



Shallow Domains

Humans had advanced in the past years into an age of the 4th industrial revolution. AI and mechanical machinery once only dreamt in fiction were now possible! All manner of things could be done with them acting, thinking and communicating like humans. Efforts had been made to impair the AI as to not cause any disruptions or death. In the year 2172 however, a rogue piece of malware from an unknown vigilante started to infect the Earth's robots and turn them violent against the uninfected and humans. This spread at first undetected until the timer had set off and the machines attacked for the first time. Humans fled all nations to find the same thing happening all around the world. Thankfully, the military of a few countries had made immunities to their robots before they went lethal.

The government has entrusted you as the commander of their dwindling army. You must use your wits and will to destroy the opposing team and take down their flag to help push back this force for good and to restore peace in the country. Be warned, there's no safe option in this game so you better get in guns ablazing!

Menu

Level Selection

The level can be selected on the level selection screen using left or right (joystick or cursor key).

Each level has an eight-letter passcode, which is displayed during level selection or when a map has been completed.



The passcode of a different level can be entered just typing in the code – and will switch directly to the matching level. New passcodes are presented when a level has been successfully completed.

Pause Menu

The pause menu can be brought up during the game using the joystick menu or the stop button.



- Continue: Return to the game
- Hint: Display a short hint to help with the current map
- Music: Turn music on or off
- Resign: Surrender and retry the same map from the start
- Title: Return to the title menu

Gameplay

Goal

The goal of the player is to destroy the enemy's command centers in the limited amount of days available. The player loses if their own command center is destroyed or they run out of time. The enemy may have more than one command center, in which case you will have to destroy all of them to win. There is no need to engage or destroy all enemy units, in fact it may be detrimental to the cause.

Turn based operation

The game is turn based. The computer enemy and the player take alternate turns of one moving squads, and the other attacking squads. The commands are planned out without the other side knowing. Then the commands are executed, battle first then movement.

- 1.) The player selects movement commands
- 2.) The computer enemy selects battle targets
- 3.) The computer's squads attack
- 4.) The player squads move
- 5.) The computer enemy selects movement command
- 6.) The player selects battle targets
- 7.) The player's squads attack
- 8.) The computer squads move

And back to the start. The result is, that a squad can always fire at least once after approaching an enemy and before the enemy squad can run away. This also means, that your planned move may not happen, because your squad may be destroyed before the move is executed.

Navigating on the map

The white hexagonal outline is your cursor, which is used to select squads and give commands. It can be moved using the joystick direction, the cursor keys or the WASD keys. The squad or map hexagon is selected or deselected by pressing the joystick button or the space bar.

Fog of war

The player and the computer AI can only see that part of the area that the respective squads can see. The line of sight of non-airborne squads is blocked by mountains or forests (see the Almanac section for further details).



In this example the view of the 1st light tank squad is blocked to the northwest due to the forest.

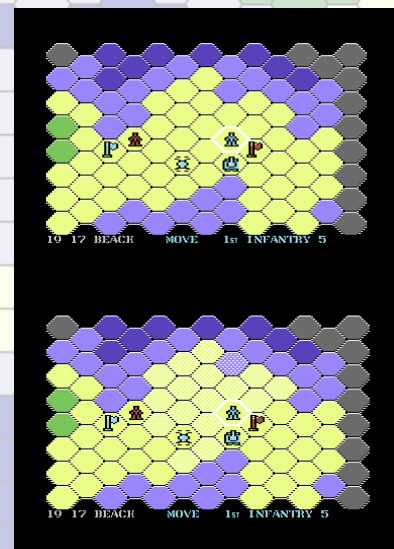
Tip - Use of forest fields to block the enemy's sight is crucial for setting up an ambush.

Moving a Squad

A squad can only move in the visible area of the map (the dark grey fog of war cannot be crossed). Not all squads can travel over all ground types; and your mileage will vary. Airborne squads are not blocked by ground features.

1.) Move the cursor to the squad you plan to move.

2.) Select the squad with the joystick button or spacebar.



The highlighted area shows all the places that the squad can reach in one move phase.

- 3.) Now move the cursor to the destination. A squad cannot simply bypass an enemy squad, it can only move one field in this case.

- 4.) Finally press the joystick button or spacebar again to complete the command.

You can abort the command by selecting an invalid hex or your original squad.

Units with a given command are ghosted with a black checkerboard.

The move will then be executed in your next movement phase.

Attacking a Squad

Squads are either ground or airborne. Not all ground squads can attack airborne squads, and their effectiveness is usually lower against airborne targets, except for the air defense squads. The range of attack also varies per squad type. One cannot attack a squad that is hidden by the fog of war.

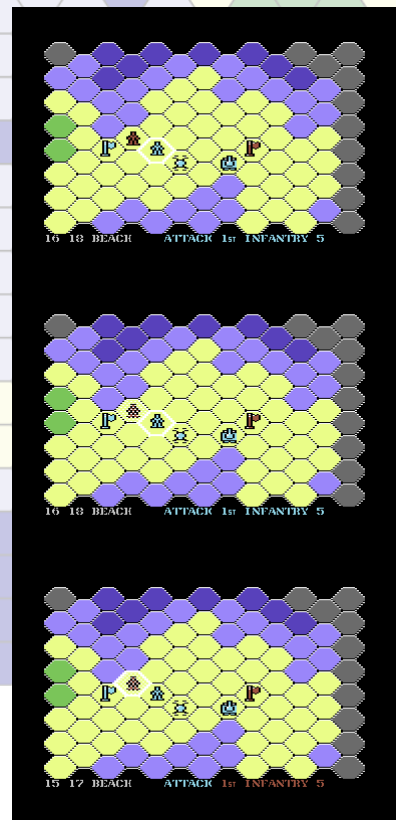
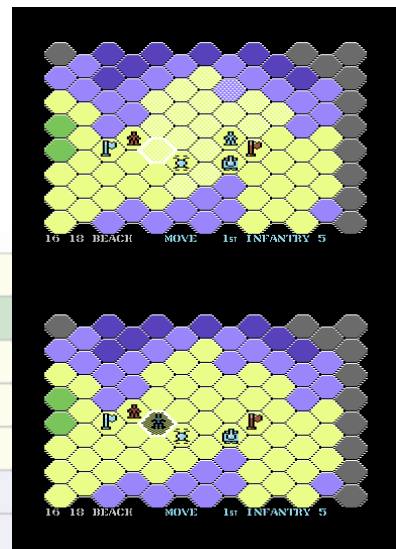
A squad will defend itself against an attack if possible. A defense against a squad that is far away, or cannot be shot at (e.g. airborne) is not possible.

- 1.) Move the cursor to your squad that you plan to attack with

- 2.) Select the squad with the joystick button or space.

The highlighted squads show all the potential targets (they maybe outside the screen for long-range units).

- 3.) Move the cursor to the target squad for the attack.



- 4.) And press the joystick button or space again to complete the command.

You can abort the command by selecting an invalid hex or your original squad.



The attack command will be executed in your next attack phase.

Repairing a Squad

Each squad consists of up to five individual units. If units get destroyed during combat, they can be repaired in a later phase using the repair command. A repair command can be given instead of a move or attack command but will only be executed if the squad is not attacked (so it will always execute in an attack phase but not necessary in a move phase, if your unit had to defend). The repair will rebuild one of the destroyed units.

Joystick Menu

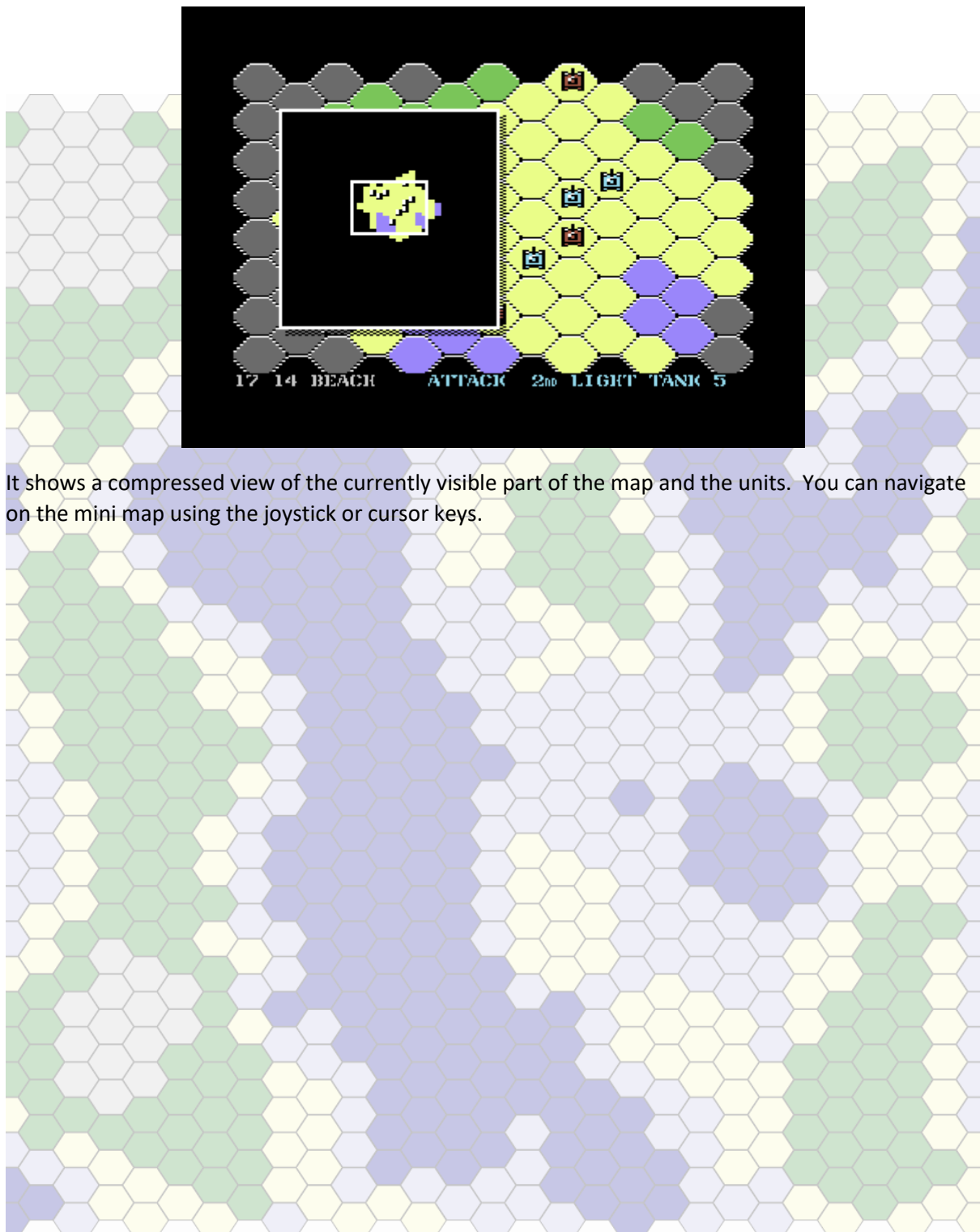
More commands are available with the joystick menu. Move the cursor to the unit or hex you want to target, push the button and keep it pressed. The joystick direction now selects the menu command. Keep the direction and release the button.

Menu functions are also available with shortcut keys.

Direction	Icon	Shortcut	Function
Top Left		R	Mark the unit for repair in the current move
Top Center		I	Open the unit information window
Top Right		X	Undo the selected action for this unit
Bottom Left		M	Show the mini-map
Bottom Center		Stop	Menu
Bottom Right		Z	Complete your move

Mini-Map

The mini-map can be brought up with the M key or the joystick menu:



It shows a compressed view of the currently visible part of the map and the units. You can navigate on the mini map using the joystick or cursor keys.

Squad Interaction

Battle Execution

Battles are executed in the order they are commanded. Multiple battles against the same squad are executed in sequence. Each unit starts with full health in a battle sequence – thus it is recommended to attack the same target squad in sequence.

The health of units is restored after a battle sequence, but destroyed units remain destroyed. So, a contiguous sequence of battles has a much higher probability of killing enemy units than several independent battles.

Each unit fires a limited number of shots per battle, based on the type. The order of shots fired is randomized, and a unit cannot fire after it has been destroyed. The target selection is also random and performed with the current set of enemy units in mind. A lower number of targets will result in more shots fired on the same target, causing more potential damage to individual units – thus strength is in numbers.



The initial health of each unit depends on its type, with armored units tending to have more health than simple infantry or drones. If a shot hits, the damage based on the firing unit type is deducted from the remaining health of the target and if the health is depleted, the target is destroyed. The remaining and initial health of each unit is visualized during battle with a health bar next to the unit.

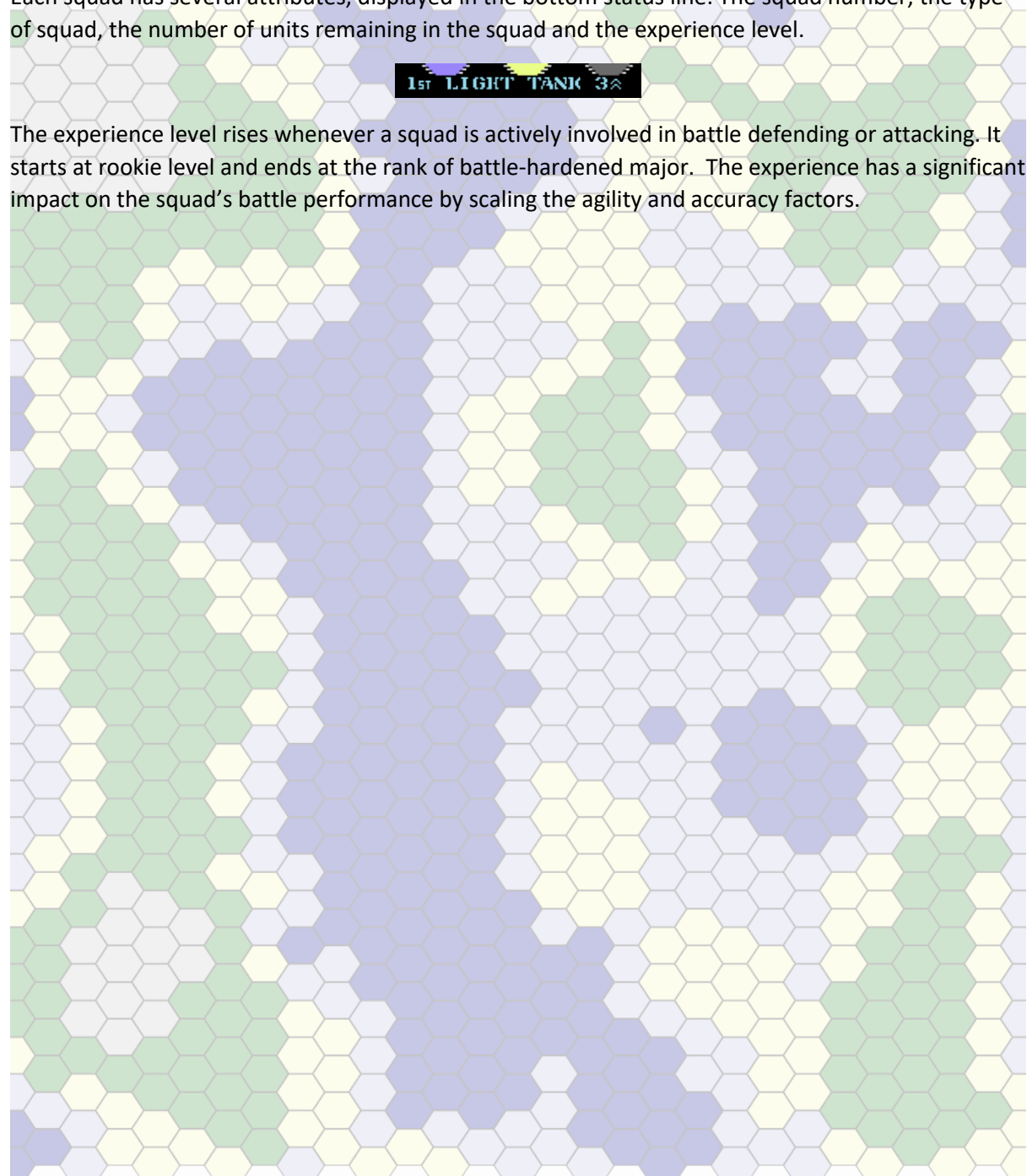
The probability of a hit is determined by the shooter's accuracy and the target's agility (use the info window to see the actual values). Both factors scale significantly with the experience of the squad. An additional agility bonus is given to ground units based on the type of ground they are placed on. Infantry units also get a bonus on most ground types if they had the ability to dig in by not being moved in the previous turn.

Blocking

A squad cannot bypass an enemy squad. It can only move one field per movement phase, when next to an enemy squad.

Experience

Each squad has several attributes, displayed in the bottom status line. The squad number, the type of squad, the number of units remaining in the squad and the experience level.









1st LIGHT TANK 3

The experience level rises whenever a squad is actively involved in battle defending or attacking. It starts at rookie level and ends at the rank of battle-hardened major. The experience has a significant impact on the squad's battle performance by scaling the agility and accuracy factors.

Almanac





Ground

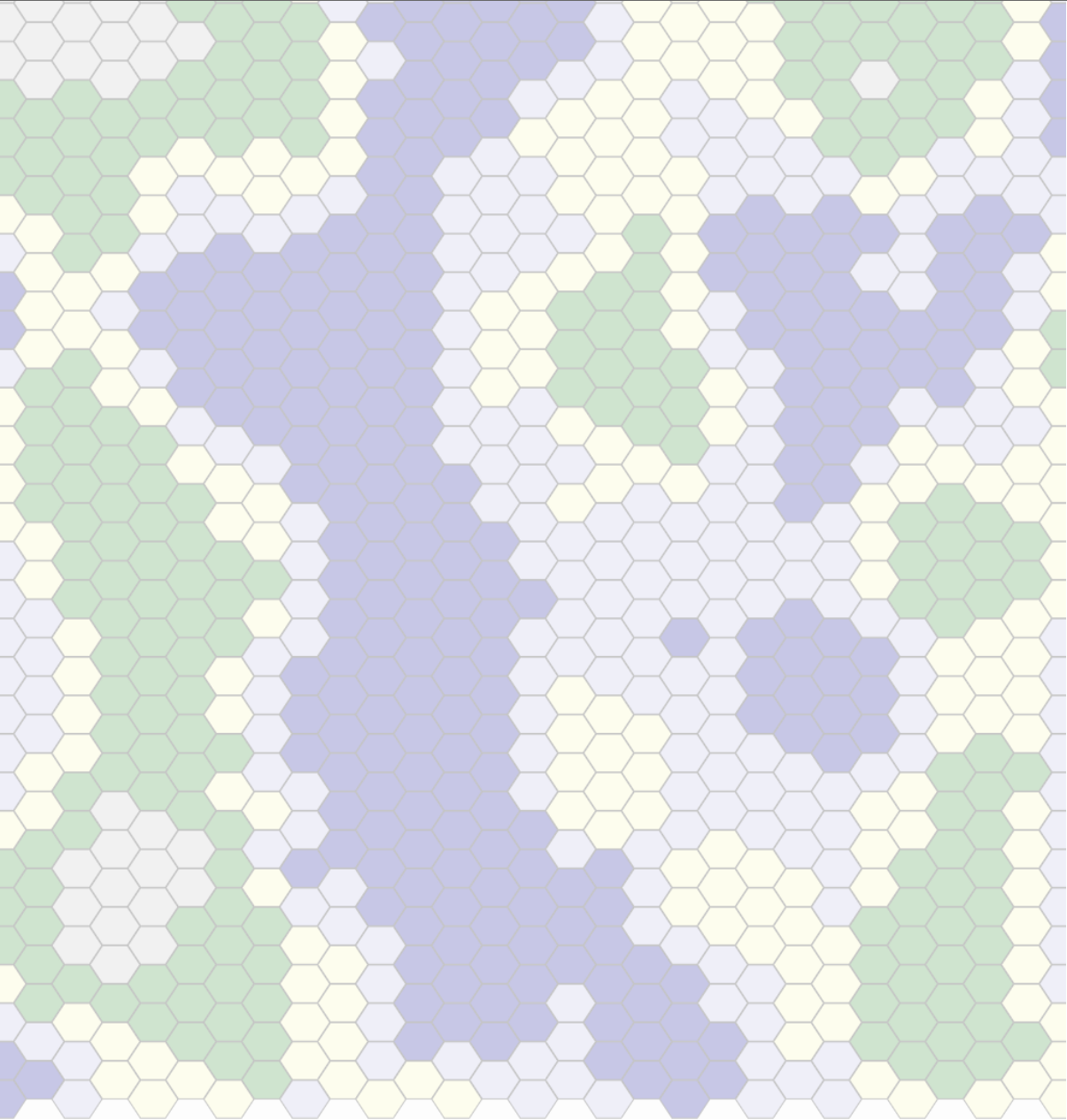
Color	Name	Properties
	Beach	Passable by all units, small defense bonus
	Shallows	Passable by light units, no defense bonus
	Forest	Passable only by infantry or airborne units, heavy defense bonus for infantry
	Ocean	Passable only by hovercraft or airborne units, no defense bonus
	Mountain	Passable only by infantry or airborne units, extreme defense bonus for infantry
	Road	Passable by all units, fast travel for all tanks, no defense bonus except for dug-in infantry.

Units

Icon	Name	Purpose and Abilities
	Command	Destroy the enemy command post to win the game
	Infantry	Weak when on the move or in open area, great when dug in into a forest or beach
	Scout Drone	Fast scout drone with no armament, ideal for artillery support
	Light Tank	Fast and agile, but only light weapons and weak armor, minimum air defense
	Heavy Tank	Slow and steady wins the fight, fast on the road, range of fire is two fields
	Hovercraft	The only ground-based unit to cross the sea, range of fire is two fields, provides some air defense
	Air Cavalry	The bane of all ground-based units, fires two fields wide, weak against air defense
	Air Defense	Destroys all airborne units with ease using far-range rockets
	Artillery	Fires shells against ground targets up to ten fields away, but requires one round of rest to set up
	Bomb Squad	Kills heavy ground units with ease

Experience ranks

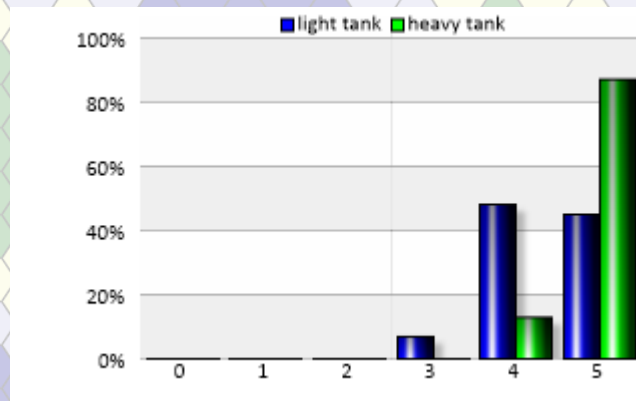
Insignia	Rank	Experience
	Rookie	Initial rank of all squads
	Corporal	Received their baptism of fire
	Sergeant	Battle-hardened experienced fighter
	Master Sergeant	The squad has reached veteran status
	Major	Maximum rank of a squad



Battle Statistics

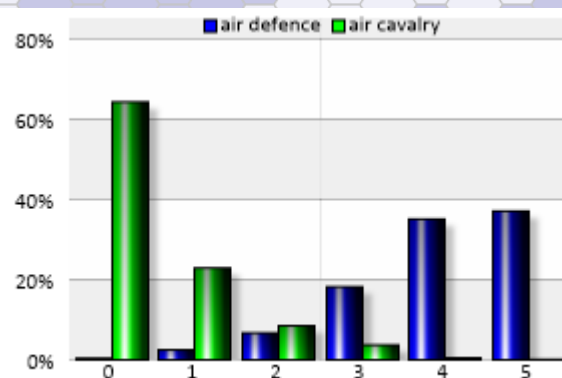
It is not necessary to understand these statistics to play or even win the game, but it might help in understanding the outcome of some battles or improve your strategy.

The diagrams presented in this section show the result of many executed battles with the same start scenario. The bars represent the percentage of battles that had the given number of surviving units for one side.



In this scenario a squad of heavy tanks (green) is fighting a squad of light tanks (blue). The right-most green bar shows, that in 85% of all battles no heavy tank is destroyed, whereas only in 45% of the battles there is no casualty on the light tank side. The blue bar in the third column shows that in 7% of all battles two light tanks are destroyed. In no battle was more than one heavy tank destroyed, thus the missing green bars in columns zero to three

So the higher bars on the right suggest that the unit is a formidable opponent, whereas higher bars on the left point to a weak choice of unit. An extreme example would be air cavalry against air defense.

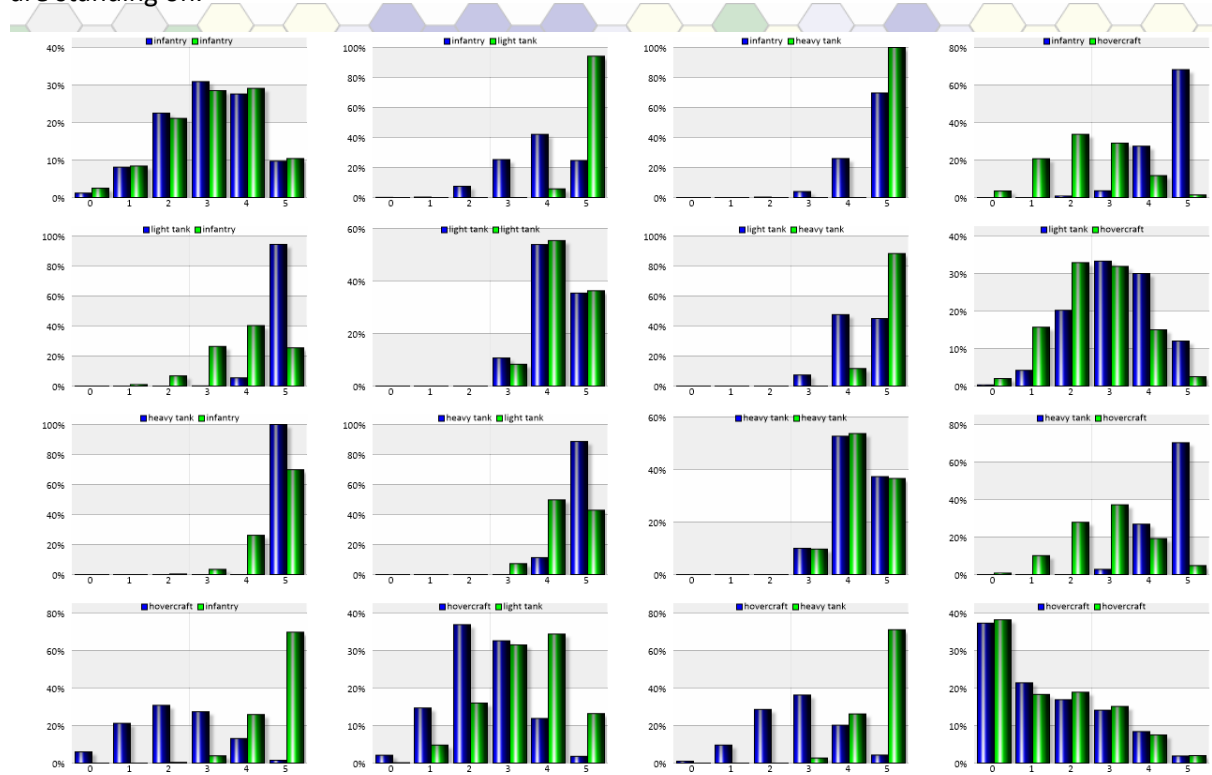


In more than 60% of all battles no chopper will survive, whereas in almost 70% of the battles the air defense squad will suffer no more than one loss.

Unit Types

Unit types have different offensive and defensive capabilities, resulting in various statistical outcomes depending on the pairing. Here are some results for ground units in direct combat.

All units have no initial experience and are fighting without agility bonus based on the ground they are standing on.



Thus, we can conclude that:

- Infantry has little impact on armored units
- Heavy tanks rule the battlefield
- Light tanks are stronger against infantry than heavy tanks
- Hovercrafts have little chance of survival when on their own

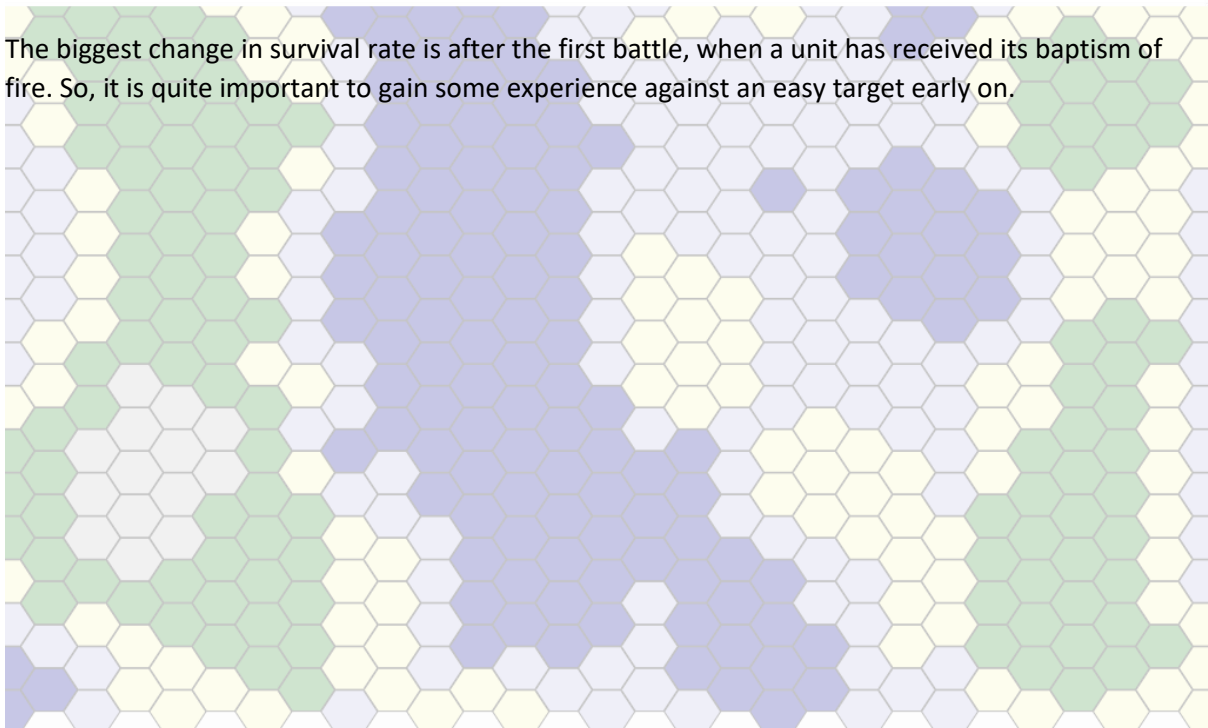
These results are only valid if both squads can fire. If a battle is fought over a distance where only one side can fire, it will not incur any losses (this is especially important for the long-range weapons artillery and air defense).

Experience

Experience is a decisive factor for most unit types. A rookie infantry squad has only a small chance of survival when fighting against an experienced squad.

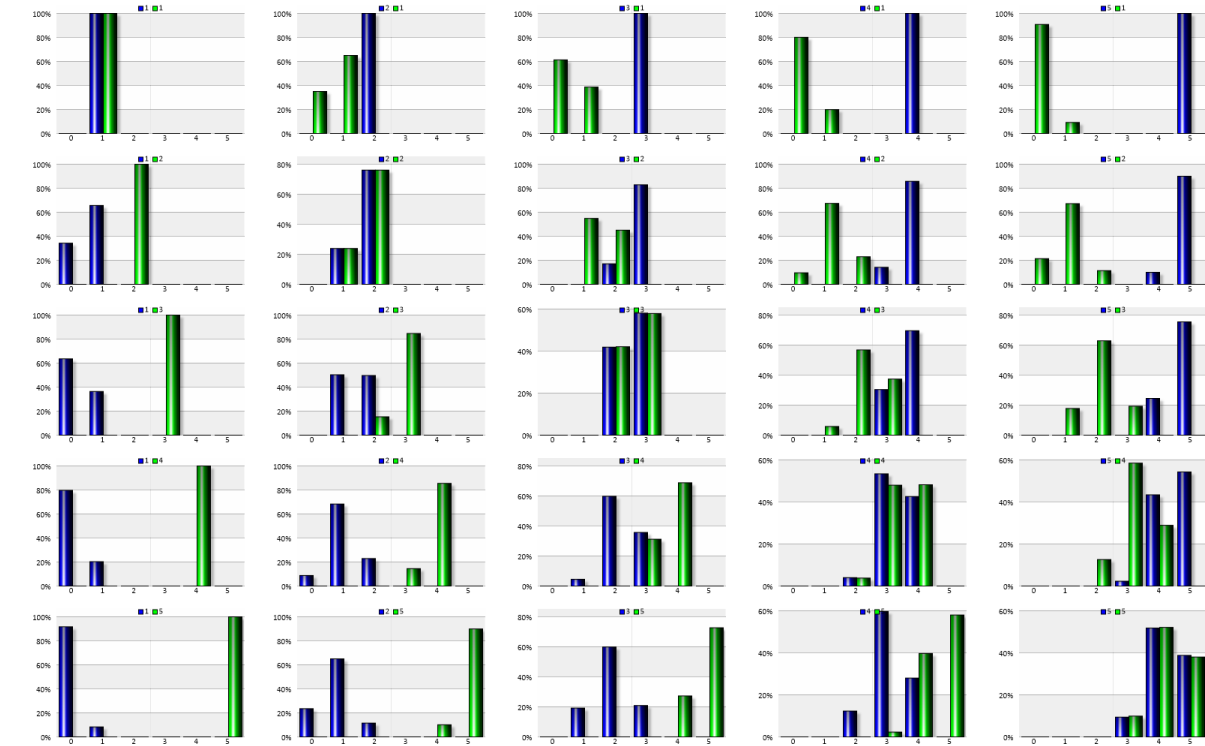


The biggest change in survival rate is after the first battle, when a unit has received its baptism of fire. So, it is quite important to gain some experience against an easy target early on.

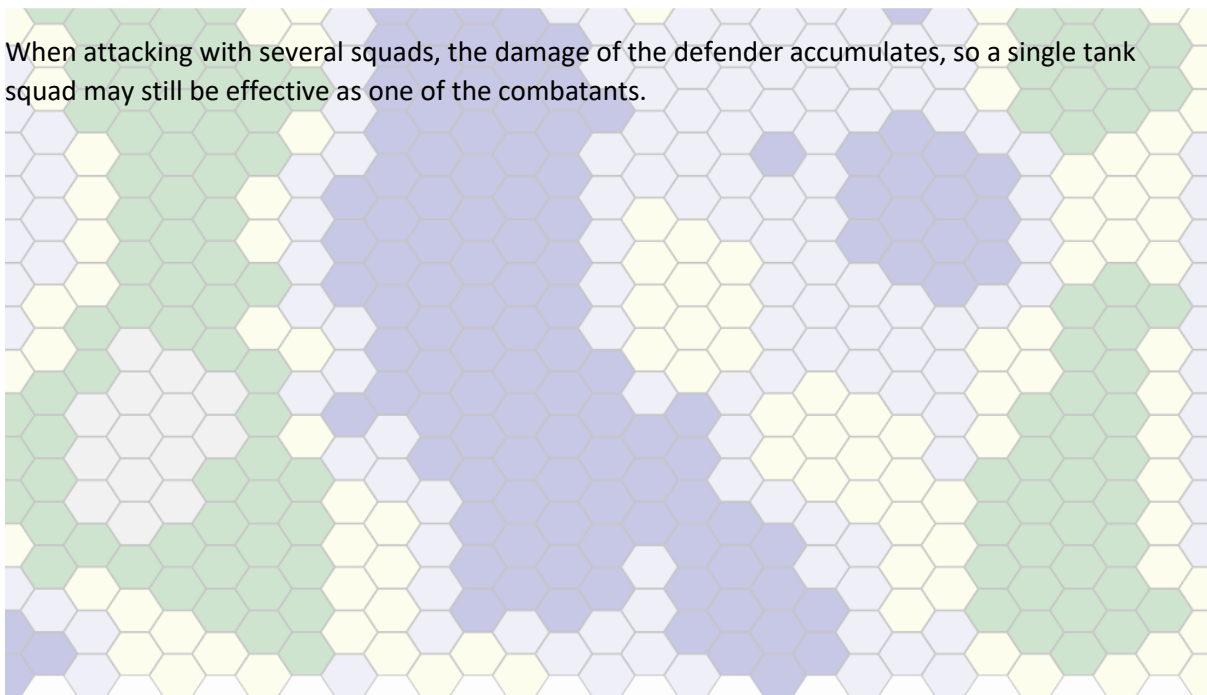


Number of Units

Attacking with an inferior force is rarely a smart decision. A single light tank unit cannot inflict enough damage to an opposing tank to destroy it, so attacking with your one remaining tank in a squad is not an effective way to destroy an enemy tank.

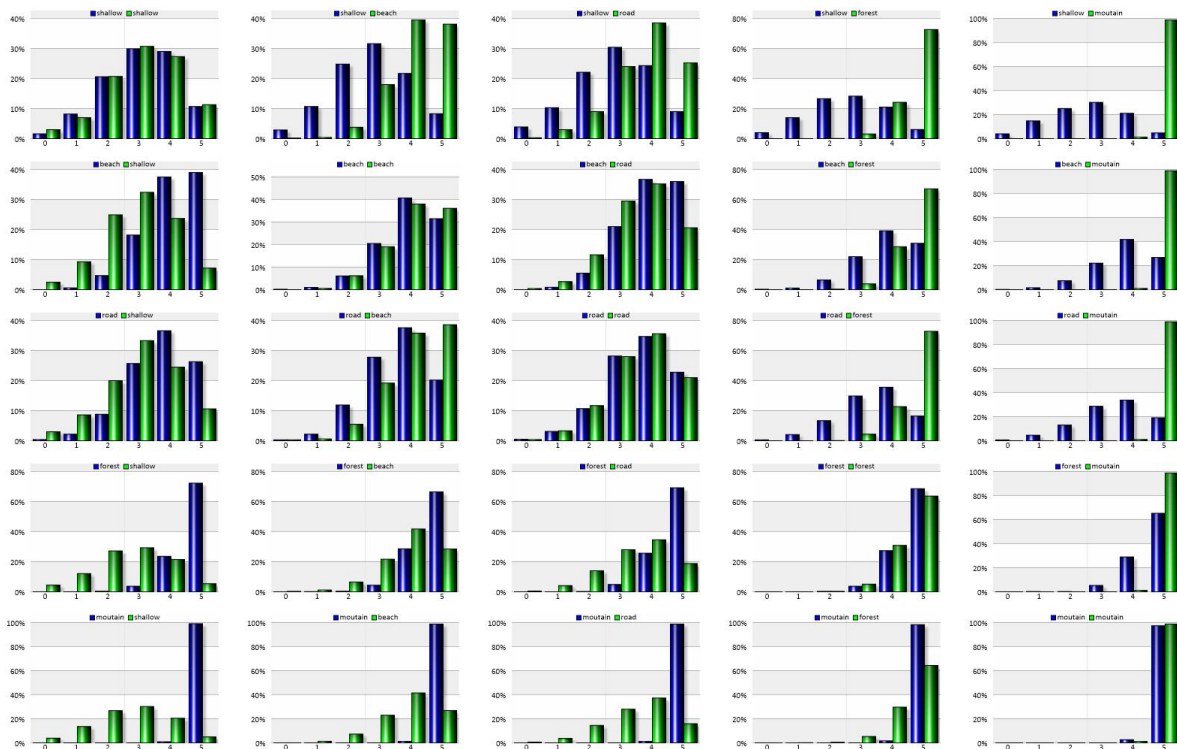


When attacking with several squads, the damage of the defender accumulates, so a single tank squad may still be effective as one of the combatants.



Placement Effects

The protective effect of the ground on which a unit is placed, is most pronounced on infantry units, that have the ability to dig in.



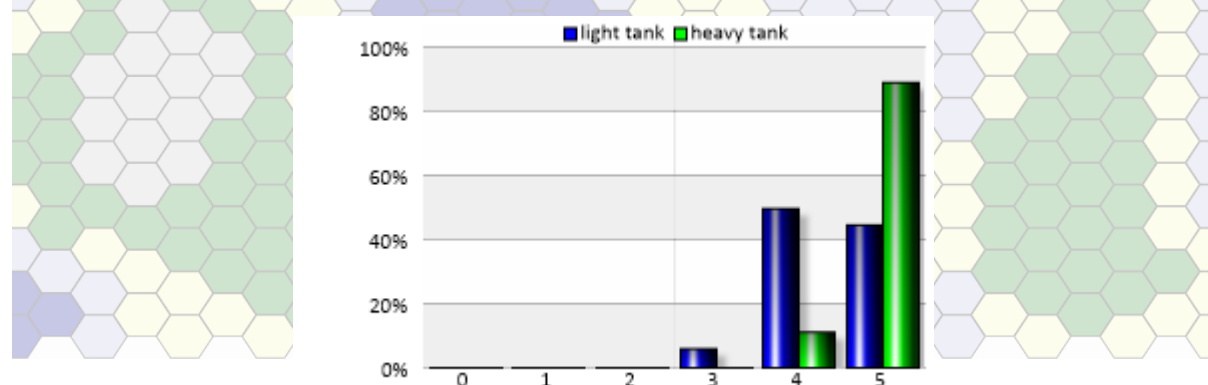
The difference between the open field in the left three columns (or top three rows) is so significant, that infantry units should, whenever possible try to take cover in forest or mountain regions.

Sample Pairings

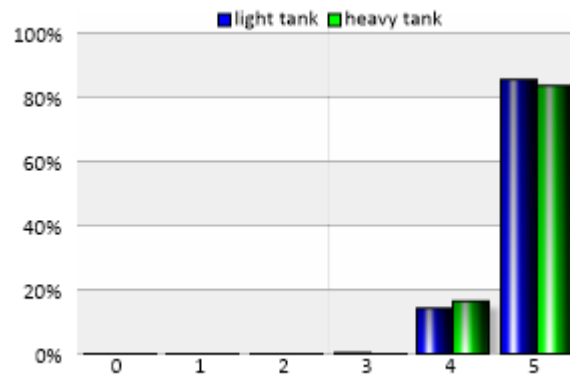
Light Tank vs. Heavy Tank

The first pair sees the light tank unit attacking a heavy tank unit, with three different scenarios.

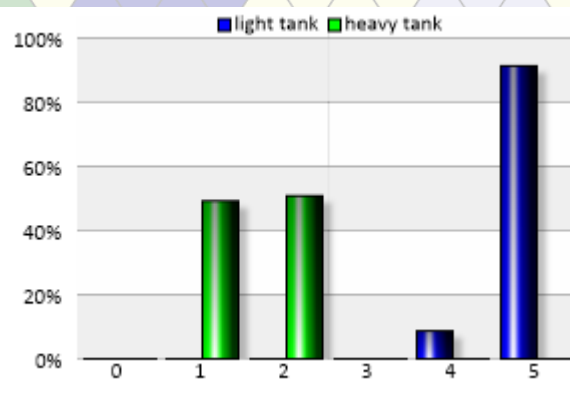
If both squads are rookies, fully equipped and fight on the road the heavy tank squad has a clear advantage (which is even more pronounced due to its ability to attack over a wider distance).



The result evens out if we give the light tank unit an advantage in experience

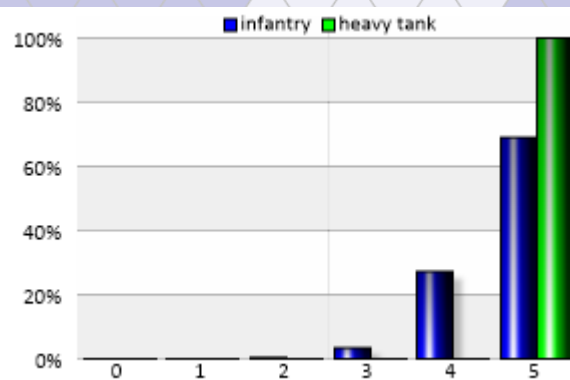


An even greater advantage is a higher number of units. Here five light tanks attack two heavy tanks, resulting in an almost 50% loss on the side of the heavy tanks.

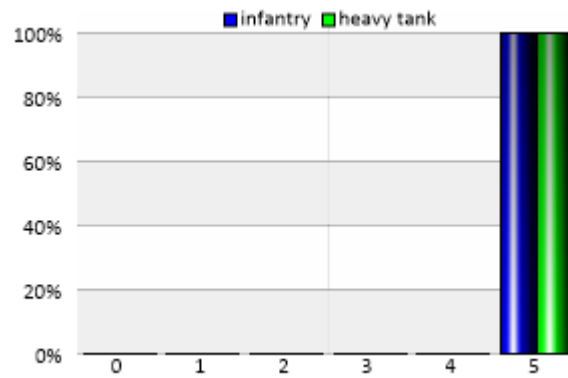


Infantry vs. Heavy Tanks

A single infantry squad has no chance of destroying a heavy tank if the squad is fully populated. The firepower of the infantry is almost evenly distributed over the heavy tanks, resulting a small damage per tank.

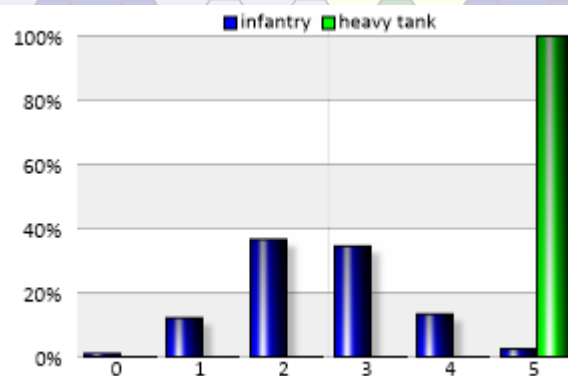


Even if we give it the advantage of higher experience and a perfect placement on a forest spot, there is little gain.

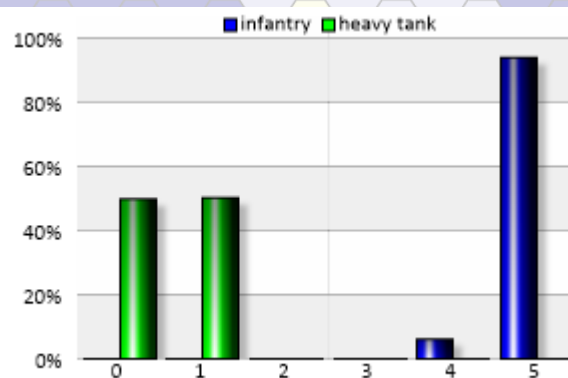


The result is a stalemate, the heavy tanks cannot hit the infantry hidden in the woods, but the infantry cannot inflict enough damage per tank.

The heavy tanks on the other hand benefit significantly from experience, suddenly hitting many more units.

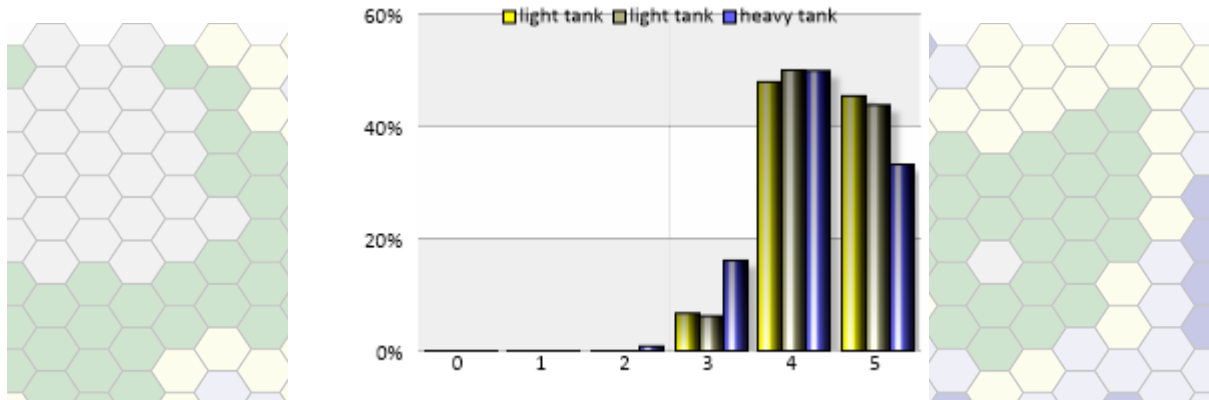


If there is only one heavy tank left in the squad, the infantry can combine its firepower to finish it of in 50% of all cases (would go up to a 100% if the infantry would be more experienced).

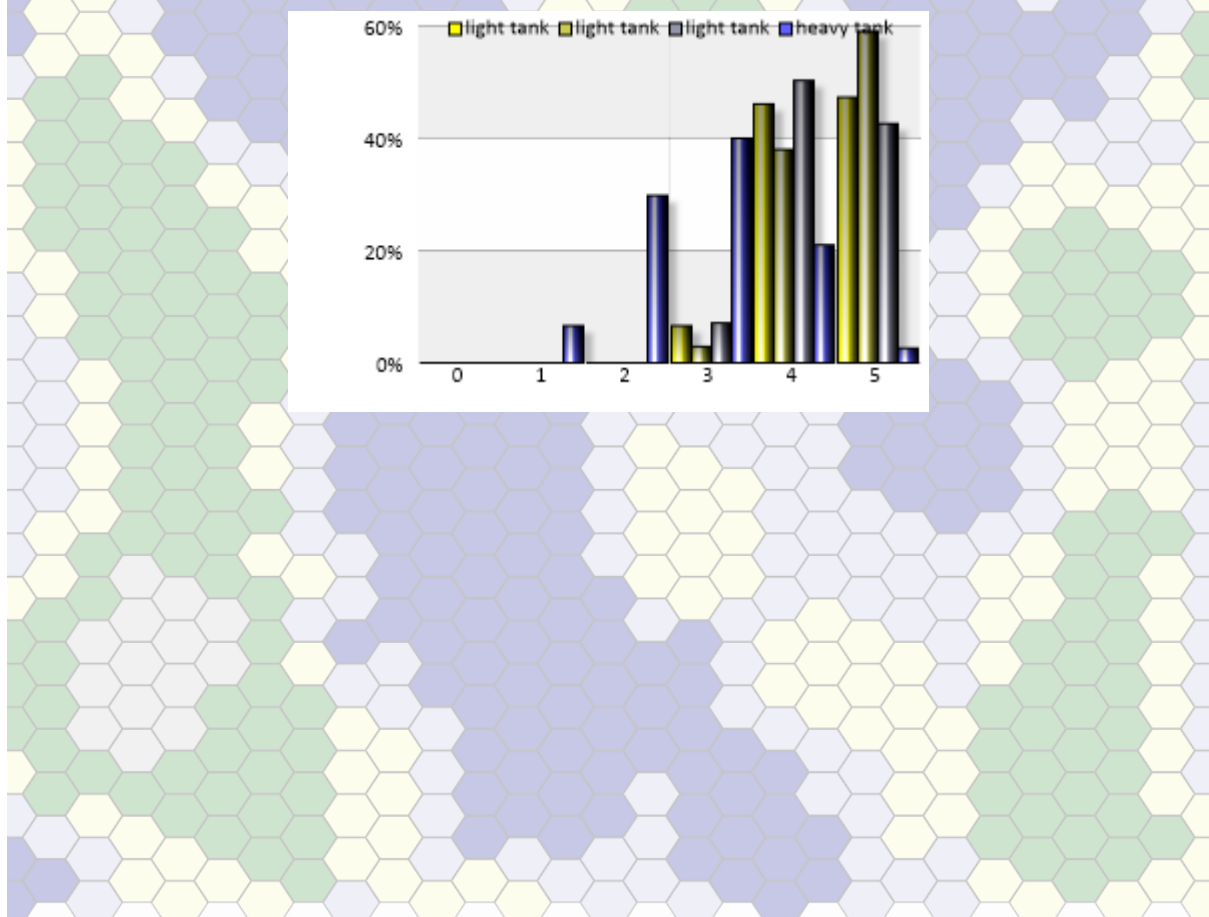


Combined Battle

If two light tank squads attack a single heavy tank squad, the probability of destroying a heavy tank increases significantly.



With a third light tank squad the heavy tank squad is decimated down to two or three tanks, without destroying more units per attacking squad.



Tutorial

The first level „Overture“ puts you against an enemy with the same setup, one flag, two infantry and three light tank squads.



At the same time, you have to defend your own flag, and attack the enemy's flag. There is not enough time to first eliminate the enemy, so your first task is to split your forces and set up your defense.



We will need more than two infantry squads to defend our flag, but we also want the upper hand when attacking the enemy tank in the center. Time is of the essence, we may not give the enemy time to set up its own defense, so we move the rightmost tank squad as far into enemy territory as possible.

Moving the infantry into place in the first round, gives it time to dig in, before the first enemy arrives. The tanks cannot cross the forest, so they have to attack from the beach. Placing the infantry one field apart forces the attacker to accept crossfire, when targeting the flag.

Now it is time to attack the tank squad in the center with both adjacent squads, to gain experience and weaken the enemy.



Next we split forces again, moving two squads further towards enemy territory and one squad in a pincer movement to block the approaching tank squad. The enemy will most likely attack the infantry unit in the forest. If your units are not severely decimated, attack the enemy with both squads.

If your attacking squad from the previous round was decimated, move it to the lower spot and have the complete squad approach the enemy infantry, otherwise do the opposite. Attacking the infantry will increase experience, but may also reduce the number of units in the squad.



Keep blocking the enemy on the left, while approaching the enemy flag on the right. Switch tank squads next to the enemy infantry to allow for repair if required.



Start attacking the enemy flag as soon as you approach it. if you have only one unit in your attacking squad left – it would be wiser to repair. Each tank shoots only once per battle, so the best outcome you can expect with only one intact tank, would be one destroyed flag, which the enemy can easily recover in its repair round.



Finally we put the cork into our defensive position, by moving the tank between the two supporting infantry squads. You will also most likely need both tank squads on the right to take out the flag, as they will take heavy casualties themselves from the attacking infantry and enemy tank squad. There is mostly not enough time to take them out first.

So good luck, and don't forget, no battle plan survives contact with the enemy. There is enough random in the battle execution that you may have to adapt your strategy.