

★ COMBAT MISSION ★

v1.11

# FORTRESS ITALY



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## ■ TUTORIAL

This tutorial will guide you through two training campaigns, totaling six missions, which will teach you the basics of tactical warfare in the Combat Mission environment.

The first training campaign, titled Bizerte - Basic Training, covers the basics of commanding troops in Combat Mission, as well as an orientation to the User Interface and basic Commands. If you are new to the second generation of Combat Mission (referred to as CMx2), you should begin with this campaign.

The second training campaign, titled Invasion at Gela - Advanced Training, will put you in command of several units during Operation Husky. In this campaign, you will learn more advanced combat tactics. Players familiar with CMx2 may want to start here.

### ■ BIZERTE - BASIC TRAINING

Before you can defeat the Axis and liberate Europe, you will have to learn how to command your soldiers. The three missions in this campaign will do just that.

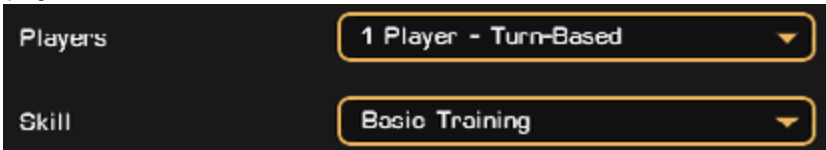
**Mission 1: Maneuvers.** You will learn movement commands as you take an infantry platoon out on patrol in the Tunisian countryside.

**Mission 2: Target Practice.** You will shoot a variety of weapons against stationary enemy targets on a firing range. You will also learn how to call for artillery and mortar fire support.

**Mission 3: Combat Training.** Use your newly found skills to defeat an opposing force in mock combat.

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

You will be asked to select a play mode and skill level. CM:FI 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. You will be prompted at the start of every mission in the campaign to choose a play mode.

The rest of this tutorial assumes that you are playing in turn-based play mode (WEGO), but it works equally well for real time play. It also assumes Basic Training Skill Level.

The 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. For this campaign, select Basic Training as the skill level, then left-click "OK".

After selecting the play mode and skill level, you will 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 scenario. 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.



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



## MISSION 1: MANEUVERS

You will learn how to:

- Navigate the User Interface.
- Control the camera.
- Issue Movement Commands to move your units across the map.

### THE USER INTERFACE

Upon entering the scenario you will be greeted with a view of your platoon riding in trucks. Before you begin the patrol, 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. 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 below). The interface below will 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 bazooka rounds, binoculars, and demolition charges.

The next 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 will 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 tab. 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, or an option to exit the game. 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 in the scenario.

Take some time to explore the interface. Some of the interface elements will generate informational tooltips if you place your cursor over them. You should also take a look at the Hotkeys window within the menu options (5). We will cover important hotkeys as the need arises, but you should know where to go if you forget what button to use.

You are almost ready to go on patrol, but first you must learn to use the camera.

### ■ USING THE CAMERA

CM:FI features a precision camera to view the detailed 3-D battlefield from any angle or position. This camera works differently than many games, so it may take some practice for you to smoothly move around with it.

There are two basic methods that you can use to move the camera in the game: by using the mouse, and by using the keyboard.

### ■ MOUSE CAMERA CONTROL:

To move the camera forward, backward, left, or right, press and hold the left mouse button and drag the mouse. The camera will pan and follow your motion. To change the direction that the camera is facing while staying in place, press and hold the right mouse button and drag the mouse. This is analogous to swiveling your head. The camera facing will move with the motion of the mouse.

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 the camera click the cursor nearer to the edge of the screen.

You can adjust the altitude (how far off the ground) of your camera by scrolling with the mouse wheel. You can also move the camera by touching the edge of the screen with the cursor. The camera will

quickly pan in that direction.

### ■ KEYBOARD CAMERA CONTROL:

The W, A, S, and D keys will pan the camera around the map. Use keys Q and E to rotate the camera to the left and right. Keys 1-9 will move the camera to preset altitudes.

Some useful tips with controlling the camera:

- CTRL-left clicking on the ground will instantly move the camera to that point. This is useful on large maps.
- 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.
- 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 in the future. Be sure to practice the controls described above throughout the mission.

### ■ SELECTING UNITS

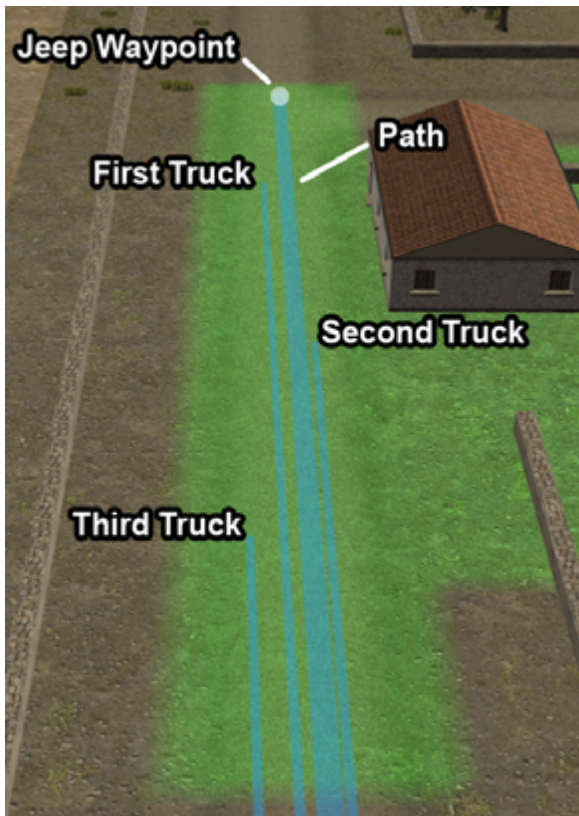
A unit in Combat Mission is a vehicle or a group of soldiers that act together. Soldier units are typically either teams of 2-7 men or squads of 2-3 teams. When you give a Command to a squad unit or team unit, all of the soldiers in that unit will carry out the Command. Individual vehicles are always a single unit. Units are marked with a floating icon that floats above them 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 highlight and green circles will appear under the members of the unit.

To select a group of units, press and hold the Shift key, then, while holding down the left mouse button, draw a box around the units you wish to select. In this manner, you can give multiple units the same general 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. This will automatically select all of the units in the platoon.

### ■ MOVE OUT!

Now that you are familiar with the interface and the camera, it is time to go on patrol! Your first objective is to move your trucks to the road adjacent to the house, where they will unload their passengers. Your objective is named Park Vehicles (1), and is signified by white text floating above neon green colored ground. To fulfill this objective you must move a unit onto this green ground.

Select the first Jeep in the convoy by left-clicking on it or its floating icon and ensure that the Movement tab is open. If it is not, press F5 to open the tab. Left-click on Move and then left-click on the ground inside the objective. A white ball will appear at this point with a colored line connecting the Jeep to the point. This is a waypoint, and when the turn starts the Artificial Intelligence (AI) that controls the Jeep will move it to this point. Right-click to end the order.



Repeat this process for the three trucks. The accompanying picture can serve as a guide. Make sure you actually have the vehicle selected and not one of the passengers; verify that the silhouette of a vehicle is present in the Details Panel in the center of the UI. If you mess up an order and want to re-do it, press the Backspace key to delete the last waypoint. Press Alt-P to activate Show All Move Paths: this will allow you to see other units' movement orders.

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. You will notice that, as the first vehicle moves 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. Once you are confident the trucks have arrived at their destination, left-click the red button again to end the replay phase. You are now back in the Command Phase and can give your units fresh Commands.

### ■ DISMOUNT

Your next step is to dismount your platoon from its trucks and move it to the house. Select one of the squads by left-clicking on its floating icon and giving the squad a Move Command to the House (2) objective. Repeat this for the other two squads and the Headquarters (HQ) team. Leave the vehicles where they are for the rest of the mission (unless you want to take them for a joyride!).

Advance the turn by left-clicking on the red button. During the replay phase, the troops will automatically dismount and move to their waypoint. Notice that the AI will direct the troops around the buildings in their path; troops not follow your Commands precisely if they encounter obstacles in their path. Also notice that your troops will automatically align themselves with the terrain after they arrive at their destination: if they are adjacent to a wall or building, they will usually line themselves up against it to take advantage of its protection.

Spend a turn or two moving your troops around the compound with the Move Command. 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. If you want to give movement Commands to the entire platoon at once instead of individually for each unit, double-left-click on any of the unit floating icons and the entire platoon will be selected.

### ■ QUICK MOVE COMMAND

Your patrol is behind schedule! Issue your platoon a Quick Command to the objective Path (3). 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 see them. In combat, you should be careful about using Quick in unfamiliar areas.

### ■ FAST MOVE COMMAND AND FATIGUE

It's time to see how fleet of foot your men are. Issue the platoon a Fast Command to the Grove (4) objective. The soldiers will now move in a flat-out 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, you will notice that your squads display "Tired" in the left panel of the interface. They have become fatigued from running and will have to rest before they can use the Fast Command again. As long as they do not move too quickly, the soldiers' fatigue level will improve over a number of turns as the soldiers catch their breath. Be careful to not run your troops ragged before they enter into combat with the enemy: they may wind up being too tired to fight or move properly!



Tired

### ■ MULTIPLE WAYPOINT COMMANDS

To conclude the patrol, you will send your platoon back to the house. However, this time we will use a combination of Commands and waypoints to get them there. Select one of the squads and give it a Move Command, with a waypoint halfway to the house. However, instead of right-clicking to end the order, left-click a bit further ahead. A second waypoint will appear. Right-click to stop giving Move Commands. Now select the Quick Command, and left-click near the house. Repeat this process for the other units; mix up the Command types if you like.

Advance the turn. Your units will move to each of the points in the order they were clicked; basically, they will follow the line drawn for them. At each waypoint (the white 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 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.





### ■ MOUNT UP

After your platoon has arrived at the house, send them back to their trucks so that they can return to base and get some hot chow. To mount your platoon in their trucks, select a unit and movement Command, then left-click on the trucks floating icon or the truck itself as a destination. This tells the unit to move to the vehicle and enter it. Repeat the process for the rest of your platoon and watch them climb into the trucks.

### ■ END

You have now completed all objectives for the mission. You can continue to move your soldiers (or trucks) around the map and observe how they interact with the various terrain present. When you are ready to move on to the next battle, select "Cease Fire" from the Menu 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 3).

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 scenario in a campaign; you might want to backtrack or replay a scenario.

## ■ MISSION 2: TARGET PRACTICE

You will learn how to:

- Deploy crew weapons.
- Use ammo bearer teams.
- Call for fire support.
- Issue various Combat Commands to your units.
- Make flank shots against heavy enemy tanks.

### ■ THE FIRING RANGE

You will begin the mission with some units on the firing line as well as a mortar platoon behind them. Before you issue any orders, allow one turn to progress. Don't panic when you see the Axis tanks appear; they are harmless target dummies.

We will begin with mortar gunnery. CM:FI features on-map mortars which are capable of indirect fire; these weapons can shoot at targets that they cannot see via a spotter who directs their fire.

### ■ DEPLOY WEAPON

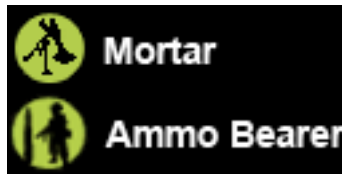
Before your mortars can be fired, they must be set up. Most crew-served weapons such as mortars, anti-tank guns, and heavy machine guns must be Deployed before they can be fired. Select one of your Medium Mortar teams (their floating icons looks like a mortar) and open the Special Commands tab (hotkey F7). Click Deploy Weapon to order them to deploy their mortar. Repeat this for the other mortar team.

Advance the turn. The mortar teams will be busy deploying the weapons for a period of time. This duration varies with the weapon; for the mortars it will take about 30 seconds. After the weapon has been deployed, it cannot be moved again until it is undeployed, or "packed up". Packing up also takes some length of time.



### ■ AMMO SHARING AND AMMO BEARER TEAMS

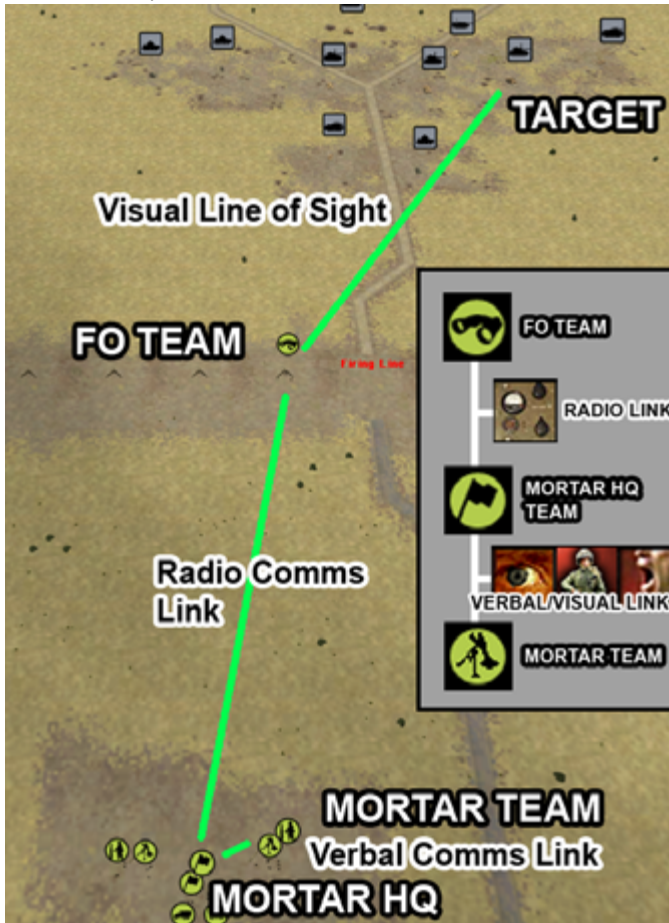
Crew-served weapons are rather heavy. They also tend to consume obscene amounts of ammo. Because of this, many crew-served weapons in CM:FI come with an ammo bearer team; this separate units purpose is to carry extra ammo, and to help defend the weapon from attack. Check the ammo for your mortar teams. You'll find information on ammunition available in the Unit Details Panel in the bottom center of the screen. Each of them only carries about 30 81mm mortar rounds. The ammo bearer teams to either side, however, each carry 40 rounds. You can identify ammo bearer teams by their floating icons, which show a soldier next to a bullet. Spend a turn moving the ammo bearer teams adjacent to each mortar and they will automatically share their ammunition with the mortar crew. This ammo sharing behavior functions for most units that belong to the same platoon.



### ■ CALL FOR FIRE

Now that your mortars are deployed and supplied with ammunition, 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 commu-

nicate 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 team on the firing line: 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 the FO team (their floating icon resembles a pair of binoculars). FO teams are extremely valuable assets that are specialized at calling in fire missions more quickly than HQ teams. They may also have access to more powerful artillery that HQ teams cannot contact. Guard them carefully!

Follow these steps to call the fire mission:

1. Click on the artillery icon (located just above the special equipment panel). The fire mission interface will now appear. Select one of the M1 81mm mortar boxes from the panel that pops up. The fire mission has parameters that must be defined. The parameters will determine the characteristics of the fire mission.



2. For Target Type, select Point Target; for an on-map mortar this choice does not matter, but we will return to the Target Type parameter shortly. The cursor will turn orange and you will now pick the target. Left-click on any of the tanks.
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 for 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.



You will also notice that a glowing green line connects both the spotter and the mortar team to the target.

Repeat the call for fire using the other mortar team. Select another tank in the second row as the target, and switch up the fire mission parameters if you wish to see the differences in execution.

Advance the turn. Within a turn or two, the mortar rounds should be falling on or near the tank. While these explosions are fun, we can make bigger ones with artillery. Artillery fire is always called from off-map, and is usually only accessible to FOs.

In the call for fire interface, select the M2A1 105mm howitzer and order a fire mission on the trenches near the back of the map. Because this howitzer battery consists of four guns that can spread their fire into different patterns, we can define different target types. The Target parameter will tell the howitzer battery to either fire on a single spot (Point Target), a circular area (Area Target), or a line (Linear Target).

Select Linear Target and left-click on one end of the trench line in the back of the target range. Dragging the mouse will show a thick green line that follows it. Left-click again on the other end of the trench line. Once adjusted, the artillery shells will land on this line.

Within a few minutes, the trenches will be rocked with explosions. Continue to experiment with the artillery as you see fit throughout the mission. You also should try ordering a point target and area target mission to see the differences.



## ■ COMBAT COMMANDS

Select one of your machine gun teams and open the Combat Command panel (hotkey F6). Select Target, then move the cursor onto the map. A line will be drawn between your machine gun 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 men in the unit can see the target and fire at it.



Left-click somewhere on the trench to designate it as a target and advance the turn. Your machine gun will shoot at the trenches until you order it to stop by using the Cease Fire order in the Combat panel, or by selecting the unit and pressing the Delete key.

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 switch to enemy units if they appear in the area.

### ■ MORE TOYS!

When 25 minutes are left on the clock, you will receive a notification that reinforcements have arrived.

Two Sherman medium tanks, a Stuart light tank, and a T30 HMC assault gun have appeared on the road. With these vehicles, you have some real firepower! Move them up to the firing line. They will automatically begin firing at the enemy tanks, changing targets as each is destroyed. Usually your units will fire upon enemies automatically and intelligently, and only occasionally require Target Commands from you.

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 Shermans, then open the Combat Command tab, and then select the Target Arc Command. By left-clicking on the map twice, make a small highlighted arc in front of the team. You can use the Cease Fire Command to erase the Target Arc Command. The tank will 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.

The smaller tanks in the front rows will be destroyed fairly easily, but the two tanks in the back - the pair of Tigers - may be more of a challenge. These are heavily armored tanks and will resist your attacks in their frontal arc. However, even heavy tanks have weaker armor on their sides and rear. Try moving your Shermans to the northern and southern edges of the firing line where they can score a flank shot on these tanks, and see if your results improve.

#### ■ END

Continue to play around with the weapons available until you are satisfied. When you are ready to move on to the next scenario, select the Cease Fire button. In the next scenario, you will use what you have learned to defeat an enemy that will be shooting back at you.

### ■ MISSION 3: COMBAT TRAINING

You will learn how to:

- Conduct basic fire and maneuver tactics.
- Use advanced Commands.
- Use cover and concealment to your advantage.
- Understand suppression and morale.
- Understand the AAR screen and victory calculation.

#### ■ START

At scenario start you find yourself back on the road where you began in the first mission, Maneuvers. Since you were last here, however, the engineers have thoughtfully constructed a trench defensive network around the hill to the west, labeled Hill 2014 for training purposes. You have at your disposal one infantry platoon, a heavy machine gun, and a light 60mm mortar. Soldiers playing the opposition

forces are holding this hill, and your job is to take it from them. Never mind that they are wearing German uniforms, holding German weapons, yelling German insults, and eating German rations. They are just really into their role.

### ■ 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 rough groups: a base of fire group and 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 both! 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 team, ammo bearer team, and mortar team to the objective Base of Fire. This small wooded hill will give your base of fire excellent concealment and a clear vantage point. We will use this movement as an opportunity to learn some advanced commands.

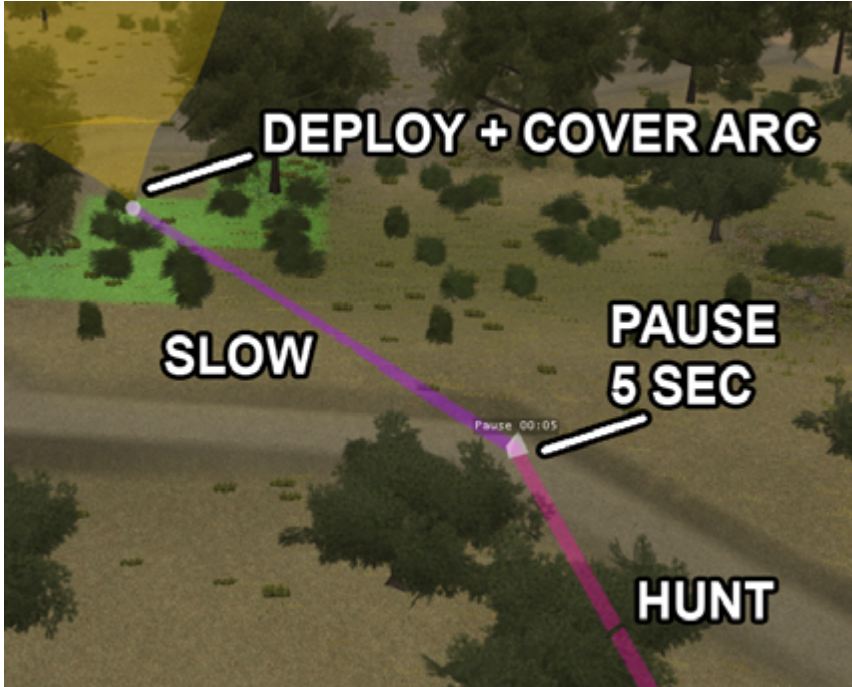
### ■ ADVANCED COMMANDS

You will use a combination of commands to give the weapons team very specific orders to get to their positions. Select your mortar team. Open the Movement tab (hotkey F5), select Hunt, and place a waypoint up the hill towards the Base of Fire. The destination should be at the bend in the road; use the picture on the next page as a guide. With the Hunt movement order, they will move slowly and cautiously, with rifles at the ready. If they are attacked, they will immediately cease their movement and

drop down to cover. This movement order is very useful when you are moving into unknown territory.

Select the Hunt waypoint by left-clicking on its colored line. It will highlight and the white ball will turn into a pyramid, 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 orders tabs. This allows you to dictate very sophisticated orders to your units. The next waypoint you plot will contain three orders stacked on it. Refer to the picture as a guide.



Ensure that your mortar team is still selected and that the first waypoint is not highlighted. Open the Movement tab and select Slow. Slow orders your units to crawl on the ground. This movement order 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. Select the Slow waypoint by left-clicking on its line, and open the Special tab (F7) and select Deploy Weapon. The mortar weapon will now automatically begin deploying once they reach their destination.

With the waypoint still selected, open the Combat tab (F6) and give the unit a Target Arc that covers Hill 2014. Notice that the orange arc follows the waypoint, and not the current position of the unit. The unit will adopt this covered arc as soon as it reaches the waypoint.

You have just stacked three commands on the final waypoint. To summarize your units orders, it will Hunt up the hill, pause for five seconds, Slow move (crawl) to the Base of Fire, then deploy their weapon and cover Hill 2014. Whew!

Repeat these instructions (or mix it up with your own commands) for the machine gun team and ammo bearer team.

Once in position, direct your mortar team and machine gun team to fire on enemy targets in the trenches. German machine guns are high priority targets and should be destroyed by your mortars if possible. While your mortar will run out of ammunition fairly quickly, your machine gun carries thousands of rounds of ammunition and can comfortably fire constantly throughout the scenario.

### ■ FIRE AND MANEUVER - MANEUVER

While your base of fire is setting up, move the rest of your platoon to the hill to join them. They will have



the unenviable task of assaulting Hill 2014. The hill is mostly surrounded by open ground, except for the Grove. This wooded area should give your soldiers the cover and concealment they need to get as close as possible to Hill 2014 without incurring devastating enemy fire.



Move your platoon to the Grove objective. Use Assault movement Commands since your troops will probably be under fire. With Assault Commands 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. If you have trouble seeing around the trees in this area, you can temporarily toggle them off visually by pressing ALT-T.

#### ■ COVER AND CONCEALMENT

A word on these two terms, as the distinction 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 Grove

objective provide excellent concealment and fairly good cover, which is why your soldiers are using it to approach Hill 2014. The Base of Fire position has good concealment, with tall grass and bushes, but not much in the way of cover. 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.

### ■ SUPPRESSION AND MORALE

As your troops are fired upon by 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.

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 can. 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 "+2" 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 X 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 level. The Italian Royal Army lacks radios completely in their infantry units. 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 *CM:FI* 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 the hill. The leader will confer his leadership bonus to them, and they will most likely need his bonus more than the base of fire units.

The Command and Control (C2) network is a complicated topic that will be left for the base engine manual. You experienced some of it in the previous mission when your mortars were linked to the FO through radios.

### ■ CLOSE ASSAULT

By the time your troops reach the Grove, they should be in contact with the enemy. Give them Assault Commands to the fence between the wood line and the trenches. As some of the soldiers move forward, others will continue to engage the enemy. You will take casualties, but you should press on. Once they have reached the fence, give them Assault Commands to the trenches. As they near the trench they will stop to shoot at Germans and engage them with grenades. If everything goes according to plan, the Germans will eventually break and run, or surrender. You will then own Hill 2014!

### ■ 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 CM:FI: Ground, Targets and Parameters. Ground objectives are the touch objectives you have seen before and the Occupy objective on Hill 2014. 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.

### ■ CAMPAIGN END

With the conclusion of this battle, you have graduated from the Basic Training Campaign! If you feel that you need some more practice, you may wish to repeat this scenario. Otherwise you should move on to Invasion at Gela: Advanced Training. You are about to take part in Operation Husky, the invasion of Sicily.

## ■ INVASION AT GELA - ADVANCED TRAINING

If you are reading this, then you have already completed the Basic Training campaign or are a seasoned Combat Mission player. This three mission training campaign will let you familiarize yourself with some of CM:FI's new equipment and organizations, and, if you are new to tactical war games, teach you more advanced tactics by building on lessons learned in the previous campaign.

Mission 1: Bridge Assault. Learn how to conduct a combined arms attack in depth.

Mission 2: Holding Hill 1056. Defend against an AI attack.

Mission 3: Last Defense. The "graduation" scenario. You will learn more useful skills and fight tougher enemy tanks.

It is recommended that you play in Turn-based play mode (WEGO), and on Veteran skill level. Veteran skill level will cause fire support to take a little longer to arrive, as well as make identifying enemy units slightly more difficult.

The rest of this tutorial assumes that you are playing in turn-based play mode, but it works equally well for real time play. It also assumes Veteran skill level.

### ■ MISSION 1: BRIDGE ASSAULT

You will learn how to:

- Use scouts to recon the terrain ahead of you.
- Use spotting in the game to your advantage.
- Use basic fire and maneuver tactics in conjunction with tanks.
- Collect enemy prisoners.

### ■ THE BATTLE

You will be greeted with a view of your forces on the map: a few jeeps carrying a scout team and a sniper team, one M3A1 White Scout Car, and in the corner a HQ team and a light mortar team. These are reconnaissance elements from the main task force that have been sent out ahead to find the enemy's location. Your main force of infantry and tanks will arrive over the next five to ten minutes. In the meantime, you will use your starting force to scout ahead, so that you will better know where (and where not!) to attack when the main assault force arrives.

### ■ SETUP PHASE / DEFENSIVE SETUP

The setup phase is a special phase that occurs at the beginning of every game. During this time the battle is paused and you may arrange your forces around the map instantly and give them starting orders for the first turn, which they will immediately execute when the battle begins.

Upon entering the scenario, you will notice that the ground underneath your troops is tinged blue, in two different shades. These are setup zones. 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. In this scenario, you have two setup zones, one around the road, and the other in the northwestern corner.

### ■ SCOUTS OUT!

The terrain ahead of you is mostly open ground, interrupted by the occasional orchard or vineyard, and often criss-crossed with low rural stone walls. You will have to carefully choose your routes or the enemy will see you coming from a long distance and shoot at you while you are vulnerable. The first step to determining just what route you should take is to occupy an Observation Post (OP) and get an idea of where the enemy is. The ideal OP contains some concealment to hide you from enemy eyes and is higher in elevation so that as much of the map can be observed as possible. As luck would have it, such a location exists near your start point.

Select the HQ team in the corner and give them a Hunt movement Command to the objective named Observation Post. Place them on the second floor of the building. 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.

Send the mortar team to that vicinity as well, but keep them outside and behind the building. Leave the vehicles where they are for now; there might be an enemy tank or anti-tank gun behind the next rise for all you know!

You should also give the the HQ team a Target 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 Target Arc. Set the circle at about 100 meters or so, so that your men will defend themselves against nearby enemies, but won't start shooting at distant targets. It will take the two teams about two turns to reach their destination.

Once your HQ team is in place, you will start to see some enemy icons appear. The act of your units seeing enemy units is known as spotting.

### ■ SPOTTING AND CONTACTS

Spotting is a rather complicated affair in CM:FI, but it basically consists of seeing confirmed enemy units, which are signified by a floating icon that can be selected, and contacts, which appear as silhouettes 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. The machine gun team by the crossroads is a confirmed enemy unit.

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. Any enemy icon that you can click on and select is a confirmed enemy unit.



Unlike CMx1's "Borg" spotting, 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

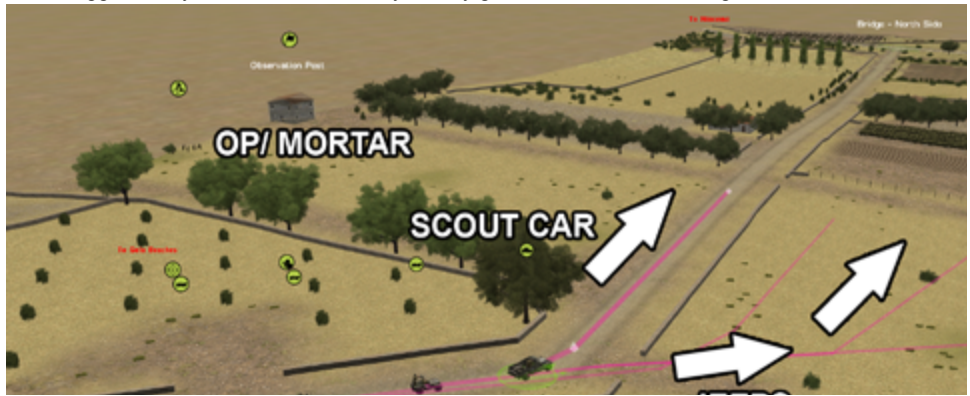
unit might not see the same anti-tank gun at all! The unit will have to spot the anti-tank gun on its own, or have the information passed to it through the C2 network. You can tell which of your units can spot an enemy unit by clicking on the enemy unit icon. Your units that have currently spotted and 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.

### ■ SCOUT OUT!

Now that you have determined that there is not, in fact, a battalion of Tiger tanks around the next bend, you can send the rest of your force out ahead. Move your scouts cautiously; these units are not meant to fight toe-to-toe with the enemy, and they won't be able to take or deal much damage.

Move the White Scout Car down the dirt road towards the map center, and the three jeeps towards the wire fence in front of them. Use a Hunt Command so that your scout cars will stop moving forward if fired upon. 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.



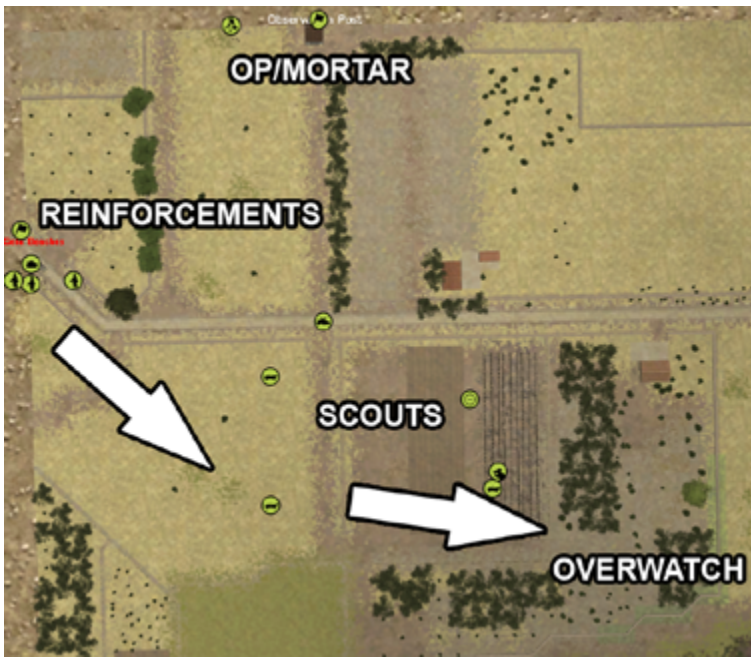
When you reach the wire fence, dismount your scout team and sniper, and edge forward with both them and the scout car until friendly reinforcements arrive. If you've advanced past the vineyard in the center of the map, you've probably stretched your forces too far.

### ■ REINFORCEMENTS

At five minutes into the battle (40 minutes on your clock), reinforcements will arrive on the road. You now have a M5 light tank and a platoon of infantry to command. With the information on the battlefield gathered by your scouts, you can now begin the assault!

The objective is to secure both ends of the bridge in the south-eastern corner of the map. In order to effectively attack this position, you will need to split your group into two forces: a maneuver element and an overwatch element. The maneuver element will directly move into and attack the enemy position, while the overwatch element will fire upon the enemy from a covered position, hopefully keeping their heads down (or destroying them) and reducing the effectiveness of enemy fire. Your vehicles will be particularly useful in this regard.

You should begin by moving your infantry platoon and tank to the objective named Overwatch. From here, your force can fire upon the defenders and cover the troops that move forward. Be sure to move the units directly adjacent to the stone wall so that they will use it for cover. Since your scouts have already cleared most of the route to Overwatch, you can Quick move your units most of the way.



#### ■ FIRE SUPPORT

While your troops are moving to the Overwatch position, you should set up the mortar team at the Observation Post to provide indirect fire support. In order for the fire mission to be available, the mortar team must have a command link with the spotter. Usually this means the mortar team must be physically close to the spotter, but the spotter can also be linked to the mortar team through radios if they are available.



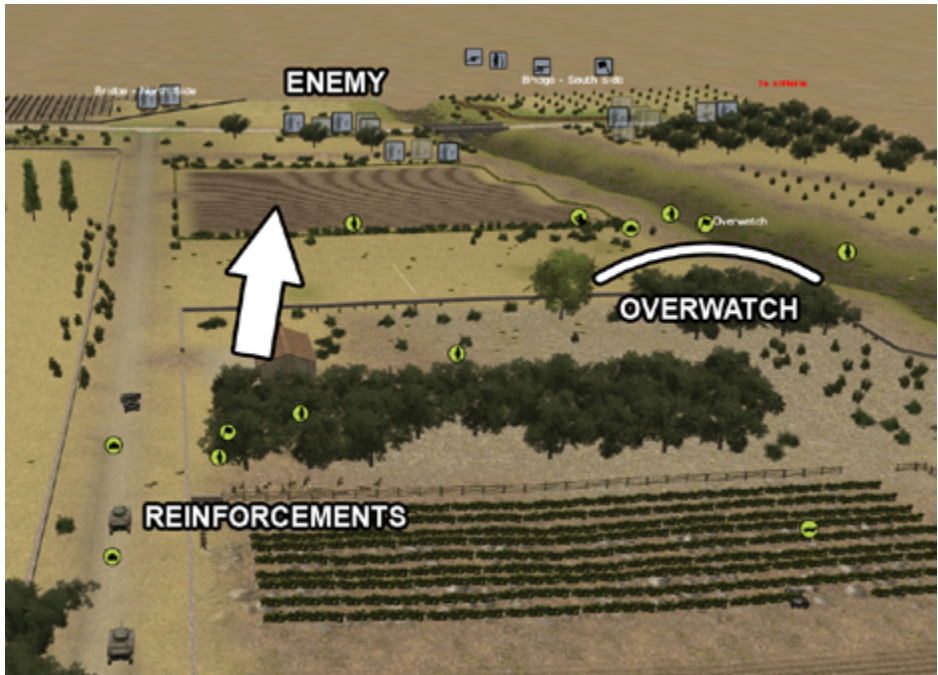
The HQ team on the second floor of the Observation Post will be acting as the spotter. Direct the mortars to fire at distant enemy positions. Indirect firepower is a precious commodity and should always be directed at the most valuable enemy assets. In this case, Italian machineguns and anti-tank guns are high priority targets.

You can also move the mortar team forward and have them directly fire on targets. They will not require a spotter, and will generally engage the target more quickly. However, this also makes the mortar team vulnerable to enemy fire, and you can be sure that they will become a priority target if they are spotted.

#### ■ CLOSE WITH AND DESTROY

Soon your men at the Overwatch position will be engaged in battle with the Italians. Continue to fight from this position until return fire has slackened. Once that has happened, order two of your squads to Assault move to the hedges by the road. Continue using Assault commands to move towards the bridge, using cover fire from the Overwatch objective to suppress any enemies who continue to resist. You may wish to move your vehicles forward into the field so that they can more easily fire on enemy positions.





Ten minutes into the battle (35 minutes left on your clock), the remainder of your forces will arrive. Move the newly arrived platoon and tanks towards the Bridge - North Side objective. The road should be relatively safe to move on by now. If Italians open fire on them, you will count on overwhelming firepower to silence them as quickly as possible.

#### ■ SURRENDER

As you close on the enemy, you will probably see Italians throwing their hands into the air and ceasing to fight. In CM:FI, units that have low morale and are in close proximity to enemy units may surrender. Once they have surrendered, they will not move or take any action.

You can "round up" the surrendering Italians by moving your soldiers close to them, and then staying nearby for a short time. Eventually the surrendering soldiers will disappear and be marked by a white flag; they are now removed from the game completely. Surrendering soldiers who have not yet vanished can be rescued by friendly units in the same manner.

#### ■ VICTORY!

Continue fighting towards the Bridge - South Side objective. The Italians may surrender before you reach it, 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.

### ■ MISSION 2: HOLDING HILL 1056

You will learn how to:

- Conduct a defense.
- The importance of campaign resupply and refitting.
- Use advanced squad combat tactics and commands.
- Use infantry anti-tank (AT) weapons to defeat enemy vehicles.

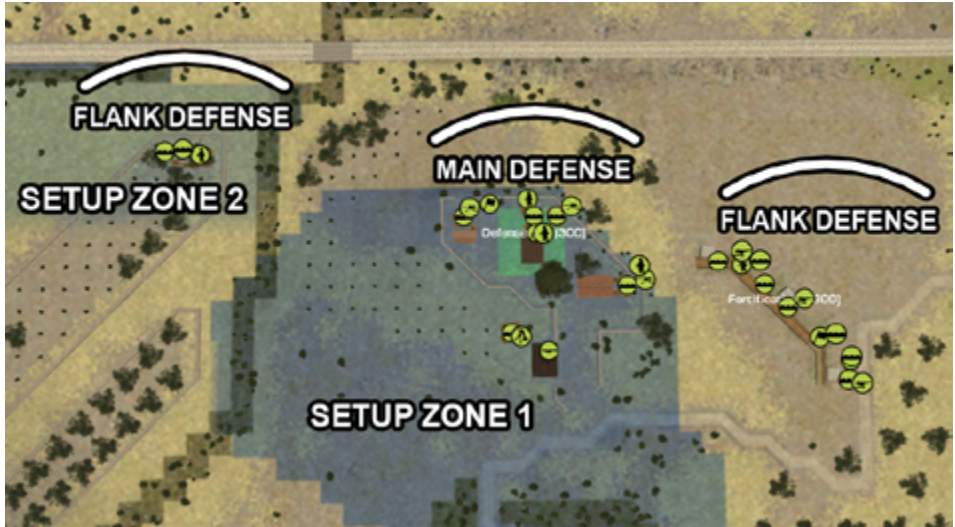
#### ■ SETTING UP DEFENSES

Your force of paratroopers start situated in defensive positions on the forward slope of Hill 1056. The default setup is pretty decent, with units in cover and protecting their objectives.

In all missions you will receive a default set-up that is usually good enough to begin playing with immediately, but you can fine tune your forces to your liking. Select your Heavy Machinegun Team (the floating icon will resemble a machinegun) and place them in the second floor of the Defense HQ objective. This is your most valuable weapon and placing it here will give it a commanding view of

the battlefield. Sometimes this is not desirable, however, since anything it can shoot at will be able to shoot back! You may also want to place your mortar team closer to the front line, where it will be able to fire directly at enemies.

Your primary mission is to control the two objectives on the hill, Command HQ and Fortifications. To this end your force should be arrayed to stop the German forces from moving onto the green ground that signifies the objectives. You do not need to park your entire force on top of them; one combat unit within the objective is sufficient to hold it for victory purposes. It is much more important that your forces stop the Germans from ever getting close to them.



### ■ CAMPAIGN RESUPPLY AND REFITTING

Before this battle begins, it is important to know how that these paratroopers you command will be present in the next battle of the campaign, and what happens to them between battles in terms of casualty replacement and resupply. In campaigns, core units will carry over casualties, vehicle damage, ammunition expenditures, and sometimes morale from scenario to scenario. 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 scenario to scenario. In this case, because you are behind enemy lines, your paratroopers will not receive any replacements for casualties or ammunition resupply before the next mission. As you fight you will have to remember that you need to conserve manpower and ammunition for the next scenario, or your force may be caught weakened.

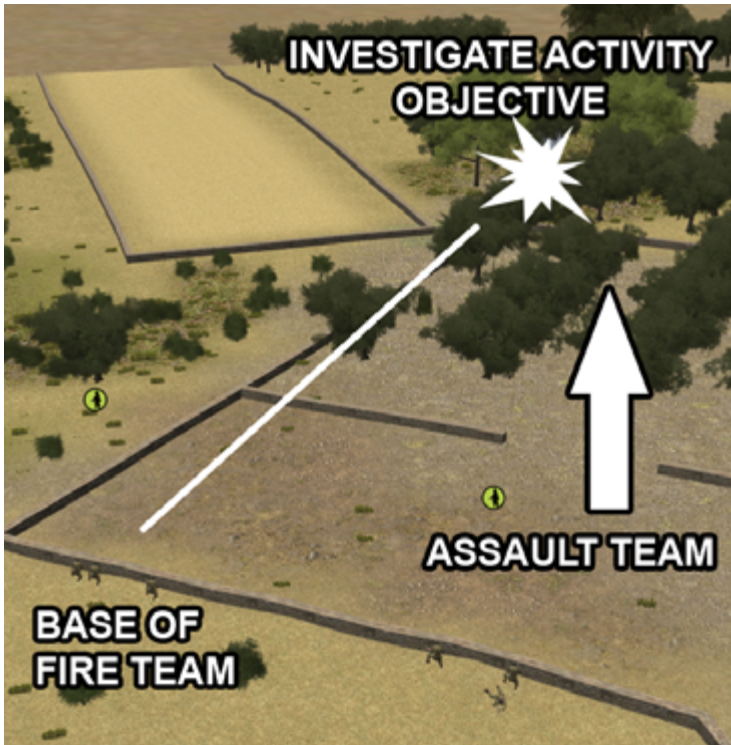
### ■ WHAT ARE THOSE GERMANS UP TO?

Upon starting the battle, German artillery will begin creating a smoke screen just in front of your hill. This is a very good indicator that the enemy plans to attack from this direction within moments. The smoke screen will allow the German troops to move across the open ground without sustaining withering fire from your paratroopers. There isn't much that can be done about this, so for now let's turn our attention to the Investigate Activity objective to the east of Hill 1056.

As noted in the briefing, you are ordered to send a small combat patrol to this location to investigate. It is possible that the Germans are trying to send a reconnaissance around your flank, and you are going to put a stop to it. Send the northern-most squad near the bridge to the objective.

As your squad approaches the area, you should begin to think about how you will attack the objective once you have spotted German troops. Although Assault naturally splits up the squad into fire and maneuver teams, you can have more control if you split them yourself.

Go to the Admin orders tab and select the Split Teams Command. Your squad will split into two distinct 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 both 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.



### ■ INFANTRY ANTI-TANK WEAPONS

As you near the objective, you will notice that the Germans have a reconnaissance halftrack hiding in some trees. This halftrack is an armored vehicle that will resist small arms fire from your paratroopers. Fortunately, your squad possesses a bazooka, a short range anti-tank weapon capable of destroying light armored vehicles and even tanks. The bazooka has a maximum effective range of about 250 meters, but becomes very inaccurate past 100 meters. Using bazookas can be risky, because the soldier must get close to a vehicle in order to hit it. The open-topped vehicle is also extremely vulnerable to mortar shells dropping in from above, and the .50 caliber machinegun will quickly damage and eventually destroy thinly armored vehicles such as halftracks.





It's also important to know that you cannot fire a bazooka from an enclosed space such as a building or a bunker. These weapons emit extremely hot gases at high speed behind them, and having a wall to deflect those gases back at the operator is generally regarded as a bad idea.

#### ■ BUNKERS

At the Fortification objective you will notice three bunkers jutting out from the trenchline. These are Italian coastal defense bunkers that your paratroopers captured earlier. Bunkers provide excellent cover, making soldiers within them almost impervious to small arms fire and highly resistant to even explosives and artillery. Use the Split Teams Command to split the squad located in the trenches into two equal parts, and then order these teams to move into the bunkers by selecting a move Command and then clicking on the bunker's floating icon, just as you would if ordering them to mount a vehicle. The platoon HQ can enter the third bunker. You will have to leave the mortar team outside in the trenches however, or they will not be able to fire their mortar.

#### ■ WHEN GERMANS ATTACK

By the time your combat patrol has finished mopping up the recon detachment, the main German attack on Hill 1056 should be in full force. While you may feel helpless and unable to act as the enemy forces descend on your positions, there are some proactive measures you can take to mount an effective defense:

- Save your heavy weapons for the right time! Once your heavy weapons, such as your bazookas, mortars and the .50cal machinegun, open fire on the enemy, he will make it a priority to destroy them. A good way to ensure that your heavy weapons don't waste their ammunition on unimportant targets and reveal themselves needlessly is to give them Cover Armor Arc Commands across the entire battle area, ensuring they will hold their fire until a vehicle arrives. If a worthy infantry target appears, such as a cluster of exposed troops or heavy weapons in a building, you can always cancel the arc Command and give them a direct Target Command. A well-placed and well-timed strike on a cluster of advancing enemy infantry, or the disabling of a vehicle, can make the difference between victory and defeat.
- Watch for and anticipate enemy artillery strikes. In most cases, the spotter must call in a number of spotting rounds before he can order the artillery to fire for effect on the desired position. If you see an occasional artillery round landing closer and closer to one of your units, the Germans are probably about to order an artillery attack on the position. Get your units out of there, or hunker them down inside a building.
- Monitor suppression. If your units begin to accumulate a pulsing yellow border around their morale, their morale is being adversely affected by incoming enemy fire and they may break under pressure. If they need a break from combat, a Hide Command (found in the Special Comamnds Panel) will often do the trick. Until you revoke the Hide Command, units will stay low to the ground and under

cover, often giving them some respite after a few minutes.

- Always have an eye on your flanks. It is an easy temptation to commit everything you have to the attack in front of you, but if your flank is attacked, you may be at a disadvantage. Have units positioned to observe the approaches on either side of the objective, so that they can spot any advances from those directions. Keep a few units back from the front line so that they can shift to meet a new threat if needed.

If you are feeling ambitious, you can even keep the squad that you sent to Investigate Activity into the orchards, and use them to ambush and harass Germans moving towards the hill.

### ■ VICTORY. FOR NOW

You should be able to fend off the German attack, 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. What if this was only the first attack? It's a good thing the First Infantry Division is arriving tomorrow morning.

### ■ MISSION 3: LAST DEFENSE

You will learn:

- Target Registration Point (TRP) use.
- The strengths and weaknesses of emplaced guns
- How to fight enemy armor.
- Advanced coordination of artillery with infantry.

Because Last Defense is the last training episode, you can think of this scenario as a graduation exercise. This scenario will likely be tougher than the previous ones, and, with a couple of exceptions, you will be left to make your own tactical decisions.

### ■ FORWARD OBSERVERS AND FIRE SUPPORT

A Forward Observer (FO) team from the First Infantry Division has arrived and is located in the 2nd floor of the Defense HQ building. He's also brought fire support with him, in the form of one battery of 105mm howitzers. FO teams are among your most valuable units, because they provide the fastest and most reliable link to you off-map fire support. FOs will always call fire support faster, and some high-level support, such as heavy artillery, rockets, and air support, can ONLY be accessed by FOs.

Accordingly, FO teams must be protected at all costs. The best protection to an FO team is to not let the enemy spot his location. Since your FO team is in the 2nd floor of the Command HQ building, you should avoid placing other units in the same building so that their shooting does not attract enemy fire to the FO. It will be prudent to give them a short Target Arc Command as well, so that they will not fire at enemy soldiers and attract attention to themselves.

### ■ TARGET REFERENCE POINTS (TRPs)

In addition to your FO team, you have acquired two special fortification "units": Target Reference Points (TRPs). 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 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 set up phase. However, once the game has begun, TRPs cannot be moved. TRPs are also secret: your opponent will not know where they are, although he will probably find out the hard way!

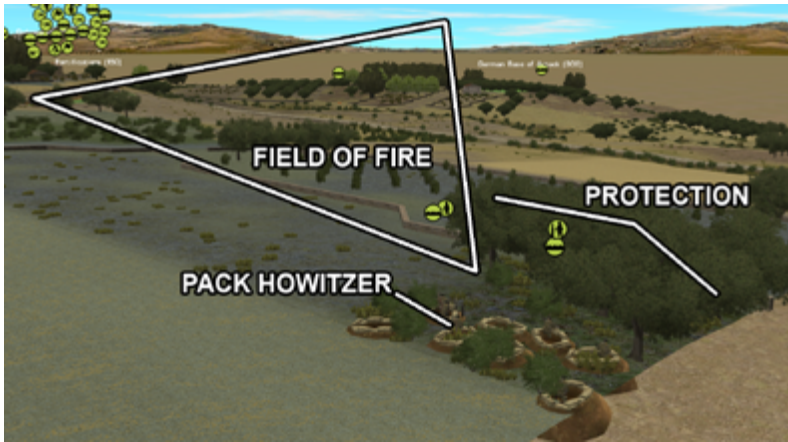
The TRPs are already placed in recommended locations of the map. You can leave them where they are or shift them as you please. In future scenarios, you should place TRPs on objectives that are likely to be heavily defended, obvious enemy routes of advance, and in "dead space" that your units cannot see but you suspect that the enemy will try to move through.

#### ■ EMLACED WEAPONS: GUNS

If you look to the south, you will see that your force has also acquired a M1A1 Pack Howitzer. This unit is known in CM:FI as a "Gun". Guns are heavy crew-served weapons that pack heavier firepower than small arms can provide, while being easier to conceal 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 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 counterfire and will usually be knocked out unless they are in excellent cover.

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.

Finding a suitable setup position in Sicily's open environment can be difficult. 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 pack howitzer is taking advantage of some trees to hide itself better. Although the gun will not be able to easily fire on the entire enemy front, it has a better chance of surviving longer because it is not exposed to the entire enemy front, and the oblique angle of fire raises the chance that it will get a flank shot on enemies before they have time to respond.



### ■ LAST DEFENSE

On the first turn you will discover that the Germans are mounting another attack on Hill 1056. You will also note that they have heavier tanks this time. The German Pz.Kpfw. III will prove to be a tough foe against your paratroopers, but massed mortar fire can still deter it. The Pack Howitzer's HEAT rounds will also easily destroy them.

You may encounter instances where the tanks are pummeling your positions and you are not in a position to fight back effectively. In these cases, discretion is the better part of valor. Hiding your troops or moving them out of the line of fire until the offender can be dealt with will save you from some casualties.

### ■ REINFORCEMENTS

Ten minutes into the battle, elements from the First Infantry Division will arrive to bolster your defense. Along with two platoons of infantry, you will have one platoon M4A1 Sherman tanks. The Sherman tank is more than a match for the Pz III and able to take the Pz IV head-on as well. Move your reinforcements to destroy the enemy attack. After you have stopped the Germans, you will ensure that they won't come back by counterattacking and taking the German Base of Attack objective.

### ■ DESTROY THE GERMAN ATTACK

The German Base of Attack is your counterattack objective. Neutralizing it will probably grind their attack to halt and ensure the safety of Hill 1056. If you left your TRPs in place, there will be one located on the objective.

When the German attack is halted and you are ready to attack the objective, select your FO team to call in the fire mission. If you call in a fire mission on the TRP or near it, you will notice that the delay time is much shorter than usual. A Medium length mission should be sufficient. Don't forget that LOS is not required to call in a fire mission on a TRP. You should keep your infantry at a distance - a hundred meters or more - while the artillery hits the target. Errant rounds can land on your troops and casualties will result. Once the fire mission is in full force, move an infantry platoon closer to the objective, such as the gully running alongside the highway. The idea is to close assault the objective as soon as the artillery strike ends; the faster you arrive on the heels of the artillery, the more stunned and shocked the defenders will be.

While you are waiting for the fire mission to end, infantry and tanks should also be moving around both sides of the objective. For extra punch, you can order the tanks to Area Fire on the objective. Just remember to cease their Area Fire before your troops run into it! The Target Briefly Command will come in useful here. The plan is to completely demoralize the enemy; ideally, your men will just have to mop up. Don't be surprised if they still encounter resistance, however.

### ■ CAMPAIGN END

You have successfully led soldiers into combat and begun the liberation of Europe. 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 Fortress Italy. 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.

## ■ UNITED STATES ARMY

### ■ TANKS

#### ■ M5A1 LIGHT TANK

The M5 light tank is a derivative of the M3 light tank, an American light tank supplied to British and Commonwealth forces prior to the entry of the United States into the war. The British called this tank the "Stuart".

The M5A1 features twin Cadillac engines, a welded hull with a sloped glacis, a raised engine deck, and a turret with a rear overhang to house the radio. This was the major variant in US light tanks by 1943.

Armor: ..... 13 - 51 mm



#### ■ M4 SHERMAN (EARLY)

The M4 Sherman, formally Medium Tank, M4, was the primary tank used by the United States Army during World War II. The designers stressed mechanical reliability, ease of production and maintenance, durability, standardization of parts and ammunition, and moderate size and weight.

The Sherman's reliability benefited from many features first developed in U.S. light tanks during the 1930s, including vertical drive sprockets in front. The designated goals were to produce a fast, dependable medium tank able to support infantry, provide breakthrough striking capacity, and defeat any tank then in use by the Axis nations, though it would later fall short against the much larger tanks eventually deployed by Germany.

Roughly 50,000 Sherman tanks were produced during World War II, in a number of variants which were then modified further during production or even in the field. The main variants do not necessarily indicate linear improvement - the M4A1 is not necessarily meant to be better than the M4. These sub-types indicate standardized production variations, with the main difference being the engine or hull. The main features of the M4 early-production Sherman are:

- ... 75mm main gun with 97 rounds.
- ... .50cal AAMG which can rotate 360 degrees around commanders hatch.
- ... Two .30cal coaxial and hull-mounted MGs.
- ... Power turret traverse.
- ... Gyrostabilizer.
- ... 400hp Continental R-975 engine.
- ... 24 mph top speed.
- ... Narrow M34 gun mount.
- ... Three-piece bolted nose.
- ... Overall manufacturing quality of armor is mediocre.
- ... Glacis plate (upper front hull) is 50.8 mm thick, angled at 56 degrees.
- ... Nose armor (lower front hull) is rounded and 50.8 mm thick.





■ M4 SHERMAN (MID)

The M4 mid is like the M4 early except:

- ... Wide M34A1 gun mount with coaxial gunner sight.
- ... Roof-mounted smoke mortar with 12 smoke bombs.



■ M4A1 SHERMAN (EARLY)

The M4A1 early is like the M4 early except:

- ... 90 rounds of 75mm main gun ammo.
- ... Distinctive "rounded" appearance due to cast (not rolled) armor.



■ M4A1 SHERMAN (MID)

The M4A1 mid is like the M4A1 early except:

- ... Wide M34A1 gun mount with coaxial gunner sight.
- ... Roof-mounted smoke mortar with 12 smoke bombs.



## ■ TANK DESTROYERS

### ■ M3 GUN MOTOR CARRIAGE

The M3 GMC was an improvised tank destroyer born of the necessity in 1941 to develop an interim tank destroyer as quickly as possible. The M3 GMC was basically a M3 halftrack modified to mount a World War I-era M1897A4 75mm gun. A gun shield protected the somewhat exposed crew from the front, and the rear of the vehicle was modified to carry 59 rounds of ammunition.

The M3 GMC was found in tank destroyer units through the end of 1943, as well as in HQ units in most armored formations. By early 1944 the M3 GMC was obsolete in the US Army, but continued in service in the Marines and British Army until the end of the war.

Armor ... 6 - 12 mm



## ■ SELF-PROPELLED ASSAULT GUNS

### ■ T30 HOWITZER MOTOR CARRIAGE

Like the M3 GMC, the T30 HMC was a stop-gap expediency based on the M3 halftrack, meant to fill the assault gun role until the M8 HMC entered service late in 1943. The T30 HMC mounted a M1A1 75mm howitzer with gun shield and carried 60 rounds of ammunition. The T30 was found in cavalry units and the HQ companies of tank battalions.

Armor ... 6 - 12 mm



### ■ M7 HMC PRIEST

The M7 HMC was an American self-propelled artillery vehicle with the official service name "105mm

Self Propelled Gun". The British Army called it the "Priest" due to the pulpit-like machine gun ring. M7 HMCs were modified M3 Lee medium tanks, with later production vehicles adding M4 type bogies with trailing return rollers and a few also obtaining one-piece cast noses. The vehicle mounted a M1A2 105mm howitzer with 69 rounds of ammunition. M7 HMCs were found in armored artillery formations.

Armor ... 12 - 51 mm

 Ldr Gunner Loader Loader Loader Loader Loader Driver	 SPA 105mm L/23 M2A1 Weight 23.0 tons Speed Power Off-Road Turning	 <b>AMMO</b> 105mm HE 58 105mm HEAT 3 105mm Smoke 8 .50cal AP 300	 <b>DAMAGE</b> 105mm Main 12.7mm MG Radio Engine Wpn Controls Optics Tracks	 <b>DEFENSES</b>    
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## ■ ARMORED CARS

### ■ M3A1 SCOUT CAR

The M3A1 Scout Car was also known as the White Scout Car. It was used mostly as a cavalry vehicle, although modified versions were also used as command vehicles and ambulances. Production of the M3 began in 1940, when it became standard-issue to cavalry units. After Operation Husky the M3A1 was replaced by the M8 armored car and M20 Utility Car, although it continued to see service in British units.

 Gunner Driver	 Scout Car 12.7mm M2HB Weight 5.6 tons Speed Power Off-Road Turning	 <b>AMMO</b> .50cal AP 200 .50cal AP >1k .45cal 200 .30cal M1car 200 .30cal M2 >2k	 <b>DAMAGE</b> 12.7mm MG Radio Engine Wheels	 <b>DEFENSES</b>    
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## ■ HALFTRACKS

### ■ M2 HALFTRACK

The White Motor Company developed this vehicle by modifying a M3 Scout Car. This was intended as an artillery prime mover halftrack, outfitted with seating for a gun crew and lockers for artillery ammunition. The skate rail could mount a .50cal M2HB for self-defense.

Armor ... 6 - 12 mm

 Gunner Driver	 Halftrack 12.7mm M2HB Weight 8.7 tons Speed Power Off-Road Turning	 <b>AMMO</b> .50cal AP 100 .30cal M2 250 60mm HEAT 4 .50cal AP 600 .30cal M1car 500 .30cal M2 >7k	 <b>DAMAGE</b> 12.7mm MG 7.62mm MG Radio Engine Tracks	 <b>DEFENSES</b>    
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### ■ M3 HALFTRACK

M3 - White Halftrack with White 6,330 cc 160AX engine. Fitted with either an M32 anti-aircraft machine gun mount or a pedestal mount. In the game, you will find both M2HB machine guns as well as M1919A4 MGs mounted on this vehicle.

Armor ... 6 - 12 mm



### ■ M4A1 MMC MORTAR HALFTRACK

A M2 Halftrack based Motor Mortar Carriage equipped with the 81mm M1 mortar. The mortar was intended to be fired dismounted from the vehicle, but could be fired to the rear from a base inside the vehicle in an emergency. The A1 allowed the mortar to fixed facing forward and to be fired from within the vehicle. Features a M1919 .30 caliber machine gun mounted on a skate rail.

Armor ... 6 - 12 mm

**Note:** firing the mortar from within the M4A1 halftrack is currently not allowed in CM:FI. You will have to dismount the mortar team before they can fire their mortar.



## ■ UNARMORED VEHICLES

### ■ 2.5 TONS 6X6 CARGO TRUCK

This vehicle represents the typical 21/2 ton 6x6 U.S. Army cargo truck that saw service in World War II. Often referred to as a "Deuce and a Half", a term which was applied to all 21/2 ton cargo trucks during the war.



■ 1/4 TON 4X4 TRUCK "JEEP"

The Willys MB US Army Jeep (formally the Truck, 1/4 Ton, 4x4) and the Ford GPW were manufactured from 1941 to 1945. The small four-wheel drive utility vehicles are considered the iconic World War II Jeep, and inspired many similar light utility vehicles.

In CM:FI, you will find a number of Jeep variants, including jeeps with or without radios, and Jeeps with or without mounted medium and .50cal machineguns.

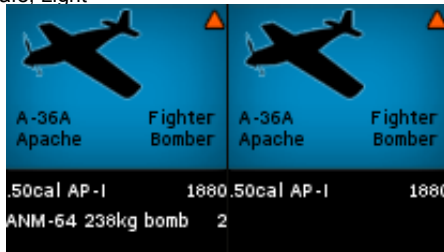


■ US AIR ASSETS

■ A-36A APACHE FIGHTER BOMBER

The North American A-36 Apache was the ground attack version of the P-51 Mustang. The Apache was a basic P-51 frame fitted with an Allison engine, dive brakes and bomb racks, turning it into a dive bomber.

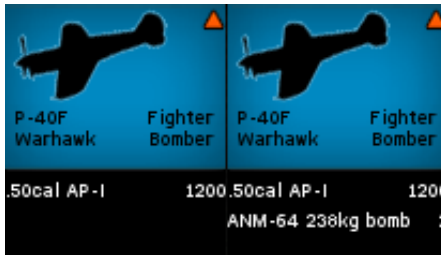
Configurations ... Strafe, Light



■ P-40F WARHAWK FIGHTER BOMBER

The Curtiss P-40 Warhawk was a widely used fighter and ground attack aircraft. The P-40F was the most common variant in the Mediterranean, equipped with a Packard V-1650 Merlin engine instead of an Allison engine, six .50cal machineguns, and up to 450kg in bombs.

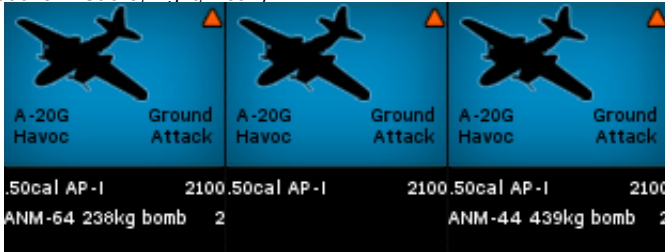
Configurations ... Strafe, Light



■ A-20G HAVOC GROUND ATTACK AIRCRAFT

Also known as the DB-7, the Douglas Havoc served as a light bomber and ground attack aircraft. The bomber was powered by two Wright R-26000-A5B engines and armed with six .50cal nose machine-guns, three .50cal dorsal and ventral machineguns, and up to 910kg in bombs.

Configurations ... Strafe, Light, Heavy



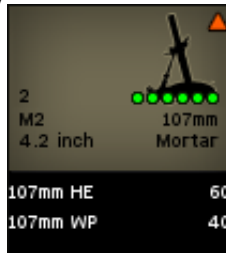
■ U.S. ARTILLERY ASSETS

Note: the 60mm M2, 81mm M1 Mortar, and M1A1 Pack Howitzer are explained under "Heavy Weapons"

■ M2 4.2 INCH MORTAR

The M2 4.2 inch Mortar was a U.S. rifled 4.2-inch (107mm) mortar used during the Second World War and the Korean War. It entered service in 1943.

Rate of fire .... 5 rpm for 20 minutes  
 ..... 1 rpm indefinitely



■ M2A1 105MM HOWITZER

The 105mm M2A1 Howitzer was the standard light field howitzer for the United States in World War II.



■ M1 155MM HOWITZER

The 155mm Howitzer M1 was a towed howitzer used by the United States Army. It was produced in 1942 as a medium artillery piece.

Rate of fire .... 4 rpm burst  
..... 40 rounds per hour sustained



■ M1A1 155M GUN "LONG TOM"

The 155mm Gun M1, widely known as the Long Tom, was a 155 millimeter caliber field gun used by the United States armed forces during World War II and the Korean War. The M1A1 (1941) variant featured a modified breech ring.

Rate of fire ... 40 rounds per hour sustained



■ T27 XYLOPHONE ROCKET

The T27 was the first multiple rocket launcher used in combat by the US Army. It consisted of eight launching tubes for 4.5-inch M8 rockets, assembled side by side. It was intended to be installed behind a 2.5 ton truck.



■ NAVAL GUNS

Two heavy naval guns are available for support of the US forces in the game, representing various ships used in fire support roles: the 5 inch Destroyer and 6 inch Light Cruiser.



## ■ U.S. WEAPONS

### ■ M1911A1 .45 CAL

The Automatic Pistol, Caliber .45, M1911A1 is a single-action, semi-automatic, magazine-fed, and recoil-operated handgun chambered for the .45 ACP cartridge. John M. Browning designed the firearm which was the standard-issue side arm for the United States armed forces during WWII. The M1911A1 features a few minor changes over the original M1911 model of WWI.

Cartridge .....45 ACP  
Feed system .....7-round standard detachable box magazine



### ■ M1 CARBINE

The United States Carbine, Caliber .30, M1 is a lightweight semi-automatic carbine. With its reduced-power .30 cartridge, it was not originally intended to serve as a primary weapon for combat infantrymen, nor was it comparable to more powerful assault rifles developed late in the war. Nevertheless, the carbine was soon widely issued to infantry officers, and the American paratroopers, NCOs, ammunition bearers, forward artillery observers, and other frontline troops. Its reputation in front-line combat was mixed. Some soldiers and Marines, especially those unable to use a full-size rifle as their primary weapon, preferred the carbine due to its small size and light weight.

Cartridge .....30 Carbine  
Feed system .....15 or 30-round detachable box magazine



### ■ M1A1 CARBINE

This is the Paratrooper model of the M1 Carbine with a folding stock and 15-round magazine.



### ■ M1 GARAND

The United States Rifle, Caliber .30, M1 was the first semi-automatic rifle to be generally issued to the infantry of any nation. The M1 rifle is a gas-operated, semi-automatic, clip-fed rifle. The M1's semi-automatic operation gave United States forces a significant advantage in firepower and shot-to-shot recovery time over individual enemy infantrymen in battle.

Cartridge .....30-06 Springfield (7.62x63mm)  
Effective range .....440 yd (402 m)  
Feed system .....8-round "en bloc" clip internal magazine



### ■ M1903A3 SPRINGFIELD

The United States Rifle, Caliber .30-06, Model 1903, is an American clip-fed, 5-shot, bolt-action service rifle. It was officially adopted as a United States military bolt-action rifle on June 21, 1905, and saw service in World War I and as the modified M1903A3 and M1903A4 in World War II. In 1937, the M1 Garand replaced the Springfield as the standard U.S. infantry rifle; however, due to limited supplies of the M1, the Springfield remained in service throughout World War II as both a standard infantry and a specialized sniper rifle.

M1903A3 - barrel-mounted rear sight replaced with an aperture sight mounted on receiver similar to the M1 Garand rear sight, and stamped cartridge follower.

Cartridge .....30-06 Springfield  
Action .....Bolt-action  
Feed system .....5-round



### ■ M1903A3 SPRINGFIELD (W/ M1 GRENADE LAUNCHER)

The Rifle Grenade Launcher, M1 was a 22 mm rifle grenade launcher attachment for the M1903 Springfield rifle. The M1 was a tube-shaped device, one end slotting over the barrel of the rifle, the other end holding the grenade in place. Blank cartridges were loaded into the rifle prior to firing. When fired,



the expanding gases generated by the cartridges propelled the grenade forward with considerable force. All US units in 1943 used the M1903 Springfield for grenade launchers, as the grenade adapter for the M1 Grenade had not been fielded yet.



■ **M1903A4 SPRINGFIELD**

These standardized sniper rifles were M1903A3s with a Weaver telescopic 2.2x sight and a new stock.



■ **M1A1 THOMPSON**

The Thompson is an American submachine gun invented by John T. Thompson. The Thompson was also known informally as the "Tommy Gun". The Thompson was favored by soldiers, criminals and police alike for its ergonomics, compactness, large .45 ACP cartridge, reliability, and high volume of automatic fire.

In 1938, the U.S. military adopted the Thompson submachine gun. The United States Submachine Gun, Cal. .45, M1A1, could be produced in half the time of the earlier models, and at a much lower cost.

- Cartridge .....45 ACP (11.43  $\diamond$  23 mm)
- Effective range .....50 meters (160 ft)
- Feed system .....20-round stick/box magazine
- .....30-round stick/box magazine
- .....50-round drum magazine



■ **M1918 B.A.R.**

The Browning Automatic Rifle (BAR) was a family of US automatic rifles (or machine rifles) and light machine guns used by the United States and numerous other countries during the 20th century. The primary variant of the BAR series was the M1918, chambered for the .30-06 Springfield rifle cartridge and designed by John Browning in 1917 for the U.S.

The BAR was designed to be carried by advancing infantrymen, slung over the shoulder and fired from the hip, a concept called "walking fire"-thought to be necessary for the individual soldier during trench warfare. In practice, soldiers often used the BAR as a light machine gun and fired from a bipod (introduced in later models). The original M1918 version was and remains the lightest machine gun to fire the .30-06 Springfield cartridge, though the limited capacity of its standard 20-round magazine tended to hamper its utility in that role.

- Cartridge .....30-06 Springfield (7.62x63mm) (M1918, M1922, M1918A1, M1918A2)
- Effective range .....100-1,500 yd sight adjustments
- Feed system .....20-round detachable box magazine



■ **U.S. HEAVY WEAPONS**

■ **M1A1 BAZOOKA**

"Bazooka" is the common name for the man-portable recoilless rocket antitank weapon widely fielded by the US Army. The bazooka was amongst the first-generation of rocket propelled anti-tank weapons used in infantry combat. Featuring a solid rocket motor for propulsion, it allowed for high explosive (HE) and high-explosive anti-tank (HEAT) warheads to be delivered against armored vehicles, machine gun nests, and fortified bunkers at ranges beyond that of a standard thrown grenade or mine.

The M1A1 model featured an improved electrical system and simplified design over the original M1 Bazooka. It had the forward hand grip deleted and used the M6A1 rocket.

*Rocket AT weapons such as Bazookas may be fired from buildings, but the potentially lethal hot gases released may wound or suppress nearby soldiers! These weapons cannot be fired from bunkers.*



### ■ M1919A4 MEDIUM MACHINEGUN

The M1919 Browning is a .30 caliber medium machine gun that was used as a light infantry, coaxial, mounted, aircraft, and anti-aircraft machine gun by the U.S. and many other countries. The M1919 is an air-cooled development of the standard US machine gun of World War I, the Browning M1917, as designed by John M. Browning.

As a company or battalion support weapon, the M1919 required at least a two-man machine gun team. But in practice, four men were normally involved: the gunner (who fired the gun and when advancing carried the tripod and box of ammo), the assistant gunner (who helped feed the gun and carried the gun, and box of spare parts and tools), and two ammunition carriers.

The M1919A4 variant weighed about 31 lb (14 kg), and was ordinarily mounted on a lightweight, low-slung tripod for infantry use. Fixed vehicle mounts were also employed. It saw wide use in World War II mounted on jeeps, armored personnel carriers, tanks, and amphibious vehicles. The M1919A4 played a key role in the firepower of the World War II US Army infantry company, which unlike other armies, normally had a weapons platoon in addition to its other organic units. The presence of M1919A4 weapons in the weapons platoon gave company commanders additional automatic fire support at the company level, whether in the assault or on defense.



### ■ M1917A1 BROWNING HEAVY MACHINEGUN

The M1917 Browning heavy machine gun is a belt-fed water-cooled machine gun that served alongside the much lighter air-cooled Browning M1919. It was used at the battalion level. The M1917A1 model is a reconfiguration of the original World War One design, with various improvements and adapted for use with modern WW2 ammunition.



### ■ M2HB BROWNING HEAVY MACHINEGUN

The M2 Machine Gun, Browning .50 Caliber Machine Gun, is a heavy machine gun designed towards the end of World War I by John Browning. It is very similar in design to John Browning's earlier M1919 Browning machine gun, which was chambered for the .30-06 cartridge. The M2 uses the larger and more powerful .50 BMG cartridge, which was named for the gun itself (BMG standing for Browning Machine Gun). The M2 has been referred to as "Ma Deuce", or "the fifty" in reference to its caliber. You will find the M2HB in the game mounted on many US vehicles, and it is also available on a tripod (ground) mount within some US Airborne formations.



### ■ 37MM M3 ANTI-TANK GUN

The M3 was the first gun fielded by the United States solely as an anti-tank weapon, replacing the M2HB as the primary anti-tank weapon of infantry units. Developed in the 1930s, the M3 was designed to be portable enough to be easily moved by infantry, but this came at the cost of being under-powered against later German tanks. By 1943 the M3 was being replaced by the M1 57mm anti-tank gun, although it would continue in service in the Mediterranean theater well into 1944. In CM:FI the M3 is notable as being one of the few weapon systems able to fire canister rounds, giving it a surprisingly nasty punch against exposed enemy infantry.



### ■ 57MM L/50 M1 ANTI-TANK GUN

The United States Army adopted the Ordnance Quick-Firing 6-pounder 7 cwt, or just 6 pounder, the primary British anti-tank gun during the middle of World War II, primarily for lend lease production. The U.S. version, designated 57 mm Gun M1, was based on the 6 pounder Mk 2 but used the longer

L/50 barrel. Production started early in 1942 and continued until 1945.

American shell designs and production lagged behind the introduction of the gun once it was accepted for service and so at first only AP shot was available.



### ■ 60MM MORTAR M2

The M2 Mortar is a smoothbore, muzzle loading, high-angle-of-fire weapon used by U.S. forces in World War II. The U.S. M2 60 mm mortar was developed from the heavier 81 mm M1 Mortar to provide a lighter-weight alternative to company-level fire support. It consists of a smoothbore metal tube on a rectangular baseplate, supported by a simple bipod with the elevation and traverse mechanisms. The firing pin was fixed in the base cap of the tube, and the bomb was fired automatically when it dropped down the barrel. Though classified as a light mortar, the M2 had considerable range compared to the 50 mm and 60 mm mortars of most other nations, and its fixed-firing pin design allowed a high rate of fire by trained crews.

Rate of fire ..... 18 rounds/minute



### ■ 81MM MORTAR M1

The M1 is the standard United States 81 millimeter caliber mortar. It is based on the French Brandt mortar.

The M1 is capable of firing WP (White Phosphorus) ammunition, designed to lay down screening smoke, but with definite anti-personnel and incendiary applications.

**Note: in the game, units close to a WP shell impact are subject to possible damage**

Rate of fire ..... 18 round/min sustained  
 ..... 30-35 round/min maximum



■ M1A1 PACK HOWITZER

The 75mm Pack Howitzer M1 was designed in the United States in the 1920s to meet a need for an artillery piece that could be moved across difficult terrain. The gun and carriage was designed so that it could be broken down into several pieces to be carried by pack animals or flown in with air drops. The pack howitzer was commonly found amongst airborne troops, where its small size allowed it to accompany them on airborne drops to provide light indirect assistance, and with HEAT rounds, a limited anti-tank capability.

Rate of fire ... 6 rounds per minute



■ GERMAN WEHRMACHT

■ TANKS

■ PANZER IIIM

The Panzerkampfwagon III, commonly known as the Panzer III, began service in 1939 after a 1935 order was placed for a 15-ton medium tank. The first Panzer IIIs underwent a rapid evolution, changing the suspension numerous times. Initially armed with the KwK L/46.5 37mm gun and up to 30mm of armor, the Panzer III was the primary battle tank of the German Panzer forces in the early years of World War II. Available only in small numbers, the Panzer III was an excellent tank for its time, easily able to defeat Polish and most French tanks. However, the tank was found to be woefully inadequate against heavier Russian tanks such as the T-34 and KV in 1941, prompting significant upgrades. The 37mm cannon was replaced by a better penetrating KwK L/42 50mm cannon in the Panzer III Ausf. G, and the superstructure and hull armor were increased to 50mm in the Panzer III Ausf. J.

By the time the Panzer III Ausf. M was fielded, Panzer IIIs were equipped with longer-barreled KwK39 L/60s, and had increased their armor by up to 57mm on the turret and added another 20mm of spaced armor on the superstructure front and gun mantlet. The numerous upgrades were not enough, however, and by 1943 the Panzer IV was replacing the Panzer III in most armored formations. Even after its status as a primary battle tank had passed, the chassis of the Panzer III lived on by being converted into StuG assault guns and StuH assault howitzers.

Armor ..... 10 - 70 mm



### ■ PANZER IIIN

The Ausf. N was the final variant of the Panzer III tank line. The 50mm cannon was replaced with a KWK L/24 75mm short-barreled gun, and the spaced armor on the mantlet was shed to accommodate the larger gun. It was meant to be used for accompanying Tigers and other Panzers, providing close-support against enemy infantry.

Armor..... 10 - 70 mm



### ■ PANZER IVG (LATE)

The Panzerkampfwagen IV (Pz.Kpfw. IV), commonly known as the Panzer IV, 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 (26.0 short 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 80mm front armor was in fact a 50mm base with 30mm additional applique bolted on. Imperfect welding of the hull front to the hull sides caused occasional armor failures.

Armor..... 10 - 80 mm



### ■ PANZER IVG (LATEST)

In April 1943, the KwK 40 L/43 was replaced by the longer 75-millimetre (2.95 in) KwK 40 L/48 gun, with a redesigned multi-baffle muzzle brake with improved recoil efficiency.



### ■ PANZER IVH (EARLY)

The next version, 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-millimetre (3.15 in) 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-millimetre (0.20 in) side-skirts and 8-millimetre (0.31 in) turret skirts. The top turret armor was strengthened to 16mm.



### ■ PANZER VI E TIGER (EARLY)

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



## ■ TANK DESTROYERS

### ■ MARDER II (Sd.Kfz. 131)

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. Two primary variants of the Marder II existed, in the form of the Sd.Kfz.132, which carried a captured Soviet 76.2mm gun rechambered for German ammunition, and the Sd.Kfz. 131 which carried the Pak 40 anti-tank gun.

576 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 Panzerjaeger detachments on all fronts until the end of the war.

Armor..... 4 - 35 mm



## ■ SELF-PROPELLED ASSAULT GUNS

### ■ STUG IIIF/8

The Sturmgeschuetz 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. F/8 featured the first new hull design of the StuG series, using an improved hull similar to the Panzer III Ausf. J and L. The rear deck was extended in length, and ventilation was improved. The rear received more armor, and an additional 30mm of armor were bolted to the hull front and superstructure.

Armor..... 16 - 80 mm





■ STUG III G (EARLIEST)

The final and by far the most common of the StuG series was the StuG III Ausf. G (Sd.Kfz. 142/1). 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 45mm and 50mm), a commanders cupola with periscopes, and a shielded top-mounted MG34 operated by the loader. Armor ..... 16 - 80 mm



■ STUG III G (EARLY)

A small evolution of the StuG III G, this version only differed in the frontal armor, which was one piece instead of bolted on additions. Armor ..... 16 - 80 mm



■ STUH 42 (EARLY)

In 1942, a variant of the StuG III Ausf. F was designed with a 105 mm (4.1 inch) howitzer instead of the 7.5 cm 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 Ausf. F/8 and Ausf. Gs were being used in an anti-tank role. The StuH 42 mounted a variant of the 10.5 cm leFH 18 howitzer, modified to be electrically fired and fitted with a muzzle brake. The early model is equivalent to the StuGIII (early) and uses a "box" mantlet. Armor ..... 16 - 80 mm



## ■ GRILLE

The Sdkfz 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 150mm sIG 33 heavy infantry gun and ammunition compartments were added within the superstructure.

Armor 15 - 50 mm



## ■ WESPE

The Sdkfz 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 10.5 cm leFH 18 light howitzer.

Armor..... 5 - 30 mm



## ■ ARMORED CARS

### ■ PSW 221

The Leichter Panzerspähwagen light armored reconnaissance vehicles were a series of light four-wheel drive armoured cars produced from 1935 to 1944. They used the standard sPkw I Horch 801 (heavy car) chassis with an angled armoured body and turret. The Sdkfz. 221 was armed with a 7.92mm MG34 machine gun and was usually found alongside the Sdkfz. 222 and 223.

Armor ..... 5 - 8 mm

<b>AMMO</b>	<b>DAMAGE</b>	<b>DEFENSES</b>
7.92mm >1k	7.92mm MG Radio Engine Wheels	+++++ XXXXX XXXXX XXXXX XXXXX OOOO

■ PSW 222

The SdKfz. 222 variant was armed with a 2 cm KwK 30 L/55 autocannon and a 7.92 mm MG34 machine gun. The third crew member was the gunner.

Armor ..... 5 - 14.5 mm

<b>AMMO</b>	<b>DAMAGE</b>	<b>DEFENSES</b>
20mm HE 60 20mm AP-I 120 7.92mm >1k	20mm Main 7.92mm Coax Radio Engine Wpn Controls Optics Wheels	+++++ XXXXX XXXXX XXXXX XXXXX OOOO

■ PSW 223

The SdKfz 223 Panzerfunkwagen is a radio car version, armed with a 7.92mm MG34 machine gun. It includes additional radio equipment, and has a large "bed-frame" antenna over the vehicle.

Armor ..... 5 - 14.5 mm

<b>AMMO</b>	<b>DAMAGE</b>	<b>DEFENSES</b>
7.92mm >1k	7.92mm MG Radio Engine Wheels	+++++ XXXXX XXXXX XXXXX XXXXX OOOO

■ PSW 231

The term Schwere Panzerspahwagen (heavy armored reconnaissance vehicle) covers the 6 and 8 wheeled armored cars Germany used during the Second World War. The Sdfkz 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 20mm KwK38 L/55 gun.

Armor ..... 8 - 30 mm



### ■ PSW 233

This armored car, based on the Sdkfz 231, was armed with a 75m StuK37 L/24, and was intended to provide Aufklaerungs formations with heavier firepower against enemy tanks and infantry. The vehicle was basically a Sdkfz 231 with the turret removed and superstructure altered to mount the 75mm cannon. Just over 100 vehicles were built and used on all fronts until 1945.

Armor..... 8 - 30 mm



### ■ HALFTRACKS

#### ■ SPW 250/1

The Sd.Kfz. 250 was a light armored halftrack built by DEMAG. Compared to U.S. halftracks, the SdKfz 250 series was less mobile, with unpowered front wheels. However, its tracks made it far more mobile than the armoured 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.

Armor..... 5.5 - 14.5 mm



#### ■ SPW 250/3

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



### ■ SPW 250/10

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.



## ■ UNARMORED VEHICLES

### ■ KUEBELWAGEN UTILITY VEHICLE

The Volkswagen Kuebelwagen (short for Kuebelsitzwagen, 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 Kuebelwagen was for the Germans what the jeep was for the Allies.



### ■ 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 1 ton model along with fourteen versions of the larger 2/2Q ton trucks. A three ton version was introduced in 1939 and used throughout the war.



### ■ KFZ.70 "KRUPP-PROTZE"

The "Krupp-Protze" was a German truck of advanced design. The truck was widely used during the war in a variety of roles, but its primary uses were as an artillery tractor and to carry motorized infantry. 7,000 trucks were built between 1933 and 1941.



## ■ GERMAN AIR ASSETS

### ■ FOCKE-WULF 190A5

The Focke-Wulf Fw 190 Wuerger (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 A5 entered production in November 1942.





Configurations ... Strafe, Light

Fw 190A5 Focke-Wulf	Fighter Bomber	Fw 190A5 Focke-Wulf	Fighter Bomber
7.92mm AP	2000	7.92mm AP	2000
20mm AP	500	20mm AP	500
		SC250 249kg bomb	1

### ■ MESSERSCHMITT BF 109G6

The Bf 109 served as the mainstay of the Luftwaffe throughout World War II. Highly advanced in design when it first saw battle in the Spanish Civil War, the Bf 109 would prove to be instrumental to Luftwaffe air superiority during the first years of the war. Initially envisioned as a short-range interceptor craft, through myriad variants it was soon pressed into a multitude of roles, including fight-bomber, bomber escort, ground-attack, and reconnaissance. The Bf 109G6 was introduced in February 1943 and featured larger 13mm MG 131s, replacing the 7.92mm MG 17.





Configurations ... Strafe, Light, Heavy

			
Bf-109G6 Messersch... Fighter Bomber	Bf-109G6 Messersch... Fighter Bomber	Bf-109G6 Messersch... Fighter Bomber	Bf-109G6 Messersch... Fighter Bomber
13mm AP-I	60013mm AP-I	60013mm AP-I	600
20mm AP	15020mm AP	15020mm AP	150
	SC50 55kg bomb	4SC250 249kg bomb	1

■ MESSERSCHMITT BF 109G6/U4

The BF 109 G6/U4 was the same aircraft as the Bf 109G6, but used a 30mm Mk 108 cannon instead of the 20mm MG 151/20.

Configurations ... Strafe, Light, Heavy

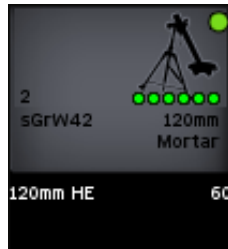
			
Bf-109G6/U4 Messersch... Fighter Bomber	Bf-109G6/U4 Messersch... Fighter Bomber	Bf-109G6/U4 Messersch... Fighter Bomber	Bf-109G6/U4 Messersch... Fighter Bomber
13mm AP-I	60013mm AP-I	60013mm AP-I	600
30mm HE-I	6530mm HE-I	6530mm HE-I	65
	SC50 55kg bomb	4SC250 249kg bomb	1

■ GERMAN ARTILLERY ASSETS

Note: the sGrW34 medium mortar, leIG18 gun, sIG 33 gun, and Flak36 gun are available on-map and off-map, and explained under "heavy weapons"

■ SGRW42 120MM 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 75MM HOWITZER

The 7.5 cm Feldkanone 38 was a field gun built by Krupp.

Rate of fire ....8-10 rpm



### ■ LEFH18M 105MM HOWITZER

The 10.5 cm leFH 18M ( leichte Feldhaubitze, or "light field howitzer") replaced the 10.5 cm 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



### ■ SK18 105MM GUN

The 10.5 cm sK18 (schwere Kanone 18) was developed alongside the sFH18 and used the same carriage. It was used by some medium artillery battalions and independent artillery battalions throughout World War II.

Rate of fire .... 6 rpm



### ■ SFH18 150MM HOWITZER

The 15 cm 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 170MM GUN

The 17 cm Kanone 18 in Moerserlafette 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 tear down; many were lost when their crew abandoned them to avoid capture by advancing Allied forces.



### ■ MRS18 210MM HOWITZER "BRUMMBAER"

The 21 cm Moerser 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.



### ■ 15 CM 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 15 cm 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 3.7 cm PaK 36 to a range of 6,900 meters (7,500 yd)



### ■ 21CM NEBELWERFER 42

The 21 cm Nebelwerfer 42 rocket was introduced in 1942 with a longer range (7,850 meters (8,580 yd)) and a simpler design than the smaller 15 cm 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.



### ■ 28 CM NEBELWERFER 41

The 28 cm Nebelwerfer 41 rockets were introduced in 1941. The maximum range for either rocket was only 2,200 meters (2,400 yd), 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.



### ■ 30 CM NEBELWERFER 42

The last German-designed rocket to be introduced was the 30 cm Nebelwerfer 42 in 1943. This was intended to replace the 28 and 32 cm 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 30 cm Raketenwerfer 56, as well.



## ■ GERMAN WEAPONS

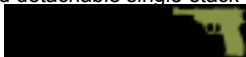
### ■ P38

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 (164 ft)

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 (547 yd) (with iron sights)  
 .....800+ m (875 yd) (with optics)  
 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 m (306 yd). 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 (1094 yards) when used by a skilled sniper. The German Zeiss Zielvier 4x (ZF39) telescopic sight had bullet drop compensation in 50 m increments for ranges from 100 m up to 800 m or in some variations from 100 m up to 1000 m.

Effective range.....800+ m (875 yd) (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  
 Effective range.....100 m  
 Feed system .....32-round detachable box magazine



■ **MG34**

The Maschinengewehr 34, or MG 34, 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  
 Feed system .....50-round belts, 50-round drum



■ **MG42**

The MG 42 weighed 11.6 kg in the light role with the bipod, lighter than the MG 34 and easily portable. The bipod, the same one used on the MG 34, could be mounted to the front or the center of the gun depending on where it was being used.

Cartridge .....8x57mm IS  
 Feed system . 50 or 250-round belt



## ■ 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 kg (14.9 lb), the larger 23.6 kg (52 lb). The larger MG 34 Lafette, included a number of features, such as a telescopic sight and special sighting equipment for indirect fire.

Cartridge .....7.92x57mm Mauser

Feed system .....50/250-round belts, 50-round drum, or 75-round "double drum" magazine with modification



*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 MG 34 general purpose machine gun in the German Armed Forces, though both weapons were manufactured and used until the end of the war. The MG 42 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 MG 42'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 kg on its own. The optimum operating crew of an MG 42 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

Effective range .....1000 m

Feed system .....50 or 250-round belt



### ■ SGRW34 8CM MORTAR

The 8 cm 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



### ■ LEIG 18 (7.5 CM)

The 7.5 cm 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



### ■ SIG 33 (15 CM)

The 15 cm 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



### ■ 5 CM PAK 38

The 5 cm Panzerabwehrkanone 38 (L/60) was a German anti-tank gun of 50 mm caliber. It was developed in 1938 by Rheinmetall-Borsig AG as a successor to the 37 mm PaK 36.



### ■ 7.5 CM PAK 40

The 7.5 cm Panzerabwehrkanone 40 was a German 75mm 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.



### ■ 7.62 CM PAK 36(R)

The 7.62 cm 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.



### ■ 8.8CM FLAK 36

The 88 mm gun is one of the most recognizable German weapons of the war. FlaK is a German contraction of Flugzeugabwehr-Kanone or Flugabwehr-Kanone (hence the capital K) 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.



## ■ ITALIAN ROYAL ARMY

### ■ TANKS

Note: the most well-known of the Italian tanks, such as the Fiat M14/41 and other medium tanks, did not see action in the defense of Sicily. The large Italian armored formations that possessed these vehicles had been completely destroyed in the fall of Tunisia, and were reforming on the Italian mainland, most of what remained of Italy's most modern tanks were with these units near Rome when Italy surrendered in September, and were quickly seized by the Germans in the ensuing disarmament.

Note also: most Italian vehicles are not equipped with radios. Most tank and Semovente formations rely on HQ command vehicle variants fitted with radios at the company and battalion levels,

### ■ RENAULT R35

The Renault R35 was a French tank designed and produced in the 1930s. The vehicle was intended to be used as an infantry support light tank. The R35 had up to 45mm of frontal armor, mounted a 37mm L/21 gun, and was capable of reaching 20 kmh.

After the fall of France in 1940, the German Wehrmacht quickly seized French equipment and pressed them into service, including more than 800 Renault R35s. 124 of these tanks were then given to Italy, which used them for the coastal defense of Sicily and the mainland.

Unlike the more modern tanks fielded by the Americans and the Germans, many of the Italian vehicles in CM:FI, including the R35, have only two crewmen. This unsurprisingly places considerable strain on the tank commander, who must fill the roles of gunner, loader, commander, and even radioman if a radio is equipped. It also means that the tank must button up to fire and that the loss of the tank commander essentially renders the tank inoperable. Button these vehicles up early and often!

Armor ..... 12 - 45 mm



### ■ L5/21

Also known as the Fiat 3000 Model 21, this vehicle was based heavily on the World War I-vintage French Renault FT-17 light tank. The L5/21 entered service in 1921, and saw action in action in Libya, Ethiopia, and later Greece. Afterwards the tank was relegated to a coastal defense role and did not see action again until 1943 in Sicily. The L5/21 was thinly armored with only 16mm of frontal armor, slow at only 21 kmh, and lightly armed with twin 6.5mm machineguns.

Armor.....6 - 16 mm



### ■ L5/30

This was the same vehicle as the L5/21, but the twin machineguns were replaced with a 37mm 37/40 gun. This tank was also known as the Fiat 3000 Model 30.

Armor.....6 - 16 mm



## ■ TANKETTES

### ■ L3/33

Also known as the Carro Veloce 33 (CV-33). Inspired by the British Vickers Carden Lloyd Mk VI, the L3/33 was issued beginning in 1934 to cavalry units. The tankette was designed for reconnaissance, and to that end had a very low silhouette and was relatively mobile with a top speed of 42 kmh. The two man crew was armed with a single 6.5mm machine gun.

Armor.....6 - 13.5 mm





■ L3/35

An improved version of the L3/33, the L3/35 had the riveted armor plates replaced with bolted plates, and twin 8mm machineguns replaced the single 6.5mm machinegun on the L3/33. Also known as the CV-35.

Armor ..... 6 - 13.5 mm



■ TANK DESTROYERS

■ SEMOVENTE 47/32

The Semovente 47/32 was a Fiat L6/40 light tank chassis with the turret removed and an open-topped superstructure located in its place. The vehicle mounted a 47mm Cannone da 47/32 M35 with 70 rounds of ammunition and had a crew of three. Command variants found at the company and battalion levels had a radio instead of a 47mm gun. In the guns place was a dummy cannon that outwardly resembled a 47/32, but was instead a 8mm machinegun.

Armor ..... 6 - 30 mm



■ SEMOVENTE 90/53

The Semovente 90/53 was developed in 1941 in a bid to increase anti-tank firepower by mounting a 90mm AA gun to a modified M14/41 tank chassis. The heavily modified chassis moved two crew members to the front of the vehicle, while the other two sat behind a large gunshield above the rear of the vehicle. These crewmembers were seated high and completely unprotected to the rear. The Semovente 90/53 was armed with the fearsome 90mm Cannone da 90/53, an AA gun on par in performance with the better known German Flak 88. The vehicle was hampered by an extremely

scant ammo load and low speed due to an over burdened engine. Only 48 of these vehicles were built during the war.

Armor.....6 - 30 mm

Personnel		AMMO		DAMAGE		DEFENSES	
Ldr		90mm HE	3	90mm Main	<span style="color: green;">■</span>	<span style="color: red;">+</span> <span style="color: red;">+</span> <span style="color: red;">+</span> <span style="color: red;">+</span>	
Gunner		90mm AP	9	Radio	<span style="color: green;">■</span>	<span style="color: red;">x</span> <span style="color: red;">x</span> <span style="color: red;">x</span> <span style="color: red;">x</span>	
Loader		Self-Propelled Gun		Engine	<span style="color: green;">■</span>	<span style="color: red;">x</span> <span style="color: red;">x</span> <span style="color: red;">x</span> <span style="color: red;">x</span>	
Driver		90mm L/53 Cannone d		Wpn Controls	<span style="color: green;">■</span>	<span style="color: orange;">o</span> <span style="color: orange;">o</span> <span style="color: orange;">o</span> <span style="color: orange;">o</span>	
Weight		17.0 tons		Optics	<span style="color: green;">■</span>	<span style="color: green;">■</span> <span style="color: green;">■</span> <span style="color: green;">■</span> <span style="color: green;">■</span>	
Speed				Tracks	<span style="color: green;">■</span>		
Power							
Off-Road							
Turning							

## ■ SELF-PROPELLED ASSAULT GUNS

### ■ SEMOVENTE 75/18 M41

Similar in concept to the StuG III, the Semovente 75/18s were self-propelled guns built by altering the chassis of a tank currently in service. The Semovente 75/18 was initially based on the chassis of the M13/40 tank in 1941, but as Italian tank design progressed the M14/41 chassis became the norm for a Semovente basis. The Semovente, armed with the Obice da 75/18 M34, was created to bridge a firepower gap until heavier Italian tanks could be developed and fielded. The Semovente was initially envisioned as a divisional mobile armored artillery, but it quickly became involved in direct combat, since they were relatively well armored and the 75mm HEAT round was able to defeat Allied armor.

Armor.....6 - 50 mm

Personnel		AMMO		DAMAGE		DEFENSES	
Ldr		75mm HE	18	75mm Main	<span style="color: green;">■</span>	<span style="color: red;">+</span> <span style="color: red;">+</span> <span style="color: red;">+</span> <span style="color: red;">+</span>	
Loader		75mm HEAT	8	Radio	<span style="color: green;">■</span>	<span style="color: red;">x</span> <span style="color: red;">x</span> <span style="color: red;">x</span> <span style="color: red;">x</span>	
Driver		Self-Propelled Gun		Engine	<span style="color: green;">■</span>	<span style="color: red;">x</span> <span style="color: red;">x</span> <span style="color: red;">x</span> <span style="color: red;">x</span>	
		75mm L/18 Obice da 7		Wpn Controls	<span style="color: green;">■</span>	<span style="color: orange;">o</span> <span style="color: orange;">o</span> <span style="color: orange;">o</span> <span style="color: orange;">o</span>	
Weight		14.4 tons		Optics	<span style="color: green;">■</span>	<span style="color: green;">■</span> <span style="color: green;">■</span> <span style="color: green;">■</span> <span style="color: green;">■</span>	
Speed				Tracks	<span style="color: green;">■</span>		
Power							
Off-Road							
Turning							

### ■ SEMOVENTE 75/18 M42

The Semovente 75/18 M42 was the same as the M41 variant, but used the M15/42 chassis. This meant the vehicle had a slightly longer hull with a more powerful engine.

Personnel		AMMO		DAMAGE		DEFENSES	
Ldr		75mm HE	18	75mm Main	<span style="color: green;">■</span>	<span style="color: red;">+</span> <span style="color: red;">+</span> <span style="color: red;">+</span> <span style="color: red;">+</span>	
Loader		75mm HEAT	8	Radio	<span style="color: green;">■</span>	<span style="color: red;">x</span> <span style="color: red;">x</span> <span style="color: red;">x</span> <span style="color: red;">x</span>	
Driver		Self-Propelled Gun		Engine	<span style="color: green;">■</span>	<span style="color: red;">x</span> <span style="color: red;">x</span> <span style="color: red;">x</span> <span style="color: red;">x</span>	
		75mm L/18 Obice da 7		Wpn Controls	<span style="color: green;">■</span>	<span style="color: orange;">o</span> <span style="color: orange;">o</span> <span style="color: orange;">o</span> <span style="color: orange;">o</span>	
Weight		14.4 tons		Optics	<span style="color: green;">■</span>	<span style="color: green;">■</span> <span style="color: green;">■</span> <span style="color: green;">■</span> <span style="color: green;">■</span>	
Speed				Tracks	<span style="color: green;">■</span>		
Power							
Off-Road							
Turning							

## ■ ARMORED CARS

### ■ AB 41

The AB 41 was a successful Italian armored car that was an improved version of the AB 40. The AB 41

had 4 wheels with four-wheel drive and double drivers. The vehicle was well armored for an armored car with up to 17mm of riveted armor on the front, and armed with a 20mm Breda M35 cannon housed in a turret based on the L6/40 tank turret. The vehicle was issued to cavalry and Bersaglieri units and fought in all fronts. Unlike most Italian vehicles, all AB 41s are outfitted with radios due to their role as reconnaissance vehicles.

Armor ..... 17 mm

Ldr Gunner Driver	 Armored Car 20mm L/65 Breda	AMMO 20mm HE 152 20mm AP-I 304 8mm >1k	DAMAGE 20mm Main 8mm Coax 8mm MG Radio Engine Wpn Controls Wheels	DEFENSES 

## ■ COMMAND VEHICLES

### ■ CARRO COMANDO M41

The Carro Comando M41 was a M14/41 tank modified into a command vehicle. Similar in construction to a Semovente, the 47mm gun was replaced with a dummy cannon and a 13.2mm Breda machine-gun, and the interior was filled with radios. The Carro Comando was not meant for fighting, but its location within the company and battalion commands for many Semovente units often necessitated it being near the front lines.

Commander Gunner Driver	 Self-Propelled Gun 13.2mm Breda	AMMO 13.2mm AP 420	DAMAGE 13.2mm MG Radio Engine Wpn Controls Optics Tracks	DEFENSES 

### ■ CARRO COMANDO M42

The Carro Comando M42 is the same as the M41 variant, with the exception that it is based on the M15/42 chassis. This meant the vehicle had a slightly longer hull with a more powerful engine.

Ldr Gunner Driver	 Self-Propelled Gun 13.2mm Breda	AMMO 13.2mm AP 420	DAMAGE 13.2mm MG Radio Engine Wpn Controls Optics Tracks	DEFENSES 

## ■ UNARMORED VEHICLES

### ■ FIAT 626

The Fiat 626 was an Italian 3 ton medium truck in Italian Army service during World War II. Over 10,000

vehicles were eventually created.



### ■ AS.42

The SPA-Viberti AS.42, also called the Sahariana, was a reconnaissance car created in response to the need for a long range reconnaissance vehicle in the North African desert. The AS.42 was built from the same chassis as the AB 41 armored car. Unlike the AB 41, the hull was unarmored, but it retained the steering and drive. Crewed by up to four men, the AB 41 was variously armed with either double Breda M38 machineguns, a Solothurn anti-tank rifle, a Breda 20mm AA gun, or even a 47mm antitank gun.



## ■ ITALIAN ARTILLERY ASSETS

*Note: the Cannone da 47/32, Cannone da 65/17, and Mortaio da 81/14 are available on-map and off-map, and explained under "heavy weapons"*

### ■ OBICE DA 75/18

The Obice da 75/18 M34 was an Italian designed mountain howitzer, arming many field batteries. This howitzer is also notable for being the armament of the Semovente 75/18.



### ■ CANNONE DA 75/27

The Cannone da 75/27 M11 was a French field gun dating from before World War I. The gun was notable as being the first artillery piece to utilize a split trail carriage, a system still in use today. Despite its age, the 75/27 was used by the Italians until the armistice, and even by the Germans afterwards until 1945.



#### ■ OBICE DA 100/17

The Obice da 100/17 M16 was an Italian divisional mountain howitzer that was used during World War II.



#### ■ CANNONE DA 105/28

The Cannone da 105/28 M13 was a French gun first fielded in 1913. After World War I, France sold many of these artillery pieces to Italy, who also produced them under license.



#### ■ OBICE DA 149/13

The Obice da 149/13 M14 was a Austria-Hungarian heavy howitzer originally used in World War I. Italy captured many pieces and received more as war reparations, all of which were pressed into service.



#### ■ CANNONE DA 149/35

The oldest artillery piece present in CM:FI, the Cannone da 149/35 was created around 1900. It did not even have a recoil or traversing mechanism, the carriage having to slide up ramps to absorb the recoil; even then, the gun had to re-layed after each shot. The 149/35 was very obsolete before the war started, but its replacements were never built in sufficient quantities, making its use a necessity.



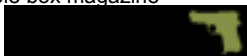
## ■ ITALIAN WEAPONS

### ■ THE BERETTA M1934

The Beretta M1934 is a semi-automatic pistol that began service with the Royal Italian Army starting in 1934. The weapon is simple with few parts, reliable, and chambered for a 9mm Corto round (also known as .380 ACP). The weapon is highly regarded, and was produced straight into the modern day.

Cartridge .....9mm Corto (.380 ACP)

Feed system .8 round detachable box magazine



### ■ MANNLICHER-CARCANO M1891/41

The M1891 rifle, popularly known as the Carcano, was the primary combat rifle of the Royal Italian Army since before World War I. The rifle is bolt-action, fed by a 6 round integral magazine, and chambered for 6.5x52mm Mannlicher-Carcano ammunition. The rifle underwent numerous changes, the most notable of which was an attempt to rechamber the weapon for 7.35mm in 1938, but this change was abandoned after Italy could not manufacture enough 7.35mm rifles to equip the military. Subsequently the military returned to the 6.5mm round with the M1891/41 in 1941.

Cartridge .....6.5x52mm Mannlicher-Carcano

Effective range .....600m

Feed system .....6 round integral magazine, "en bloc" clip



### ■ BERETTA M38

Formally known as the MAB 38 (Moschetto Automatico Beretta Modello 1938), the Beretta M38 was a submachine gun used by the Royal Italian Army beginning in 1938. The Beretta M38 fired a 9mm Parabellum round with a rate of fire of 900 rounds per minute. For most of the war the weapon was rare in the Italian military outside of the Folgore airborne division and the Carabinieri, although it became much more common towards the end of the war. The weapon proved to be extremely popular and was used widely by a number of militaries.

Cartridge .....9x19mm Parabellum

Feed system .20 round detachable box magazine



### ■ BREDA M30 LMG

The Breda M30 was the standard light machinegun of the Royal Italian Army in World War II. The construction of the machinegun was odd and unique, featuring inexplicable design principles. The weapon used a small lubrication device that oiled each cartridge as it entered the chamber, creating a major jamming hazard if dust or dirt was present in the environment. To make matters worse, the use of a closed bolt meant that cooked off rounds were more likely.

Cartridge .....6.5x52mm Mannlicher-Carcano

Effective range .....800m

Feed system .....20 round stripper clips



## ■ ITALIAN HEAVY WEAPONS

### ■ BREDA M37 HEAVY MACHINEGUN

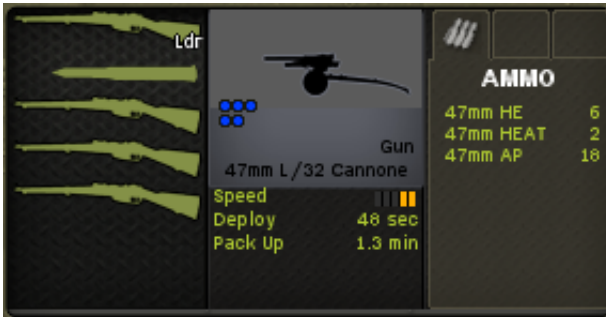
The Breda M37 was the primary Italian infantry heavy machinegun during World War II. As with the Breda M30, the M37 featured some bizarre design decisions. The gun was fed by mere 20-round strips, and spent cases were carefully reinserted back into the strip by the mechanism as the gun fired, significantly increasing the chance of jamming and reducing the rate of fire. A modified version of the M37, called the M38, was used in vehicles and features several modifications including a pistol grip and being fed by a top-mounted box magazine.

Cartridge .....8x59mm RB Breda  
 Effective range .....1000m  
 Feed system .....20 round strips



### ■ CANNONE DA 47/32 M35 ANTI-TANK GUN

The Cannone da 47/32 M35 was an Austrian gun developed by Bohler, and produced under license in Italy. The 47/32 was designed as a dual infantry gun and anti-tank gun, able to fire indirectly as fire support or in a direct fire role against enemy tanks and infantry. In the process of setting up for firing the wheels were removed to lower the profile of the gun.



### ■ CANNONE DA 65/17 M13 INFANTRY GUN

The Cannone da 65/17 M13 was an Italian mountain artillery piece that entered service in 1913. By 1943 the weapon was obsolete and in the process of being replaced by the Cannone da 47/32, although it could still be found in some regimental cannon companies acting as an infantry gun.



### ■ BRIXIA M35 MORTAR

The Brixia was a light mortar widely issued to Italian infantry during World War II. The Brixia was an unusual mortar in that it was breech loaded and trigger fired using ignition cartridges held by a magazine. The mortar had a high rate of fire and could be accurate in skilled hands, but was overly complicated and the small rounds were weak.



### ■ MORTAIO DA 81/14 M35 MORTAR

The 81/14 mortar was a Brandt copy like the 81mm mortars of many other nations, including the US M1 81mm mortar.



## ■ 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.

Most 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 in vicinity 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

CM:FI is making 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. Bazooka, 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 mortars

### ■ COMMS



Radio



Visual (Distant)



Visual (Close)



Voice

### ■ SPECIAL EQUIPMENT



Binoculars



Anti-tank rifle grenade



Radio



Bazooka



Demolition Charge



Anti-tank rocket

■ U.S. BRANCHES



Infantry



Armored Infantry



Airborne



Armored

■ GERMAN BRANCHES



Infantry



Panzergrenadier



Panzer

■ ITALIAN BRANCHES



Infantry



Motorized Infantry



Armored

■ U.S. ARMY RANKS



Private



Private First Class



Corporal



Sergeant



Staff Sergeant



Technical Sergeant



Master Sergeant



Second Lieutenant



First Lieutenant



Captain



Major



Lieutenant Colonel

■ GERMAN HEER RANKS



Soldat



Obersoldat



Gefreiter



Obergefreiter



Unteroffizier



Unterfeldwebel



Feldwebel



Oberfeldwebel



Stabsfeldwebel



Leutnant



Oberleutnant



Hauptmann



Major



Oberstleutnant

■ GERMAN LUFTWAFFE RANKS



Schuetze



Gefreiter



Obergefreiter



Unteroffizier



Unterwachtmeister



Feldwebel



Oberfeldwebel



Stabsfeldwebel



Leutnant



Oberleutnant



Hauptmann



Major



Oberstleutnant

## ■ ITALIAN ROYAL ARMY RANKS



Soldato



Soldato Scelto



Caporale



Caporale Maggiore



Sergente



Sergente Maggiore



Sottotenente



Tenente



Capitano



Maggiore



Tenente Colonnello

# ■ FLOATING ICONS

		HEADQUARTERS			LIGHT VEHICLE		
		INFANTRY				TRUCK	
		AMMO BEARER				ARMORED CAR	
		ENGINEER			HALFTRACK		
		RECONNAISSANCE				LIGHT TANK	
		SNIPER			MEDIUM TANK		
		FORWARD OBSERVER			HEAVY TANK		
			LIGHT MACHINEGUN				TANK DESTROYER
			MACHINEGUN				SELF-PROPELLED GUN
		ANTI-TANK LAUNCHER					
		MORTAR			FORTIFICATION		
			ANTI-TANK GUN		BUNKER		
		INFANTRY GUN			MINEFIELD		
		AA GUN			OBSTACLE		

## ■ ERRATA

Below is a list of some last-minute changes which were implemented while the Combat Mission Engine Manual v2.0 was already in print.

Page 88 - Chapter: Units Editor - Section: Reinforcements

### ■ ARRIVAL SPAN

Can be set to be Exact (no deviation, i.e. the unit will always arrive exactly on the time set above) or a value between 5 and 30 minutes in 5 minute intervals. Specifying a time determines a range which is added to the Earliest Arrival Time.

Page 104 - Chapter: Mods

### ■ MODS

(PC) Replace all references to the location of the Mods folder inside the game's Data folder with references to the Mods folder located under {My Documents}\Battlefront\CM Fortress Italy\User Data. This is now the recommended location for user mods, and is treated like the game's standard Data folder for all intents and purposes.

## ■ SPACE FOR YOUR NOTES BELOW

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## ■ TROUBLESHOOTING

While we're taking utmost care in preparation of this software to avoid bugs, today's myriad of available systems, software and hardware configurations makes it impossible to guarantee 100% compatibility. Below you will find a few known issues as well as a list of contacts available to help out.

An up-to-date Troubleshooting Guide is also available at our webpage:

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

### ■ MULTI-GPU

On certain systems with multiple video cards a known bug prevents players to select units occasionally. Turn off the additional video card(s) to solve this problem.

### ■ MULTIPLE VIDEO CARDS (SLI) VERY SLOW

If you are running multiple nVidia video cards running in SLI mode, download the latest Forceware drivers (169.21 at least).

### ■ UNITS DISAPPEAR WITH SHADOWS ON

This problem seems to affect people with certain combination of newer (8000 series) GeForce cards and various OS and video driver combinations. Until Nvidia releases a new set of Forceware drivers that specifically address this problem, simply play the game with shadows disabled (use Alt-W to toggle shadows on or off).

### ■ LEVEL OF DETAIL

CM:BN tries hard to keep up framerates and will automatically downsample textures, and adjust model quality, and level of detail calculations if it detects performance limits (VRAM used up etc.) This may lead to a subpar graphics quality during gameplay. Often it is a better idea to manually adjust the model and textures quality downward in the Game Options Menu, leading to better overall look and faster framerates.

### ■ INTRO VIDEO

If you would like to disable the intro video playing at game launch, hold down the "V" key at game startup. This is a toggle and remembered for future launches. If you want to bring the video back, simply keep "V" pressed again during the next launch.

## ■ TECH SUPPORT

### ■ BUGS

If you run into a bug, or have problems in running or installing the game, please visit our Tech Support forum at:

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

If you do not find a solution to your problem there, please post a support ticket at

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

### ■ PATCHES

Please also do not forget to check regularly for the latest patches to the game at:

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

You can also do an auto-check to find out if your version of the game is up to date. In your Start>Program Group you will find a link within the game's sub-group called "Check for latest version". Clicking the link will automatically compare your currently installed version of the game with the latest version available for download, and the results will be displayed in your browser.

### ■ LICENSING

For problems with licensing or unlicensing the game, please refer first to the Knowledge Base at:

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

If you do not find a solution to your problem there, please "Submit a support ticket" there.

BATTLEFRONT.COM

