEW IN *COMBAT MISSION : RED THUNDER*

The base game of *Red Thunder* covers Operation Bagration from June to September 1944. Future expansions (modules and packs) will expand *Red Thunder* to include additional forces and equipment, and extend the timeline all the way to the Battle of Berlin in 1945.

*Combat Mission: Red Thunder* includes a wide array of historical German and Soviet equipment that was used on the Eastern Front... and this list will expand greatly as new Modules and Packs expand the scope of the game!

Equipment new to *Combat Mission* includes a host of Soviet equipment, including:

- T-34 -76 M1942, OT-34, T-34-85, IS-1, IS-2, and T-70M tanks.
- SU-76M, SU-85, SU-122, ISU-122, SU-152, and ISU-152 assault guns.
- M1895 Nagant revolver, TT-30 pistol, Model 1891 rifle, STV-40 rifle, PPSH, PPS-42, and PPS-43 submachine guns, the DP, DPM, Maxim 1910, SG43, and DShK machine guns.
- ROKS-3 flamethrower, PTRD anti-tank rifle, 45mm and 76mm anti-tank guns, 76mm infantry gun, 50mm and 82mm mortars, and the 37mm and 85mm anti-aircraft guns.

German formations include the Heer branch, encompassing Grenadiers, Panzer-grenadiers, and Panzer combat units. Soviet formations include the regular

Army and Guards Army units.

**Note:** A detailed list of new equipment and vehicles can be found in the Encyclopedia chapter. A detailed list of formations can found in the Editor.

## ■ GAME ENGINE VERSION 3.0

Version 3.0 of the Combat Mission game engine includes a plethora of new features and upgrades. Highlights include:

- Flamethrowers! An often-requested fan favorite, flame weapons are back, in both manpack and vehicle variants.
- Aircraft now roam the battlefield on their own initiative, without direction from the player or Forward Observer teams. Use them at your own risk!
- Anti-aircraft weapons now fire back at enemy aircraft, potentially forcing them to abort attacks or even destroying them.
- Soldiers can now ride on the top of many tanks and other armored vehicles.
- WEGO TCP/IP mode is now available (without replay functionality).
- Vehicles (such as trucks) set to Dismounted status in a formation will spawn a placeable ammo dump on the map, allowing dismounted infantry to replenish their ammunition.
- Spotters can now control only one Support Mission at a time.
- Automatic weapons have a more realistic and more varied rate of fire.
- Hit impacts to vehicles are now shown graphically as decals.
- Water animation for fording units.
- Two new camera control modes have been introduced in addition to the traditional Combat Mission controls: First Person Shooter (FPS), and Real Time Strategy (RTS). These new camera controls allow a player the choice to control the in-game camera in a way that is more familiar to other game genres.
- Command lines are back! Command and Control (C2) links can now be shown on the battlefield, allowing you to quickly determine whether subordinate units are in contact with their headquarters.
- Casualties are now shown in the Unit Info Panel for squads and teams, allowing you to more easily track what casualties a unit has incurred.
- Music can now be muted separately from other audio.
- AI Triggers! Trigger scripting grants powerful flexibility to the scripted AI for Combat Mission scenarios, allowing the AI to react to changing battlefield conditions and the player's actions.
- Target Briefly Command can now be set to a specific amount of time by repeated uses of the Command (similar to Pause)
- Large AT and Infantry Guns no longer incur a setup delay when being moved in Deployed position for short distances

The Readme files contain a full list of new features and tweaks to the CMx2 engine.



## ■ INSTALLATION & LICENSING

### ■ INSTALLATION FROM DISC

In order to install the Game, insert the game disc into the CD drive.

**(PC)** The Installation Menu should appear if you have CD Autostart enabled on your computer. Click on the “Install Game” option to begin the installation process. If you have CD Autostart disabled, or if the Installation Menu does not appear, please browse the contents of the disc and simply double-click on the file called “Setup.exe”. This will manually launch the game installer.

**(Mac)** For the Mac version, simply open the disc icon and copy the game application into a place on your hard drive (for example, the Applications folder).

### ■ INSTALLATION FOR DOWNLOAD VERSION

After you have successfully downloaded the Combat Mission: Red Thunder setup file, double-click on it to launch the installer.

**Note:** Battlefront.com now offers unlimited re-downloads, should you need them. But, nothing is forever, so you should still keep the downloaded installer file and backup/copy it somewhere safe (e.g. burn to disc, USB stick or external hard-drive) so you can reinstall the game later on.

### ■ LICENSE OVERVIEW

Combat Mission: Red Thunder is protected by an online activation system that helps us restrict the illegal distribution of the software with minimal annoyance and intrusion for the legitimate customer.

#### ■ HOW TO FIND YOUR LICENSE KEY

For *download and download&mail versions*, it is the same code that you used to download your game. You will find your license key saved in your online account at [www.battlefront.com/store](http://www.battlefront.com/store). After logging in, click on the “My Account” link from the top menu. If you forget your login, go to [www.battlefront.com/lostpw](http://www.battlefront.com/lostpw) to retrieve a new random password as well as your username in the same email. The username is called “User account” in the email.

For *mail delivery only versions*, the license key is printed on the product itself, usually on the back of the case or the game manual, sometimes inside the case or manual cover, depending on the product. You will NOT find the key for a mail delivery version in your online account! So please do not lose your license key label!

## ■ ACTIVATION / LICENSING

When you first run Combat Mission: Red Thunder, you will be prompted to activate your copy after the initial install. In most cases all you need to do is:

- a) *make sure the computer on which you have installed the game has an active online connection to the internet*
- b) *click "Play Now" in the product activation dialog window*
- b) *enter your license key into the correct field.*
- c) *hit the "Activate" button and wait a few seconds while your license authorizes.*

If you wish to install the game on a computer without internet connection, you must perform what is called a "Manual License Request".

**(PC/Mac)** After launching the game:

- a) *click on the "Manual Activation" button*
- b) *write down or memorize the Authorization Request Code presented to you*
- c) *on a computer that is connected to the internet, go to <http://www.battlefront.com/helpdesk>*
- d) *enter your License Key and the Authorization Request Code in the appropriate place*
- e) *once you receive it, write down or memorize the Authorization Code*
- f) *go back to the computer where the game is installed. Launch the game again and click on "Manual Activation". Ignore the Request code and click on the Next button. Enter the Authorization Code from step e above*

Off-line licensing is also a good workaround for online computers which experience problems with a firewall, router or proxy settings and cannot establish an internet connection to the activation servers.

## ■ ADDITIONAL ACTIVATIONS

Our End User License Agreement allows you to have the game activated on one computer and one backup computer. Our online activation system enforces this limit, but will allow you two additional activations without asking questions (so called "overflow activations"). These Overflow Activations are meant to be used when you switch to a new PC and would like to continue playing the game there.

**Note:** there is no way to "unlicense" a previously activated copy on a computer. Which has the advantage that you can't ever forget to do so :^)

In addition to the above 4 activations, you can add *one extra activation* to your key every 365 days.

**(PC/Mac)** Please go to [www.battlefront.com/helpdesk](http://www.battlefront.com/helpdesk) and request an ad-

ditional activation for your key by clicking “Submit Ticket”. Do not forget to tell us what your key is!

## ■ LICENSE ACTIVATION SUPPORT

Battlefront.com prides itself on customer service, and this continues with the implementation of the online licensing system. Please check out our Knowledgebase section which explains how online activation works in detail:

<http://www.battlefront.com/helpdesk>

If you ever need specific assistance, do not hesitate to email us with a description of your problem. We usually respond within 1 working day.

Please note: only the original Battlefront.com version of the game uses our Online Activation System. If you have purchased your game elsewhere (e.g. in a store), then you probably have the retail version of the game, which does NOT use our Online Activation System.

## ■ USEFUL SHORTCUT LINKS

The Installation program adds a number of useful links into your (PC) *Windows Start>Programs group* / (Mac) *game installation folder* by default, such as:

### ■ DIRECT LINK TO THE PDF MANUAL

The game documentation is included as an Adobe PDF (Adobe Reader required from [www.adobe.com](http://www.adobe.com)) file, and it can be accessed quickly from here.

### ■ ACTIVATE LINK

This is the shortcut link to activate your Module. You MUST run this for the first time after installation, and any time you need or wish to re-activate your module. This link is only used for activation, and once activated, you do not need to use it to launch the game.

### ■ VERSION CHECK LINK

This is a quick way to check for updates online. The link is pre-coded to know which version of the game you have installed, and will automatically inform you if any patches or updates for your specific game combination are available.

## TUTORIAL

This tutorial and the accompanying tutorial campaign, "Training Campaign", will teach you the basics of tactical warfare in the Combat Mission environment. If you are new to Combat Mission, we highly recommend that you follow this tutorial. If you are a Combat Mission veteran, you can safely skip the tutorial, although you may wish to play the campaign to familiarize yourself with Soviet equipment.

During this tutorial, your controls will not be restricted and you are allowed to command your troops as you see fit. With the exception of a few step-by-step instructions for tricky procedures, you should view this tutorial as more of a guide, instead of a rote series of steps to follow. There is a saying that "no plan survives first contact with the enemy", and that saying applies to Combat Mission as well! Because Combat Mission simulates the chaos of real battlefields, it is possible that through bad or good luck, events will deviate from the outcomes described in this text. In these cases, you will do what every good battlefield commander would do: adapt to the situation and follow the spirit of the tutorial instructions.

### "TRAINING CAMPAIGN" CAMPAIGN OVERVIEW

In Combat Mission, a campaign is a series of linked missions. Missions are single battles, and winning or losing them may change the course of the Campaign. At the end of the Campaign, all mission results are tallied up and the Campaign results are determined. You can typically lose some missions and still win a Campaign, or vice versa.

The Training Campaign is designed to teach you Combat Mission tactics as it gradually increases in complexity, and enemy resistance becomes more difficult. The campaign is four missions long. Here's a peek at what the missions offer:

Mission 1: "Training Day". Learn basic movement and combat commands on a practice patrol and firing range, as well as an introduction to calling for fire support.

Mission 2: "Assault on Hill 124". Learn the basics of the attack by assaulting a fortified German hill with a combined arms force of infantry, tanks, and artillery. Introduction to setup phase, victory conditions, and basic tactics.

Mission 3: "When Germans Attack". Defend your newly acquired hill from a German attack, then counter-attack and seize a nearby bridge. Introduction to defensive tactics, antitank guns, and fortifications.

Mission 4: "Final Assault". Combine the skills you have learned to assault and capture an important crossroads village as part of the Operation Bagration offensive. The Germans won't roll over this time, so be prepared to bring your A-game!

When you are ready to begin this tutorial, select "Campaign" from the main menu and select "Training Campaign", then select "Fight!" to start the campaign.

You will be asked to select a play mode and skill level. Combat Mission: Red Thunder (referred to from now on as ("CM:RT")) has two different play modes

available for campaigns: turn-based and real time.



Turn-based play (also known as WEGO) in Combat Mission allows the player to order commands and examine the battlefield at his leisure while the action is paused; once the player begins the turn however, the action will continue for 60 seconds without interruption. The player can replay the turn as often as they like, and, once satisfied, a phase of giving orders begins, and so on.

In Real Time, the action will be continuous and you can issue orders at any time; you can also pause the game by pressing the ESC key and continue to issue orders. Replay is not available in Real Time mode.

For this campaign you may select either play mode, but WEGO is recommended. You will be prompted at the start of every mission in the campaign to choose a play mode.

Select Veteran skill level. Skill level primarily affects Fog Of War (FOW) and artillery support. The higher the skill level, the less you will know about enemy units and the longer it takes for fire support, such as artillery, to arrive.

After you have selected your play mode and skill mode, (WEGO and Veteran recommended), left-click "OK".

You will now be given the campaign briefing. This briefing will inform you of the entire campaign's scope and details, aided by an assortment of maps. Left-click "OK" to move to the first scenario of the campaign. After the loading screen, you will again find yourself at a briefing screen, this time for the first mission. You should read all briefings carefully for information that may be vital to your mission, but with a glance at your maps you can glean the basic facts.



## MISSION 1: TRAINING DAY

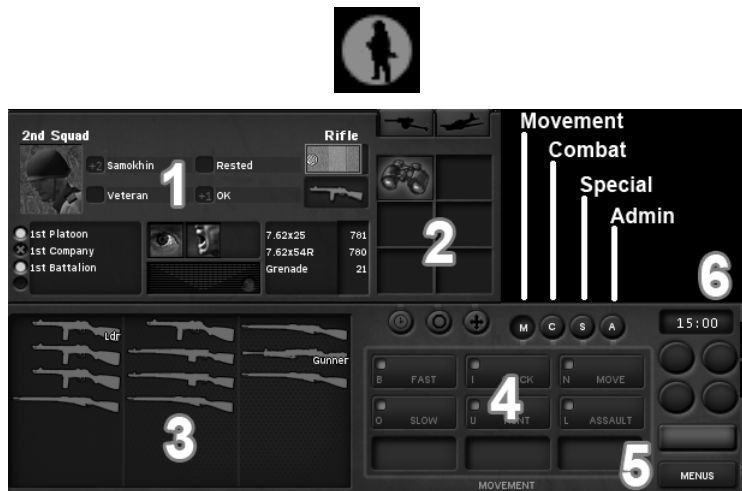
When you are done reading the briefing, press "OK" to enter the mission. If you wish to revisit the briefing, you can always find it by left-clicking on "Menus" in the lower right-hand corner and then "Briefing".



## THE USER INTERFACE

Upon entering the mission you will be greeted with a view of your troops on a road. Before you begin to give them commands, take a moment to become accustomed to the interface. Most of the screen is occupied by the view of the battlefield, with the user interface located along the bottom of the screen. Select one of your squads by left-clicking on the round green icon that floats above them (the squad icon will look like a soldier, the image to the right). The interface below will then be populated with specific information on that unit.





On the left is the Unit Info Panel(1), where you will find basic information about the selected unit, including what type of unit it is, its name, experience, ammunition levels, and so on. The next box to the right (2) shows what special equipment the unit is carrying, such as binoculars, Panzerfaust, and demolition charges.

The center panel, called the Team Info Panel (3), gives detailed information about each soldier in the squad, such as what weapon he is carrying, whether he possesses a specialty skill, and whether he is wounded. Each column represents a different team within the squad.

The panel furthest to the right (4) is the Command Panel. Here you can select Commands to give to the selected unit. The Commands are separated into four tabs by function: Movement, Combat, Special, and Admin. Move between tabs by either using the hotkeys F5-F8 or by pressing the buttons above the panel: M for Movement, C for Combat, S for Special, and A for Admin. You can also bring up a pop-up list of Commands by pressing the Spacebar. In this mission we will only be concerned with the Movement and Combat tabs. Don't worry about what all the Commands mean just yet; we will get to them later.

At the bottom-right of the interface (5), you will find the Menus button. Left-clicking this button will bring up various game menus, such as the mission briefing, a list of hotkeys, a save game function, or an option to exit the mission. The buttons to the right (6) will advance the turn, pause the game, and control the replay feature in turn-based play mode. The white numbers underneath the red button tell you how much time remains before the mission ends.

Take some time to explore the interface. Some of the interface elements will generate tool-tips if you hover your cursor over them. You should also take a look at the Hotkeys window within the menu options (5). If you ever want to know more about the equipment displayed in the User Interface, such as rifles

and tank models, you can consult the Encyclopedia chapter of this manual. Your troops are almost ready to begin their training, but first you must learn how to use the camera.

## ■ USING THE CAMERA

CM:RT features a precision camera for viewing the detailed 3-D battlefield from any angle or position. Because this camera is much more flexible than those found in most games, it is controlled differently, so it may take some practice for you to smoothly move around with it.

There are three different camera modes that you can use to move around in the game: Standard, First Person Shooter (FPS), and Real Time Strategy (RTS). Each mode controls the camera differently: FPS and RTS each use a control scheme similar to games of that genre, while Standard is the traditional Combat Mission control scheme. Standard is the default active camera control mode when the game is installed, so you will learn how to use Standard in this tutorial. However, it is highly recommended that you experiment with the other control modes and pick one that suits your preferences. You can change your camera controls by selecting "Options" in the main menu and then selecting "Controls", then left-clicking on "Camera Config".

The Standard camera controls can use either the mouse or keyboard (or both) to control the camera.

To pan the camera (i.e. move it forward, backward, left, or right across the battlefield):

- Mouse: Press and hold the left mouse button and drag the mouse. The camera will pan and follow your motion. The further you drag the mouse, the faster the camera will move.
- Keyboard: Use the W, A, S, and D keys to pan the camera. Press and release to make small incremental adjustments, and hold the keys down to pan the camera quickly.

To swivel the camera (i.e. change which direction it is facing: left, right, up, or down)

- Mouse: Press and hold the right mouse button and drag the mouse in any direction. The camera facing will follow the motion of the mouse. Once again, the further you drag the mouse, the faster the camera will turn.
- Keyboard: Use keys Q and E to rotate the camera to the left and right.

To change the altitude of the camera (i.e. how close it is to the ground):

- Mouse: Scroll up or down with the mouse wheel to raise and lower the camera.
- Keyboard: Use key R to raise the camera and key F to lower the camera.

Other useful controls:

- You can jump to preset altitudes by pressing keys 1-9. Keys 2, 3, and 4 are often the most useful
- CTRL-left clicking on the ground will instantly jump the camera to that point. This is useful on large maps where you can avoid panning for long distances.
- Pressing V will flip the camera view around 180 degrees.

- The camera can be zoomed up to 20.0x. Press X to zoom in, and Z to zoom out. Some useful tips for controlling the camera:
- It is important to know where your cursor is on the screen, because the sensitivity of these changes decreases as the cursor approaches the edge of the screen. To move quickly, click your cursor in the center of the screen; to make small adjustments to the camera, click your cursor when it is nearer to the edge of the screen.
- You can also move the camera by touching the edge of the screen with the cursor. The camera will quickly pan in that direction.
- It is best to make slow dragging motions with your mouse when moving the camera.

Being able to move the camera around the battlefield quickly and precisely will be important to your battlefield success. Be sure to practice the controls described above throughout the mission.

### ■ SELECTING UNITS

A unit in Combat Mission is a vehicle or a group of soldiers that receives commands and act together as a group. Soldier units are typically either teams of 2-7 men or squads of 2-3 teams. When you give a command to a squad unit or team unit, all of the soldiers in that unit will carry out the command. Vehicles are always a single unit. Each unit is marked with a floating icon that floats above it on the battlefield.

To select a unit, left-click on its floating icon, or on any of the soldiers in the unit. The floating icon will blink and pulsing green circles will appear underneath the soldiers. To select a group of units, press and hold the Shift key, then, while holding down the left mouse button, drag a box around the units you wish to select. In this manner, you can give multiple units the same movement or targeting command. You can also select all of the units within a small formation, such as a platoon, by double-clicking on the floating icon of any of the units in the platoon. This will automatically select all of the units belonging to the platoon.

### ■ Move Out!

Your first objective is to move your platoon to the objective labeled "(1) Farmstead". The objective is signified by white text floating above neon green tinted ground. To fulfill this objective you must move a unit onto this zone.

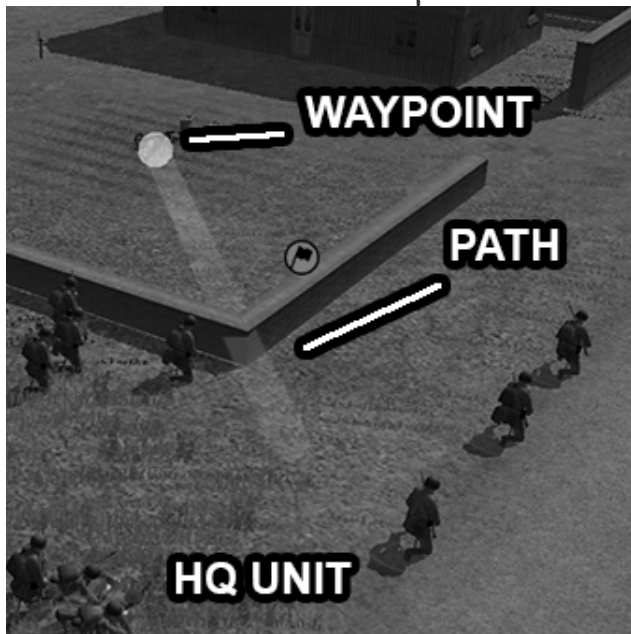
1. Select your platoon headquarters (HQ) by left-clicking on the floating icon that resembles a flag.



2. Ensure that the Movement tab is open by pressing the F5 key.
3. Left-click on the Move command button and then left-click on the green

ground inside the objective.

**Note:** A white ball will appear at this point with a colored line connecting the HQ unit to the point. This white ball at the destination is known as a Waypoint, and when the action starts the soldiers will move themselves to this point.



4. Right-click anywhere on the screen to end the order.

**IMPORTANT:** If you mess up an order and want to re-do it, press the Backspace key to delete the last waypoint.

Repeat this process for your two rifle squads following the HQ. Assign them Move commands to anywhere in the objective area. You can move troops into buildings by simply left-clicking on the building. When you give a movement order to the building, a prompt will pop up asking you to choose which floor you want to move the unit to. Try moving one of your rifle squads into the building; you will know that you have successfully set a waypoint in the building if the building turns translucent while the rifle squad is selected.

**Note:** Press Alt-P to activate Show All Move

**Paths:** this will allow you to see other units' movement orders when you have a unit selected.

Your orders for this turn are complete! When you are ready to watch the action, left-click the red button in the lower right-hand corner of the screen.



You will now watch for sixty seconds as the game plays. Remember, you will not be able to modify or give any new orders until sixty seconds have elapsed. The Move command orders soldiers to walk at a relaxed pace, without undue regard for potential enemy activity. This command is useful for moving units long distances without tiring them out.

You will notice that, as the first soldiers move over the green-colored objective space, the green coloration disappears and a message informs you that your unit has reached the objective. This is a "Touch" objective, and entering it once will award you victory points; you will not have to occupy it for the entire battle. All of the objectives in this mission are Touch objectives. In contrast, "Occupy" objectives require you to keep troops inside the green zone to earn victory points.

You can either watch your troops move for the full sixty seconds, or you can left-click the red button to end the replay phase immediately and skip to the next turn. If you watch the full sixty seconds, you will see a "DONE" text pop up, at which point you should left-click the red button to enter the next turn. You will then be back in Command Phase and can give your units fresh commands, or modify pre-existing ones.

### ■ QUICK MOVE COMMAND

Your patrol is behind schedule! Issue your platoon a Quick movement command to the objective "(2) Forest". Remember, after you've set down the Quick command, right-click to end the order. Your men will now run at a slow jog, much faster than the previous Move command. The extra speed will come at a cost, however. The faster your men move, the less aware they are of their

surroundings, and the more likely the enemy is to spot them.

**Reminder: If you mess up an order and want to re-do it, press the Backspace key to delete the last waypoint.**

After issuing your orders and beginning the action, you will notice that your troops automatically move around obstacles in their path, such as the tall wall next to the farmstead. Units usually do not follow your commands precisely, and will alter their path as needed to avoid obstacles and take advantage of terrain.

### ■ FAST MOVE COMMAND AND FATIGUE

It's time to see how fleet of foot your men are. Issue the platoon a Fast movement command to the "(3) Field" objective and start the action. The soldiers will now move in a fast run, covering a lot more ground in one turn. Fast is useful if you need to get somewhere very quickly without stopping for any reason. Running across streets that may be covered by enemy fire is a good situation to use a Fast Command. However, it comes at a cost: fatigue.

After the turn has ended and you have entered the next Command Phase, you will notice that your squads display "Tiring" or "Tired" in the left-hand Unit Info panel of the interface. They have become fatigued from running and may have to rest before they can use the Fast command again. As long as they do not move too quickly, the unit fatigue level will improve over a number of turns as the soldiers catch their breath. Be careful to not run your troops too hard before they enter into combat with the enemy, or they may wind up being too tired to fight or move effectively!



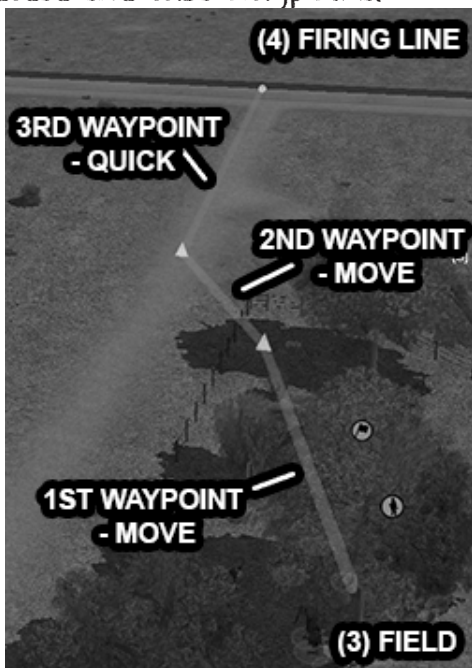
### ■ MULTIPLE WAYPOINT COMMANDS

To conclude the patrol, you will move your platoon to the objective "(4) Firing Line" for some target practice. However, this time we will give them multi-waypoint orders. Select one of your units and give it a Move command to the fence between them and the objective. However, instead of right-clicking to end the order, left-click a bit further ahead, onto the road running alongside the fence. A second line and waypoint will appear. Right-click to stop giving Move commands. Now select the Quick command, and left-click on the "(4) Firing Line" objective, just next to the short wall running along



the objective. Right-click again to stop giving commands. Repeat this process for the other units, and mix up the command types if you want to experiment.

**Reminder:** If you mess up an order and want to re-do it, press the Backspace key to delete the last waypoint.



Advance the turn. Your units will move to each of the waypoints in the order they were laid down. At each waypoint (the white pyramid-shaped joints connecting the colored lines), they will change movement speeds as commanded, so you will see your troops move from a walk to a jog as they arrive at the waypoint that separates the Move and Quick commands. You'll also notice that waypoints are color-coded to the type of command they use: blue for Move, yellow for Quick, orange for Fast, and so on. You can edit the movement command used by an already existing waypoint by left-clicking on the colored line and selecting a new movement command. The color of the line will change to match the new command. Left-click anywhere on the screen to stop editing the waypoint.

You can combine multiple waypoints and movement commands in as many combinations as you want. Multiple waypoints are especially useful when following terrain features such as curved roads. You can adjust the location of waypoints after you place them by left-clicking the waypoint and then

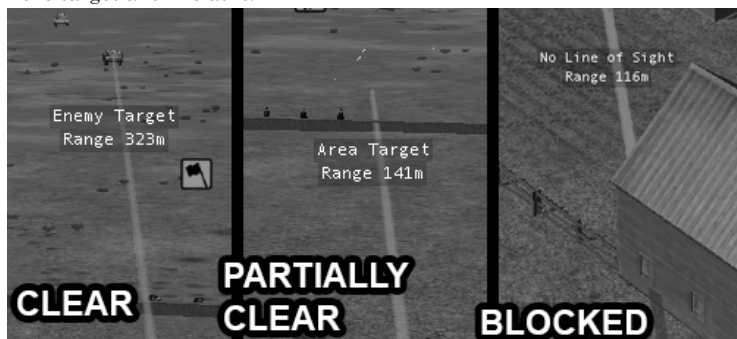
dragging it across the map.

### TARGET PRACTICE

It will take two or three turns for your troops to reach the objective, depending on how fast you move them. When they reach it, they will automatically align themselves along the wall, spot targets, and begin shooting. Don't panic when you see the Axis tanks appear; they are harmless target dummies.

### COMBAT COMMANDS

For the most part, your troops will intelligently select their own targets without any need of commands from you. However, sometimes you will want to specify a target for your units. Select one of your units and open the Combat command panel (hotkey F6). Left-click on Target, then move the cursor onto the map. A line will be drawn between your unit and the cursor's location. This line indicates your line of fire (LOF) and the distance to the target in meters. If the line is light blue, you have a clear LOF and can fire at the target. If the line is dark blue and pink, then the line of fire is blocked somewhere along the way and you cannot fire at the target. A grey line means that you can issue a fire order, but not all of the soldiers in the unit can see the target and fire at it.



Left-click somewhere on the wall that German troops are hiding behind to designate it as a target, then advance the turn. Your unit will shoot at it until you order it to stop by using the Clear Target order in the Combat command panel.

You can also order a unit to fire at a specific enemy unit by left-clicking the Target command and then left clicking on either the enemy unit itself or the floating icon above it. Your unit will then attack it until it is destroyed, out of sight or range, or your unit is no longer capable of firing.



Issuing a Target order against the ground or a building will order the unit to perform what is known as Area Fire. The unit will fire at the terrain without knowing whether it is hitting any enemy units or not. Area Firing units will spread their shots around to cover the nearby terrain, and will automatically switch to target enemy units if they appear in the nearby area.

**Note:** The Clear Target command does not tell a unit to stop firing altogether, it just tells the unit that they are no longer required to fire at the target previously specified. If Clear Target is used, the unit will return to firing at will on its own targets.

#### ■ MORE TOYS!

If you look to the southeast, you should notice that reinforcements have arrived. A platoon of T-34 tanks have appeared on the road. With these vehicles, you have some real firepower! Move the tanks up to the firing line and let them shoot for a turn. They will automatically begin firing at the enemy tanks, changing targets as each is destroyed.

Tanks and other vehicle units are usually equipped with not only a main gun, but also secondary machineguns. Although vehicle units will usually choose the most appropriate weapon to engage a target with, you may want to save main gun ammunition by not wasting it on low-threat infantry targets. Giving vehicle units a Target Light command from the Combat command panel tells them to engage a target with secondary weapons only, such as machineguns. Try giving one of your T-34s a Target Light command aimed

at the infantry targets.

Sometimes you will want your units to focus their fire in a specific area. The Target Arc command was made for this purpose. A unit with a Target Arc command will usually attack only enemy units that are located in the designated area, unless it feels immediately threatened by an enemy outside its arc.

Select one of the T-34s, then open the Combat command tab, and then left-click the Target Arc command. By left-clicking on the map twice, make a small highlighted arc in front of the tank.



You can use the Clear Target command to erase the Target Arc command. The tank will then continue to fire at targets, but it will no longer be constrained by the Target Arc command.

An alternative to Target Arc is Target Armor Arc. It functions the same as Target Arc, except that a unit with this command will only engage enemy armored vehicles within its arc, and will leave soft targets like infantry alone. This is useful if you do not want your anti-tank weapons to reveal themselves too soon against enemy scouts.

## ■ End

You have now completed all objectives for the mission. When you are ready to move on to the next battle, select "Cease Fire" from the Menus tab. This will end the scenario. Press "OK" to move past the After Action Report (AAR) screen to the next scenario (we will address the AAR screen in Mission 2).

At this point, you will be prompted to save your campaign progress. You should always make a unique save file at the beginning of every mission in a campaign; you might want to backtrack or replay a mission.

**Note: Combat Mission DOES NOT MAKE AUTOSAVES. Always save between missions or before exiting a mission in progress!**

## ■ **MISSION 2: ASSAULT ON HILL 124**

Before moving your troops, be sure to thoroughly read the briefing. Briefings will give you valuable information that will help you complete your mission, such as information on what reinforcements may be arriving, disposition of enemy forces, and what your objectives are.

After you read your briefing and enter the mission, you will be greeted with a view of your forces on the map: two scout teams, a platoon of infantry, a machinegun platoon with two machineguns, a company HQ, and two BA-64B scout cars. In ten minutes, you will receive a platoon of T-34 tanks as reinforcements. In the meantime, you will use your starting force to scout ahead and then begin the attack. When your tanks arrive, you will be able to commit them where they are needed most.

### ■ **SETUP PHASE**

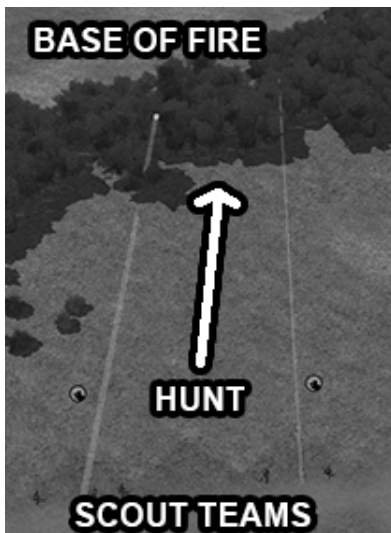
Setup Phase is a special phase that occurs at the beginning of every scenario. You will notice that the ground underneath your troops is tinged red. During this time the battle is paused and you may arrange your forces around the setup zone instantly. There can be up to three different setup zones present per side in any battle. A unit placed within a setup zone must start the battle somewhere within that same setup zone. A unit that is not in any setup zone is locked in place until the battle begins. During Setup Phase, you can give all units starting orders for the first turn, which they will immediately execute when the battle begins.

For this mission you don't need to move your units in the setup zone, but you can rearrange them if you wish.

### ■ **RECONNAISSANCE**

The terrain ahead of you is open ground interspersed with wooded areas. Although it is certain that the main defenses are Hill 124, the enemy likely has defenses established elsewhere on the map. You will have to find out where the enemy is, or you may get ambushed! The first step is to send your scout teams forward to conduct some reconnaissance and get an idea of where the enemy is. The ideal observation post contains concealment, such as foliage or buildings, to hide you from enemy eyes and is higher in elevation so that as much of the map can be observed as possible.

Select the scout teams (their floating icon looks like a silhouette of a man peering through binoculars) and give them a Hunt movement command to the objective named Base of Fire. The Hunt movement Command will tell them to advance at a cautious pace, with weapons at the ready. If any enemy is spotted or they are fired upon, the units will stop moving immediately and await further orders. Hunt is a useful command when you don't want a unit to overextend itself and run into trouble.



Note: the woods here can be dense, making it hard to see the ground. You can temporarily toggle off the appearance of foliage by pressing Alt-T. By cycling through Alt-T you can either make foliage completely invisible to you or make only foliage near your camera invisible.

You should also give the scout teams a Cover Arc command so that they do not fire on distant enemy troops and give their positions away: for now, their job is to find the enemy, not kill him. Holding the Shift key while placing the arc will allow you to place a full circle Cover Arc. Set the circle at about 50 meters or so, so that your men will defend themselves against nearby enemies, but won't start shooting at distant targets. It will take a couple turns for the two scout teams to reach their destination.

Leave the rest of your units in place; the job of your scouts is find out where the enemy is (or isn't!) so that you will have a better idea of where to send the rest of your forces.

Once your scout teams arrive at their objective, leave them in place for a couple turns to let them take a look around. Depending on where exactly you send them, they may get shot at. If this happens, they will stop moving and go to ground, since they are using the Hunt command. As long as your scout teams stay in the woods and stop moving, the enemy will quickly lose sight of them and stop shooting.

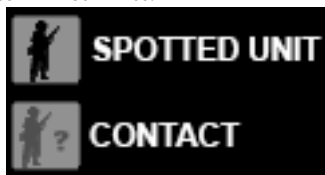


## ■ SPOTTING AND CONTACTS

Once your scouts are in position, you will start to see some enemy (grey-colored) floating icons appear. The act of your units seeing enemy units is known as spotting.

Spotting is a rather complicated affair in Combat Mission, but basically consists of seeing confirmed enemy units, which are signified by a floating icon that can be selected, and contacts, which appear as floating icons with question marks. A confirmed enemy unit is straightforward: at least one of your units can see it, and confirm its basic type, such as a soldier, an anti-tank gun, or a vehicle. Your units will automatically fire upon these units as they see fit.

Contacts, on the other hand, are merely possible enemy units: your units think there might be something there. Your units will not automatically fire at contacts. The opacity of a contact will tell you how confident your troops are that something is there: a very translucent contact is less certain than one that is fully opaque. Contacts can be upgraded to confirmed units over time, by moving closer to the contact, or if the enemy moves or fires at your units. Units that move or fire are much easier to spot. Contacts can also be the last known location of confirmed units.



Unlike the "Borg" spotting seen in most games, where once spotted a unit is automatically seen by every enemy, units do not automatically share their spotting with all friendly units: this is known as relative spotting. For example, if one of your units spots an enemy anti-tank gun, a nearby unit might not see the same anti-tank gun at all! The unit will have to spot the anti-tank gun on its own, or have the information passed to it through the C2 network. You can tell which of your units can spot an enemy unit by clicking on the enemy unit icon. Your units that have currently spotted and confirmed it will have highlighted icons.

You may have noticed that right at the start of the scenario some contacts were visible: this is known as pre-battle intelligence, and tells you the location of some enemy units at the beginning of the scenario. You, or your opponent, may receive this bonus. Whether a side receives pre-battle intelligence and how much will vary based on the scenario.

## ■ ARMORED CARS

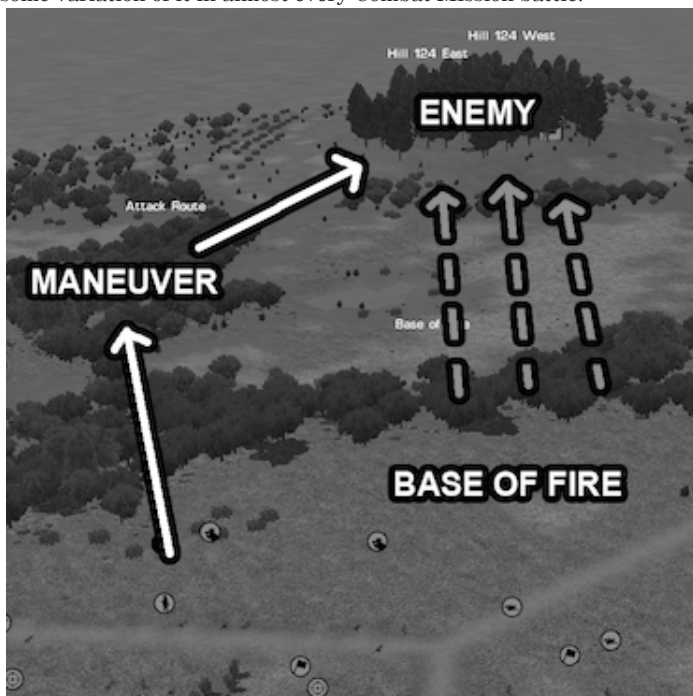
Once that you have determined that there is not, in fact, a battalion of Tiger tanks around the next bend, you can move your armored cars up. Move the two BA-64B scout cars forward using the Hunt command so that they will stop moving forward if fired upon. Scout cars are fragile and easily destroyed or damaged, so you do not want to let them get close to the enemy. If you detect that a heavy weapon is firing on your vehicles, use the Reverse movement

Command to get them out of trouble. You may lose a vehicle to a distant anti-tank gun if you move too aggressively. With luck, however, you may get an idea of where that gun is located.

### ■ FIRE AND MANEUVER – BASE OF FIRE

The opposing force occupies a dominating position on the hilltop, protected by trenches and with clear ground all around them. In order for your infantry platoon to most effectively assault the hill, you will need to suppress and destroy the defenders as much as possible before your infantry try to attack the position. To do this you will split your forces into two groups: a base of fire group and a maneuver group.

The base of fire group usually consists of heavy weapons such as machine guns and mortars. As luck would have it, your platoon has two SG43 machine-guns. Their job is to fire constantly on the enemy positions and keep them ducking. Once the enemy is suppressed by your base of fire, the maneuver group moves in and attacks at close range. You will use this basic tactic or some variation of it in almost every Combat Mission battle.



You will begin by moving the machine gun teams and their HQ up to join your scouts at the objective Base of Fire. You can tell which HQ is theirs by selecting one of the machinegun teams and looking for the flag-shaped floating icon that is highlighted.

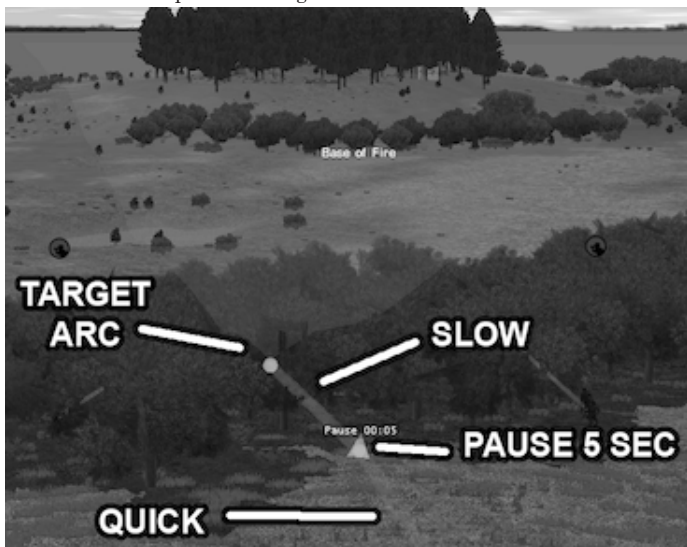


### ■ **ADVANCED COMMANDS**

We will use this movement as an opportunity to learn some advanced commands. Select one of your machinegun teams. Open the Movement command tab (hotkey F5), select Quick, and place a waypoint towards the Base of Fire. The destination should be at the wood line; use the next picture as a guide.

Select the Quick movement waypoint by left-clicking on the colored line. The line will highlight, indicating that any orders you give will edit the waypoint. Open the Special commands tab (hotkey F7), and select Pause. A five second counter will appear above the waypoint. Once the unit reaches the waypoint, it will wait five seconds before moving on to the next waypoint. Left-clicking the Pause order repeatedly will increase the length of the pause and eventually remove it. Set Pause to 5 seconds (00:05) and left click anywhere on the screen to deselect the waypoint.

What you have just done is stack commands. A waypoint can contain one command each from the Movement, Combat, and Special command tabs. Stacking commands allows you to dictate very sophisticated orders to your units. The next waypoint you plot will contain a Movement and Combat order stacked on it. Refer to the picture as a guide.



Ensure that your machinegun team is still selected and that the first waypoint is not highlighted. Open the Movement command tab and select Slow. Slow orders your units to crawl on the ground. This movement command is very

slow and tiring, but allows for maximum protection and concealment. Left-click anywhere inside the Base of Fire objective to order them to crawl to it. Next, select the Slow waypoint by left-clicking on its line, open the Combat command tab (F6), and give the unit a Cover Arc that covers Hill 124. Notice that the orange arc comes out of the waypoint, and not the current position of the unit. The unit will adopt this covered arc as soon as it reaches the waypoint.

To summarize your units orders, they will Quick move up to the wood line, pause for five seconds, Slow move (crawl) to the Base of Fire, then adopt a Covered Arc covering Hill 124. Whew!

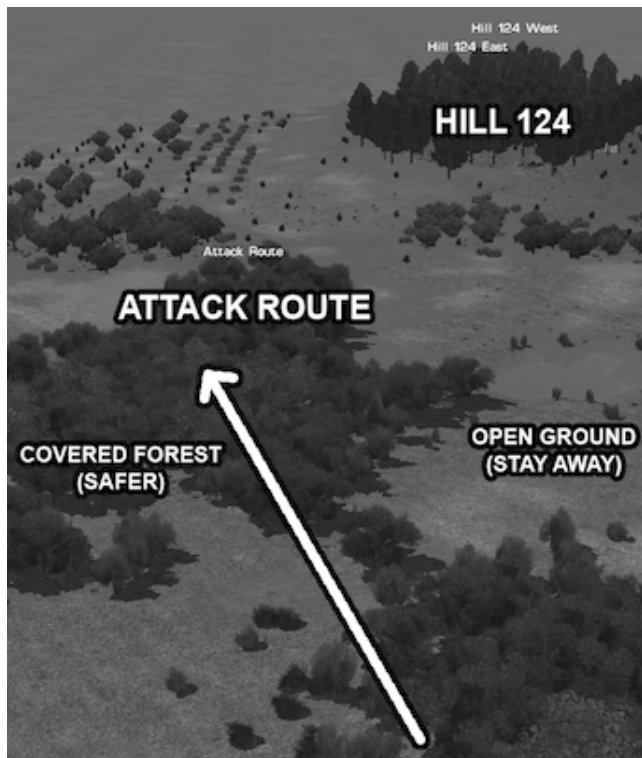
Repeat these instructions (or mix it up with your own commands) for the other machine gun team and their HQ team. You should also move the "1st Company HQ" and their attached sniper to the Base of Fire objective. Again, you can tell which sniper team is directly attached to an HQ by looking for the highlighted icon.



It will take about two turns for your machineguns to get into position. Once in position, your units on Base of Fire will spot and shoot at enemy targets. German machine guns are high priority targets and should be destroyed or driven away. You will definitely not want them operational by the time your assault closes!

### ■ FIRE AND MANEUVER – MANEUVER

With your base of fire set up, it's time to move your assault force into position. They will have the unenviable task of assaulting Hill 124. The hill is mostly surrounded by open ground, except for the wooded area by objective Attack Route. This wooded area should give your soldiers the cover and concealment they need to get as close as possible to Hill 124 without incurring devastating enemy fire.



Move your rifle platoon (the infantry still sitting at your setup zone) to the Attack Route objective. Avoid exposing them to observation/attack from Hill 124 by travelling behind or through trees. Once you reach the wood line, use Assault movement commands to travel to the Attack Route objective. When using the Assault command, squads will move alternately in small groups of men and engage the enemy on the move, making this order time consuming but very useful when closing with the enemy to destroy them. Remember, if you have trouble seeing around the trees in this area, you can temporarily toggle them off visually by pressing Alt-T.

**Note:** The Assault movement command is only available to squads which have multiple teams. Individual teams will not be able to use Assault.

#### ■ COVER AND CONCEALMENT

Understanding the distinction between cover and concealment is very important. Cover comprises obstacles or terrain that will physically stop enemy fire. A

bunker, a trench line, or being behind a hill are good examples of cover. A unit inside/behind cover will be harder to hit for the enemy. Concealment only prevents a unit or soldier from being spotted by the enemy; concealment provides no or very little protection from projectiles. Laying prone in a wheat field or hiding in bushes are good examples of concealment.



Most terrain provides some degree of both cover and concealment. The wooded area around the Attack Route objective provides excellent concealment and fairly good cover, which is why your soldiers are using it to approach Hill 124. The enemy trench line position on Hill 124 has good cover due to the trench line, but not much in the way of concealment due to a lack of dense foliage. In general, you should try to occupy terrain that offers both excellent cover and concealment, but circumstances may dictate that you only take one or the other.

Continue to send your assault towards the Attack Route objective. When they arrive, you should position your rifle platoon along the edge of it, facing Hill 124.

### **■ SUPPRESSION AND MORALE**

As your troops exchange fire with the enemy, you will notice that some of them will curl into a fetal position and not do much of anything that is useful other than trying to survive. You are witnessing the effects of suppression. People quite reasonably do not like being shot at or blown up and, if pushed hard enough, will begin to value conserving their lives over following your orders.





Each unit's morale status can be seen in the Unit Info Panel. A colored indicator (the colored fan) tells you how suppressed the unit is. The more intense or accurate the enemy fire, the higher the level of suppression will be, and the more likely the unit will sustain unfavorable penalties. Taking casualties will cause even higher amounts of suppression. Moving a unit away from enemy fire (or stopping the enemy from shooting at it) will allow the suppression to wear off and the morale state to eventually improve.

Always monitor your troops' suppression levels throughout the battle and try not to push them too hard. If a unit receives a large amount of accurate enemy fire, it may become "Pinned", where it is still in relatively good order but will ignore your movement commands. You can lose control of your units even further if their morale continues to drop. If the unit's morale state is enclosed by a red box then the unit is so demoralized that it will not respond to your commands at all. The unit may even run away or surrender to the enemy! If a unit's morale becomes seriously degraded, it may become "brittle", incurring a significant morale penalty for the rest of the battle. If a unit becomes brittle, the light next to the suppression meter will light up.

How much suppression a soldier or vehicle can take depends on its Motivation. A unit with high Motivation will be able to receive more enemy fire before becoming suppressed than a unit with poor Motivation. A unit with high Motivation will also rally faster after being suppressed.

## ■ HEADQUARTER UNITS AND LEADERSHIP



By now you have probably begun to wonder just what the HQ units with flag icons are good for. These units contain your leaders. Usually, every section, platoon, company, and battalion possesses an HQ unit. Leaders fulfill two very important functions: they exert a leadership modifier on their subordinate units, and link units to the Command and Control (C2) network.



If you select your platoon leader, you will notice a "+1" next to his name in the unit information panel (1). This means that he exerts a positive leadership bonus on all units under his command. The details of what this bonus entails are intentionally murky, but the gist is that units under his command will perform their jobs better than units under the command of a leader without a bonus. Leaders may have a -2, -1, 0, +1, or +2 leadership bonus; yes, that means that you can even get bad leaders! But that doesn't mean you should hide your less than stellar leaders in a corner somewhere, because HQs are always vital in maintaining C2 links.

In the lower left corner (2) of the Unit Info Panel you will see what organizational C2 levels the unit is linked to, and whether they are currently connected to them. A green dot means that they are connected, and a red dot means that they are not. If they are connected, then information and leadership bonuses can be shared. How efficiently this sharing happens depends on the type of C2 established (3).

In order for a leader to exert his influence over his subordinate units, he must have command of them. In the World War 2 setting, radios were relatively rare below the platoon or company level. In the game, this usually means that a leader must be within visual signaling or shouting distance of the unit he is seeking to influence. This is usually about 50 meters but will vary dramatically with the terrain; the more dense the terrain, the closer your HQ unit must be to have command of his troops. Note that most armored fighting vehicles use radios to stay in command and don't need to stay within a short distance of each other.



(Note: The third empty C2 space is for communication technologies only available in modern warfare games such as *Combat Mission: Shock Force*, so in *Red Thunder* this square will always be blank)

What does this mean for you in the current scenario? Keep your HQ unit near your squads as they assault Hill 124. The leader will confer his leadership bonus to them, and they will most likely need it.

### ■ VEHICLES

By the time your rifle platoon has reached the Attack Route objective, you should have received reinforcements: one platoon of three T-34-85 tanks. Now you have some real firepower! These tanks are heavily armored, making them impenetrable to normal firearms and machineguns, and very well protected against light cannons. However, German infantry possess Panzerfausts and Panzerschrecks, hand-held rocket weapons that can destroy any Soviet tank. For this reason you should be cautious about moving tanks too close to enemy infantry.

Vehicles have some special commands unavailable to soldiers. Open the Special command tab (hotkey F7). The Bail Out command orders a vehicle crew to exit the vehicle. There aren't many circumstances in which you will use this command. A more commonly used command is Open Up, which tells the vehicle crews to open their hatches and poke their heads out. For tanks, this means just the vehicle commander sticks his head out of the vehicle. Open Up dramatically improves the spotting ability of tanks, but the tank commander will become a priority target to enemy infantry. Although the tank commander will button up if shot at enough, it's a risky proposition to get within rifle range with an opened up tank.

You will also notice that the Team Info Panel in the center of the UI strip has been replaced with a new panel that provides detailed information on the selected tank.



From left to right:

1. Shows the status of the vehicle crew.
2. Describes the vehicle type and main weapon, as well as passenger capacity. Blue dots are crew members, and grey dots are open passenger "seats". Green dots are passengers.
3. Provides some basic comparisons on vehicle mobility
4. This section has three sub-tabs. The first sub-tab with the bullets icon shows how much ammunition the vehicle carries, and what type. The middle sub-tab with the wrench icons shows the status of vehicle subsystems. Individual vehicle subsystems, such as the gun, tracks, engine, radio, etc can be damaged or destroyed individually. A green square means that the subsystem is in optimal condition, a yellow or orange circle means that the subsystem is damaged, and a red "X" means that the subsystem has been destroyed. The last sub-tab with the shield icon lists general protection levels against various projectiles. The list is in order top-down from most dangerous to least dangerous, with the top line being HEAT projectiles, and the bottom line being small arms such as rifle bullets. From left to right the icons represent protection from the front, left and right sides, and rear.

### ■ CLOSE WITH AND DESTROY

Before your rifle platoon leaves the Attack Route objective, you should move your tanks into a position where they can provide fire support. Move them into a position where they can fire on the hill, but keep them at least 150 meters away so that a lucky German rocket does not disable them.

Since your tanks are not as good as spotting enemy infantry as your soldiers are, you can give them Area Target commands to make them fire on the trench line on Hill 124. To maximize the suppression from their weapons as your rifle platoon assaults the hill, we're going to wait until the last moment before lifting their fire as the rifle platoon moves up the hill. To do so, select a tank, go to the Combat command tab, and then give them a Target Briefly command. Tell the tank to shoot somewhere on the trench line. A "00:15"

text will pop up. Target Briefly tells the unit to stop firing after the indicated time has elapsed. You can add extra 15-second increments to the order by giving the Target Briefly command repeatedly. However, for this situation, keep this command at 30 seconds: we don't want to blow up our own troops!

Next, select your rifle platoon units at the Attack Route objective and give them Assault move commands to the trench line at the Hill 124 East objective.



If everything goes well, when you start the turn the tanks will shell the trench line for 15 seconds and then stop before your troops get too close. Your rifle platoon will then assault into the trench and engage the Germans at close range.

### ■ **Close Assault**

As your troops near and enter the trench they will stop to shoot at Germans and engage them with grenades. Continue your attack through the hill and clear the Germans from both Hill 124 objectives. You will take casualties, but you should press on. Move your tanks and other units to support the attack as you see fit.

## ■ VICTORY!

At some time during fight for Hill 124, the Germans may surrender, and you will be shown the results of the battle. If you were defeated, you may wish to replay this mission before continuing. Regardless, the campaign will progress to the next mission. Note that in other campaigns, a loss can prematurely exit you from the campaign or inflict some disadvantage in future missions.

## ■ AFTER ACTION REPORT SCREEN

Once the enemy has surrendered, the After Action Report (AAR) screen will appear. This screen lists a summary of the scenario results and outcomes. Most importantly it will tell you who won the battle. The AAR screen always shows the Victory Points (VP) breakdown in detail, organized by objective types.

There are three objective types in Red Thunder: Ground, Targets and Parameters. Ground objectives are the touch objectives you have seen before and the Occupy objective on Hill 124. Target objectives are units themselves. Depending on the scenario, a side can get points for destroying enemy units or even just spotting them. Parameter objectives deal with simple percentage-based statistics, such as being awarded 200 points for sustaining less than 25 percent casualties.

When you are done reviewing the AAR, continue on to the next mission. Remember to save your campaign!

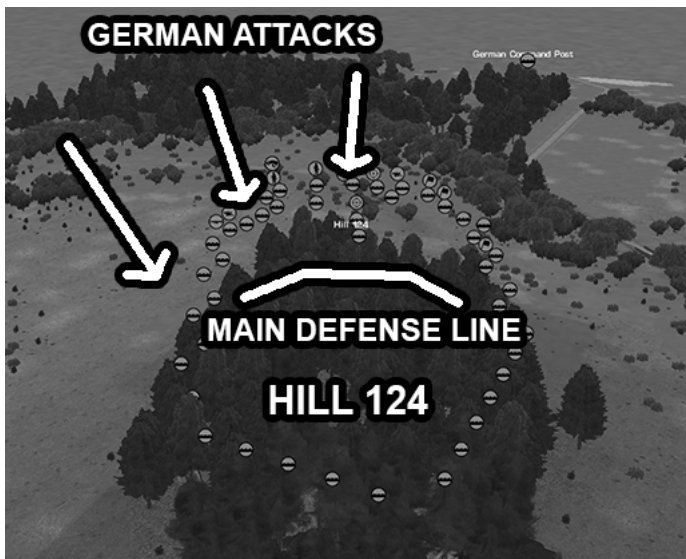
## ■ MISSION 3: WHEN GERMANS ATTACK

### ■ SETTING UP DEFENSES

Your force starts situated in the captured defensive positions on the western side of Hill 124. The default setup is decent, with units in cover and protecting their objectives.

In all missions you will receive a default setup that is usually good enough to begin playing with immediately, but you can fine tune your forces within the setup zone to your liking.

Your primary mission is to control the Hill 124 objective. To this end your force should be arrayed to stop the German forces from moving onto the green ground that signifies the objective Hill 124. A good defense will ideally keep the Germans from ever getting close to them. Your current setup is designed to interdict the Germans as they climb the open ground towards the top of Hill 124.

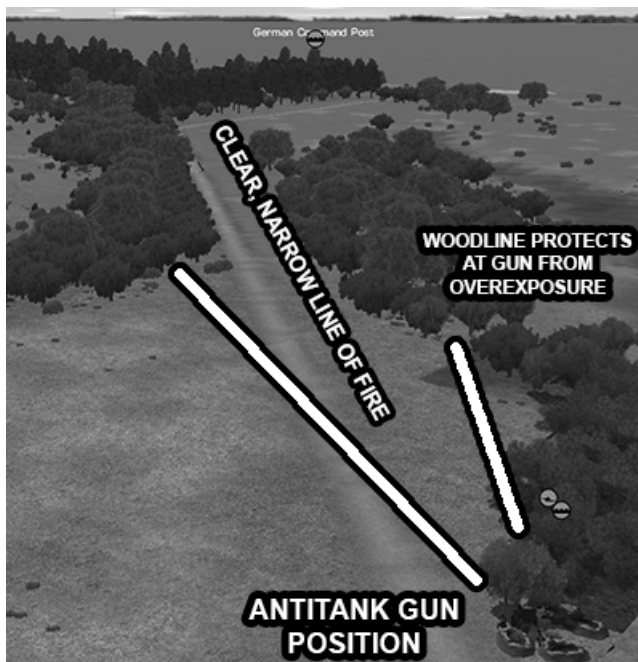


You will also see an antitank gun and a mortar platoon set outside of the red setup zones. These units are outside of a setup zone and thus cannot be moved during Setup Phase. You can give them movement orders and move them normally after the battle begins.

#### ■ **EMPLACED WEAPONS: GUNS**

You have an antitank gun in the northeast corner of the map! This unit is often referred to in Combat Mission as a "Gun". Guns are heavy crew-served weapons that pack heavier firepower than small arms can provide, while offering better concealment than vehicles. This comes at two disadvantages however. The first flaw is that guns will usually stay in place over an entire battle, because they can move only very slowly unless being towed, and they sometimes require lengthy setup periods before being able to fire again after moving. The other disadvantage is that once discovered, guns are very vulnerable to enemy counter fire and are at high risk of being knocked out.

Because of these characteristics, it is absolutely vital that guns are carefully placed during the setup phase, taking into consideration how protected the gun is and where it will be able to fire. Exposing the gun position to large amounts of enemy turf is usually asking for it to suffer a quick and fiery death. In the default setup, your antitank gun is taking advantage of some trees to hide itself better. Although the gun will not be able to fire on the entire enemy front, it has a better chance of surviving longer because it is not exposed to the entire enemy front.

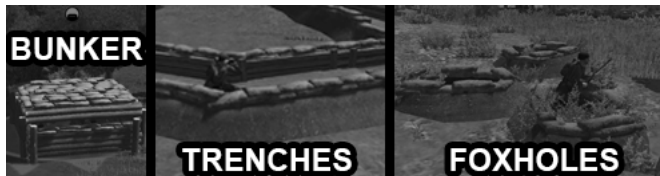


## ■ FORTIFICATIONS

Near your antitank gun at the northeast edge of the map, you'll see a wooden bunker and a scout team near it within their own setup zone. Bunkers provide excellent cover, making soldiers within them almost impervious to small arms fire and highly resistant to even explosives and artillery. Many bunkers, such as yours, also come with a machine gun and a large stockpile of ammunition. You can place the scout team into the bunker by selecting the scout team and, selecting any movement command and then clicking on the bunker's floating icon. You can dismount them by using the Dismount command in the Special command tab.

On Hill 124 you have two other common types of fortification: trenches and fox-holes. These fortifications give infantry, crew-served weapons, and guns extra protection (i.e. cover) from projectiles and explosions. You can move them around in the setup zone, but their current placement should be sufficient. Once the battle has begun, their floating icons will disappear and they will no longer be selectable, nor can they be moved again.





### ■ CAMPAIGN RESUPPLY AND REFITTING

If you inspect the units defending Hill 124, you will notice that they already have casualties. These are the same soldiers that you commanded in the previous mission! In campaigns, core units will carry over casualties, vehicle damage, ammunition expenditures, and sometimes morale from mission to mission. This should encourage you to handle your troops with care in future campaigns: you may not know when they will next be reinforced or resupplied! Troops, vehicles, and ammunition can be replaced between battles in campaigns, but by how much will vary by campaign and even mission to mission. As you fight you will have to remember that you need to conserve manpower and ammunition for the next mission, or your force may be caught weakened.

### ■ SUPPORT MISSIONS

Begin the mission and let one turn elapse. You should notice Germans approaching your hill from the woods to the west. Let's even the odds a little and call in some fire support on them! Combat Mission has on-map mortars and off-map artillery which are capable of indirect fire; these weapons can shoot at targets that they cannot see via a spotter who directs their fire. To start, we're going to use your on-map mortars to disrupt the German attack on Hill 124.

### ■ DEPLOY WEAPON

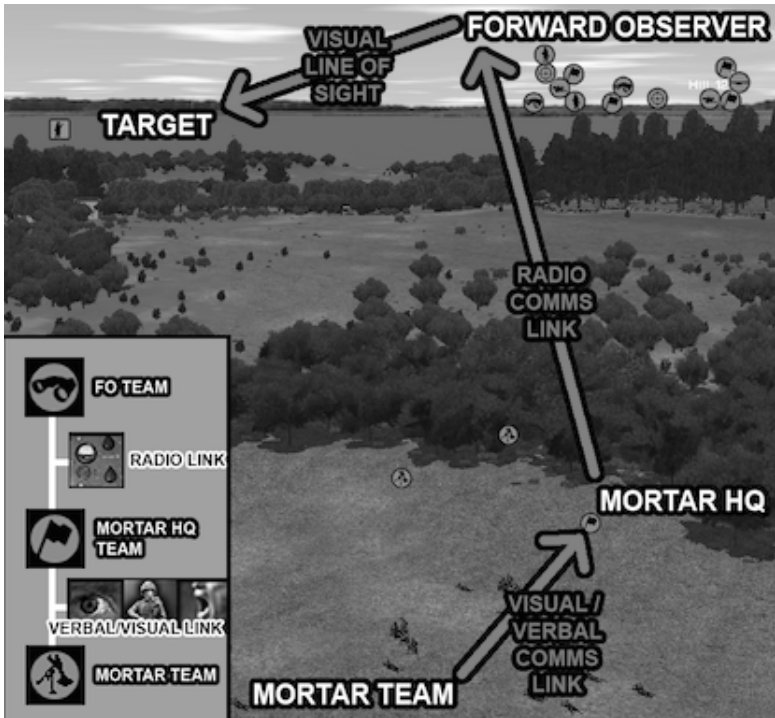
Before your mortars can be fired, they must be set up. Most crew-served weapons such as mortars, antitank guns, and heavy machine guns (Soviet machine-guns are an exception) must be Deployed before they can be fired. Select one of your mortar teams in the southeast corner of the map (their floating icons looks like a mortar) and open the Special commands tab (hotkey F7). Click Deploy Weapon to order them to deploy their mortar. Repeat this for the other two mortar teams.



Advance the turn. The mortar teams will be busy deploying the weapons for a period of time. This duration varies with the specific weapon; for the mortars it will take about fifty seconds.

### ■ CALL FOR FIRE

Now that your mortars are deployed, it's time to blow things up! To fire indirectly onto a target, your mortars will need a spotter. HQ teams and Forward Observers (FOs) can usually act as spotters; most other units cannot. The mortar team must also be able to communicate with the spotter. Communication occurs in one of two ways; either the mortar team is close enough to be within visual or shouting distance of the spotter (about 50 meters), or the mortar team has radio contact with the spotter.



In this case the mortars are in radio contact with the FO teams on Hill 124: the FO is "linked" to the mortars by the radios that the FO and Mortar Platoon HQ possess, allowing the HQ to pass on the FOs commands to the mortars.

Select an FO team (their floating icon resembles a pair of binoculars). FO teams are extremely valuable assets that are specialized at calling in support missions more quickly than HQ teams. They may also have access to more powerful artillery that HQ teams cannot contact. Guard them carefully! It is usually prudent to give them a short Cover Arc Command, so that they will

not fire at enemy soldiers and attract attention to themselves.

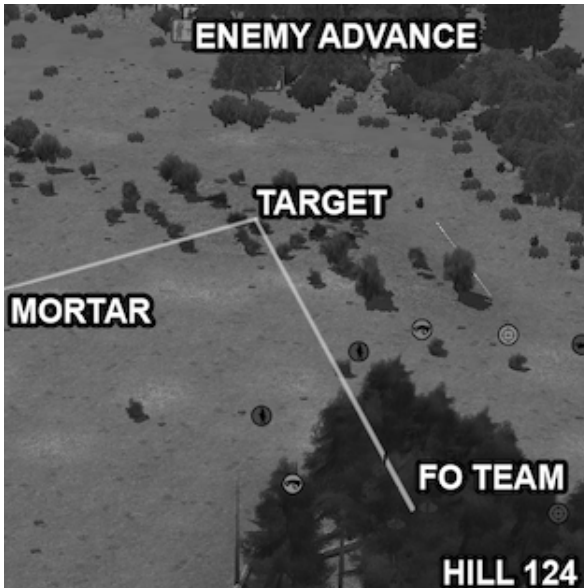


Follow these steps to call the support mission:

1. Click on the artillery icon (located just above the special equipment panel). The support mission interface will now appear. Select one of the BM-43 82mm mortar boxes from the panel that pops up. If you failed to correctly Deploy the mortars, their boxes will be unselectable and they will display "Not Positioned". Deploy them and this will go away. The support mission has parameters that must be defined. The parameters will determine the characteristics of the support mission.



2. For Target Type, select Point Target. The cursor will turn orange and you will now pick the target. Left-click somewhere on the green patch of ground between Hill 124 and the incoming German attacks. You will also notice that a glowing green line connects both the spotter and the mortar team to the target you selected.



3. For Mission, select Medium. This defines how intensively the mortar will fire. A Heavy mission will cause the mortar to fire as fast as possible, while a Harass mission will order it to fire rounds only occasionally, conserving ammunition. Emergency missions shorten the length of the call for fire at the risk of greater inaccuracy; only use these missions in true emergencies!
4. For Duration, select Medium. This tells the mortar how long to fire. Quick fire missions last only a very short time, while Maximum fire missions will last until the mortar has expended all of its ammunition.
5. Confirm the fire mission. If you mess anything up or change your mind, you can cancel here and re-start the call for fire without penalty. The window also tells you approximately how long it will take for the fire mission to begin.



If you open the Support panel again (the artillery icon) with the FO selected, you'll notice that the other two mortars have a "Spotter Busy" text over them. A FO team can only direct one fire mission at a time. Once the current mission has been cancelled or entered "fire for effect", they can create a new support mission.

You can assign multiple support assets to a single support mission by shift-left-clicking on both multiple assets.

You have a second FO team on Hill 124. Select this team and create another support mission using both of the remaining BM-43 82mm mortars. You can switch up the fire mission parameters if you wish to see the differences in execution.

Within a few turns, the support mission should begin. After receiving the fire mission and preparing, the spotter and support asset will enter "spotting" phase. During this time, a single round will be shot every now and then. It may be very inaccurate, but the spotter will adjust the shots until the target area is hit. Once the spotting rounds hit the target area, the asset will "fire for effect" and begin firing full-speed on the target.

**Note:** On-map mortars can also fire directly on battlefield targets without using an FO if they can see the target from their position. Although this means that they can bring rounds on target much faster, it also makes them vulnerable to enemy counter-fire. The enemy will usually make spotted mortar teams a priority target!

### ■ INFANTRY ANTITANK WEAPONS

Within a few turns, you will notice that German armored cars are closing on your forces. These armored vehicles will resist small arms fire from most of your infantry. Fortunately, in addition to the antitank gun guarding the road, your force possesses antitank rifles on Hill 124. Although by 1944 the antitank rifle was obsolete, Soviet forces continued to issue them. The antitank rifle is generally not powerful enough to be a threat to a tank, but they are still effective against armored cars, halftracks, and other lightly armored vehicles.

In truly desperate circumstances, your infantry can close assault tanks and other vehicles with improvised antitank weapons, hand grenades, and anti-tank grenades. To do so is simple: move your infantry within hand grenade range (twenty meters is best) and then hope for the best. Needless to say, this tactic should only be attempted when absolutely needed, because the risk of severe casualties is very high.

German infantry possess two powerful hand-held antitank weapons: the Panzerfaust and Panzerschreck.

These short range anti-tank weapons are capable of destroying most tanks with ease. The Panzerschreck has a maximum effective range of about 200 meters, and the Panzerfaust about 30 meters. Using them can be risky, because the soldier must get close to a vehicle in order to hit it. Open-topped vehicles are also extremely vulnerable to mortar shells dropping in from above.



### ■ REINFORCEMENTS AND COUNTERATTACK

Defend your hill until ten minutes of mission time have elapsed. When the clock says "20:00", you will receive reinforcements! A fresh rifle platoon and three T-34-85 tanks have arrived to the northeast. You've also received new artillery support in the support panel.

At this point, as the battlefield commander you have a decision to make: do you send these forces to reinforce the Hill 124 defenses, or do you counterattack and take the German Command Post objective? Or do you try to do both? The decision is yours to make, commander! At this point you should be able to complete the mission on your own. You need to repel the German attack from Hill 124, and seize the German Command Post objective. The following is some general advice that will help you in your mission.

### ■ TRANSPORTING TROOPS IN VEHICLES

Your new rifle platoon is riding on top of tanks. Any vehicle that can carry passengers will have grey dots in its info panel. Each grey dot represents an empty passenger seat, while a green dot is an occupied seat. You can order troops into a vehicle by simply selecting any movement command and clicking on either the vehicle or its floating icon as the movement destination. The troops will move to the vehicle and mount it. Dismounting is just as easy: select the passenger unit and give it a movement order anywhere. Once the vehicle has finished its own movement commands, if any, the passengers will dismount. If the passenger unit is also the driver of the vehicle, you'll have to use the Dismount command, found in the Special command tab.



You should be careful driving troops riding a vehicle too close to the enemy: one lucky shot from an antitank gun or tank could destroy a whole squad along with the vehicle! While armored halftracks provide some degree of protection from small arms, passengers riding on tanks or in trucks are extremely vulnerable to enemy fire.

### ■ TARGET REFERENCE POINTS [TRPs]

Along with your new tanks and infantry, you've also received a platoon of Soviet 76mm artillery. These are more powerful support assets than your mortars. Artillery fire is always called from off-map, and is usually only accessible to FOs. Artillery is a higher-level asset than your mortars, and the "red tape" that it entails means that once requested, it takes longer for the fire-for-effect to arrive. The heavier the artillery, the higher-level it is, and thus the longer the delay.

Fortunately, you have a special fortification "unit" called a Target Reference Point (TRP). You can find it, denoted by an orange symbol on the ground, placed on top of the German Command Post objective.



TRPs are sites where your artillery has "dialed in" and crunched the math necessary to fire on the site quickly and accurately, without the need for spotting adjustments. Ordering a mission near these points results in a shorter delay until delivery, greater accuracy, and zero warning to your opponent that a barrage is incoming. Furthermore, your spotter does not need to have a visual LOS on the TRP to order the fire mission. Needless to say, this is a huge advantage, especially if you possess heavy artillery.

Unlike all other units, TRPs are not restricted to set up zones and may be placed anywhere on the map during the Setup Phase. However, once the game has begun, TRPs can never be moved. TRPs are also secret: your opponent will not know where they are, although he will probably find out the hard way!

Before you attack the German Command Post objective, you should barrage it with your new artillery support to soften up the defenses. Remember, your FO team does not need to see the location as long as you select a spot near the TRP! For maximum effect, your troops should assault the objective just after your artillery barrage has ended and while the surviving enemy troops are still reeling from the strike. The suppression and demoralization from artillery is just as powerful, if not more so, than its lethal effects.

This time, the TRP has already placed for you. In future scenarios, you should place TRPs on objectives that are likely to be heavily defended, obvious enemy routes of advance, and in "dead space" that your units cannot see but you suspect that the enemy will try to move through.

### **VICTORY!**

You should be able to fend off the German attack and then counterattack to take the Command Post, although some of your units may sustain considerable casualties. Since you have controlled ground on a defensive mission, you should easily win the scenario. However, you haven't seen the last of the Germans. It is now time to take the village.



**Note: Remember to save your campaign progress between missions!**

### ■ **MISSION 4: LAST ASSAULT**

You can think of this mission as a graduation exercise. This mission will likely be tougher than the previous ones, and except for some tips, you will be left to make your own tactical decisions.

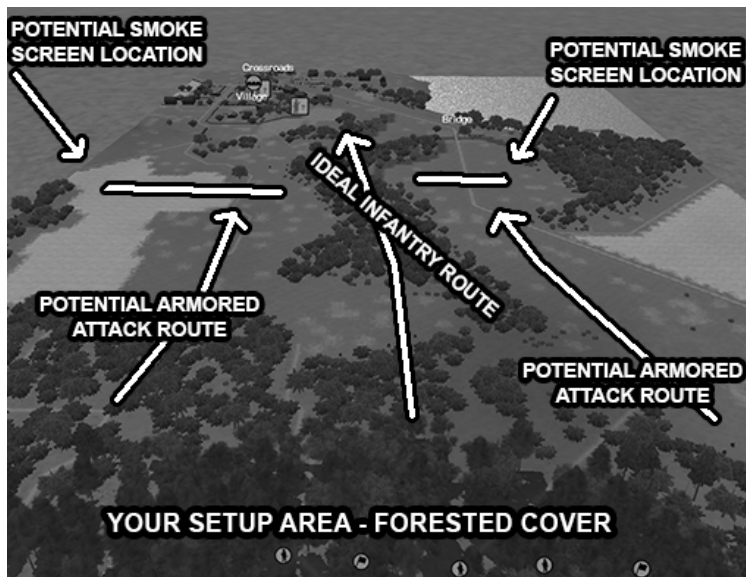
#### ■ **YOUR FORCE AND YOUR ATTACK PLAN**

You have a significantly larger force for this mission. During the Setup Phase of each mission you should thoroughly take stock of the forces you have available, as well as check the briefing for what reinforcements will be arriving. In this case, you have a rifle company, several platoons of medium tanks, a machinegun platoon, several FO teams, mortars, and artillery support at the beginning. In fifteen minutes you will receive heavy tanks, heavy assault guns, and a platoon of combat engineers (also called sappers). What tactical options you have available will depend in part on the forces available to you.

Reminder: If the dense forest is making it hard to see your units, you can toggle off foliage by pressing Alt-T!

After determining what forces you have, the next task is to take a close look at the terrain. Most of your setup is located in forest, which should give your units a good degree of cover. The forest is crisscrossed with trails, which you can move your tanks along to reduce the chances of them bogging or getting stuck in uneven forest ground.

Once your units exit the forest, there is mostly open ground between you and the German defenses, except for a strip of marshy forest running down the center, connecting your setup area and the village. This location is an ideal route for your dismounted infantry to move through in order to approach your objectives.



Here are some more tips that will help you form your plan:

### ■ PRE-PLANNED BOMBARDMENTS

Support missions made during Setup Phase arrive instantly beginning with the first turn, without the need for preparation or spotting. You can even set a delay so that the mission arrives 5, 10, or 15 minutes after the mission has begun. Also, each FO team can manage an unlimited number of Support Requests as long as they are made during Setup Phase.

### ■ SMOKE SUPPORT MISSIONS

Support assets that have smoke ammunition can perform Smoke missions instead of flinging high explosive rounds. When making a Support Request, specify Smoke in the Mission parameter.

With Smoke missions, you can lay down smoke screens that will conceal your troops moving across open ground. This is an excellent way to reposition your troops across vulnerable open ground and get them to a more advantageous position before the smoke clears. Troublesome enemy positions can also have smoke put in front of them to blind them. When laying down smoke, always check what direction the wind is blowing! How far the smoke spreads, and long how long it lasts, is influenced by the direction and strength of the wind. You can check the wind by going into the menu and selecting "Conditions".



**Note:** Smoke ammunition, being a high speed projectile, is still dangerous! Although not nearly as dangerous as exploding HE rounds, you should not call in Smoke missions on top of your own troops.

### ■ SQUAD SPLITTING

Squads can be split into their component teams using the Split commands in the Admin commands tab. Select a squad, and go the Admin orders tab and select the Split Teams command. Your squad will split into three distinct team units, each with their own floating icon and ability to be given commands separately. There are a variety of other Split Team commands which can be very useful in the right situations. To merge a squad that has been split, move the teams to the same spot and let them stay there for a moment. They will automatically merge into a whole squad. Only teams originally from the same squad can merge.

**Note:** Split Soviet squads suffer a morale penalty if their teams are not within visual or voice communication of their platoon leader. Avoid spreading them too far out!

### ■ REINFORCEMENTS

In fifteen minutes you will receive reinforcements of new unit types:

### ■ ENGINEERS

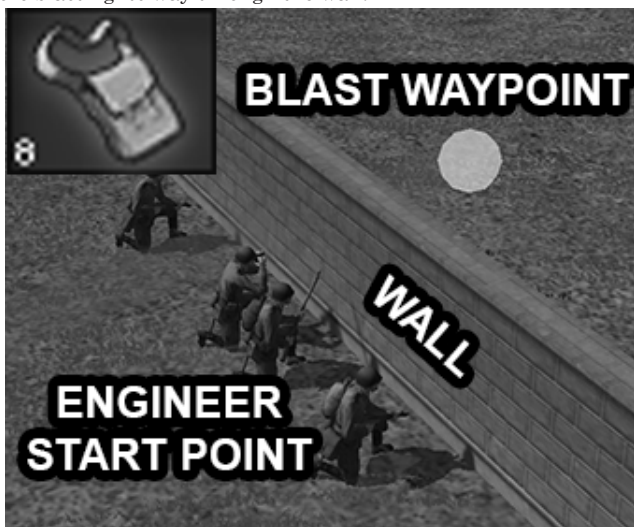
Riding on your new vehicles is a platoon of combat engineers, also called sappers. Engineers are specialized combat units that are equipped with demo satchels, which are essentially packs stuffed with explosives. If the engineers can get within throwing range, satchels are extremely devastating to enemy vehicles, bunkers, or infantry. You do not need to give them a special order; if within hand grenade range, engineers will use their demo satchels automatically.



### ■ BLAST

Satchel charges also grant the unit possessing them a special movement command, called Blast. Blast allows a unit to expend a satchel charge to blow through a tall wall or the side of a building. Additionally, enemy units on the other side will be heavily suppressed.

To give a Blast command, position a unit carrying satchel charges next to a wall or building. Open the Movement command tab and select the Blast command. Place the destination on the other side of the wall, or inside the building. The unit will go prone for a period of time (up to 20-30 seconds) before blasting its way through the wall.



### ■ FLAMETHROWERS

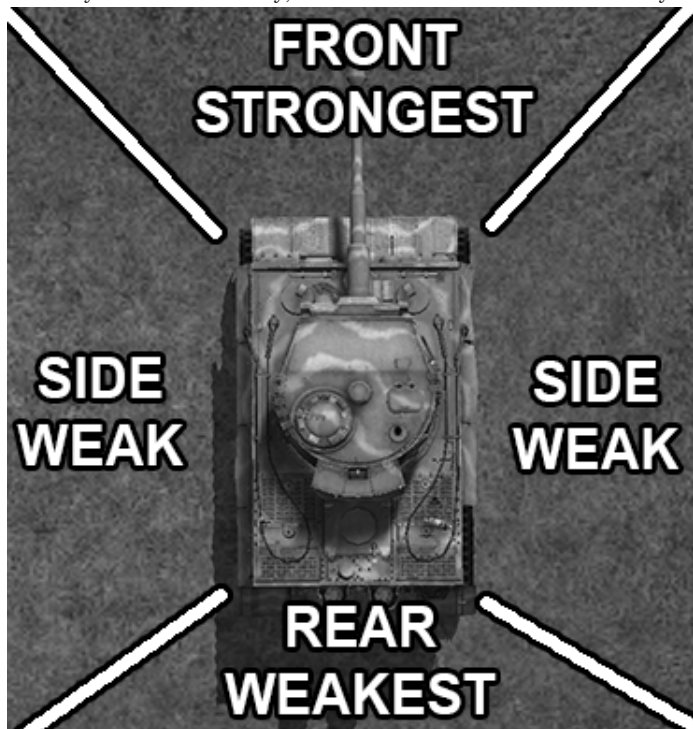
Your engineer platoon has three manpacked flamethrowers with them. Flamethrowers are terrifying weapons that can obliterate enemy infantry. They are especially useful against enemies in heavy cover such as buildings or bunkers. Flamethrowers are also powerful against light vehicles and armored vehicles which are unbuttoned. They have a critical weakness however, because their range is extremely short, typically around 30-40 meters, meaning they must close to point-blank range before they can fire.



If at all possible, avoid exposing your flamethrowers to the enemy until they are within range, because once spotted they will become a priority target. In addition, the heavy manpacks will tire out the teams quickly, so their fatigue levels should be monitored closely. It can be very difficult to get a flamethrower team into a position where it can be used, but the payoff can be considerable.

### ■ Heavy Tanks

Two IS-2 heavy tanks have arrived with your reinforcements. You will also find out, possibly the hard way, that the Germans have a Tiger tank as part of their defenses. Heavy tanks have thick frontal armor that can be impervious or highly resistant to small caliber weapons, as well as a large weapon capable of killing any vehicle on the battlefield. Heavy tanks are dangerous opponents. If you find an enemy heavy tank, you should avoid taking it head-on with smaller tanks such as your T-34s, unless you dramatically outnumber it and think you can overwhelm it. Instead you can try flanking the tank, because even heavy tanks are vulnerable to the side or rear. You can also try hitting the heavy tank with artillery, or take it head-on with another heavy tank.



As for your heavy tanks, keep them at a distance to provide fire support. Heavy tanks tend to trade mobility for heavier armor, so keeping them further away

helps ensure they will not be shot in their thinner sides.

### ■ ASSAULT GUNS

You've also received several assault guns. The advice for keeping your distance with heavy tanks applies doubly here: assault guns and most tank destroyers lack a turret, meaning they have to rotate the entire vehicle in order to shoot at a target!

### ■ AMMO SHARING

Infantry units and heavy weapons teams, such as your mortars, can share ammunition with adjacent units. If you drive the trucks parked near your mortars to directly next to the mortars, you will notice that the ammunition available to the mortar teams increases. These mortars will draw ammo from the trucks, or each other, as they fire.

Infantry units can also mount a vehicle and use the Acquire command from the Special command tab to grab stocked ammo or other special items like anti-tank rockets. This way they will carry the items themselves without having to be near the vehicle to resupply.

### ■ CAMPAIGN END

If you finished the last mission successfully, congratulations on completing the training campaign! If you failed, you should probably attempt the mission again before moving on.

Although the tutorial is over, the learning will never end, as there are a near-endless number of tactical situations to experience. With a game as richly detailed and complex as Combat Mission, you will never stop learning and becoming a better tactical commander. With three campaigns, dozens of scenarios, an endless Quick Battle system, online opponents, and a thriving internet community creating new campaigns and scenarios, you have years of combat ahead of you.

## ■ ENCYCLOPEDIA

The following section is a quick reference for the vehicles and weapon systems available in Red Thunder. It is by no means exhaustive and should be seen as a starting point for research; interested players will find countless and more detailed materials available in printed and online media.

### ■ SOVIET ARMY

When war broke out in 1941 the Soviet Union was in a state of transition to new equipment, new organizations, and new doctrine in large part to prepare for war with Germany. The modernization process was then continued under enormous stress and at times desperation. Forces were cobbled together quickly with little training and often inadequate equipment. Tactical doctrine was unrealistic and caused many potentials for success to instead lead to defeat. 1942 could be considered the time when the Soviets were able to catch their breath, with 1943 being a tipping point where the basic building blocks for success were pulled together. By 1944, the Soviet Union demonstrated that it had finally put the pieces together well enough to decisively defeat the Axis forces arrayed against it.

The key to Soviet Army success came from tailoring everything (weapons, doctrine, training, organization, etc.) to complement its strengths and avoid its weaknesses. The end result was a military force that was in many ways relatively inflexible and less broadly capable, yet extremely good at doing what it was asked to do: win the war. The grand offensive of the summer of 1944, named Operation Bagration, proved that the Soviet Army had what it needed to achieve its goals.

From the player's perspective it is critically important to understand that everything is tailored to fit Soviet military thinking, not Western Allied or German thinking. If the Soviet forces in Combat Mission are played as other nations are played, it will likely be difficult to win battles. Instead, the player must get into the mindset of the Soviet way of war and apply it to their gameplay.

Here are two tips to get your Soviet Army career started:

First, it must be understood that the Soviets did not intend for small units to achieve big results as the Western Allies and Germans did. In practical game terms this means keeping your forces concentrated and employed together as much as possible. An easy rule of thumb is the "one up" rule. If you would send one tank to do something when playing as the Germans, then as the Soviet player send a full platoon of tanks. If you would send a single German infantry platoon to take a group of houses, then as the Soviets you should try to send an entire rifle company. The entire Red Army was based around similar concepts for good reasons!

Second, in real life the Soviets subdivided their forces into task specific groups with each having a simple, straight forward objective. Each of these force-objective pairings was designed, more or less, to be won without the help of other groups. When a group achieved its objectives it would not improvise what happened next. Instead it would wait for a new plan to be developed and then would take part as instructed from above. While this greatly curtailed

the chances for sudden and unexpected tactical successes, such as German and Western Allies regularly experienced, it also reduced the chances of unexpected disasters. Due to the chronic shortages of radios, well trained junior leadership, and sufficient logistics capabilities, improvised combat was generally impractical.

To conclude this quick primer, the best way to succeed with Red Army forces is to have a very well thought out plan which requires as little tactical improvisation and co-dependence as possible. As you make your plans always remember that relying upon larger forces to achieve modest goals will help you win battles, while expecting small forces to achieve big results is likely to produce defeat.

## ■ SOVIET TANKS

### ■ T-70M [M1942]

The T-70 was a light tank that served in the Soviet Army from 1942 to 1948. Designed to replace the unsatisfactory T-50 and T-60 light tanks, with increased mobility, thicker armor, and a more powerful 45mm main gun. The T-70 was quickly superseded by the T-70M, which featured a better designed engine layout.

The T-70M was operated by a crew of two: a commander and a driver. The commander occupied a one-man turret, which inflicted a significant drawback since the commander had to operate the main gun, command the tank, and communicate with other tanks in the platoon, all at the same time.

*Armor ..... 10 - 60 mm*

*Available beginning..... June 1944*

*Formations equipped..... Cavalry tank regiments*

**Note:** Beginning dates given are in relation to the period of the war that CM: Red Thunder depicts (beginning June 1944).

AMMO	DAMAGE	DEFENSES
45mm HE 42	45mm Main	+++++
45mm AP 21	7.62mm Coax	XXXXX
45mm APCR 4	Engine	
45mm CAN 3	Wpn Controls	
7.62x54R 945	Optics	
	Tracks	

**Light Tank**  
45mm L/46 M1932

Weight 9.2 tons  
Speed |||||  
Power |||||  
Off-Road |||||  
Turning |||||

### ■ T-70M [M1943]

Late production T-70Ms featured a variety of improvements over earlier production models. The two 70 horsepower engines were replaced by 85 horsepower engines, new welded turrets were fitted, and the commander's vision slit was replaced with a periscope.

*Armor ..... 10 - 60 mm*

*Available beginning..... June 1944*

*Formations equipped..... Cavalry tank regiments*





### ■ T-34-76 (M1942 EARLY)

The T-34 is a Soviet medium tank that began service in 1940, and has become one of the most influential tank designs in history. The T-34 was the first tank to achieve an excellent balance of firepower, armor, and mobility when it appeared on battlefields in the early 1940s. By the end of the war, the many variants of the T-34 had become the backbone of Soviet Army tank units, and went on to become the second most produced tank in history, being exported to nations all across the globe.

The design of the T-34-76 was inspired by combat against the Japanese in 1938-39, after the Soviet T-26, BT-5, and BT-7 tanks were found to have inadequate protection against even mediocre 37 mm guns and smaller caliber anti-tank rifles. A new universal tank prototype was designed that incorporated the lessons learned from combat with the Japanese, and featured a larger 76.2 mm gun, thick sloping armor, wider tracks for better cross-country mobility, and a diesel engine. The new tank was dubbed the T-34. When it first appeared on the battlefield against the Germans, the T-34 proved to be a formidable opponent with its powerful gun and armor strong enough to easily defeat most German weapons.

The T-34-76 suffered from some drawbacks, including poor mechanical reliability and a cramped two-man turret. The two-man turret design meant that the tank commander had to participate in operating the main gun, distracting him from commanding the tank and communicating with other tanks.

The T-34-76 went through numerous evolutions throughout World War 2. During the early period of the eastern front, most changes in the design were aimed at simplifying and speeding manufacture. As the war progressed, the T-34 also received a series of upgrades to its armor, main armament, and other systems. The T-34 Model 1942, (also referred to as the T-34/76D, or confusingly the Model 1943 depending on the literature), featured numerous improvements over the base model, including thicker armor, a F-34 76.2mm man gun, increased ammunition storage, a hexagonal two-man turret, and radios for every tank.

*Features of the T-34 Model 1942 tank include:*

.....	F-34 76.2 mm main gun
.....	x2 7.62 mm machine guns
.....	60 mm turret front armor
.....	52 mm turret side armor @ 30°
.....	45-47 mm hull front armor @ 60°
.....	40-41 mm hull side armor @ 41° (upper part)
.....	16 mm hull top armor
.....	30 mm hull rear armor
.....	53 kph maximum speed, 500 hp engine
.....	Christie suspension

*Available beginning..... June 1944*

*Formations equipped..... Tank regiments, tank battalions, cavalry tank regiments*



### ■ T-34-76 (M1942 LATE)

Late production Model M1942s had a new commander's cupola. In some sources, this variant is referred to as the T-34/76E.

*Armor* ..... 16 - 60 mm

*Available beginning*..... June 1944

*Formations equipped*..... Tank regiments, tank battalions, cavalry tank regiments

Commander		Medium Tank		AMMO		DAMAGE		DEFENSES	
Loader	○○	76mm L/43 F-34		76mm HE	70	76mm Main		○○○○+	○○○○+
Driver		Weight	30.5 tons	76mm AP	22	7.62mm MG		○○○○	○○○○
		Speed		76mm APCR	3	7.62mm Coax		○○○○	○○○○
		Power		76mm CAN	5	Radio		○○○○	○○○○
		Off-Road		7.62x54R	>3k	Engine		○○○○	○○○○
		Turning				Wpn Controls		○○○○	○○○○
						Optics		○○○○	○○○○
						Tracks		○○○○	○○○○

### ■ T-34-85 (M1943)

The T-34-85 (also known as the T-34/85) was an upgraded version of the T-34 armed with an 85 mm gun that saw service beginning in 1944. In response to new German tanks armed with high-velocity guns and armor impervious to the 76.2 mm gun, the Soviets began designing a new tank designated as the T-43. When development of the T-43 was cancelled, an upgraded version of the T-34 was designed that incorporated a significantly more powerful 85 mm gun that could defeat new German tank designs, along with a larger turret ring that could accommodate a three-man turret. The new design was named the T-34-85 and production began in late 1943.

In addition to the new D-5T 85 mm gun, the T-34-85 Model 1943 introduced a cast three-man turret which significantly improved the ergonomic design and effectiveness of the crew. Since a loader was now located in the turret, the tank commander could focus on commanding the tank. The turret armor was also substantially thicker, with a maximum thickness of 100 mm, compared to the T-34's maximum armor thickness of 60 mm.

*Armor* ..... 16 - 100 mm

*Available beginning*..... June 1944

*Formations equipped*..... Tank regiments, tank battalions, cavalry tank regiments

Commander		Medium Tank		AMMO		DAMAGE		DEFENSES	
Gunner	○○○	85mm L/55 D-5		85mm HE	36	85mm Main		+++++	+++++
Loader	○○○	Weight	32.3 tons	85mm AP	19	7.62mm MG		○○○○	○○○○
Driver		Speed		7.62x54R	>4k	7.62mm Coax		○○○○	○○○○
		Power				Radio		○○○○	○○○○
		Off-Road				Engine		○○○○	○○○○
		Turning				Wpn Controls		○○○○	○○○○
						Optics		○○○○	○○○○
						Tracks		○○○○	○○○○

### ■ T-34-85 (M1944 EARLY)

The Model 1944 replaced the Model 1943 in production in early 1944. The new variant replaced the D-5T 85 mm gun with a simpler ZiS-S-53 85 mm gun, moved the radio from the hull to the turret, and an improved gunner's sight was installed.

*Armor* ..... 16 - 100 mm

*Available beginning*..... June 1944

*Formations equipped*..... Tank regiments, tank battalions, cavalry tank regiments



### ■ T-34-85 (M1944 Late)

The late version of the Model 1944 has a new commander's cupola and a redesigned turret layout.

*Armor* ..... 16 - 100 mm

*Available beginning*..... July 1944

*Formations equipped*..... Tank regiments, tank battalions, cavalry tank regiments



### ■ OT-34 (M1942)

The OT-34 (M1942) was a T-34 Model 1942 fitted with an ATO-42 internal flamethrower instead of the hull machinegun. The ATO-42 flamethrower had a maximum range of 120 meters and carried more fuel than previous versions.

*Armor* ..... 16 - 60 mm

*Available beginning*..... June 1944

*Formations equipped*..... Flamethrower companies



### ■ IS-1

The IS (Iosif Stalin) tank family was a line of Soviet heavy tanks that saw service beginning in 1943. The IS series were designed as breakthrough tanks, with a heavy HE round effective against entrenched infantry and armor thick enough to shrug off hits from German 75 mm and 88 mm guns.

The IS series began to replace the KV tank as the standard heavy tank of the Soviet Army in late 1943. Initially known as the IS-85 or Object 237, the IS-1 was essentially a KV hull with a new welded turret sporting a 85 mm gun. The resulting tank also had a higher top speed than the KV. The IS-1 was sent

to the front in September 1943.

Features of the IS-1 tank include:

.....	D-5T 85 mm main gun
.....	x3 7.62 mm machine guns
.....	100 mm turret front armor
.....	120 mm hull front armor
.....	90 mm hull side armor
.....	20 mm hull top armor
.....	60 mm hull rear armor
.....	37 kph maximum speed

Available beginning..... June 1944

Formations equipped..... Heavy tank regiments, heavy tank battalions



## ■ IS-2 (Early)

The IS-1 was quickly replaced by the IS-2 as the main production model during World War 2. Initially known as the IS-122, the IS-2 replaced the 85 mm gun with the larger A-19 122 mm gun. The A-19 was designed to be able to effectively attack German fortifications with a powerful HE shell and slug it out with German Panther and Tiger tanks at the same time. Although the new 122 mm gun was powerful enough to penetrate a Panther tank's frontal armor, the round came in two pieces with shell and powder charge, resulting in a much slower rate of fire and a low ammunition count.

The early versions of the IS-2, sometimes known as the Model 1943, began production in October 1943.

They first entered combat in April 1944.

Armor ..... 20 - 160 mm

Available beginning..... June 1944

Formations equipped..... Heavy tank regiments



## ■ IS-2 (Mid)

Sometimes known as the Model 1944. In 1944, the IS-2 received various improvements. The A-19 122 mm gun was replaced with a faster-loading D-25-T 122 mm gun with a muzzle brake, a simplified hull front, a gun travel lock, and a wider mantlet.

Armor ..... 20 - 160 mm

Available beginning..... June 1944

Formations equipped..... Heavy tank regiments



### ■ IS-2 (Late)

The latest production models of the IS-2 added a 12.7 mm anti-aircraft machinegun.

*Armor* ..... 20 - 160 mm

*Available beginning*..... July 1944

*Formations equipped*..... Heavy tank regiments



### ■ SOVIET ASSAULT GUNS

**Note:** Most Soviet assault gun crews are armed with multiple submachine guns and carry ample stores of ammunition. Since these guns lacked machine guns, the crews can use their submachine guns for self defense.

#### ■ SU-76M

The SU-76M was a Soviet self-propelled gun. The initial version, the SU-76, was quickly replaced by the SU-76M in production in 1943. Almost 14,000 SU-76M were built, making it the second most produced Soviet AFV of World War II, next to the T-34. The SU-76M was multipurpose and acted in close fire support, anti-tank, and even indirect fire roles. The SU-76M was an unusual close support vehicle in that it was open-topped, leaving the crew vulnerable to small arms and indirect in some situations.

*Armor* ..... 10 - 35 mm

*Available beginning*..... June 1944

*Formations equipped*..... Light assault gun regiments



### ■ SU-85 [EARLY]

The SU-85 (SU meant "Samokhodnaya Ustanovka", or "self-propelled carriage") was one of a number of Soviet tank destroyers designed to counter heavy German tanks such as the Tiger. The SU-85 was a modified SU-122, with the 122 mm howitzer replaced by a D-5T 85 mm anti-tank gun. Like the SU-122, the SU-85 had a casemate-style turretless weapon mounting, and traded armor for increased mobility.

Armor ..... 20 - 45 mm

Available beginning..... June 1944

Formations equipped..... Medium assault gun regiments



### ■ SU-85 [LATE]

The SU-85 (Late) differs from the early version in that it carries a small amount of armor-piercing, composite rigid (APCR) ammunition, giving it an improved anti-tank capability.

Armor ..... 20 - 45 mm

Available beginning..... June 1944

Formations equipped..... Medium assault gun regiments



### ■ SU-122 [EARLY]

The SU-122 was a self-propelled howitzer that began service in the Soviet Army in early 1943. Based on two prototypes that combined a Soviet hull with the design philosophy of the German StuG III, the SU-122 was designed to assist assaults by directly firing on enemy fortifications and strongholds. To this end the vehicle was fitted with a large 122 mm M-30S howitzer. Although equipped with only high

explosive (HE) shells, the shells were large enough that direct hits from the SU-122 on most German armor could be very lethal.

Armor ..... 20 - 45 mm

Available beginning..... June 1944

Formations equipped..... Medium assault gun regiments



### ■ SU-122 (Late)

The SU-122 (Late) differs from the early version in that it carries a small amount of high explosive anti-tank (HEAT) ammunition, giving it an improved anti-tank capability.

Armor ..... 20 - 45 mm

Available beginning..... June 1944

Formations equipped..... Medium assault gun regiments



### ■ ISU-122

The ISU-122 was a self-propelled gun in the same vein as the SU-85 and SU-122, mounting a large gun in a casemate on a turretless chassis. Unlike the SU-85 and SU-122, the ISU-122 had much thicker armor, with 90 mm of armor across the front and 120 mm armor on the gunshield. The ISU-122 was identical to the ISU-152, except for the weapon.

The ISU-122 was used as an assault gun, tank destroyer, and mobile artillery. The A-19S 122 mm gun was powerful but hampered by a slow rate of fire at 1.5 to 2.5 shots per minute.

Armor ..... 30 - 120 mm

Available beginning..... June 1944

Formations equipped..... Heavy assault gun regiments



### ISU-122S

The ISU-122S's main gun had an improved rate of fire at 3 rounds per minute. This was thanks to the new D-25S gun which had its breech modernized to be semi-automatic instead of manual-piston.

Armor ..... 30 - 120 mm

Available beginning..... August 1944

Formations equipped..... Heavy assault gun regiments

 <p>Commander</p> <p>Gunner</p> <p>Loader</p> <p>Loader</p> <p>Driver</p>	<p>Assault Gun</p> <p>122mm L/48 D-25</p> <p>Weight 46.0 tons</p> <p>Speed</p> <p>Power</p> <p>Off-Road</p> <p>Turning</p>	       	<p><b>AMMO</b></p> <p>122mm HE 18</p> <p>122mm AP 12</p> <p>7.62x25 &gt;1k</p>	<p><b>DAMAGE</b></p> <p>122mm Main</p> <p>Radio</p> <p>Engine</p> <p>Wpn Controls</p> <p>Optics</p> <p>Tracks</p>	<p><b>DEFENSES</b></p> <p>+++++</p> <p>XXX</p> <p>○○○○</p> <p>○○○○</p> <p>○○○○</p> <p>○○○○</p> <p>○○○○</p>
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### SU-152

The rapid design, prototyping, and construction of the SU-152 was borne of a need for a heavy mobile gun that could attack fortified enemy defenses. Based on a KV-1S chassis, the SU-152 mounted a 152 mm ML-20S howitzer. Its massive shells, which could weigh up to 48 kg, were equally effective at pulverizing enemy strongpoints and smashing apart German tanks. This came at a drawback of a slow reload rate and limited ammunition supply (20 shells).

Armor ..... 20 - 75 mm

Available beginning..... June 1944

Formations equipped..... Heavy assault gun regiments

 <p>Commander</p> <p>Gunner</p> <p>Loader</p> <p>Loader</p> <p>Driver</p>	<p>Assault Gun</p> <p>152mm L/29 ML-20</p> <p>Weight 45.5 tons</p> <p>Speed</p> <p>Power</p> <p>Off-Road</p> <p>Turning</p>	       	<p><b>AMMO</b></p> <p>152mm HE 14</p> <p>152mm AP 6</p> <p>7.62x25 &gt;1k</p>	<p><b>DAMAGE</b></p> <p>152mm Main</p> <p>Radio</p> <p>Engine</p> <p>Wpn Controls</p> <p>Optics</p> <p>Tracks</p>	<p><b>DEFENSES</b></p> <p>+++++</p> <p>XXX</p> <p>○○○○</p> <p>○○○○</p> <p>○○○○</p> <p>○○○○</p> <p>○○○○</p>
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### ISU-152

The ISU-152 was the same vehicle as the ISU-122, except that the ISU-152 was armed with a 152 mm ML-20S howitzer.

Armor ..... 30 - 120 mm

Available beginning..... June 1944

Formations equipped..... Heavy assault gun regiments

 <p>Commander</p> <p>Gunner</p> <p>Loader</p> <p>Loader</p> <p>Driver</p>	<p>Assault Gun</p> <p>152mm L/29 ML-20</p> <p>Weight 46.0 tons</p> <p>Speed</p> <p>Power</p> <p>Off-Road</p> <p>Turning</p>	       	<p><b>AMMO</b></p> <p>152mm HE 14</p> <p>152mm AP 6</p> <p>7.62x25 &gt;1k</p>	<p><b>DAMAGE</b></p> <p>152mm Main</p> <p>Radio</p> <p>Engine</p> <p>Wpn Controls</p> <p>Optics</p> <p>Tracks</p>	<p><b>DEFENSES</b></p> <p>+++++</p> <p>XXX</p> <p>○○○○</p> <p>○○○○</p> <p>○○○○</p> <p>○○○○</p> <p>○○○○</p>
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## SOVIET ARMORED CARS

### BA-64

The BA-64 was an armored car that served in the Soviet Army beginning in 1942. Based on the GAZ-64 jeep, the BA-64 had up to 15 mm of sloped armor, an open-topped turret, and a single 7.62 mm machinegun.

*Armor ..... 4 - 15 mm*

*Available beginning..... June 1944*

*Formations equipped..... Heavy assault gun regiments*

Gunner Driver		AMMO 7.62x54R >1k	DAMAGE 7.62mm MG Engine Wheels	DEFENSES +++++ XXXXX XXXXX XXXXX XXXXX XXXXX
Weight 2.4 tons				
Speed				
Power				
Off-Road				
Turning				


### BA-64B

Introduced in 1943, the BA-64B was an improved version of the BA-64 with a wider wheelbase. In Combat Mission this variant is also equipped with a radio.

*Armor ..... 4 - 15 mm*

*Available beginning..... June 1944*

*Formations equipped..... Tank regiments, assault gun regiments, armored car companies*

Gunner Driver		AMMO 7.62x54R >1k	DAMAGE 7.62mm MG Radio Engine Wheels	DEFENSES +++++ XXXXX XXXXX XXXXX XXXXX XXXXX
Weight 2.4 tons				
Speed				
Power				
Off-Road				
Turning				

## SOVIET UNARMORED VEHICLES

### GAZ 67

The Soviet Union's equivalent to the Jeep, the GAZ 67 was a small four wheel drive general purpose vehicle.

Driver		AMMO Empty	DAMAGE Engine Wheels	DEFENSES +++++ XXXXX XXXXX XXXXX XXXXX
Weight 1.3 tons				
Speed				
Power				
Off-Road				
Turning				

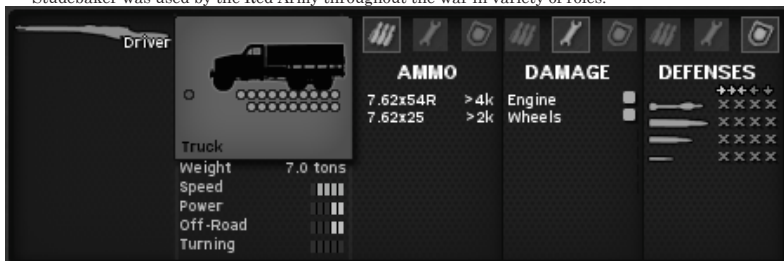
## GAZ MM

The Gaz MM was a 1.5-ton truck used by the Red Army in large numbers during World War II.



## STUDEBAKER US6

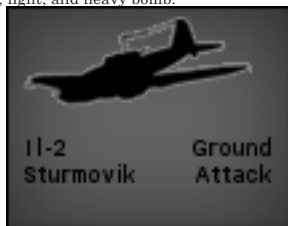
The Studebaker was a 2.5-ton Lend-Lease truck supplied to the Soviet Union by the United States. The Studebaker was used by the Red Army throughout the war in variety of roles.



## SOVIET AIR SUPPORT

### IL-2 SHTURMOVIK

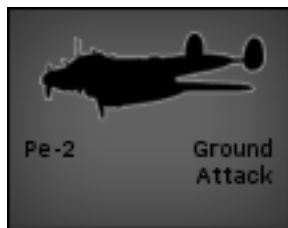
The Ilyushin Il-2 Shturmovik was a widely used ground-attack aircraft fielded by the Soviet Union. Beginning combat service in 1941, the Il-2 would go on to become the most produced military aircraft in history. The Il-2 was typically armed with two 23 mm cannons, two 7.62 mm machine guns and in some variants a rear-facing 12.7 mm machine gun for self-defense from enemy fighters. For ground-attack missions the Il-2 could carry up to 600 kg of bombs, plus rockets. The Il-2 was heavily armored, including an armored windscreen and armored tub protecting the engine and cockpit. The Il-2 was widely used on the Eastern Front, and earned such nicknames as "the Flying Tank". In the game, three ammo loadouts are available: strafe, light, and heavy bomb.



### PETLYAKOV PE-2

The Petlyakov Pe-2 was a Soviet dive bomber which began service in 1941. The Pe-2 had a crew of three: a pilot, gunner, and bombardier. The fast twin engine plane could carry up to 1,600 kg of bombs and was highly successful in its role.

In the game, four ammo loadouts are available: strafe, light, heavy, and max bomb.



### ■ SOVIET ARTILLERY SUPPORT

Note: Soviet light and medium mortars are described in the "Soviet Heavy Weapons" section below.

#### ■ M1943 120 MM MORTAR

The M1943 120 mm mortar was an improved version of the M1938 mortar introduced in 1943, which itself was an improved version of the French Mortier Brandt de 120 mm mle 1935. The heavy mortar was crewed by six men and weighed 521 kg. The M1943 could launch a high explosive shell up to 5,700 meters away.

Rate of fire ..... 9 rpm max



#### ■ M1942 [ZIS-3] 76 MM FIELD GUN

The ubiquitous ZiS-3 was a field artillery and anti-tank gun used by the Soviet Union. The divisional level field gun was simple to operate, versatile, and accurate. The ZiS-3 was faster and cheaper to produce than the field guns it began replacing in 1941, but despite this its development at first had to be kept a secret from higher authorities who disapproved of developing more 76.2 mm field guns. Over 100,000 ZiS-3 were eventually made.

Rate of fire ..... 25 rpm max

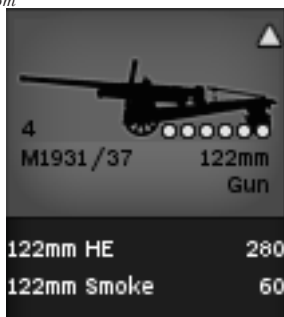


### ■ M1937 [A-19] 76mm HOWITZER

The M1937 was a Corps-level 76 mm howitzer that used the 76 mm barrel of a M1931 howitzer mounted on the carriage of a 152 mm M1937 howitzer. The howitzer could lob shells up to 20 kilometers.

Different versions of the A-19 howitzer were also used on the IS-2, IS-3, and ISU-122.

Rate of fire ..... 3-4 rpm



### ■ M1938 [M-30] 122mm HOWITZER

The M1938 M-30 was a divisional field howitzer that served in the Soviet Army during World War II. The howitzer had a maximum range of 12 kilometers and was eventually replaced by the D-30 after 1960.

Rate of fire ..... 5-6 rpm



### ■ M1937 [ML-20] 152mm HOWITZER-GUN

The M1937 ML-20 was a howitzer-gun, meaning that it combined features of both a howitzer and a field

gun, giving the weapon a universal quality. The ML-20 served as a corps and army-level artillery piece, and had a maximum range of 17 kilometers. The 152 mm gun of the ML-20 was also mounted on the SU-152 and ISU-152, which used the massive HE shell to devastating effect in a direct fire role.  
*Rate of fire* ..... 3-4 rpm



### ■ M1943 [M-10] 152 MM HOWITZER

The M-10 was a 152 mm howitzer of advanced design. The M-10 began service in 1939 and served at the Corps level. Only about 1,500 pieces were produced due to what was perceived as a poor weight/firepower ratio. Some cannons from the M-10 used to arm the KV-2.  
*Rate of fire* ..... 3-4 rpm

*Rate of fire* ..... 3-4 rpm



### ■ M1931 [B-4] 203 MM HOWITZER

A strategic reserve heavy howitzer, the B-4 weighed a massive 17,700 kg and lobbed a shell weighing 100 kilograms up to 18 kilometers away. The B-4 was often used to attack heavily fortified defenses and urban strongholds.

*Rate of fire* ..... 1 rpm



### ■ BM-8-24 82 MM ROCKET LAUNCHER

A series of multiple rocket launchers were developed by the Soviet Union beginning in 1938. Collectively known as "Katyusha" rocket launchers, these launchers were designed to deliver a devastating amount of explosive firepower to an area in a short amount of time. Initially the Katyusha was top secret, and

were even operated exclusively by a special unit from the NKVD secret police until August 1941. Multiple rocket launchers like the Katyusha systems had the advantage of being easy to build and could quickly saturate an area with large amounts of explosives, but they were also inaccurate and slow to reload. Katyusha could be mounted on a variety of transport systems, but were usually installed on a truck or towed trailer, allowing them to relocate quickly before the enemy could start counter-battery fire. Katyusha came in a variety of configurations, including caliber, amount of tubes, and the chassis it was mounted on. This launcher is the BM-8-24, which means twenty-four 82 mm caliber tubes mounted on a vehicle (in this case, a light tank chassis). To break down the naming convention, "B" means a launcher mounted on a vehicle, "M-8" is the name of the 82 mm rocket, and "24" is the number of tubes attached to each launcher. The M-8 rocket had an HE warhead weighing 0.64 kilograms and could fire up to 5,900 meters away.



#### ■ BM-8-36 82 MM ROCKET LAUNCHER

This Katyusha mounts thirty-six M-8 82 mm rockets on a ZiS-5 or ZiS-6 truck.



#### ■ BM-8-48 82 MM ROCKET LAUNCHER

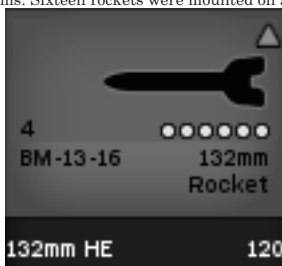
Still using M-8 82 mm rockets, this launcher packs 48 rockets and could be mounted on ZiS-6 or Studebaker trucks.



#### ■ BM-13-16 132 MM ROCKET LAUNCHER

This launcher uses the larger M-13 132 mm rocket, which had a range of 8,700 meters and had an HE

warhead weighing 4.9 kilograms. Sixteen rockets were mounted on a variety of trucks.



### ■ M-30-4 300 MM ROCKET LAUNCHER

The M-30-4 launched four 300 mm rockets from a towed trailer. The M-30 rocket was significantly larger than the previous entries with a warhead weight of 28.9 kilograms, but only had a range of 2,800 meters.



### ■ BM-31-12 300 MM ROCKET LAUNCHER

The M21-12 used a Studebaker truck as its chassis, and mounted twelve 300 mm M-31 rockets, which had a slightly improved range over the M-30 rocket at 4,300 meters.



## ■ SOVIET SMALL ARMS

### ■ NAGANT



The M1895 Nagant revolver was the standard issue sidearm in the Soviet Union for the military and various agencies. The Nagant was unusual in that it had a gas-seal system which moved the chamber forward when the revolver was cocked, which closed the space between the cylinder and the barrel. This closed gap forced more gas through the barrel, increasing muzzle velocity to 327 meters per second.

Cartridge.....7.62x38mmR

*Effective range.....Sights set for 46 m*  
*Feed system.....7-round cylinder*

### ■ TOKAREV



More officially labeled as the TT-30 or TT-33, was a service pistol used alongside the M1895 Nagant. The Tokarev was a semi-automatic pistol popular for its reliability and is still used today by several armed forces.

*Cartridge.....7.62x25mm Tokarev*  
*Effective range.....50 m*  
*Feed system.....8-round detachable box magazine*

### ■ MOSIN-NAGANT M30



The Mosin-Nagant (or the Model 1891 as it was named officially) was a bolt action rifle and the standard issue rifle for the Soviet Army in World War II. The rifle was adopted by the Russian Military in 1891, and it was modernized into the Model 1891/30 (or M30) after the Russian Civil War. The Mosin-Nagant was, and still is, known for reliability and accuracy.

*Cartridge.....7.62x54mmR*  
*Action.....Bolt-action*  
*Effective range.....500 m (with iron sights)*  
*.....800+ m (with optics)*  
*Feed system.....5-round stripper clip, internal magazine*

### ■ MOSIN-NAGANT M30 [SCOPE]



Mosin-Nagant rifles fitted with mounts and scopes were used as sniper rifles to deadly effect. When used by a skilled sniper the rifle could be accurate beyond 800 meters.

### ■ MOSIN-NAGANT M38



The M38 is a carbine version of the Mosin-Nagant M30. The barrel and forearm were shortened, while the action and cartridge remained the same.

### ■ SVT-40



The SVT-40 was a semi-automatic battle rifle of Soviet design introduced in 1940. An improved version of the SVT-38, was officially issued to Red Army troops alongside the Mosin-Nagant. Initially intended to replace the Mosin-Nagant as the main service rifle, wartime difficulties meant that the rifle never reached its full production potential.

*Cartridge.....7.62x54mmR*  
*Action.....Gas-operated*  
*Effective range.....800 m*  
*Feed system.....10-round detachable box magazine*

### ■ PPSH



The PPSH (or PPSH-41) was a Soviet submachine gun that saw extensive use in World War II. When the Soviet Union became dissatisfied with the difficulty of producing the PPD-40 submachine gun, the PPSH was designed to use mostly stamped metal in order to speed construction, with production beginning in



late 1941. Cheap to produce, reliable, and having a high rate of fire, the PPSH was extremely popular, even with the Germans who widely used captured guns. With over six million guns made during the war, the PPSH saw widespread use, with the Red Army often assigning the weapon to entire combat formations.

*Cartridge*.....7.62x25mm Tokarev  
*Action*.....Blowback open-bolt  
*Effective range*.....250 m  
*Rate of fire*.....1,000 rounds/min  
*Feed system*.....35-round detachable box magazine or 71-round drum magazine

### ■ PPS-42



The PPS series of submachine guns were designed to be even cheaper and faster than the PPSH to produce, although the PPSH ended up being produced in parallel with the PPS.

*Cartridge*.....7.62x25mm Tokarev  
*Action*.....Blowback open-bolt  
*Rate of fire*.....600-900 rounds/min  
*Effective range*.....200 m  
*Feed system*.....35-round detachable box magazine

### ■ PPS-43



The PPS-43 replaced the PPS-42 in production during 1943, featuring a number of minor improvements to safety.

### ■ DP



The DP (also referred to as the DP-28) was the standard light machine gun of the Red Army during World War II. The DP was cheap to manufacture and highly resistant to jamming from dirt and other contaminants. The machine gun was fed by an odd 47-round circular pan magazine nicknamed the "Record player" by its users.

*Cartridge*.....7.62x54mmR  
*Action*.....Gas-operated  
*Rate of fire*.....500-600 rounds/min  
*Effective range*.....800 m  
*Feed system*.....47-round pan magazine

### ■ DPM



An improved version of the DP fielded in 1943, named the DPM, featured a better bipod, a new recoil spring, and a pistol grip.

### ■ PTRD Anti-Tank Rifle



The anti-tank rifle was essentially a very large rifle that fired armor-piercing rounds designed to attack armored vehicles. At the beginning of World War II, anti-tank rifles were fairly effective, but as the war progressed and tank armor became thicker, the anti-tank rifle quickly became dangerous to tanks only from the flank or side at very close range. However anti-tank rifles remained a threat to thinly armored and unarmored vehicles.

The PTRD was introduced in 1941 and could penetrate 35 mm of armor from a distance of 100 meters. However the round was prone to shattering, poor sights made it difficult to aim accurately, and the huge muzzle blast made the weapon easy to spot after firing. Like most anti-tank rifles, the PTRD was quickly replaced by HEAT weapons such as the RPG as an individual anti-tank weapon.

*Cartridge*.....14.5x114 mm

Feed system.....single-fire (no magazine)

## ■ SOVIET HEAVY WEAPONS

### ■ MAXIM M1910

Also known as the PM 1910, the M1910 was a heavy machine gun that served in Russian and Soviet forces beginning in 1910. The M1910 was water-cooled and had a steel gun shield for crew protection.

When equipped with a shield and loaded with water, the M1910 weighed 43 kilograms, so an attached wheeled carriage made it easier to move.

Cartridge.....7.62x54mmR

Rate of fire.....600 rounds/min

Effective range.....2,000 m

Feed system.....250-round belt



### ■ SG43

A medium machine gun, the SG43 began replacing the venerable Maxim M1910 beginning in 1943. The SG43 was air-cooled unlike the Maxim but retained the wheeled carriage for dismounted transportation. The SG43 was reliable and suited for long periods of continuous fire with a heavy quick-change barrel and chromium-plated bore. Early versions had finned barrels for heat dissipation and steel gun shields, but later versions discarded the gun shield and switched to a fluted barrel to reduce weight.

Cartridge.....7.62x54mmR

Rate of fire.....500-700 rounds/min

Effective range.....1,000 m

Feed system.....250-round belt



### ■ ROKS-3 FLAMETHROWER

The ROKS-3 was a manpack flamethrower borne of a need for production necessity. The previous version, the ROKS-2, was elaborately designed to resemble a satchel pack and accompanying rifle. This canny

disguise was constructed because flamethrower operators were priority targets for the enemy. However, with wartime pressures the ROKS-2 was too difficult to manufacture, so the simpler ROKS-3 was designed, which used normal dual cylinder containers. The ROKS-3 did however retain the unique hand-held portion that resembled a rifle.

The operation of a flamethrower was horrifying and simple. One tank carried fuel, and other tank contained compressed gas. When activated, the compressed gas pushed fuel out of the tanks and through the system. The fuel would exit the nozzle in a high speed stream, which was ignited by a small flame. The fuel was usually also mixed with a thickening agent, making it travel further and stick to whatever it hit while it burned. The ROKS-3 carried 23 kilograms of fuel and could fire it up to about 32 meters away, depending on conditions and fuel usage.

Flamethrowers were usually operated by either combat engineers or specially formed units, and used to dislodge enemy soldiers from fortified positions that were resistant to explosives or small arms fire.

**Note: Flamethrowers have very limited fuel.  
Choose your shots carefully!**



### ■ 45 MM M1942 [M-42]

A replacement for the weaker M1937, the M1942 anti-tank gun had a longer barrel and more charge in its ammunition, resulting in higher muzzle velocity and penetration. However, the 45 mm round could not compete with new German tanks, so even bigger Soviet anti-tank guns such as the ZiS-2 were introduced.



### ■ 57 MM M1943 [ZiS-2]

The ZiS-2 was a 57 mm anti-tank gun that began service in 1943 after 45 mm anti-tank guns and 76 mm field guns proved inadequate for dealing with heavy German tanks such as the Tiger. The semi-automatic breech block gave the gun a high rate of fire, up to 25 rounds per minute.



### ■ 76 MM M1942 [ZIS-3]

The ZiS-3 was the most common Soviet divisional field gun used during World War II, with over 100,000 guns made. It was lighter and easier to make than the field guns it replaced, easy to maintain, and accurate. In addition to its use as a field gun, the ZiS-3 was also often used as an anti-tank gun.



### ■ 50 MM RM-41

The RM-41 was a light infantry mortar used by the Soviet Army used at the company level in some formations.



### ■ 82 MM BM-43

A medium mortar, the BM-43, or Model 1943, was a modernized version of the Model 1941 and Model 1937 82 mm mortars that had been serving in the Soviet since the beginning of the war. The mortar had a maximum rate of fire of up to 25 rounds per minute, and delivered a 3 kilogram shell up to 3,000 meters away.



### ■ 37 MM M1939 [61-K]

The M1939 (61-K) was a standard Soviet light anti-aircraft gun used from the 1930s to the 1950s. The gun fired via five-round clips, and could depress low enough to engage ground targets.



### ■ 85 MM M1939 [52-K]

The Soviet counterpart to the famous German 88 mm flak gun, the M1939 (52-K) was primarily an anti-aircraft gun, but it was also supplied with anti-tank shells for ground targets. The barrel of the 52-K was adapted into the 85 mm guns used by the famous T-34-85 and other armored vehicles.



## ■ GERMAN WEHRMACHT

It has often been said that the seeds for the Third Reich's military defeat were sown at Stalingrad (some argue earlier) and the defeats of 1943 sealed its fate. However, it was the Soviet Union's 1944 Operation Bagration that truly removed any chance of avoiding outright military defeat. While the strategic initiative was totally in favor of the Soviets from this point on, Axis success at the tactical level was still possible. In fact, tactical and even operational successes were common right up until the final months of the war; they just had no chance of influencing the larger course of events.

By 1944 the German forces were, on paper, better than they had ever been at any point in the war. Better equipment, better tactics, and better manpower distribution meant that tactically the Soviets still had a lot to worry about. Fortunately for the Soviets, by this point in the war shortages of men and material meant that German forces were rarely as potent as they theoretically could be. German commanders rarely had all the resources they were supposed to have, not to mention everything they needed to have. As a player you will likely feel the same way.

The first thing you must do to win battles is to accept the reality of the 1944 battlefield. Brute force, head to head fighting with Soviet forces is unlikely to produce good results because their equipment and tactics were, by this point in the war, optimized for such fights. What they weren't designed for, or at least weren't historically very good at, was improvising when things did not go according to plan. The more you can disrupt their plan, the greater the chances of coming out on top.

When confronting a Soviet force the most important thing is to figure out what they have to fight with and where the forces are. Even if you don't know what their plans are, if you can disrupt key elements of their forces, either by stalling or damaging them, you may find the rest of their plan collapses. While this is generally good advice against any adversary, the Soviet forces are inherently less able to bounce back from significant disruption. Just remember there is often a fine line between bold and reckless. 1944 Soviet forces are fully capable of handing an over confident adversary a quick and definite defeat.

## ■ GERMAN TANKS

### ■ PANZER IIL [LUCXS]

The official German designation for the Panzer II family was Panzerkampfwagen II (abbreviated Pz.Kpfw. II). It was usually known as the Luchs (Lynx).

The Ausf. L was a light reconnaissance tank and is easily recognizable by its overlapping/interleaved road wheels and "slack track" configuration. Production started in September 1943. The Lynx was larger than the Ausf. G and was equipped with a six speed transmission, able to reach speeds up to 60 km/h.

Armor ..... 5 - 35 mm

Available beginning..... June 1944

Formations equipped..... Panzer Aufklärung battalions, Sturmartillerie brigades



### ■ PANZER IVG [LATE]

The Panzerkampfwagen IV (Pz.Kpfw. IV), commonly known as the Panzer IV or PzIV, was a medium tank developed in the late 1930s and used extensively during World War Two. Its ordnance inventory designation was Sd.Kfz. 161. Designed as an infantry-support tank, the Panzer IV soon assumed the tank-fighting role of its increasingly obsolescent cousin, the Panzer III. The most widely manufactured and deployed German tank of the Second World War, the Panzer IV was used as the base for many other fighting vehicles, including tank destroyers and self-propelled anti-aircraft guns. Robust and reliable, it saw service in all combat theaters involving Germany, and has the distinction of being the only German tank to remain in continuous production throughout the war, with over 8,800 produced between 1936 and 1945. Upgrades and design modifications, often made in response to the appearance of new Allied tanks, extended its service life.

The Ausf. F tanks that received the new, longer, KwK 40 L/43 gun were named Ausf. F2 (with the designation Sd.Kfz. 161/1). The tank increased in weight to 23.6 tons. Three months after beginning production, the Panzer IV. Ausf. F2 was renamed Ausf. G. There was little to no difference between the F2 and early G models.

The Ausf. G featured a power turret traverse and the 80 mm front armor was in fact a 50 mm base with an additional 30 mm of applique armor bolted on. Imperfect welding of the hull front to the hull sides caused occasional armor failures.

*Armor..... 10 - 80 mm*

*Available beginning..... June 1944*

*Formations equipped..... Panzer battalions*



### ■ PANZER IVG [LATEST]

In April 1943, the KwK 40 L/43 was replaced by the longer 75 mm KwK 40 L/48 gun, with a redesigned multi-baffle muzzle brake with improved recoil efficiency.

*Armor..... 10 - 80 mm*

*Available beginning..... June 1944*

*Formations equipped..... Panzer battalions*



### ■ PANZER IVH [EARLY]

The next version of the PzIV, the Ausf. H, began production in April 1943 and received the designation Sd.Kfz. 161/2. This variant saw the integrity of the glacis armor improved by manufacturing it as a single 80 mm plate. To prevent adhesion of magnetic anti-tank mines, which the Germans feared would be used in large numbers by the Allies, Zimmerit paste was added to all the vertical surfaces of the tank's armor. The vehicle's side and turret were further protected by the addition of 5 mm side-skirts and 8 mm turret skirts. The top turret armor was strengthened to 16 mm.

*Armor..... 10 - 80 mm*

*Available beginning..... June 1944*

*Formations equipped..... Panzer battalions*



### ■ PANZER IVH [LATE]

The PzIVH (Late) is like the PzIVH (Early) except that the hull front was finally interlocked with the hull sides, correcting earlier flaws in the hull armor.

*Armor..... 10 - 80 mm*

*Available beginning..... June 1944*

*Formations equipped..... Panzer battalions*



### ■ PANZER IVJ [EARLY]

Despite addressing the mobility problems introduced by the previous model, the final production version of the Panzer IV (the Ausf. J) was considered a retrograde from the Ausf. H. Born of German necessity to



replace heavy losses, it was greatly simplified to speed production. The electric generator that powered the tank's turret traverse was removed, so the turret had to be rotated manually. However, the engine was upgraded and the hull and turret top armor were strengthened.

*Armor..... 10 - 80 mm*

*Available beginning..... June 1944*

*Formations equipped..... Panzer battalions*



### ■ PANZER IVJ [LATE]

The Pz IVJ (Late) is like the Pz IVJ (Early) except that the Nahverteidigungswaffe close-defense system has been installed. This system was a rotating 92 mm launcher, which could shoot smoke candles or have a flare pistol (armed with smoke or grenade ammunition) shot through it.

*Armor..... 10 - 80 mm*

*Available beginning..... September 1944*

*Formations equipped..... Panzer battalions*



### ■ PANZER VD PANTHER [LATE]

Panther is the common name of a medium tank fielded by Germany in World War II that served from mid-1943 to the end of the war. The Panther's excellent combination of firepower, mobility, and protection served as a benchmark for other nations' late war and immediate post-war tank designs, and it is frequently regarded as one of the best tank designs of World War II. Until 1944, it was designated as the Panzerkampfwagen V Panther and had the ordnance inventory designation of Sd.Kfz. 171. On 27 February 1944, Hitler ordered that the Roman numeral V be deleted from the designation.

The Panther tank was a compromise of various requirements. While sharing essentially the same engine as the Tiger I tank, it had better frontal armor, better gun penetration, was lighter overall and thus faster, and could handle rough terrain better than the Tiger. The tradeoff was weaker side armor; the Panther proved to be deadly in open country and shooting from long range, but vulnerable to close quarters combat. Also, the 75 mm gun fired a slightly smaller shell than the Tiger's 88 mm gun, providing less high explosive firepower against infantry. The Panther was far cheaper to produce than the Tiger, and only slightly more expensive than the Panzer IV.

*The Panther VD (Late) has these features:*

- ..... 79 main gun rounds
- ..... 100 mm turret front armor
- ..... Face-hardened glacis (upper-front hull) armor
- ..... 65 mm face-hardened nose(lower-front hull) armor
- ..... Upper side hull armor 40 mm @40°
- ..... Hull sides are face-hardened
- ..... 16 mm hull top armor

..... 30 mm hull bottom armor  
 ..... Bow MG is "letterbox" style  
 ..... 55 kph maximum speed, 690 hp engine  
 Available beginning..... June 1944  
 Formations equipped..... Panzer battalions



### ■ PANZER VA PANTHER [EARLY]

The Panther VA (Early) is like the Panther VD (Late) except:

..... Improved turret traverse speed  
 ..... Improved commander's cupola  
 ..... Adds periscope for loader  
 ..... 110 mm turret front armor  
 ..... Glacis plate is no longer face-hardened

Available beginning..... June 1944

Formations equipped..... Panzer battalions



### ■ PANZER VA PANTHER [MID]

The Panther VA (Mid) is like the Panther VA (Early) except:

..... Bow MG is "ball mount" style  
 ..... 46kph maximum speed, 600hp engine (governed)  
 ..... Turret traverse speed drops slightly due to engine being governed

Available beginning..... June 1944

Formations equipped..... Panzer battalions



### ■ PANZER VA PANTHER [LATE]

The Panther VA (Late) is like the Panther VA (Mid) except:

- ..... Slight improvement to gunner's optics
- ..... Adds Nahverteidigungswaffe close-defense system

Available beginning..... June 1944

Formations equipped..... Panzer battalions

Commander		Gunner		Loader		Driver		AMMO		DAMAGE		DEFENSES	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]		75mm HE	40	75mm Main	[ ]	+++++	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]		75mm AP	39	7.92mm Coax	[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]		7.92mm	>5k	7.92mm MG	[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]				Nahverteidigung	[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]				Radio	[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]				Engine	[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]				Wpn Controls	[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]				Optics	[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]				Tracks	[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]					[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	

### ■ PANZER VG PANTHER [EARLY]

The Panther VG (Early) is like the Panther VA (Late) except:

- ..... 82 main gun rounds
- ..... Glacis armor has occasional manufacturing flaws
- ..... 50 mm nose (lower-front hull) armor, no longer face-hardened
- ..... Upper side hull armor 50 mm @30°
- ..... Hull sides are no longer face-hardened
- ..... 40 mm hull top armor
- ..... 25 mm hull bottom

Available beginning..... June 1944

Formations equipped..... Panzer battalions

Commander		Gunner		Loader		Driver		AMMO		DAMAGE		DEFENSES	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]		75mm HE	41	75mm Main	[ ]	+++++	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]		75mm AP	41	7.92mm Coax	[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]		7.92mm	>5k	7.92mm MG	[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]				Nahverteidigung	[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]				Radio	[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]				Engine	[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]				Wpn Controls	[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]				Optics	[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]				Tracks	[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	
[Silhouette]		[Silhouette]		[Silhouette]		[Silhouette]					[ ]	[ ] [ ] [ ] [ ] [ ] [ ]	

### ■ PANZER VI E TIGER [MID]

The Tiger I, officially designated the Panzerkampfwagen Tiger Ausf. E, was developed in 1942 in response to the unexpectedly formidable Soviet armor encountered in the initial months of Operation Barbarossa.

The Tiger I design gave the Wehrmacht its first tank mounting the 88 mm gun, which had previously demonstrated its effectiveness against both air and ground targets.

While the Tiger I was feared by many of its opponents, it was over-engineered, used expensive and labor intensive materials and production methods, and was time-consuming to produce. Only 1,347 were built between August 1942 and August 1944. The Tiger was prone to certain types of track failures and immobilizations, it was however, generally mechanically reliable but expensive to maintain and complicated to transport due to its interlocking wheels.

Armor..... 25 - 100 mm

Available beginning..... June 1944

Formations equipped..... Heavy Panzer battalions

Commander Gunner Loader Driver	 <b>Heavy Tank</b> 88mm L/56 KwK36 Weight 56.9 tons Speed ██████ Power ██████ Off-Road ██████ Turning ██████	 <b>AMMO</b> 88mm HE 46 88mm AP 46 7.92mm >4k	<b>DAMAGE</b> 88mm Main 7.92mm Coax 7.92mm MG Radio Engine Wpn Controls Optics Tracks	<b>DEFENSES</b> ++++++ ○ × × × ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○
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### ■ PANZER VIE TIGER [LATE]

The late production model added the Nahverteidigungswaffe close-defense system and increased top armor protection; however, many armor plates had a lower standard of “hardness” due to production shortcuts.

Armor..... 25 - 100 mm

Available beginning..... June 1944

Formations equipped..... Heavy Panzer battalions

Commander Gunner Loader Driver	 <b>Heavy Tank</b> 88mm L/56 KwK36 Weight 56.9 tons Speed ██████ Power ██████ Off-Road ██████ Turning ██████	 <b>AMMO</b> 88mm HE 46 88mm AP 46 7.92mm >4k	<b>DAMAGE</b> 88mm Main 7.92mm Coax 7.92mm MG Nahverteidigung Radio Engine Wpn Controls Optics Tracks	<b>DEFENSES</b> ++++++ ○ × × × ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○
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### ■ PANZER VIB KÖNIGSTIGER [HEINSCHEL TURRET]

Panzerkampfwagen Tiger Ausf. B was the official German designation of this heavy tank, also known as the Tiger II or Königstiger, usually translated as King Tiger.

The design followed the same concept as the Tiger I, but meant to be bigger and more powerful. It used the same concept of sloped armor that was first used on the Panther tank, but combined with the armor thickness of the Tiger I. It weighed almost seventy tons and boasted 100 to 180 mm of front armor. The main gun was a long barreled 88 mm KwK 43 L/71 gun. The chassis was also the basis for the Jagdtiger tank destroyer.

The first fifty Tiger IIs were produced with a Porsche turret. Afterwards, the Tiger II was produced mounting the new Henschel turret. This turret had a flat front face with much thicker armor, which also eliminated the shot trap created by the Porsche turret's rounded frontal armor.

Armor..... 100 - 180 mm

Available beginning..... July 1944

Formations equipped..... Heavy Panzer battalions

Commander Gunner Loader Driver	 <b>Heavy Tank</b> 88mm L/71 KwK43 Weight 69.8 tons Speed ██████ Power ██████ Off-Road ██████ Turning ██████	 <b>AMMO</b> 88mm HE 35 88mm AP 35 7.92mm >5k	<b>DAMAGE</b> 88mm Main 7.92mm Coax 7.92mm MG Nahverteidigung Radio Engine Wpn Controls Optics Tracks	<b>DEFENSES</b> ++++++ ○ × × × ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○
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## GERMAN TANK DESTROYERS

### JAGDPANZER 38(T)

Also known post-war as the Hetzer, the Jagdpanzer 38(t) was a light tank destroyer based on the Czechoslovakian Panzer 38(t) chassis. It was armed with a 75 mm PaK 39 L/48 and had up to 60 mm of sloped front armor. The fully enclosed armor made the vehicle much more survivable than the open-topped Marder series of tank destroyers. It was also mechanically reliable and had a remote-controlled machine gun. Although it entered the war late when it first saw combat in July 1944, it became one of the most common German tank destroyers of late World War II.

*Armor..... 10 - 60 mm*

*Available beginning..... July 1944*

*Formations equipped..... Panzerjäger battalions*

Crew		Tank Destroyer		AMMO		DAMAGE		DEFENSES	
Commander			75mm L/48 PaK39	75mm HE	19	75mm Main	<input type="checkbox"/>	+++++	<input type="checkbox"/>
Gunner		Weight	15.8 tons	75mm AP	20	7.92mm MG	<input type="checkbox"/>	xxxxx	<input type="checkbox"/>
Loader		Speed		75mm Smoke	2	Radio	<input type="checkbox"/>	xxxxx	<input type="checkbox"/>
Driver		Power		7.92mm	>1k	Engine	<input type="checkbox"/>	xxxxx	<input type="checkbox"/>
		Off-Road				Wpn Controls	<input type="checkbox"/>	xxxxx	<input type="checkbox"/>
		Turning				Optics	<input type="checkbox"/>	xxxxx	<input type="checkbox"/>
						Tracks	<input type="checkbox"/>	xxxxx	<input type="checkbox"/>

### JAGDPANZER IV [EARLY]

The Jagdpanzer IV was a tank destroyer based on the Panzer IV chassis. Minor modifications and improvements were made throughout the production runs of all variants, as well as several field improvements, the most common being the addition of armor skirts. The early production version features 60 mm upper front hull armor, and 30 mm upper side hull armor. The bow MG42 is operated by the loader (or an extra crewman in the "HQ" version).

*Armor..... 10 - 60 mm*

*Available beginning..... June 1944*

*Formations equipped..... Panzerjäger battalions*

Crew		Tank Destroyer		AMMO		DAMAGE		DEFENSES	
Commander			75mm L/48 PaK39	75mm HE	38	75mm Main	<input type="checkbox"/>	+++++	<input type="checkbox"/>
Gunner		Weight	24.0 tons	75mm AP	38	7.92mm MG	<input type="checkbox"/>	xxxxx	<input type="checkbox"/>
Loader		Speed		75mm Smoke	3	7.92mm MG	<input type="checkbox"/>	xxxxx	<input type="checkbox"/>
Driver		Power		7.92K	384	Radio	<input type="checkbox"/>	xxxxx	<input type="checkbox"/>
		Off-Road		7.92mm	>1k	Engine	<input type="checkbox"/>	xxxxx	<input type="checkbox"/>
		Turning				Wpn Controls	<input type="checkbox"/>	xxxxx	<input type="checkbox"/>
						Optics	<input type="checkbox"/>	xxxxx	<input type="checkbox"/>
						Tracks	<input type="checkbox"/>	xxxxx	<input type="checkbox"/>

### JAGDPANZER IV [Mid]

In the mid production version of the Jpz IV, the firing port for the driver's MP44 was removed.

*Armor..... 10 - 60 mm*

*Available beginning..... June 1944*

*Formations equipped..... Panzerjäger battalions*



### ■ JAGDPANZER IV [LATE]

The late production version was uparmored to 80 mm upper front hull armor and 40 mm upper side hull armor, and added the Nahverteidigungswaffe close-defense system. The thicker armor made it slightly nose-heavy, slightly limiting maneuverability.

Armor..... 10 - 80 mm

Available beginning..... June 1944

Formations equipped..... Panzerjäger battalions



### ■ MARDER II

The Marder II is the name for a series of World War II German tank destroyers built on the chassis of the Panzer II. The German word "Marder" means "Marten" (an agile, slender forest animal) in English. 575 Sd.Kfz. 131 Marder IIs were produced by FAMO, MAN, and Daimler-Benz between June 1942 and June 1943. The hull and superstructure of the Panzer II remained, with an open fighting compartment added to the top of the vehicle, but the armor was thin and the crew was exposed from above and to the rear. Marder IIs served in Panzerjäger detachments on all fronts until the end of the war.

Armor..... 4 - 35 mm

Available beginning..... June 1944

Formations equipped..... Panzerjäger battalions



### ■ MARDER III

The Marder III was built on the chassis of the Panzer 38(t). The last variant, Marder III Ausf.M, Sd.Kfz.

138, was based on the Panzer 38(t) Ausf. M and armed with the 75 mm PaK 40 anti-tank gun. In this variant, the engine was moved from the rear to the middle between the driver and the rest of the crew. Because there was no engine in the rear, the gun and the crew did not have to sit on top of the engine deck as in previous models, decreasing crew exposure and visibility.

Armor..... 10 - 35 mm

Available beginning..... June 1944

Formations equipped..... Panzerjäger battalions

Crew		Tank		AMMO		DAMAGE		DEFENSES	
Commander				75mm HE	9	75mm Main		+++++	
Gunner				75mm AP	16	Radio		XXXXX	
Loader				75mm Smoke	2	Engine		XXXXX	
Driver						Wpn Controls		XXXXX	
		<b>Tank Destroyer</b>				Optics		○○○○○	
		<b>75mm L/46 PaK40</b>				Tracks			
		Weight	10.5 tons						
		Speed							
		Power							
		Off-Road							
		Turning							

## ■ NASHORN [LATE]

The Nashorn (sometimes referred to as the Hornisse) was an expedient tank destroyer fielded by the Wehrmacht beginning in 1943. The Nashorn was created by marrying a Pak 43 88 mm gun with a Hummel chassis. The resulting vehicle was mobile and able to penetrate any Allied tank at long range, although it was very lightly armored and had a high profile.

Development of the Nashorn began in 1942 when the need for a self-propelled 88 mm PaK43 was realized. 100 vehicles were built in time for the Kursk offensive in 1943, and through the course of the war 494 were built in total.

Armor..... 10 - 30 mm

Available beginning..... June 1944

Formations equipped..... Heavy Panzerjäger battalions

Crew		Tank		AMMO		DAMAGE		DEFENSES	
Commander				88mm HE	14	88mm Main		+++++	
Gunner				88mm AP	26	Radio		XXXXX	
Loader						Engine		XXXXX	
Driver						Wpn Controls		XXXXX	
		<b>Tank Destroyer</b>				Optics		○○○○○	
		<b>88mm L/71 PaK43</b>				Tracks			
		Weight	24.0 tons						
		Speed							
		Power							
		Off-Road							
		Turning							

## ■ GERMAN ASSAULT GUNS

### ■ STUG III [EARLY]

The Sturmgeschütz III (StuG III) assault gun was built on the Panzer III chassis and was Germany's most produced armored fighting vehicle during World War II. Initially intended as a mobile, armored light gun for infantry support, the StuG was continually modified and was widely employed as a tank destroyer. The Ausf. G was the final and by far the most common of the StuG series. The Ausf. G used the hull of the Pz.Kpfw. III Ausf. M with a new superstructure design. The early production versions featured a "box" shaped gun mantlet of varying thickness (between 45 mm and 50 mm), a commanders cupola with periscopes, and a shielded top-mounted MG34 operated by the loader.

Armor..... 16 - 80 mm

Available beginning..... June 1944

Formations equipped..... Sturmgeschütz battalions, Sturmgeschütz brigades, Panzerjäger battalions, Sturmartillerie brigades



### ■ StuG III G (Mid)

Later G versions from November 1943 were fitted with the Topfblende (pot mantlet) (often called a Saukopf (pig's head) gun mantlet without coaxial mount. This cast mantlet with a curved organic shape was more effective at deflecting shots than the "box" mantlet.

Armor..... 16 - 80 mm

Available beginning..... June 1944

Formations equipped..... Sturmgeschütz battalions, Sturmgeschütz brigades, Panzerjäger battalions, Sturmartillerie brigades



### ■ StuG III G (Late)

The late production versions featured the "box" shaped gun mantlet again, as the two mantlet types were in co-production for a time. The top-mounted MG34 was replaced with a remote-control MG42. The frontal armor was no longer face-hardened, and the overall armor manufacturing quality was fair.

Armor..... 16 - 80 mm

Available beginning..... August 1944

Formations equipped..... Sturmgeschütz battalions, Sturmgeschütz brigades, Panzerjäger battalions, Sturmartillerie brigades



### ■ StuH 42 (Early)

In 1942, a variant of the StuG III Ausf. F was designed with a 105 mm howitzer instead of the 75 mm StuK 40 L/43 cannon. These new vehicles, designated StuH 42 (Sturmhaubitze 42, Sd.Kfz 142/2),



were designed to provide infantry support since an increasing number of StuG III were being used in an anti-tank role. The StuH 42 mounted a variant of the 105 mm leFH 18 howitzer, modified to be electrically fired and fitted with a muzzle brake.

The early model is equivalent to the StuG III (Early) and uses a "box" mantlet.

*Armor..... 16 - 80 mm*

*Available beginning..... June 1944*

*Formations equipped..... Sturmgeschütz battalions, Sturmgeschütz brigades*



### ■ StuH 42 (Mid)

The mid production model of the StuH 42 is equivalent to the StuG III (Mid) and uses the rounded "Saukopf" gun mantlet.

*Armor..... 16 - 80 mm*

*Available beginning..... June 1944*

*Formations equipped..... Sturmgeschütz battalions, Sturmgeschütz brigades*



### ■ StuH 42 (Late)

The late production model of the StuH 42 was equivalent to the StuG III (Late) with the return to the box gun mantlet, along with a new coaxial MG and remote-controlled top-mounted MG.

*Armor..... 16 - 80 mm*

*Available beginning..... September 1944*

*Formations equipped..... Sturmgeschütz battalions, Sturmgeschütz brigades*



## GERMAN SELF-PROPELLED ARTILLERY

### GRILLE H

The Sd.Kfz. 138/1 Ausf. H, or Grille, was a self propelled artillery vehicle based on the Panzer 38(t) Ausf. H. The Grille was a Panzer 38(t) Ausf. H chassis with the turret removed and an armored superstructure added. A 150 mm sIG 33 heavy infantry gun and ammunition compartments were added within the superstructure.

*Armor..... 15 - 50 mm*  
*Available beginning..... June 1944*  
*Formations equipped..... Armored Panzergrenadier regimental cannon companies*

Commander	 SPA 150mm L/11 sIG33			
Gunner		<b>AMMO</b>	<b>DAMAGE</b>	<b>DEFENSES</b>
Loader		150mm HE 11	150mm Main	+++++
Loader		150mm HEAT 2	Radio	XXXXX
Driver		150mm Smoke 2	Engine	XXXXX
	Weight 11.5 tons	Wpn Controls	XXXXX	
	Speed	Optics	OOOO	
	Power	Tracks		
	Off-Road			
	Turning			

### WESPE

The Sd.Kfz. 124 Wespe (German for "Wasp"), also known as Leichte Feldhaubitze 18 auf Fahrgestell Panzerkampfwagen II ("Light field howitzer 18 on Panzer II chassis"), was a German self-propelled artillery vehicle developed and used during World War II. The design for the Wespe was produced by Alkett, and was based on the Panzer II Ausf. F chassis. Its main gun is the 105 mm leFH 18 light howitzer.

*Armor..... 5 - 30 mm*  
*Available beginning..... June 1944*  
*Formations equipped..... Self-propelled artillery batteries*

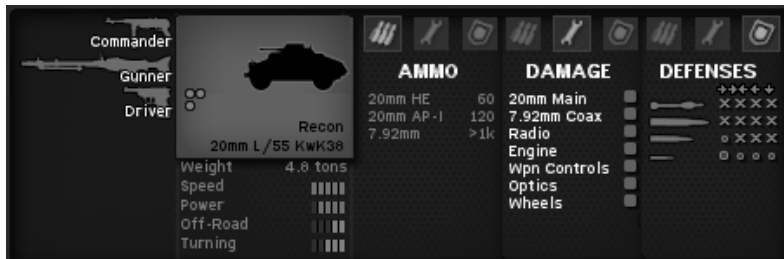
Commander	 SP Howitzer 105mm L/26 leFH18M			
Gunner		<b>AMMO</b>	<b>DAMAGE</b>	<b>DEFENSES</b>
Loader		105mm HE 27	105mm Main	+++++
Loader		105mm HEAT 2	Radio	XXXXX
Driver		105mm Smoke 3	Engine	XXXXX
	Weight 11.0 tons	Wpn Controls	XXXXX	
	Speed	Optics	OOOO	
	Power	Tracks		
	Off-Road			
	Turning			

## GERMAN ARMORED CARS

### PSW 222

The Leichter Panzerspähwagen (PSW) light armored reconnaissance vehicles were a series of light four-wheel drive armored cars produced from 1935 to 1944. They used the standard sPkw I Horch 801 (heavy car) chassis with an angled armored body and turret. The Sd.Kfz. 222 variant was armed with a 20 mm KwK 30 L/55 autocannon and a MG34 machine gun. The third crew member was the gunner.

*Armor..... 5 - 8 mm*  
*Available beginning..... June 1944*  
*Formations equipped..... Aufklärung battalions, Panzer Aufklärung battalions*



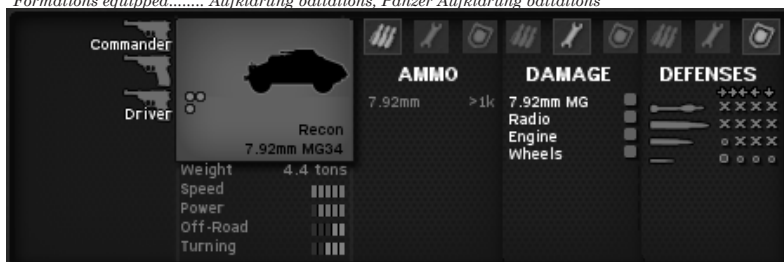
### ■ PSW 223

The Sd.Kfz. 223 Panzerfunkwagen was a radio car version, armed with a MG34 machine gun. It includes additional radio equipment, and has a large "bed-frame" antenna over the vehicle.

*Armor*..... 5 - 14.5 mm

*Available beginning*..... June 1944

*Formations equipped*..... Aufklärung battalions, Panzer Aufklärung battalions



### ■ PSW 231

The label Schwerer Panzerspähwagen (heavy armored reconnaissance vehicle) covers the 6 and 8-wheeled armored cars Germany used during the Second World War. The Sd.Kfz. 231 was an eight-wheeled armored car, of which 607 were produced beginning in 1936 until September 1943. The Sdfkz 231 featured double steering, a rear engine, eight-wheel all-wheel drive, and a 20 mm KwK 38 L/55 gun.

*Armor*..... 8 - 30 mm

*Available beginning*..... June 1944

*Formations equipped*..... Aufklärung battalions, Panzer Aufklärung battalions



### ■ PSW 233

This armored car, based on the Sd.Kfz. 231, was armed with a 75 mm StuK 37 L/24, and was intended to provide Aufklärungs formations with heavier firepower against enemy tanks and infantry. The vehicle was basically a Sd.Kfz. 231 with the turret removed and superstructure altered to mount the 75 mm cannon. Just over 100 vehicles were built and used on all fronts until 1945.

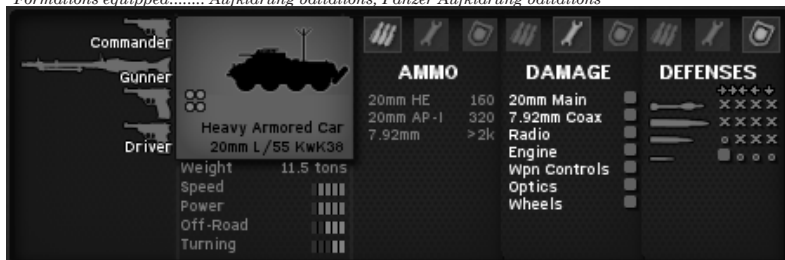
Armor..... 8 - 30 mm  
 Available beginning..... June 1944  
 Formations equipped..... Panzer Aufklärung battalions



### PSW 234/1

The Sd.Kfz. 234 (Sonderkraftfahrzeug 234, or special purpose vehicle 234) was an eight-wheeled armored car and the successor to the PSW 231 and PSW 232. It had an open-topped turret containing a 20 mm KwK 30 L/55 autocannon and a MG34 machine gun.

Armor..... 10 - 30 mm  
 Available beginning..... July 1944  
 Formations equipped..... Aufklärung battalions, Panzer Aufklärung battalions



### PSW 234/2 Puma

The 234/2 "Puma" employed a fully enclosed turret mounting a 50 mm KwK 39 L/60 cannon. Only 101 Pumas were produced during 1943 and 1944.

Armor..... 10 - 30 mm  
 Available beginning..... June 1944  
 Formations equipped..... Panzer Aufklärung battalions



### PSW 234/3

Using the same basic chassis as the PSW 234/1 and 234/2, the PSW 234/3 was a close support version of the PSW 234 with an open-topped superstructure and a 75 mm gun, similar in purpose to the PSW

233. Only 88 vehicles were made in 1944.

*Armor..... 10 - 30 mm*

*Available beginning..... July 1944*

*Formations equipped..... Panzer Aufklärung battalions*



### ■ GERMAN ANTI-AIRCRAFT VEHICLES

#### ■ Sd.Kfz. 7/1

Also known as the 2 cm Flakvierling 38 auf Zugkraftwagen 8t, the Sd.Kfz. 7/1 was a halftrack prime mover converted into a self-propelled Flak gun. The back of the vehicle beyond the cab was converted into a flat AA platform with a 20 mm Flakvierling 38 gun mounted, and sides that could fold down to allow 360 degree traverse.

**Note: In CM:RT, halftrack AA guns cannot fire directly to the front of the vehicle, over the cab.**

*Available beginning..... June 1944*

*Formations equipped..... Self-propelled Flak batteries (Armored Infantry branch), Panzer battalions (Armor branch)*



#### ■ Sd.Kfz. 7/2

Also known as the 3.7 cm Flak 36 auf Zugkraftwagen 8t, the Sd.Kfz. 7/2 was like the Sd.Kfz. 7/1, except that it had a 37 mm Flak 36 gun mounted instead of a Flakvierling.

**Note: In CM:RT, halftrack AA guns cannot fire directly to the front of the vehicle, over the cab.**

*Available beginning..... June 1944*

*Formations equipped..... Self-propelled Flak batteries (Armored Infantry branch)*



### ■ Sd.Kfz. 10/5

A Sd.Kfz. 10 prime mover halftrack converted into an anti-aircraft vehicle in the same manner as the Sd.Kfz. 7, mounting a single FlaK 38 20 mm gun on a rotating platform.

**Note:** In CM:RT, halftrack AA guns cannot fire directly to the front of the vehicle, over the cab.

Available beginning..... June 1944

Formations equipped..... Self-propelled Flak batteries (Armored Infantry branch)



### ■ MÖBELWAGEN

Based on a Pz IV hull, the Möbelwagen ("Furniture Van") (also referred to as a Flakpanzer IV) was an improvised armored anti-aircraft vehicle designed to accompany Panzer regiments in battle and provide them with close AA support. An armored open-top superstructure was placed on a Pz IV hull, and in the middle a FlaK43 3.7 cm gun was mounted. The superstructure could be folded down to allow the flak cannon to engage ground targets.

First entering service on the Western Front in 1944, the Möbelwagen proved to be highly successful and led to the development of further armored AA platforms such as the Wirbelwind and Ostwind.

Armor..... 10 - 80 mm

Available beginning..... June 1944

Formations equipped..... Light Anti-aircraft platoons (Armor branch)



### ■ WIRBELWIND

The Wirbelwind ("Whirlwind") (also referred to as a Flakpanzer IV) was the successor to the Möbelwagen.

Like its predecessor, the Wirbelwind was based on a Pz IV hull. However, the Wirbelwind sported Flakvierling 20 mm quad AA guns instead of the single 37 mm gun, housed in a specially designed open-topped turret. This setup gave the crew vastly improved protection against small arms fire and shrapnel, as the sides did not need to be folded down before engaging ground targets. Although highly effective against ground targets, the 20 mm Flakvierling lacked the range necessary to provide adequate protection against aircraft, leading to the development of the Ostwind in late 1944.

Armor..... 10 - 80 mm

Available beginning..... June 1944

Formations equipped..... Medium Anti-aircraft platoons (Armor branch)



### ■ GERMAN HALFTRACKS

#### ■ SPW 250/1 [Alt and Neu]

The Sd.Kfz. 250 was a light armored halftrack built by DEMAG. Compared to U.S. halftracks, the Sd.Kfz. 250 series was less mobile, with unpowered front wheels. However, its tracks made it far more mobile than the armored cars it replaced, and it was a popular vehicle. Most variants were open-topped and had a single access door in the rear. The Sd. Kfz. 250 was adopted in 1939 but production delays meant the first 250 did not appear until mid-1941. The Sd.Kfz. 250/1 leichter Schuetzenpanzerwagen (SPW) was the standard troop carrier.

Beginning in late 1943, a new version of the Sd.Kfz. 250 began production, with the angled plates being replaced with simple straight plates in order to simplify and speed production.

**Note:** In-game, the older variant with angled plates will be noted with (Alt) after its name. Example: SPW 250/1 = "Neu", SPW 250/1 (Alt) = "Alt"

Armor..... 5.5 - 14.5 mm

Available beginning..... June 1944

Formations equipped..... Panzer Aufklärung battalions



### ■ SPW 250/3 [ALT and New]

The Sd.Kfz. 250/3 leichter Funkpanzerwagen is the command variant of the 250, equipped with radio equipment and "bedstead" aerial frame.

*Armor..... 5.5 - 14.5 mm*

*Available beginning..... June 1944*

*Formations equipped..... Panzer Aufklärung battalions*



### ■ SPW 250/7 [ALT and New]

The Sd.Kfz. 250/7 leichter Schützenpanzerwagen (schwerer Granatwerfer) carries a 81 mm sGrW34 mortar.

*Armor..... 5.5 - 14.5 mm*

*Available beginning..... June 1944*

*Formations equipped..... Panzer Aufklärung battalions*



### ■ SPW 250/9 [ALT and New]

The Sd.Kfz. 250/9 leichter Schützenpanzerwagen (2 cm) is a reconnaissance variant with a 20 mm KwK 38 autocannon with a coaxial MG34 or MG42 in a low, open topped turret.

*Armor..... 5.5 - 14.5 mm*

*Available beginning..... June 1944*

*Formations equipped..... Panzer Aufklärung battalions*





### ■ SPW 250/10 (Alt and Neu)

The Sd.Kfz. 250/10 leichter Schuetzenpanzerwagen (3.7 cm PaK) is the recon platoon leader's variant with a 3.7 cm PaK 35/36. This was the same antitank gun used in a towed mode early in the war.

Armor..... 5.5 - 14.5 mm

Available beginning..... June 1944

Formations equipped..... Panzer Aufklärung battalions



### ■ SPW 251/1 (Ausf. C and Ausf. D)

The Sd.Kfz. 251 (Sonderkraftfahrzeug 251) half-track was an armored fighting vehicle designed and first built by Hanomag. The largest, most common, and best armored of the wartime halftracks, the Sd.Kfz. 251 was designed to transport the panzergrenadiers of the German mechanized infantry corps. Widely known simply as "Hanomags" by both German and Allied forces, they were widely produced throughout the war, with over 15,252 vehicles and variants produced in total by various manufacturers.

Beginning in 1943, the Ausf. D version of the SPW 251 replaced the Ausf. C in production. The Ausf. D had simplified armor plates in order to speed production.

The Sd.Kfz. 251/1 - Schützenpanzerwagen is the standard personnel carrier.

Armor..... 6 - 14.5 mm

Available beginning..... June 1944

Formations equipped..... Armored Panzergrenadier battalions



### ■ SPW 251/2 (Ausf. C and Ausf. D)

The Sd.Kfz. 251/2 - Schützenpanzerwagen (Granatwerfer) was a mortar vehicle assigned to Panzergrenadier heavy platoons.

*Armor*..... 6 - 14.5 mm

*Available beginning*..... June 1944

*Formations equipped*..... Armored Panzergrenadier battalions

Driver		AMMO		DAMAGE		DEFENSES	
		81mm HE	48	Radio	+++++	XXXXX	
Mortar Halftrack		81mm Smoke	5	Engine	XXXXX	XXXXX	
Weight 8.0 tons				Tracks	XXXXX	XXXXX	
Speed					XXXXX	XXXXX	
Power					XXXXX	XXXXX	
Off-Road					XXXXX	XXXXX	
Turning					XXXXX	XXXXX	

### ■ SPW 251/3 (Ausf. C and Ausf. D)

The Sd.Kfz. 251/3 - Kommandopanzerwagen (Funkpanzerwagen) is a communications vehicle, fitted with extra radio equipment for command use.

*Armor*..... 6 - 14.5 mm

*Available beginning*..... June 1944

*Formations equipped*..... Armored Panzergrenadier battalions

Driver		AMMO		DAMAGE		DEFENSES	
		7.92mm AP	250	7.92mm MG	+++++	XXXXX	
Halftrack		9mm	>1k	Radio	XXXXX	XXXXX	
7.92mm MG42		7.92mm AP	>1k	Engine	XXXXX	XXXXX	
Weight 8.5 tons				Tracks	XXXXX	XXXXX	
Speed					XXXXX	XXXXX	
Power					XXXXX	XXXXX	
Off-Road					XXXXX	XXXXX	
Turning					XXXXX	XXXXX	

### ■ SPW 251/7 (Ausf. C and Ausf. D)

The Sd.Kfz. 251/7-I - Pionierpanzerwagen is an assault engineer vehicle with fittings to carry assault bridge ramps on the sides.

*Armor*..... 6 - 14.5 mm

*Available beginning*..... June 1944

*Formations equipped*..... Armored Pioneer battalions, Armored regimental Pioneer companies

Gunner Driver		AMMO		DAMAGE		DEFENSES	
		7.92mm AP	250	7.92mm MG	+++++	XXXXX	
Halftrack		9mm	>1k	Radio	XXXXX	XXXXX	
7.92mm MG42		7.92mm AP	>3k	Engine	XXXXX	XXXXX	
Weight 8.1 tons				Tracks	XXXXX	XXXXX	
Speed					XXXXX	XXXXX	
Power					XXXXX	XXXXX	
Off-Road					XXXXX	XXXXX	
Turning					XXXXX	XXXXX	

### ■ SPW 251/9 (Ausf. C and Ausf. D)

The Sd.Kfz. 251/9 - Schützenpanzerwagen (7.5 cm) is equipped with a 75 mm L/24 low velocity gun, The "Stummel" ("stump") provided organic mobile close fire support to Panzergrenadier companies and battalions.

*Armor..... 6 - 14.5 mm*

*Available beginning..... June 1944*

*Formations equipped..... Armored Panzergrenadier battalions*

Crew		AMMO			DAMAGE			DEFENSES		
Ldr		75mm HE	42	75mm Main		+++++		XXXXX		XXXXX
Gunner		75mm HEAT	6	Radio		XXXXX		XXXXX		XXXXX
Loader		75mm Smoke	4	Engine		XXXXX		XXXXX		XXXXX
Driver		7.92mm AP	>2k	Optics		XXXXX		XXXXX		XXXXX
Support Halftrack		Tracks								
75mm L/24 KwK37										
Weight 8.5 tons										
Speed										
Power										
Off-Road										
Turning										

### ■ SPW 251/10 (Ausf. C and Ausf. D)

The Sd.Kfz. 251/10 - Schützenpanzerwagen is equipped with a 37 mm PaK 36 anti-tank gun. As the PaK 36 quickly became obsolete for anti-tank use, the gun was mounted on a variety of vehicles, including the platoon commander's vehicle in many Panzergrenadier platoons, in order to boost firepower.

*Armor..... 6 - 14.5 mm*

*Available beginning..... June 1944*

*Formations equipped..... Armored Panzergrenadier battalions*

Crew		AMMO			DAMAGE			DEFENSES		
Driver		37mm HE	98	37mm Main		+++++		XXXXX		XXXXX
		37mm AP	70	Radio		XXXXX		XXXXX		XXXXX
		9mm	500	Engine		XXXXX		XXXXX		XXXXX
		7.92mm AP	>1k	Optics		XXXXX		XXXXX		XXXXX
		Tracks								
Support Halftrack										
37mm L/45 PaK36										
Weight 8.0 tons										
Speed										
Power										
Off-Road										
Turning										

### ■ SPW 251/16 Ausf. D

Also called the Flammpanzerwagen, this halftrack had two vehicle flamethrowers, one mounted on each side. Six Flammpanzerwagen were assigned to each Panzergrenadier regiment's Pioneer company.

*Armor..... 6 - 14.5 mm*

*Available beginning..... June 1944*

*Formations equipped..... Armored Regimental Pioneer companies*

Crew		AMMO			DAMAGE			DEFENSES		
Gunner		Flame	>17k	Flamethrower		+++++		XXXXX		XXXXX
Gunner		7.92mm AP	250	Flamethrower		XXXXX		XXXXX		XXXXX
Ldr		9mm	>1k	7.92mm MG		XXXXX		XXXXX		XXXXX
Driver		7.92mm AP	>1k	Radio		XXXXX		XXXXX		XXXXX
		Tracks								
Flame Halftrack										
7.92mm MG42										
Weight 8.6 tons										
Speed										
Power										
Off-Road										
Turning										

### SPW 251/17 Ausf. D

An anti-aircraft / fire support variant of the Sd.Kfz. 251 armed with a KwK 38 20 mm gun in an armored turret. The 251/17 was often used in Panzergrenadier platoons to provide additional firepower.

Armor..... 6 - 14.5 mm

Available beginning..... June 1944

Formations equipped..... Armored Panzergrenadier battalions

Ldr		AMMO	DAMAGE	DEFENSES
Gunner		20mm AP-I 200	Radio	XXXXX
Loader	Support Halftrack	7.92mm AP 600	Engine	XXXXX
	20mm L/55 Flak38		Optics	XXXXX
	Weight 8.8 tons		Tracks	OOOO
Loader	Speed			
	Power			
	Off-Road			
Driver	Turning			

### GERMAN UNARMORED VEHICLES

#### KUEBELWAGEN UTILITY VEHICLE

The Volkswagen Kübelwagen (short for Kübelsitzwagen, meaning "bucket seat car") was a military vehicle designed by Ferdinand Porsche and built by Volkswagen for use by the German military. Based heavily on the Volkswagen Beetle, the Kübelwagen was for the Germans what the Jeep was for the Allies.

Driver		AMMO	DAMAGE	DEFENSES
	Multipurpose Vehicle	7.92mm 500	Wheels	XXXXX
	Weight 0.7 tons			XXXXX
	Speed			XXXXX
	Power			XXXXX
	Off-Road			XXXXX
	Turning			XXXXX

#### OPEL BLITZ TRUCK

Opel Blitz was the name given to various German light and middle-weight trucks built by Opel from 1930 on. During the years preceding the Second World War, Opel was Germany's largest truck producer. The Blitz name was first applied to an Opel truck in 1930 and by 1934 there were four base versions offered of the one-ton model along with fourteen versions of the larger 2½ ton trucks. A three-ton version was introduced in 1939 and used throughout the war.

Driver		AMMO	DAMAGE	DEFENSES
	Truck	7.92mm >2k	Wheels	XXXXX
	Weight 3.3 tons			XXXXX
	Speed			XXXXX
	Power			XXXXX
	Off-Road			XXXXX
	Turning			XXXXX

## GERMAN AIR SUPPORT

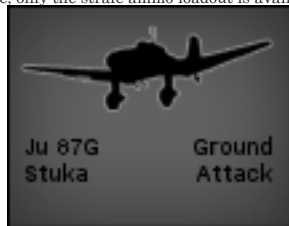
### STUKA JU-87D

The iconic Junkers Ju-87 “Stuka” was a two-man dive bomber and ground-attack aircraft. Prominent in the early phases of the war and first seeing combat during the Spanish Civil War, the Ju-87 was an effective ground-attack and dive bombing aircraft. The Stuka had numerous special features, including the famous inverted gull wing pattern which improved the pilot’s ground visibility and allowed for a larger external bomb load, and an automatic dive recovery system which activated upon bomb release. The Stuka became less prominent as the war progressed and Allied air forces began to gain air superiority, as the Stuka was too slow and unmaneuverable to effectively evade Allied fighters. Nevertheless it continued in its role until the end of the war. In the game, three ammo loadouts are available: strafe, light, and heavy bomb.



### STUKA JU-87G

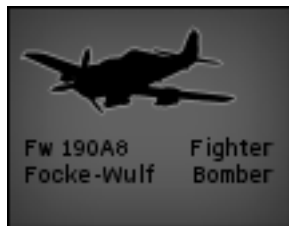
The Ju-87G was anti-tank version of the Stuka. The Ju-87G used two 37 mm cannons and had increased armor protection. In the game, only the strafe ammo loadout is available.



### Focke-Wulf 190A8

The Focke-Wulf Fw 190 Würger (Shrike) was a German single-seat, single radial engine fighter aircraft designed by Kurt Tank in the late 1930s. It was used by the Luftwaffe during the Second World War in a variety of roles. Like the Messerschmitt Bf 109, the Fw 190 was employed as a “workhorse”, and proved suitable for a wide variety of roles, including air superiority fighter, strike fighter, ground-attack aircraft, and also operated to a lesser degree as a night fighter.

The Fw 190 A-8 entered production in February 1944. In the game, two ammo loadouts are available: strafe and light.



### ■ FOCKE-WULF 190F8

The Fw 190 F-8 differed from the A-8 model with a slightly modified injector on the compressor which allowed for increased performance at lower altitudes for several minutes. The F-8 was also outfitted with the improved FuG 16 ZS radio unit which provided much better communication with ground combat units. Armament on the Fw 190 F-8 was two 20 mm MG 151/20 cannon in the wing roots and two 13 mm MG 131 machine guns above the engine.

In the game, three loadouts are available: light, heavy, and maximum.

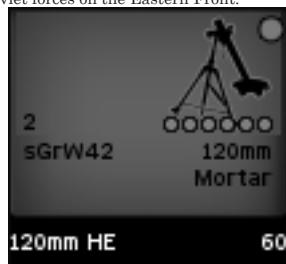


### ■ GERMAN ARTILLERY SUPPORT

**Note:** the sGrW34 medium mortar, IG18 gun, sIG33 gun, and Flak36 gun are available on-map and off-map, and explained under "heavy weapons"

### ■ sGrW42 120 MM MORTAR

The Granatwerfer 42 (literally, "grenade thrower Model 42"; official designation: 12cm GrW 42) was developed in 1941. It was an attempt to give German infantry units a close support weapon with a heavier performance than the mortars used in general service at the time. The weapon was a copy of the PM 38 mortar used by Soviet forces on the Eastern Front.



### ■ FK38 75 MM HOWITZER

The 75 mm Feldkanone 38 was a field gun built by Krupp.

Rate of fire ..... 8-10 rpm



#### ■ LEFH18M 105 MM HOWITZER

The 105 mm leFH 18M (leichte Feldhaubitze, or “light field howitzer”) replaced the 105 mm leFH 18 as the standard German divisional field howitzer used during the Second World War. It was designed and developed by Rheinmetall after the war broke out in an effort to get more range from the basic leFH 18 design. A muzzle brake was fitted and the recoil system adjusted to allow the use of a more powerful charge and new long-range shell.

*Rate of fire ..... 4-6 rpm*



#### ■ sFH18 150 MM HOWITZER

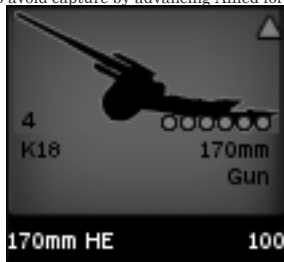
The 150 mm schwere Feldhaubitze 18 (“heavy field howitzer, model 18”), was the basic German division-level heavy howitzer during World War Two.

*Rate of fire ..... 4 rpm*



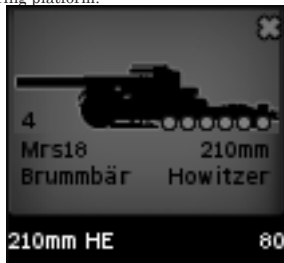
### ■ K18 170 MM GUN

The 170 mm Kanone 18 in Mörserlafette was a German heavy gun, intended to be employed at the Corps level in order to provide very long-range counter-battery support. Although it was technically an excellent weapon, it was expensive, difficult to maneuver, very slow to set up and pack up; many were lost when their crew abandoned them to avoid capture by advancing Allied forces.



### ■ MRS18 210 MM HOWITZER

The 210 mm Mörser 18 (heavy howitzer) was a German heavy howitzer used by independent artillery battalions and batteries. It was one of the first weapons that used a unique dual-recoil system. The barrel recoiled normally in its cradle, but, in addition, the whole top carriage, which carried the barrel and its cradle, recoiled across the main part of the carriage. This system damped out the recoil forces and made for a very steady firing platform.



### ■ 150 MM NEBELWERFER 41

The Nebelwerfer ("Smoke Mortar", literally "Fog thrower") were initially developed by and assigned to the Wehrmacht's so-called Chemical Troops (Nebeltruppen). Although the name seems to indicate a primary use as a smoke mortar, a high-explosive shell was developed from the beginning.

The first weapon delivered to the troops was the 150 mm Nebelwerfer 41 in 1940, a purpose-designed rocket with gas, smoke and high-explosive warheads. It, like virtually all German rocket designs, was spin-stabilized to increase accuracy. It was fired from a six-tube launcher mounted on a towed carriage adapted from that used by the 37 mm PaK 36 to a range of 6,900 meters.





### ■ 210 MM NEBELWERFER 42

The 210 mm Nebelwerfer 42 rocket was introduced in 1942 with a longer range (7,850 meters) and a simpler design than the smaller 150 mm rocket. It only had a high-explosive warhead. It was fired from a five-tube launcher that used the same carriage as the smaller weapon.



### ■ 280 MM NEBELWERFER 41

The 280 mm Nebelwerfer 41 rockets were introduced in 1941. The maximum range of the rocket was only 2,200 meters, a severe tactical drawback. It could be fired from their wooden packing cases or special wooden or tubular metal frames. Later, a towed launcher was developed that could take six rockets.



### ■ 300 MM NEBELWERFER 42

The last German-designed rocket to be introduced was the 300 mm Nebelwerfer 42 in 1943. This was intended to replace the 280 mm and 320 mm rockets which proved to have too short a range. Advances in propellant chemistry also reduced its smoke signature. It could be fired from all of the same platforms as the older rockets and many of the older launchers were converted to be used by the newer rocket by installing adapter rails although it had its own purpose-designed launcher, the 300 mm Raketenwerfer 56, as well.



## ■ GERMAN SMALL ARMS

### ■ P38



The Walther P38 is a 9 mm pistol that was developed by Walther as the service pistol of the Wehrmacht at the beginning of World War II. It was intended to replace the costly Luger P08.

*Cartridge.....9x19mm Parabellum*

*Effective range.....Sights set for 50 m*

*Feed system.....8-round detachable single-stack magazine*

### ■ KARABINER 98K



The Karabiner 98 Kurz (often abbreviated Kar98k, K98, or K98k) was adopted as the standard service rifle in 1935 by the German Wehrmacht. Although supplemented by semi- and fully automatic rifles during World War II, it remained the German service rifle until the end of the war.

*Cartridge.....8x57mm IS*

*Action.....Bolt-action*

*Effective range.....500 m (with iron sights)*

*Feed system.....5-round stripper clip, internal magazine*

### ■ KAR98K SCHIESSBECHER



In 1942, the 30 mm Schiessbecher cup-type rifle grenade launcher was introduced. It could be mounted on any Karabiner 98k. The rifle grenade launcher could be used against infantry, fortifications and light armored vehicles up to a range of 280 meters. For these differing tasks several specialized grenades with accompanying special propelling cartridges were developed for the 1,450,113 produced Schiessbecher rifle grenade launchers. The rifle grenade propelling cartridges fired a wooden projectile through the barrel to the rifle grenade that upon impact automatically primed the rifle grenade.

### ■ KAR98K ZF/4



For snipers, Karabiner 98k rifles selected for being exceptionally accurate during factory tests were fitted with a telescopic sight as sniper rifles. Karabiner 98k sniper rifles had an effective range up to 1000 meters when used by a skilled sniper. The German Zeiss Zielfvier 4x (ZF39) telescopic sight had bullet drop compensation in 50 meter increments for ranges from 100 meters up to 800 meters or in some variations from 100 meters up to 1000 meters.

*Effective range.....800+ m (with optics)*

### ■ GEWEHR 43



The Gewehr 43 or Karabiner 43 (G43, K43, Gew 43, Kar 43) is a semi-automatic rifle. It was never mass produced and never saw general issue. Despite being a more effective combat rifle than slower bolt action rifles, the Gewehr 43 was never as reliable or as robust and simple as Allied rifles such as the American M1 Garand or SVT-40.

*Cartridge* ..... 8x57mm IS  
*Action*..... Gas-operated  
*Effective range* ..... 500 m (with iron sights)  
*Feed system* ..... 10-round detachable box magazine

### ■ GEWEHR 43 ZF/4



The G43/K43 was often used as a designated marksman/sniper weapon, fitted with the Zielfernrohr 43 (ZF 4) telescopic sight with 4x magnification.

*Effective range* ..... 800 m (with optics)

### ■ MP40



The MP 40 was a submachine gun used extensively by paratroopers, tank crews, platoon and squad leaders, and other troops during World War II. The MP 40 was often called the “Schmeisser” by the Allies, after weapons designer Hugo Schmeisser; however, Schmeisser did not design the MP 40, although he held a patent on the magazine.

*Cartridge*.....9x19mm Parabellum  
*Action*.....Straight blowback open-bolt  
*Effective range*.....100 m  
*Rate of fire*.....500 rounds/min  
*Feed system*.....32-round detachable box magazine

### ■ MP44



The StG 44 (Sturmgewehr 44 or “storm(assault) rifle 44(model of 1944)”) was the first modern assault rifle to see major deployment, considered by many historians to be the first modern assault rifle deployed by a major military power.

The rifle was chambered for the 7.92x33 Kurz cartridge, a shorter version of the German standard rifle round. The combination of this round and the StG 44is selective fire design provided a compromise between the controllable firepower of a submachinegun at close range with the accuracy and power of a Kar98 at intermediate ranges.

*Cartridge* ..... 7.92x33 Kurz  
*Effective range* ..... 300m  
*Feed system* ..... 30-round detachable box magazine

### ■ MG34



The Maschinengewehr 34, or MG34, was a German machine gun first produced and accepted into service in 1934. It was an air-cooled machine gun firing the 7.92x57mm Mauser cartridge. In the light-machine gun role, it was intended to be equipped with a bipod and 50-round ammunition belt contained in a drum-shaped magazine attached to the receiver.

*Cartridge*..... 7.92x57mm Mauser  
*Action*.....Open bolt, recoil-operated, rotating bolt  
*Effective range*.....1,000 m  
*Rate of fire*.....800-900 rounds/min

Feed system.....50-round belts or 50-round drum

## ■ MG42



The MG42 weighed 11.6 kilograms in the light role with the bipod, lighter than the MG34 and easily portable. The bipod, the same one used on the MG34, could be mounted to the front or the center of the gun depending on where it was being used.

Cartridge.....7.92x57mm Mauser  
 Action.....Recoil-operated, roller-locked  
 Effective range.....1,000 m  
 Rate of fire.....1,200-1,500 rounds/min  
 Feed system.....50/250-round belts

## ■ PANZERFAUST 30K



The Panzerfaust (literally "armor fist" or "tank fist") was an inexpensive, recoilless German anti-tank weapon. It consisted of a small, disposable preloaded launch tube firing a high explosive anti-tank (HEAT) warhead, operated by a single soldier.

The Panzerfaust 30 klein ("small") or Faustpatrone was the original version, first delivered in August 1943 with a total weight of 3.2 kilograms and overall length of 98.5 centimeters. The "30" was indicative of the nominal maximum range of 30 meters. It had a 3.3 centimeter diameter tube containing 54 grams of black powder propellant launching a warhead carrying 400 grams of explosive. The projectile traveled at just 30 meters per second and could penetrate 140 mm of armor.

Effective range ..... 30 m  
 Armor penetration ..... 140 mm

## ■ PANZERFAUST 30



An improved version appeared in August 1943, with a larger warhead for improved armor penetration, 200 mm, but the same range of 30 meters.

Effective range ..... 30 m  
 Armor penetration ..... 200 mm

## ■ PANZERFAUST 60



A further improvement of the Panzerfaust began production in September 1944. The Panzerfaust 60 had a maximum range of 60 meters and improved sight and trigger mechanisms. Although in Combat Mission: Red Thunder the Panzerfaust 60 is very rare beginning in September, it would go on to become the most produced version during the war.

Effective range ..... 60 m  
 Armor penetration ..... 200 mm  
 Available beginning... September 1944

## ■ GERMAN HEAVY WEAPONS

### ■ MG34 HEAVY MACHINEGUN

The Maschinengewehr 34 was first produced and accepted into service in 1934. It was an air-cooled machine gun firing the 7.92x57mm Mauser cartridge. It was also designed to perform both as a light machine gun and in heavier roles. In the latter, it was mounted on a larger tripod and was belt-fed.

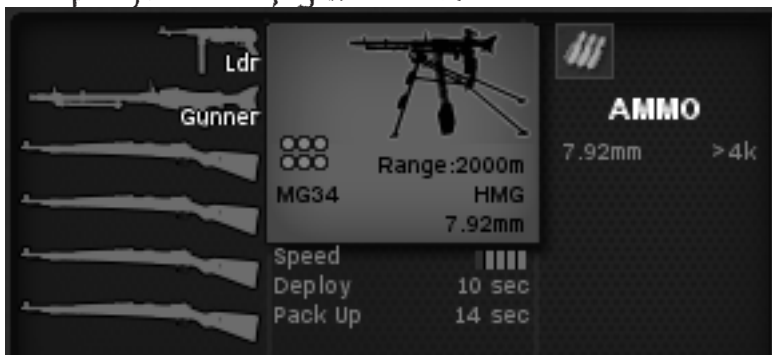
In the medium-machine gun role, it could be mounted on one of two tripods, a smaller one weighing 6.75 kilograms, the larger 23.6 kilograms. The larger MG34 Laffette tripod mount included a number of features, such as a telescopic sight and special sighting equipment for indirect fire.

Cartridge.....7.92x57mm Mauser  
 Action.....Open bolt, recoil-operated, rotating bolt  
 Effective range.....1,000 m

Rate of fire.....800-900 rounds/min

Feed system.....50/250-round belts or 50-round drum

Note: in the game, the MG34 and MG42 can be fired in "deployed" and "semi-deployed" configurations.



### ■ MG42 HEAVY MACHINEGUN

The Maschinengewehr 42 entered service with the Wehrmacht in 1942. It supplemented and in some instances, replaced the MG34 general purpose machine gun in the German Armed Forces, though both weapons were manufactured and used until the end of the war. The MG42 has a proven record of reliability, durability, simplicity, and ease of operation, but is most notable for being able to produce a stunning volume of suppressive fire with one of the highest average rates of fire of any single-barreled man-portable machine gun, between 1,200 and 1,500 rpm, resulting in a distinctive muzzle report. The MG42's belt-feed and quick-change barrel system also allowed for more prolonged firing in comparison to similar weapons of other nations.

For sustained fire use, it was matched to the newly-developed Lafette 42 tripod, which weighed 20.5 kilograms on its own. The optimum operating crew of an MG42 for sustained fire operation was six men: the gun commander, the No.1 who fired the gun, the No.2 who carried the tripod, and Nos.3, 4, and 5 who carried ammunition, spare barrels, entrenching tools, and other items.

Cartridge.....7.92x57mm Mauser

Action.....Recoil-operated, roller-locked

Effective range.....1,000 m

Rate of fire.....1,200-1,500 rounds/min

Feed system.....50/250-round belts



### ■ FLAMMENWERFER 41

The Flammenwerfer 41 was a manpack flamethrower used by Germany during World War II. The flamethrower carried 28 kilograms of fuel and could fire it up to about 24 meters away, depending on conditions and fuel usage.

Flamethrowers were usually operated by either combat engineers or specially formed units, and used to dislodge enemy soldiers from fortified positions that were resistant to explosives or small arms fire.

**Note: Flamethrowers have very limited fuel.  
Choose your shots carefully!**



### ■ PANZERSCHRECK RPzB 54

Panzerschreck ("tank terror") was the popular name for the Raketenpanzerbüchse (abbreviated to RPzB), an 88 mm caliber reusable anti-tank rocket launcher. Another popular nickname was Ofenrohr ("stove pipe"). The Panzerschreck was designed as a lightweight infantry anti-tank weapon. The weapon was shoulder-launched and fired a rocket-propelled, fin-stabilized grenade with a shaped charge warhead that could penetrate over 200 mm of armor.

The Panzerschreck was conceived in response to the Soviet armor encountered on the eastern front, and after capturing examples of the U.S. M1 Bazooka. The Panzerschreck design was enlarged compared to the Bazooka, greatly increasing penetration performance of the round but also resulting in a heavy and unwieldy weapon. The first Panzerschreck, the RPzB 43, required the operator to wear a poncho and gas mask in order to protect him from the effects of the backblast. In 1943 the RPzB 54 was designed with a blast shield to protect the operator.

Effective range ..... 150 m

Maximum range..... 300 m

Armor penetration .....200 mm



### ■ 50 MM leGrW 36 MORTAR

A light German mortar developed in the 1930s, the leGrW 36 was designed to provide rifle platoons and companies with organic mortar support. The mortar weighed 14 kilograms and lobbed a 0.9 kilogram shell up to 510 meters away. By mid-war the leGrW 36 had been relegated to light infantry units and second line formations as the mortar system was overly complex coupled with inferior firepower.

Rate of fire.....15-25 rpm

Formations equipped..... Sicherungs battalions



### ■ 81 MM sGrW34 MORTAR

The 81 mm Granatwerfer 34 (8 cm GrW 34) was the standard German medium mortar throughout World War II. It gained a reputation for extreme accuracy and rapid rate of fire, although much of the credit should go to the training of the crews. The design of the weapon was conventional and it broke down into three loads (barrel, bipod, baseplate) for transport. The barrel was smooth bore. A panoramic sight was mounted on the traversing mechanism yoke for fine adjustments. A line on the tube could be used for rough laying.

Rate of fire.....15-25 rpm



### ■ 75 MM leIG 18

The 75 mm leichtes Infanteriegeschuetz 18 (7.5 cm le.IG 18) was an infantry support gun of the German Wehrmacht. Mountain infantry and airborne infantry versions existed as well, which could be broken down quickly into easy to transport parts.

Rate of fire.....8-12 rpm



### ■ 150 MM sIG 33

The 150 mm sIG 33 (schweres Infanterie Geschuetz 33) was the standard German heavy infantry gun used in WW2. It was the largest weapon ever classified as an infantry gun by any nation.

*Rate of fire.....2-3 rounds per minute*



### ■ 50 MM PaK 38

The 50 mm Panzerabwehrkanone 38 (L/60) was a German anti-tank gun. It was developed in 1938 by Rheinmetall-Borsig AG as a successor to the 37 mm PaK 36.





### ■ 75 MM PaK 40

The 75 mm Panzerabwehrkanone 40 was a German 75 mm anti-tank gun developed in 1939-1941 by Rheinmetall. PaK 40s formed the backbone of German anti-tank guns for the latter part of World War II. The weapon was effective against almost every Allied tank until the end of the war. The PaK 40 was much heavier than the PaK 38, decreasing its mobility to the point where it was difficult or impossible to move without an artillery tractor on boggy ground.



### ■ 76.2 MM PaK 36(r)

The 76.2 mm Panzerabwehrkanone 36(russisch) was a conversion of the Soviet 76-mm divisional gun M1936 (F-22). In the early stage of the war, Germans captured a large number of these. Developed with anti-aircraft abilities in mind, the Soviet gun had powerful ballistics. In late 1941, German engineers modernized the gun, rechambering it for a more powerful round, and improving the recoil mechanism. The carriage was equipped with a new, lower shield, and many (but not all) guns were fitted with muzzle brakes.



### ■ 88 MM PaK 43

The Panzerabwehrkanone 43 was a German 88 mm anti-tank gun developed by Krupp in competition to the Rheinmetall Flak 41 88 mm anti-aircraft gun. It was the most powerful anti-tank gun of the Wehrmacht to see service in significant numbers. The PaK 43 was an excellent weapon, able to penetrate the heaviest Allied tanks at combat ranges.

The main version of the PaK 43 was based on a highly efficient cruciform mount, which offered a full 360 degree traverse and a much lower profile than the anti-aircraft version of the 88 mm. However, the manufacture of this version was slow initially, and, to speed up production, some guns were mounted on a two-wheel, split-trail carriage from a conventional howitzer, resulting in a version known as the PaK 43/41.



### ■ 88 MM PaK 43/41

The 88 mm PaK 43/41 was mounted on a single axle split-trail field gun carriage and produced as a stop-gap measure due to scarcity of materials.



### ■ 20 MM FLAK 38

The 20 mm Flak 38 was the primary German light anti-aircraft gun of World War 2. The Flak 38 fired 20 mm armor piercing and high explosive rounds at 220 rounds per minute at a muzzle velocity of 900 m/s with an effective range of 2,200 meters. The mount had 360 degree traverse and a maximum gun depression of -12 degrees, allowing it to engage ground targets.



### ■ 20 MM FLAKVIERLING 38

A variant of the Flak 38, the Flakvierling featured quadruple 20 mm guns. Each gun had a 20 round magazine, limiting the rate of fire to about 800 rounds per minute.



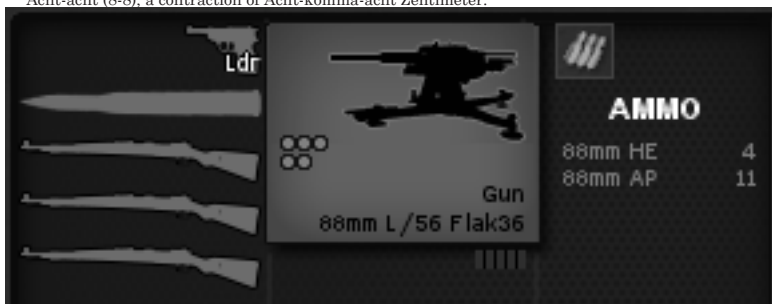
### ■ 37 MM FLAK 36

The 37 mm Flak 36 was a common medium anti-aircraft gun in Wehrmacht service. The Flak 36 used 8 round clips, firing at about 150 rounds per minute out to an effective range of 4,800 meters (6,500 m for ground targets). The mount had full traverse and allowed firing at ground targets.



### ■ 88 MM FLAK 36

The 88 mm Flak gun is one of the most recognizable German weapons of the war. Flak is a German contraction of Flugzeugabwehr-Kanone or Flugabwehr-Kanone, meaning anti-aircraft cannon, the original purpose of the eighty-eight. In informal German use, the guns were universally known as the Acht-acht (8-8), a contraction of Acht-komma-acht Zentimeter.



## FORTIFICATIONS

### BUNKER

Bunkers in the game are available in two flavors, wooden bunkers made out of wooden logs, and reinforced concrete. The latter would be typically found around permanent defensive lines, while the former are semi-permanent field installations.

Moreover, when purchasing bunkers, players have the choice between unarmed shelters, or bunkers equipped with SG43, Maxim, MG34, or MG42 heavy machinegun positions. Bunkers also provide an ammunition cache that can be used by infantry units to replenish/acquire ammo.

Bunkers provide excellent cover against both direct and indirect fire. Some heavy weapons such as machineguns may be deployed within a bunker, and infantry units may enter and exit freely; but no vehicles are allowed in bunkers.



### TRENCH

Trenches are usually part of larger defensive works and semi-permanent defensive lines. They allow for covered movement for units and formations and provide good protection against most enemy fire, and fair protection against indirect fire. Trenches “snap” together to form a line automatically when placed close together in the editor or Setup Phase.

### FOXHOLE

Foxholes are makeshift defensive improvements usually dug hastily by infantry units. Unlike trenches, a foxhole unit usually only provides enough cover for a team of infantry. Foxholes offer fair cover against enemy fire.

### 'HEDGEHOG' OBSTACLES

Hedgehogs are anti-vehicle defenses, primarily intended to stop tanks and other vehicles as they cannot easily be crushed or pushed aside, and provide an extremely high risk of immobilization. In the game, hedgehogs are impassable.

### SANDBAG WALL

Sandbag walls are makeshift defensive fortifications to provide fair cover against enemy fire. Sandbag walls offer limited protection for both infantry and vehicles positioned behind them.

### BARBED WIRE

Barbed wire consists of a barbed wire fence on a wooden structure, and is meant to slow down (not stop) infantry units. Barbed wire “snaps” together to form a line automatically when placed adjacent to each other in the editor or Setup Phase.

### MINES

There are three “flavors” of minefields in the game: anti-personnel, anti-tank, and mixed (meaning: a mix of both anti-personnel and anti-tank mines in the same field). Obviously, anti-personnel mines are meant to harm infantry primarily, while anti-tank mines are usually bigger and pack more punch, and are intended to disable or at least immobilize vehicles and tanks.

**Note:** Anti-tank mines cannot be set off by infantry on foot, but anti-personnel mines can be set off by vehicles.

Troops moving through minefields have some ability to notice the mines without exploding them. This

is much more likely when:

- The soldiers are crawling or walking (and to a lesser extent, "hunting")
- The soldiers are engineers
- The soldiers are experienced
- The minefield has already been discovered (e.g. by setting off a mine)

Engineers have the ability to mark known minefields. After a minefield is marked by an engineer unit, other units may safely (but slowly) move through it without running the risk of setting off additional mines. See the Mark Mines command in the Command chapter of the engine manual for more details.

## ■ ICONS AND REFERENCE

Combat Mission: Red Thunder makes extensive use of various icons to allow the player to spot vital information in the game user interface at a glance. Below is a list of the most important icons used in the game and their description.

### THREAT

Anti-tank rocket (e.g. Panzerschreck, Panzerfaust)

Large caliber (e.g. 88mm anti-tank gun)

Medium caliber (e.g. 50mm anti-tank gun)

Small caliber (e.g. small arms such as rifle or light MG)



### DEFENSIVE EQUIPMENT

Smoke Launcher



### COMMUNICATION LINKS

Radio



Visual (Close)



Visual (Distant)



Voice



### SPECIAL EQUIPMENT

Binoculars



Radio



Demolition charge



Panzerschreck



Panzerschreck rocket



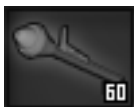
Panzerfaust 30k



Panzerfaust 30



## Panzerfaust 60



## Floating Icons

		HEADQUARTERS			LIGHT VEHICLE
		INFANTRY			TRUCK
		SMG INFANTRY			ARMORED CAR
		AMMO BEARER			HALFTRACK
		ENGINEER / SAPPER			LIGHT TANK
		FLAMETHROWER			MEDIUM TANK
		RECONNAISSANCE			HEAVY TANK
		SNIPER			TANK DESTROYER
		FORWARD OBSERVER			SELF-PROPELLED GUN
		LIGHT MACHINEGUN			SELF-PROPELLED AA
		MACHINEGUN			
		ANTI-TANK WEAPON			FORTIFICATION
		MORTAR			BUNKER
		ANTI-TANK GUN			MINFIELD
		INFANTRY GUN			OBSTACLE
		AA GUN			

**GERMAN HEER BRANCHES**

Infantry



Armored Infantry



Armor



**SOVIET ARMY BRANCHES**

Infantry



Armored Infantry



Armor



**SOVIET ARMY RANKS**

Private



Efreetor



Junior Sergeant



Sergeant



Senior Sergeant



Starshina



Praporshchik



Senior Praporshchik



Junior Lieutenant



Lieutenant



Senior Lieutenant



Captain



Major





Podpolkovnik

**GERMAN HEER RANKS**

Soldat



Obersoldat



Gefreiter



Obergefreiter



Unteroffizier



Unterfeldwebel



Feldwebel



Oberfeldwebel



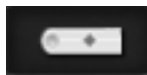
Stabsfeldwebel



Leutnant



Oberleutnant



Hauptmann



Major



Oberstleutnant



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