



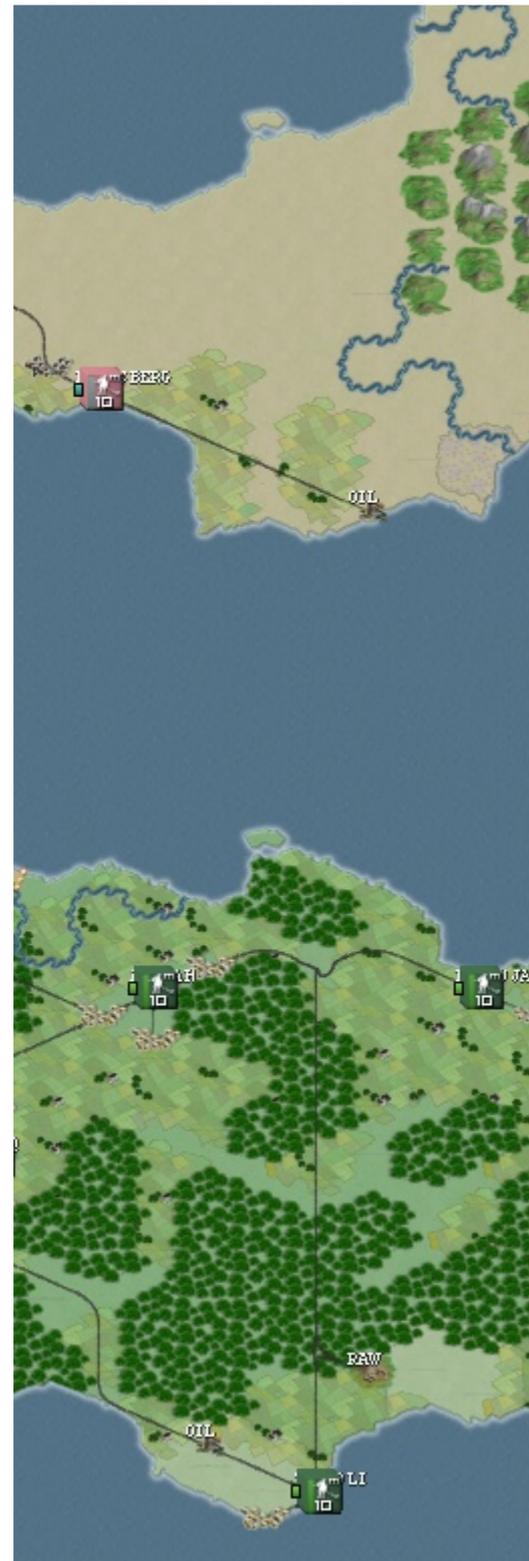
ADVANCED TACTICS

GOLD

STRATEGY GUIDE

CONTENTS & WELCOME

INFANTRY	PAGE 4
MORTARS	PAGE 6
TANKS	PAGE 8
ANTI-TANK WEAPONS	PAGE 11
ARTILLERY	PAGE 13
AIRCRAFT	PAGE 14
TRANSPORT	PAGE 17
SHIPS	PAGE 19
CAVALRY	PAGE 21
STAFF	PAGE 21
ENGINEERS	PAGE 22
FLAK	PAGE 23

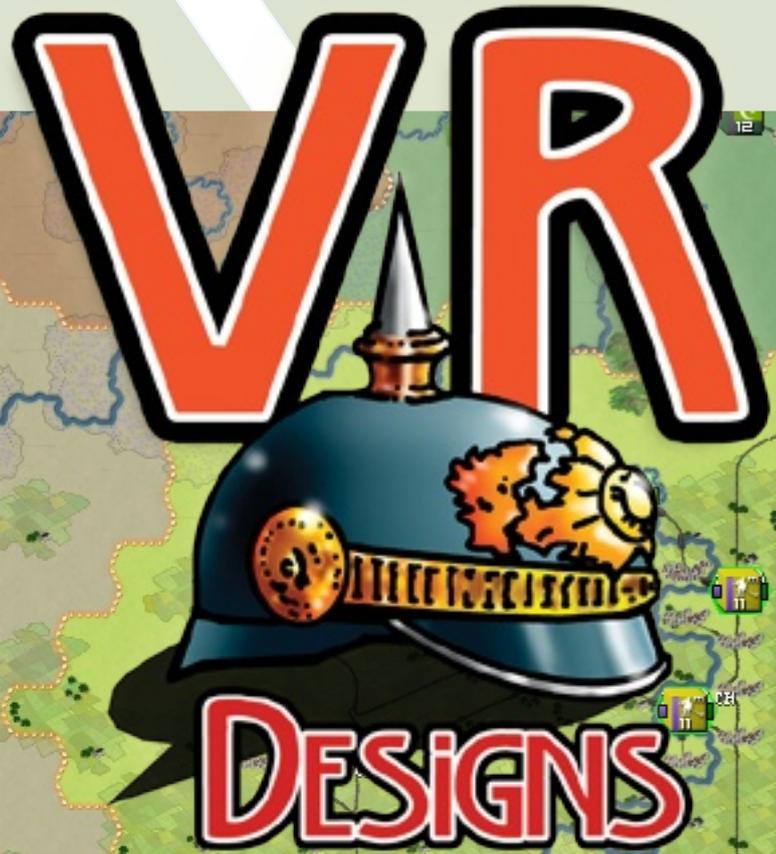


WELCOME TO THE STRATEGY GUIDE!

This guide will teach you how to become a masterful general. Successful play of Advanced Tactics Gold depends on understanding the strong- and weakpoints of all troop types as well as the nuances of their combined use. This guide will teach you how to mount Blitzkrieg-style offensives and defend against them, how to wage an air campaign, how to win naval battles and how to invade overseas continents.

I hope you enjoy the read!

Best regards,
Vic from VR Designs



RIFLES & SMGS



Rifles and SMGs are the 2 variants of basic infantry that are available to all regimes. They can come in level I, II, III and IV variants. Both requiring the same "Rifle/SMG II/III/IV" research fields. It is only if you start a game in stone-age mode that you still have to research a separate "SMG Infantry" research field before you can produce any SMGs. In all other cases, Rifle and SMG are immediately producible upon starting a new game.

Rifles are more versatile than SMGs and can be used in any landscape type. However if you know that a lot of the fighting is going to take place in close quarters like urban and forest terrain you are advised to produce SMGs instead of Rifle. SMGs are only 10% more expensive to produce, but they give 25% combat bonus attacking and defending in forest, fortification and urban landscapes.

You should use rifles and SMGs in defense only,

unless you can mix them with some more offensive equipment like for example mortars or tanks. The thing is that the offensive attack value of these infantry types versus other infantry is 13. Their defensive attack value is 26. That means you need to attack at 2:1 odds if the enemy is not entrenched. And finding an unentrenched enemy is highly unlikely except in the desert plains. Rifle and SMG both have an entrenchment increase of 40 per round and get auto entrenchment in almost all landscape types.

Let's say you face enemy infantry with 100 entrenchment points. That means that in combat their hitpoints will be doubled. If you just attack with infantry versus such an entrenched enemy infantry position you would need at least 4:1 odds. The same enemy, well entrenched inside a town can easily get 200 entrenchment points, which would require any infantry-only attack to have at least 8:1 odds to have a chance to succeed.

These odds, especially in towns and fortifications, give the defender the option to make it impossible for the offensive side to take a hex with infantry. Simply by putting so many defending infantry into a hex that the enemy will run into attack stack problems to execute the attack. If

for example the defending side has 70 infantry in a town with 200 entrenchment then the attacking side should attack with at least 8 times more troops.... 560 infantry. The problem however is that even when the attacker can attack from all 6 sides the land attack stack maximum is still only 250. So the attacker cannot really make his numbers count. The only options left for an attacker is to either attack a few turns repeatedly with overstacked attacks and suffer horrendous casualties or to lay siege. We will get back to this when we discuss artillery.

So be warned and use infantry defensively! They may be weak but when well entrenched they can pose a formidable obstacle.

An noteworthy exception is adding infantry to offensive tank units. It does not help that much in offensive power as the infantry will at best act as cannonfodder, but it does help to protect your tanks from any possible counter attacks in the enemies turn.

If you got the oil and the raw resources you might consider mobilizing your infantry by building trains, trucks or halftracks for them. All can carry 20 infantry a piece. This way you can get quickly get a defensive unit to the place where it needs to be.



French and Japanese infantry forces are taking up positions at their border.



Using infantry in attack usually results in a bloodbath for the attacker.

MORTARS & MGS



Today we will discuss mortars and machineguns. Both troop types only require research to produce them if you are playing a stone-age game, otherwise basic research is already acquired at start of a game. Although these troop types require raw materials, the requirements are very low: machineguns require 1 raw unit and mortars 2 raw units. Production cost for machineguns is 250 and for mortars 500. (rifles & smg's cost 100)

In the last lesson we discussed the relatively weak offensive potential of infantry. An easy way to boost the offensive power of an infantry attack is to add mortars to your attacking infantry units. 1 Mortar has about 4 times more offensive firepower than 1 rifle/smg. Furthermore it is a so called "rear area" type, which means it can only be hit by the enemy if the "frontline" troops of its unit have been defeated. As a side-note it should be said that the effect of a mortar placing a hit is not of the same quality as rifle or smg placing a hit due to their kill and retreat effect percentages being lower (10%

instead of 25%).

To make optimal use of your mortars make sure to mix them with enough cannon-fodder infantry to protect them from enemy breakthrough and subsequent damage. This is vital. And this advice goes for all "rear area" types. Basically giving a unit 75% frontline troops when at 50% retreat setting will keep your "rear area" troops most of the time. Their continued survival due to being "rear area" will allow you to build up high experienced mortars in the course of a number of offensives.

Also keep in mind that mortars count as 1 stack point, just as rifles and smg's do. Since they have about 4 times more offensive power that means that when confronted with stack limits for your attack you can better attack with mortars, since they will allow you to stay within stack limits while increasing your attack power. For example the attack power of 30 mortars and 70 infantry is about the same as that of 200 infantry, while only having half of the stack points.

Furthermore mortars pack offensive punch while having infantry move speed. They don't have to be

mobilized to move effectively, like artillery guns do.

Mortars also still function reasonably well in defense, though they lose half their power in that role. However they are still "rear area", so if the unit isn't completely broken they will survive the battle.

At best I would add about 1 mortar to every 20 rifle just to let them build up experience by continued kills and survival due to being a "rear area" type. To be honest I would in most circumstances advise players not to buy too many mortars. They are relatively expensive compared to their effect and they require expert play to squeeze out their few relative advantages.

The machinegun is the reverse of the mortar, where as the mortar gives offensive boost this is the troop type you should buy to increase the defensive strength of your infantry units even further. In defensive use it has about 10 times the power of a regular rifle or smg's. However it is not "rear area" type like the mortar and it is just as vulnerable as regular rifle or smg's, so you will always want to mix them with cheaper troops to take casualties. There should be some optimum ratio for defensive use of

machineguns, but I am not sure how to calculate, i think 1 machinegun on every 10 rifles or smg's is about right.

Especially when well entrenched in for example forest, mountain or town the machinegun will prove a deadly defense against infantry attacks. The machinegun is definitely a more interesting

buy then the mortar in my opinion.

The mortar and the machinegun might seem like a more cost-effective buy then rifle and smg's and actually tempt you to put a lot of them in your units, but be warned! They die just as easily as cheap infantry when under air or artillery attack. (or

panzer attack for that matter) This means that when you buy a lot of them you end up using your mortars and machineguns as expensive cannon fodder. This is something that you should not let happen to yourself, cannon fodder should be as cheap as possible!

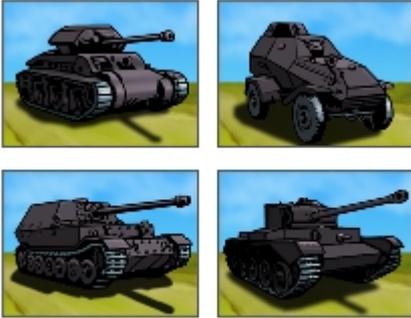
INDIVIDUAL LIST		INDIVIDUAL REPORTS	
49) Rifle		Stats at start of round	
50) Rifle		Machinegun(67) attacks ==> Rifle(3) : PINNED	
54) Rifle		Machinegun(67) <== is counter-attacked by Rifle(3)	
67) Machinegun		Machinegun(67) <== is attacked by SMG(40)	
47) Rifle		Machinegun(67) counter-attacks ==> SMG(40) : RETREAT	
53) Rifle		Machinegun(67) <== is attacked by Machinegun(44)	
56) Rifle		Machinegun(67) counter-attacks ==> Machinegun(44)	
69) Mortar		Machinegun(67) <== is attacked by Rifle(38)	
48) Rifle		Machinegun(67) counter-attacks ==> Rifle(38) : PINNED	
51) Rifle		Machinegun(67) attacks ==> Rifle(27)	
55) Rifle		Machinegun(67) <== is counter-attacked by Rifle(27)	
58) Rifle		Machinegun(67) attacks ==> Rifle(4) : PINNED	
57) Rifle		Stats at end of round	
60) Rifle			
61) Rifle			
62) SMG			
65) SMG			
68) Machinegun			
52) Rifle			
59) Rifle			
63) SMG			
64) SMG			
66) SMG			

MACHINEGUN(67) ATTACKS ==> RIFLE(3) : PINNED	
attack=90 VS defense = 100	
After modifications: Attack score=159.33 VS Defensive score=132	
Result of attack is a PINNED hit.	

ATTACK SCORE MODS			DEFENDER SCORE MODS		
Start Att Score		90	Start Def Score		100
HQ	+40%	126,4	Experience	+32%	132
Experience	+26%	159,3	After mods		132
After mods		159,3			

In the detailed combat results screen you can see the awesome defensive power of the machinegun!

TANKS



The first thing to notice about ATG is that there are quite a lot of different types of tanks. The core types of tanks are: the armoured car, the light tank, the medium tank, the heavy tank and the tank destroyer. In this lesson you'll learn when best to build what type of tank. In this lesson I will be referring to armoured cars as tanks, I hope the reader will bear with me and accept that the armoured car could be seen as a very little tank on wheels.

If you are not playing a stone-age game you will start with the research to produce the armoured car and the light tank from the start of the game. The other types of tanks require research investment before you'll be able to produce them.

In previous lessons it has become painfully obvious that infantry is very good in defence and "excessive" amounts of rifle or smg are necessary when you try to take ground using infantry only.

The core point of this lesson is that you should use tanks to attack infantry. Tanks perform really well in attack against infantry because the armour on the tanks protects them from the small arms fire that the rifle, smg and machinegun defenders put up. For example doing an attack with 10 armoured cars on 100 entrenched infantry has a chance of 80% to succeed and is likely to cause 45 infantry kills for only 2 destroyed armoured cars.

The types of tanks you can build vary from light, like the armoured car to heavy, like the heavy tank. Production cost of an armoured car is just a 1000 production points where as production cost of a heavy tank is 5000. Production of an armoured car costs 10 raw materials per car, while production of a heavy tank costs a whopping 160 raw materials per tank. And although the heavier tanks are much more expensive to build then the lighter tanks they do not perform that much better on the battlefield versus infantry. For example: 10 armoured cars attacking 100 infantry have an 80% chance of success, 5 light tanks versus 100 infantry only have a 55% chance of success and 2 heavy tanks versus 100 infantry only a 30% chance of success. So if your just fighting against

infantry make sure to build the lightest tanks possible: armoured cars.

However when your facing enemy tanks the advice is reversed. Heavier tanks perform better in tank-to-tank combat then lighter tanks. This is because heavier tanks have better armour and higher calibre guns. So when facing enemy tanks ideally you will want to field tanks one class higher the enemy is fielding. So if the enemy is fielding armoured cars, you will try to field light tanks. If the enemy is fielding light tanks, you will try to field medium tanks. For example: If you attack 5 enemy light tanks with 5 of your own light tanks the chance of success is 62%. If you attack 3 enemy medium tanks with 5 of your own light tanks the chance of success drops to 35%. If you attack 2 enemy heavy tanks with those 5 light tanks the chance of success even drops to 13%.

So the balancing act a good player has to perform is to find the sweet spot in production choices that makes his tank force as cost-effective as possible versus infantry, but also against enemy tanks, while at the same time not using up to much raw materials. Good luck with this balancing act!

Other advice that is important is the fact that tanks perform a bit better in offensive use than in defensive use. All things else being equal: try to use tanks in offensive use. The heavier tanks are relatively more vulnerable to infantry attacking them than the lighter tanks, so be sure to protect them by adding some sort of support with them like light tanks, machineguns and infantry.

Furthermore tanks are vulnerable to air attack. We'll discuss that in a later lesson in more detail, but for now it's important to realise that tanks cannot fight back against their nemesis: the dive bomber.

The heavier tanks are relatively more vulnerable to air attack than the lighter models. Be sure to have air cover for your armoured units or when that is not possible to have flak guns with your armoured formations. Hiding your tanks in towns and forests can also help a lot, when faced with a loss of air superiority.

Speaking about landscape types... It's important to realise tanks perform best on flat plains. The more cover the landscape allows the less well the tanks perform when attacking. Forests, swamps, towns and mountains give penalties on tank attack varying between -50% and -75%.

Swamps and Paddies are the only landscape types that give tanks a defensive penalty as well. Swamps and Paddies are normally not accessible by wheeled and tracked subformation types, but when roads are present they can enter.

The Tank Destroyer deserves some special attention. This tank is specialized in attacking enemy tanks. It performs well in offensive and defensive use, but versus enemy tanks only. It is superior to even the Heavy Tank. For example: 2 Tank Destroyers attacking 2 Heavy Tanks have a chance of 65% of success. However tank destroyers are especially



Arab armored cars are in the process of creating a pocket. This is the way to use your armour!

vulnerable against infantry counter attack.

Assault Guns also deserve mention. They are basically medium tanks that are equipped with a fixed gun, instead of with a moving turret. This gives them a disadvantage in offensive operations, but makes them about as good as a medium tank in defensive use. Its cheaper to produce then the medium tank due to its simplified design. Assault Guns are best used as mobile anti-tank forces or in offensively engaging light tanks and armoured cars.

Super Heavy Tanks are not available to all players. Only players playing a regime ruled by the German people can build these behemoths. They require 9000 production points to build as well as 240 raw materials. You should only build them if you have way to get many raw materials and have complete air superiority and are facing an enemy with

strong medium or heavy tank forces. And to be honest: even in those circumstances I question the wisdom of building these gigantic monsters. The super heavy tanks beats all other tanks including tank destroyers in tank-to-tank combat, however it is vulnerable to infantry



counter-attack.

All tanks use oil and you should always keep an eye on oil supply and oil use. Do not build more tanks then your oil stocks can handle. When you are out of oil the tanks lose a lot of mobility and fight with big penalties!

Concluding I want to advise you to exploit the mobility of tanks! Yes armour is good in

attacking infantry, but instead of trying to attack the enemy all over the line you should aim to attack at a couple of chosen "schwerpunkten", annihilate the enemy front on those few hexes and then drive your armoured units deep into the rear of the enemy. Once you have two or more breakthroughs you will be able to connect the pincers of those "panzer drives" and form pockets. Enemy troops captured in pockets will quickly run out of supplies and then will be easy prey even to your infantry formations. Forming pockets is the ultimate way to win!

ANTI-TANK WEAPONS



We have seen that enemy tanks are usually able to defeat, outmaneuver and encircle any infantry based army you might have. The obvious counter strategy when faced with enemy tanks is to build your own tank army. However you might be pressed for raw materials, have oil shortages, or more likely: you might have another front to worry about that requires all or most of your tanks.

The cheap stop-gap solution versus enemy tanks is to add anti-tank weapons to your infantry armies. Anti-tank weapons come in 2 varieties: anti-tank guns and bazooka's. Both are cheap in production cost and in raw material use. Bazooka's are the cheapest and cost only 250 production points and 1 raw material. Anti-tank guns cost 1000 production points and 5 raw materials. Both provide decent anti-tank capability, especially when they are well entrenched. However the core operational downside of both troop types is their lack of mobility.

The lack of mobility means you'll have to equip your whole front with anti-tank weaponry, while the enemy tank strike is usually only going to be focused on a smaller part of your front.

It might thus be a good idea to mobilize anti-tank guns and quickly move them up to the part of the front where they are needed, but the added costs of trucks or halftracks will make this expensive. You might be better advised to construct some assault guns or tankkillers and put those in your mobile anti-tank reserve. Once the enemy has shown the direction of his attack you should drive your mobile anti-tank forces to a hex with high entrench value in the path of the enemy: a town, a forest or a mountain would be ideal.

Now what exactly is the difference between the anti-tank gun and the bazooka? First of all the anti-tank gun is a "rear area" troop type. This means that the gun will live to see another battle when an enemy attack is stopped. So theoretically the anti-tank gun will be able to build up a lot of experience and gain an edge. However in practice you'll find out that your frontline units will have a hard time surviving blitzkrieg style offensives. Secondly the anti-tank guns are bigger and are quite an easy prey for enemy divebomber attacks. If

you do not have air superiority you'd better go for bazooka's instead of anti-tank guns.

Don't rely on the anti-tank gun in offensive use. It performs 3x better in defense than in offense. And it needs the added modifier of entrenchment to be truly cost-effective. In defense when 5 anti-tank guns with 100 entrenchment are attacked by 5 light tanks the light tanks have only a 10% chance of successfully taking the hex, on average 2 light tanks (production point cost: 4000) will be lost versus only 1 anti-tank (production point cost: 1000). However the heavier the tanks get the less impressive the anti-tank guns performance will be. When 2 heavy tanks attack 5 anti-tank guns with 100 entrenchment they have 40% chance of success, on average 0.8 heavy tank will be lost in such an attack for about 1,5 anti-tank gun.

Bazooka's perform about the same in defense as anti-tank guns, though admittedly they perform slightly less well, and they cannot be protected from casualties for they are "frontline" troops. Compared to anti-tank guns they will have a harder time building up experience.

However bazooka's can also be used to some extent in attacking tanks, especially when mixed into a larger infantry unit.

For example 20 bazooka's have a chance of 20% of successfully taking a hex from 5 defending light tanks. Another example: An infantry group that costs the same amount of production points as those 5 defending light tanks, like 32 bazooka's and 20 infantry has a 65% chance of success in the same attack, losing on average 12 troops (production value 2000), while killing 2 tanks (production value 4000). Bazookas will not perform much worse against heavier tanks, unlike anti-tank guns that really lose punch versus heavy tanks. Bazookas use hollow charge projectiles that are deadly to almost all tanks from close up.

My advice is whenever possible to use anti-tank weapons in combination with a small force of tanks in reserve. When the enemy armour attacks and breaks through your lines you should use your (mobile) anti-tank weapons to create a blockage and stop or delay them, while using your own armour to flank the enemy advance and if possible cut-off their spearhead.

Furthermore when on the defense it is always wise to put just one or two anti-tank guns in towns and mountain roads behind your current front, they will entrench up to 200 points

when given a few rounds to do so and will then be a very hard nut to crack for any tanks trying to take such a hex by force. Call it insurance for disaster.

As a last note it should also be pointed out that flak guns have some limited value as anti-tank weapons. 3 or 4 flak guns should perform the same as 1 anti-tank gun. When fighting a defensive war without air superiority it is a good investment to buy a little bit more flak than you would normally do since they will help you defend against armoured and air attack at the same time.

ARTILLERY



Artillery deserves your full attention since it allows you to damage your opponent without endangering your own troops. Artillery is crucial to attaining victory!

Artillery functions differently from the troop types thus far discussed. It does relatively little direct damage in the form of killing enemy troops. What it does do is decrease the enemy troops their readiness substantially as

well as lowering their morale and entrenchment somewhat. For example: 2 artillery attacking 40 unentrenched infantry will only do 3 kills, but they will reduce readiness with a whopping 40 percent.

Keep in mind that readiness is one of the most vital statistics used in combat. For example: 60 of your infantry and 2 armoured cars assaulting 40 enemy infantry with 125 entrenchment will on average lose 14 infantry versus also 14 enemy infantry losses and will have a 60% chance to take the hex. Not bad you might think... However if we had first used 5 artillery guns on those enemy troops we would have gotten their readiness down to 55 and their entrenchment

down to about 60. If we would have attacked after the artillery barrage (with the same troops as in previous example) then on average only 2 infantry would be lost versus 20 enemy infantry lost and a 98% chance on successfully taking the hex would be realized.

I hope this example has shown you why building artillery is a good idea. Artillery comes in two sizes: artillery and heavy artillery. Regular artillery can attack from 2 hexes away and heavy artillery from 3 hexes away. Heavy artillery however is double the price to construct while it does almost the same amount of damage. The reason to get Heavy artillery is not to increase casualties and readiness reduction, but to increase structural damage. The heavy artillery does 4 times the

amount of structural damage that regular artillery does. Which brings us to sieges.

In previous lessons it was already shown that substantial enemy garrisons will be able to “hedgehog” in or around a town and be able to hold off your attacks. To repeat: Towns allow up to 200 entrenchment score for troops garrisoned in it. This, plus the advantageous landscape modifiers and the fact that most towns will be a source of supply makes it possible for the defenders to hold on indefinitely...

Indefinitely? Well.... Not if the attacker brings some artillery units with him. With artillery you can bombard the town without having to engage in costly battles. Yes artillery barrages will soften up the defender for assault, but the key here is the fact that artillery does structural damage to locations as well. By reducing the defending town to eventually 0 structural points you will destroy the supply source of the defenders. Without supply the defenders will become sitting ducks within just a few rounds and defeating them will be easy.

Artillery is not just a good weapon for the offensive player, the defensive player should use it as well! In defense you can use artillery to cause readiness damage to enemy spearhead units and that way slow them down. Also the defender can add artillery to town garrisons that are under siege. They can use this artillery to try to take out any enemy artillery that is laying siege to it. Usually the artillery in the town has an advantage in entrenchment and landscape modifiers to any artillery on the outskirts of the town.

Furthermore artillery can be used well in the role of coastal



defense: it will defend together with any navy in port against enemy ships assaulting your harbor and can also be used to bombard any ships blocking your ports.

It should also be mentioned that from level II research onwards Infantry Guns have an artillery range of 1. This allows these infantry attack support guns to double as light artillery. An infantry gun has artillery attack power equal to about a third of the power of regular artillery.

Then there is a special troop type only available to the Russians: the Katushya. The Katushya is a specialist weapon since when you use it in attack it will fire all its rockets and will then dissolve. It is thus a once-use-only weapon. (like all rockets) However when used properly it can help you assure victory versus a strong defense. Do not use the Katushya in artillery barrages but let it join in a land attack. That way it will force to retreat a lot of the defenders in the first combat round and make it much easier for the remaining attackers in the remaining combat rounds to force enough extra retreats (and kills) to make the enemy unit retreat or panic.

Keep in mind there is an artillery attack stack maximum. You can only fire for

100 artillery stack points into a hex, once you exceed that number you run into the law of diminishing returns. Using artillery in regular land attacks does not increase artillery stack points, but does increase regular battle stack points.

Artillery might seem all powerful... However it is very vulnerable in land attack. When you ever see unprotected enemy artillery: attack it! Artillery is also very vulnerable to airstrikes. You will want to have air superiority or huge amounts of flak guns present when you mass a lot of artillery in the same hex.

The punch of artillery slacks off significantly when attacking hexes that give the defenders a lot of cover... attack effect is reduced with -50% to -75% when attacking forests, mountains and urban hexes. You will notice that artillery moves at a speed at best 2 hexes a round. Add 1 horse per artillery gun or 1 truck per 2 guns to mobilize your artillery and get it more quickly where you want it. Heavy artillery is too heavy to be carried by horses, it needs trucks. Instead of trucks you can also use halftracks or trains to mobilize your artillery.

In a previous lesson we discussed using tanks “en masse” to breakthrough on a small stretch of enemy frontline. Doing an artillery barrage on that small stretch of enemy front before your blitzkrieg-style tank attack will greatly improve your chances of quick breakthrough. If you combine artillery and tanks properly you will basically follow a WW2 Soviet offensive doctrine. If you have the production power and the raw materials to build both artillery and tanks I advise you to do so!

AIRCRAFT



So far we have only been looking into ground troop types. Today we will discuss the air theater. There are three good reasons to create an airforce. First of all: Creating an airforce will give you the same sort of power as artillery, but with extreme range and mobility. Secondly: possession of an airforce will allow you to use a number of special orders like para dropping and air recon. And thirdly: an airforce is the best form of air defense if your fighting an enemy with its own airforce.

The most important aircraft types are the fighter, the dive bomber and the level bomber. Our main focus in this lesson will be on them. At the end of the lesson I will also briefly discuss the more specialized types: the transporter, the strategic bomber, the carrier fighter, the torpedo bomber and the kamikaze fighter.

In a non-stone age game the fighter, dive bomber, level bomber and transporter will be available for production immediately, the other aircraft types require research before

being available for production.

Let's start with looking at level bombers. Level bombers cost only 1250 production points to



produce, compared to 2000 production points or more for most other aircraft types. The level bomber is the aircraft type that is most efficient against infantry. Using 5 level bombers versus 100 infantry with entrenchment level 125 will still cause 6 deaths and 10% readiness drop. For comparison: 5 divebombers would kill only 4 infantry and 5 fighters only 2 infantry. Level bombers also have some capability to do structural damage and can be used to bomb towns or bridges. However I advise using strategic bombers for that purpose instead.

Those level bomber combat results might not be a very convincing argument for building an airforce. But keep in mind that infantry the troop type that is most resilient when faced with air attack. If we look at the dive bomber we will start to see some real power. For example: 5 dive bombers attacking 5 light tanks or 5 anti-tank guns will kill half of

them and cause over 50% readiness to the remainder.

Keep in mind it is the big equipment like artillery and tanks that are really vulnerable to your airforce. The weapon of choice to take out these prime targets is the dive bomber. You can use other aircraft types, but they won't perform as well: when attacking the same target as the dive bombers in the previous example 5 level bombers would maybe just kill 1 light tank on average and 5 fighters would have to be really lucky to kill even that one tank.

Heavier tanks become harder and harder to kill for lighter tanks, but the effect is not linear for aircraft. The heavier the tank becomes the relatively (production point wise) better the odds become for dive bombers to take them out.



The dive bomber can have tremendous impact in stopping an enemy blitzkrieg style offensive. Because at some moment the enemy panzers will have advanced beyond their air umbrella, at that point you should

strike the enemy spearheads with your dive bomber squadrons and blunt his offensive power.

When attacking ground targets aircraft suffer penalties from -50% to -75% when attacking the enemy in rugged terrain like forests, mountains and urban. The worst ground target an airforce can thus face is infantry in jungle or mountains. (sounds familiar?) Also enemy flak might become a real issue in rugged terrain.

Unless the enemy has no airforce, the fighter should be used to take out enemy aircraft, escort your bombers and not to attack enemy ground units all by itself. If enemy fighters are on

intercept you can lure them into combat by attacking a ground unit close to their airfields. Defending fighters always have a small advantage when dog fighting. The best way to take them out is to attack the enemy on its own airfields. If you do so you will get a surprise bonus that will at least negate the natural defensive fighter advantage. Furthermore when attacking the enemy on its own airfields you can bring your level and dive bombers, they will then take out any enemy bombers present on the enemy airfields. The rather cheap level bomber is perfect for this job.

To defend your own troops from enemy air strikes you must make sure fighter units are

close enough to the front and instructed to intercept. Your intercept setting can best be put at 75% readiness. This will avoid your fighters going into combat on low readiness and taking big hits. In case you have completely no air superiority you might even choose to set intercept setting to „don't“ and first build up an airforce of some size before confronting your opponent. Intercept range of your aircraft is half their normal attack range modified with their readiness percentage. Keep in mind that intercept is never assured, at the edge of the intercept range of your aircraft it is only 50% chance for intercept.

If fighting for air superiority try to maximize the attack with up



A German fighter unit choosing a hex to do a recon mission on.

to two times as much fighters as the defender can bring up. Numbers count!

If your enemies are capable of doing a lot of air strikes it is important to build airfields close to the front line to ensure intercept cover, as well as keeping some flak with spearhead formations that might outrun your air umbrella.

4x Divebomber		19x Levelbomber	
	AP 100		AP 100
	RDN 100		RDN 100
	EXP 15		EXP 14
	MOR 60		MOR 60
	PE JAP		PE JAP

With the release of ATG v2.06 a new airfield stacking rule is also in effect. What this rule basically does is limit the amount of aircraft that can operate from the same air base or city without penalties. Once you overstack an airfield a green colored negative percentage will become visible on top of your aircraft illustrations. This percentage is the penalty these aircraft will suffer when doing battle, either in defending their own air base, intercepting or attacking an enemy hex. Keep in mind fighters are only 5 stack points, while level and dive bombers are 10. Airfields and regular cities can hold 100 air stack points, capitals 200. Since this is a relatively new rule it might very well still be fine tuned in upcoming patches.

Not only is there a penalty if you have too many aircraft on the same runway, also there is a penalty if you attack with too many aircraft on the same hex. This is called air battlestack and works the same as artillery and land battlestack. Basically there are only so many aircraft that can

effectively attack the same hex in one round.

In previous lessons it was often emphasized that blitzkrieg style offensives are the way to go. Last lesson advised combining artillery and tanks. This lesson recommends that you also use aircraft. First strike the hex with artillery and air and only then commence your land attack. This combined arms approach will give you great results and will allow you to maximize firepower on a hex like never

before.

Another advantage with having an airforce is the option to do air recon and finally check out the situation behind the front line. This way you can see enemy offensives coming! Use fighters in this role since they have the best recon scores.

Transporter aircraft can be used for a number of



purposes. First of all to paradrop paratroopers. If an enemy has not defended in depth this can be a great strategy to use, and when used in conjunction with a blitzkrieg offensive will make it much easier to ensure the encirclement. Use the paratroopers to capture bridge hexes and vital road junctions or drop them exactly at the point where you expect your panzer

pincer movements to meet up. But transporter aircraft can also airlift non-paratrooper units. This is an excellent alternative to strategic transfer. Furthermore transporters can also be used to do air supply drops. This can be the only way for you to keep encircled troops alive!

Then there are torpedo bombers and carrier fighters, both take only half the room on board of an aircraft carrier as compared to regular aircraft. This is a big plus in itself when fighting on the high seas since it allows you to bring double the amount of aircraft with your carriers.

Furthermore torpedo bombers will perform much better against naval targets than other aircraft. If however you do not have torpedo bombers use dive bombers against enemy naval units. When attacking enemy naval units keep in mind cruisers have excellent flak and should optimally only be attacked by torpedo bombers. Also keep in mind that submarines are especially vulnerable to airstrike.

The Kamikaze is only available to the Japanese. Since the Kamikaze blows itself up in the first combat round it has a good chance to hit a target before being killed by enemy aircraft or flak. Basically the kamikaze is only interesting if you want to do some damage to enemy surface vessels but no longer have the power to build an airforce that is on par with that of the enemy. Admittedly it is a weapon that's mainly useful in desperate defense or in some sort of shock-doctrine were you really need to take out that enemy naval unit.

Last but not least there is the strategic bomber. It's slightly expensive, but it does 4 times as

much structural damage as the the level bomber and has much better range. If you can bomb and



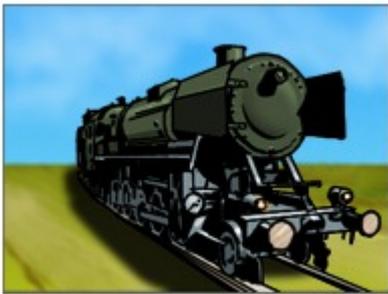
reduce your enemy's towns, mines and oil wells to 0 structural

points, he will have no production capacity and you will be able to bring him on his knees without doing any major fighting.

The trick in using air power wisely is to have a balanced air force. Have enough fighters to protect your airspace and if possible attain air superiority... Have some dive bombers to strike at enemy armored spearheads were necessary... Keep some transporter units and paratroopers ready for when an

opportunity opens up to take a key bridge behind enemy lines... Keep some strategic bombers ready, just in case you can strike an unprotected enemy oil well. Having a diverse airforce at the ready gives you striking power, operational flexibility and forces the enemy to build its own airforce, keep more garrisons and build flak on key production sites.

TRANSPORT



So far we have discussed combat troops and equipment, today we will tackle a slightly different subject: troop transportation and motorization by land transport vehicles.

By putting transport vehicles in your HQ you will provide your HQ with transfer capacity points. Trucks and halftracks provide 1000 regular land transfer points per vehicle and trains will provide 2000 rail transfer points. Horses do not provide any transfer points. These transfer points allow you to strategically transfer whole units from one place on the map to the

other side or to transfer individual troops from your HQ to frontline units many dozens of hexes away. It is important to realize that trucks, halftracks and trains only provide transfer capacity points when they are stationed in HQ units, when they are stationed in normal units they just mobilize the troops in that specific unit.

If you are in a scarcity of production situation this means you'll have to chose between mobile frontline formations or high HQs that enable you to reinforce and (strategically) transfer.

A prudent player always makes sure he has at least some HQs with some transfer capacity. Because this will allow this player to make some emergency moves to react to enemy threats. Agreed... only a

limited number, but most of the time that is all you need to contain or slow down a surprise enemy offensive, unexpected paradrop or amphibious landing. Time bought by containment will allow you to move in larger forces by foot, horse or own motor transport.

Trains are by far the best to use to provide these transfer capacity points. First of all because trains do not use oil when you use their rail transfer capacity points, secondly because they provide double the amount of points that trucks and halftracks provide. However the downside of using trains is that any transfers you do are limited to what can be reached by rail-lines. Trucks and halftracks don't suffer this limitation.

Though trucks spend oil while they (strategically) transfer



troops, they are cheaper to build than trains in terms of raw resources and production time. Trucks are also the more flexible buy, since they can be switched from HQs to units to provide motorization. Granted you can send trains to frontline units as well. But "motorization" by train will limit them to railroad tracks and in most cases it is only practical to do so for artillery and flak units.

A transfer point basically represents the ability to transport 1 weight unit (for example 1 infantry) over 1 action point. For example: transferring 10 infantry over 10 hexes connected by rail movement (10 ap per hex) will cost a 1000 transfer capacity points. Keep in mind that the action point cost of a certain strategic transfer from hex A to hex B is not the "straight line" cost between those hexes but a "triangulated" cost from hex A to the hex of the HQ providing the transfer points and from there to hex B.

Now using your transport vehicles for transfers is one option. The other option is to use them to motorize units. In theory you could use trains to do this (as discussed above), but in practice trucks and halftracks will be more practical since they will allow your unit to move outside rail hexes. Trains, trucks and halftracks can all carry 20 weight points, for example 20 infantry or 2 artillery guns.

Especially when you are the player that is on the offensive it is very useful to have at least some motorized artillery, engineer and flak units to support the advance of any "panzer" units you might have. For if your panzer spearheads drive forward so fast they outrun their artillery complement and infantry they will have a much harder time defeating enemy units and holding the territory they take.

If your motorized troops are going to participate in direct land combat you might want to



issue them with halftracks instead of trucks. Yes halftracks are more expensive, and need to be researched first, but they provide a unique feature: they take hits for the infantry in combat. Every time an infantry guy is targeted by the enemy there is a 50-50 chance the enemy will fight a halftrack instead of the targeted infantry.

For example 5 light tanks attacking 100 lightly entrenched infantry will have a 55% chance of success and on average will kill 29 rifle while losing 1 tank. Using the same example but with the change that the defending 100 infantry are now supported by 5 halftracks the chance of success will drop to 32% and the average number of rifle killed to 21 and average halftracks lost is 0.2, while average tank losses go up to 1.5.

The low number of halftrack kills in the example above is partly due to the sturdiness of these vehicles and partly due to their mobility to escape dangerous situations more easily than trucks: they have a 30% chance to translate a kill hit on them to a retreat hit.

Furthermore halftracks will do better than trucks if under air attack since they have eight times more hit points. Halftracks are also slightly quicker off-road since they are tracked instead of wheeled. If you have the production power and the resources then halftracks can make a subtle but decisive difference.

SHIPS



Let's start with the basics: Not every map with sea hexes on it requires you to have a navy. A navy is only necessary if you want to invade hostile territory and conduct amphibious operations or if you want to (strategically) transfer troops overseas.

It is important to keep in mind that supply and production flows freely over sea hexes and you do not need any navy to get a factory on continent A to deliver tanks on continent B. You may wonder if some sort of magic transport is involved? No, please consider this supply and production delivery done by unseen merchant ships.

This shipping of supplies and production over water is free, but it is prone to damage due to enemy navy or air activity along the movement-path the supplies take. Not having a safe lane of supply to your overseas destinations can cause up to 90% of supplies and production to be destroyed. Building at least a small navy to safeguard your sea supply lanes is always a good idea.

Now what ships can you build? And when should you build them?

The first type of ship that we'll discuss is the Cargo Ship. Its costs 2000 production points and 20 raw to produce. The Cargo Ship is the Train/Truck of the oceans, so to speak... You can place your Cargo Ships in a HQ located in a port city to enable that HQ to (strategically) transfer troops overseas. But you can also put your Cargo Ships in regular units and use them to load/unload land unit troops. The Cargo Ship is the only type of ships that allows loading and unloading of units and thus your only means to conduct amphibious invasions into enemy held territory overseas. The Cargo



Ship is very weak in combat and should always be escorted when you expect either enemy ships or enemy airstrikes.

An ideal escort is the Destroyer. The Destroyer is a relatively cheap naval unit and is just 10 raw more expensive than the Cargo Ship. The

Destroyer is the lightest ship of war available and will perform



well against Cargo Ships, other Destroyers and Submarines. However when facing heavier ships of war the Destroyer will only be temporarily capable of protecting your Cargo Ships.

The two capital ships of war are the Cruiser and the Battleship. They rule the waves but come at heavy cost. Producing a Cruiser takes 4000 production points and 70 raw, a Battleship 8000 production points and 160 raw. However if you are serious in attaining naval superiority these ships are a good investment. They are vulnerable to submarine attack, but you can protect them by assigning a Destroyer escort. The Battleship is on a cost-versus-effectiveness comparison better in ship-to-ship combat and shore bombardment than the Cruiser, but the Cruiser has better anti-air capabilities. A battleship attacking a Destroyer for example has 50% chance to kill the Destroyer but only 5% chance to get killed itself. A Battleship attacking a Cruiser has 50%



chance to kill the Cruiser, but only 10% chance to get killed itself.

Now the submarine is a bit of a special unit. It has 20 hide points making it harder to spot by enemy forces. Basically it is best used in attacking unescorted Cargo Ships and capitol ships and causing anti-supply damage to enemy supply lanes. Submarines should avoid fighting Destroyers at all cost. For example a Destroyer attacking a Submarine has 30% chance to kill it while it has only 7.5% chance to get killed itself. Also Submarines should avoid coming under air attack at all cost. Submarines are relatively

cheap ships with a higher survival rate in combat due to their ability to submerge (turn a kill hit into a retreat hit), but you must remember they are weak units.

A submarine is preferably used in an offensive role, since it is very weak when attacked itself. For example: A submarine attacking a Battleship has 12.5% chance to kill it versus a 30% chance to get killed itself, but a Battleship attacking a Submarine has 30% chance to kill the submarine versus only 5% of getting killed itself.



use is probably the Carrier. The Carrier is as expensive as the Battleship and though it has some solid anti-air defenses it is vulnerable to almost any form of direct naval attack. The Carrier should be kept out of combat or be heavily escorted. The key to making the Carrier investment pay off is to transfer the maximum amount of aircraft to the Carrier unit that you can. Ideally you'll have researched carrier fighters and torpedo bombers since they take less space on the Carrier than regular aircraft. For example a Carrier can carry 10 carrier fighters but only 5 normal fighters. Torpedo bombers are in a cost-versus-effectiveness comparison the best unit to destroy enemy ships. A Carrier with full aircraft compliment will be a decisive asset when fighting out major naval engagements in big oceans. For example 5 torpedo bombers have a chance of 50% of killing a Battleship while on average losing only 1 aircraft.

When a lot of islands and coastline are available you might want to consider using land based air support for conducting your navy battles since it will save you the cost of building Carriers.

One thing to keep a serious eye on is the oil expenditure of your navy. For example: Cargo Ships use 50 oil for moving the full 100AP and battleships use 200 oil for full movement. A Cargo Ship used in a HQ for (strategic) transfer also uses up 50 oil when its full transport capacity is utilized.



For Submarine commanders it is important to keep in mind that urban harbors (Urban Landscape) provide extra protection for submarines.

When your enemy has a larger navy you may want to keep your fleet inside port and buy some Artillery. Artillery guns stationed in a port town will help defend the ships in the port when they are under naval attack and can be used to attack any enemy ships trying to blockade your port by artillery attack in your own turn.

Having naval superiority can be decisive, but study the map carefully and decide if you really need a strong navy to win. Be careful not to sink too much production power, raw materials and oil into your navy.

The most complicated and expensive ship to properly

CAVALRY



Is an expensive infantry troop type that requires no research to produce. However its levels will go up when you research infantry. Although it has the same number of hit points as rifle infantry it is three times as expensive (in production points) to build. Offsetting this costliness cavalry has three times the offensive value of regular rifle in attacking enemy infantry, artillery or soft-mobile. However that in itself would not make it a valuable troop type since using three rifle instead of one

cavalry would still be much more cost-effective, especially in defense.

What makes cavalry really useful is its speed. Cavalry can move over six friendly hexes or four enemy plain hexes in one round. That's not as quick as tanks, but getting close.

Now when you are fighting in open terrain I would advise building tanks and armored cars because they will be more cost effective than cavalry. But when you are fighting in forests, mountains and swamps then I would advise you to build cavalry. This because cavalry has better all-terrain movement rates than mechanized troops. Also cavalry has far fewer penalties in attacking troops in difficult terrain (max -25%) and also far

fewer problems in crossing rivers without a bridge.

Remember to not use cavalry in defense since that would be a waste of this quite expensive troop type. Use regular infantry for defense and use cavalry in attempts to encircle enemy troops and raid behind the enemy frontlines. Try to see them as soft-skinned panzers!

Furthermore it should be pointed out you can make a cheap poor-mans variant of cavalry by putting horses and infantry in the same unit. One horse troop type will carry ten infantry. However the movement rate of horse is not as good as cavalry, since horses are basically work horses, not riding horses.

STAFF

Is a specialized troop type. Staff fights only half as well as regular rifle infantry, but that's ok since they will not be deployed in the frontline and see little actual fighting. Staff should be deployed in your HQ units. Staff is the only

troop type with staff points. Each staff has 10 staff points. This means it can direct the operations of up to 10 power points of regular troops in units subordinate to the HQ the staff is stationed in. The game will show

you if you have enough staff in your HQ to direct the battles of all subordinate units by showing a STF % in the unit info window.

You should try to get 100% staff points in your HQs, but

not much more. The problem with having for example 200% staff points in your HQ is that your staff will then be twice as slow in gaining experience as when you would have had 100% staff points. Might want to picture the staff officers taking turns in directing the battles to understand the reason for this diminished experience growth.

Experience of the staff is crucial for the bonus staff gives. Staff with 0 XP gives 25% bonus in combat, 12% in morale recovery. Staff with 50 XP gives 75% bonus, 24% in morale recovery. Staff with 100 XP gives 125% combat bonus and 50% morale recovery bonus. These bonuses can increase if you research and upgrade to the expensive staff II, III and IV levels. Staff IV with 100 XP will give for example 200% combat bonus. However higher staff research levels are very expensive to research. Experienced staff is a valuable asset, you should make sure your HQ cannot be attacked

by the enemy and either have some flak protection, air cover or are stationed in a hex with favorable terrain.

Furthermore keep in mind that staff has a limited range in



which its benefits apply. Up to 3 hexes away from the HQ the bonuses are in full effect (100%), 4 hexes distance effect is 80%, 5 hexes distance 60%, 6 hexes distance 40%, 7 hexes distance 20% and 8 hexes distance or further away no bonus at all is given anymore. The game will show the % of bonus that is applied on unit as HQPOW % in the unit info window.

Now there is a very special rule in effect with staff you should also know about... Basically staff can lose experience, it's the only troop type that can do so. It can lose experience when the composition of the troops under its command change. So when you transfer for example new infantry to a subordinate unit of a HQ the staff in that HQ may lose some experience. The same if you attach new units to an HQ. This rule represents the close relation that staff experience has with the actually getting to know and work with the troops under their command.

If you are losing the game and your armies are shrinking then your ratio of staff : troops will get larger and larger. You should in such a case send excess staff to frontline units to act as cannon-fodder and delay the enemy advance a little bit longer.

ENGINEERS



The engineer is a specialized troop type. It fights at only half the strength of rifle infantry. Its important to realize that engineers are not combat-

engineers. Engineers are your construction troops! They can perform a wide variety of tasks, that only they can perform. They can build roads and bridges, the can demolish bridges and locations and they can construct a variety of locations including ports, airfields, fortifications and factories/shipyards. They can also upgrade resource locations.

The answer to the question if you need engineers depends

strongly on the scenario you are playing. Lets discuss the four most prominent reasons to get engineers...

First of all if resources are scarce in your game world then you must try to upgrade your oil wells and mines as soon as possible. For upgrading resource locations you need some raw materials, but also you need an engineer unit on the actual hex to provide the EP (engineer points)

necessary to make the upgrade.

Secondly if the map contains several continents or islands and requires you to make amphibious invasions into enemy territory in order to win the game you should definitely build some engineer units to go with the first or second wave of your invasion. This because in all likelihood you will not be able to capture a port town immediately and thus land at a weaker defended stretch of coast. When doing so you will run into supply problems since supply does not easily flow from sea to land without the help of a port. Use an engineers to quickly build a port on a just conquered coastal hex. (like for example the Mulberries during Normandy landings)

Thirdly if the map you are playing is lacking roads you should build engineers to construct them. Without an adequate road network your empire will have serious supply, transfer and production delivery delays. Although it is possible to play and organize your empire in a sort of decentralized fashion it is not recommended.

Fourthly if the map does not contain that many towns and you want to keep your troops under air cover then you should get some engineers to build yourself some airfields. Keep in mind that level I fighters provide an air umbrella maximum 5 hexes away, check the amount of hexes between towns on the map to see

if your troops will run out of air cover or not.

A good size for an engineer unit used for road building is 20-30 engineers. 20-30 engineers generate 40-60 EP a turn. Enough to build 2-3 road hexes a turn or after 1 turn of waiting to upgrade a level I resource hex. A good size for a engineer unit used in repairing bridges and building fortifications is 40-50 engineers. For using engineers to help amphibious invasion I would use at least 60 engineers to make sure you have the required 100 EP as quick as possible. I would recommend issuing trucks to your engineer units to give the some radius to move them quickly to a spot of need.

FLAK

Flak is what you should buy if you have lost air supremacy. Flak is also what you should buy if you're still fighting for air superiority. In the first case you will need flak to protect your panzers and artillery. In this case flak will be your only hope to have some chance of successfully going on the offensive. In the second case you will be smart to add some flak guns to your airfields since it will help you win the battle for air supremacy.

Flak in range of a hex under air attack is always used in defense. Flak I and Flak II have a range of 1 hex (so they provide

cover for their neighbor hexes as well), but Flak III has a range of 2 and Flak IV even a range of 3. When you have lost air superiority it is much advised to research all the way to flak III. The extended range will really make a huge difference as overlapping fields of fire will emerge.

Flak stationed outside the hex under attack cannot be destroyed, but only fights at 50% of its regular strength as a trade off. Flak stationed in the hex under attack can be destroyed and often will be. When your enemy is employing strategic bombers you might want to put some flak in

your vital locations to protect them from the worst effects of bombing.

Flak is not that lethal to enemy aircraft and mostly causes readiness damage and retreat-hits. However it is when flak defense is combined with fighter intercepts that flak really shines. By diminishing the readiness of enemy aircraft they make them easy targets for the defending fighters.

Aside-advantage of flak is that is has also some value in an AT-Gun role, they are not an 88 Flak Gun, but they do have a little punch.



VISIT

WWW.ADVANCEDTACTICS.ORG

**TO DOWNLOAD DOZENS OF EXTRA
SCENARIOS FOR
ADVANCED TACTICS GOLD**



VISIT

WWW.VRDESIGNS.NL

**TO LEARN MORE ABOUT OTHER
GAMES MADE BY
VICTOR REIJKERSZ DESIGNS**