

On Modern Warfare in BTS

Flying Pig

This article is an attempt to make a guide to warfare in ages beyond Industrial, termed from now on 'modern'. It is by no means finished, comments and suggestions are appreciated. Thanks are due to all of the people who have written articles on anything discusses herein.

War in the modern age is one hell of a lot more complex than any other era. States are more developed, weapons are more developed, and economies are more developed than at any other point in history. It follows, therefore, that your strategies must be more developed as well in order to win.

War by the Land

By now, land units are fairly diverse. You can get infantry, artillery, machine guns and tanks from the very start of the modern age, to which are added marines, paratroopers, SAM infantry, gunships, modern armour, mobile SAM units and mobile artillery and by the future age mechanised infantry, which is the most powerful gunpowder unit in the game. I will try to deal with these in order, before moving on to more complex strategies.

Infantry are the basic fighting unit of the early modern age; they are cheap to produce and a step up from riflemen. They get a bonus against other gunpowder units, so they should be a priority for updating your rifles very quickly. They should be used for field duty, such as sieges and taking on stacks away from your cities, but not for slogging matches in your own cities and defensive positions. They are good as mobile homeland defence, as by now you probably have large networks of railway which allow ten tiles of movement per turn. With Drill promotions they become better, and if you specialise them, making forest and hill units, they can become deadly specialist troops. They are also useful along with Machine Guns to protect cities, as the Machine Guns are vulnerable to Artillery and Mobile Artillery, they can be used to take these units out and leave the other fighting to the Machine Guns. They should be your first line of defence against other gun units as they have +25% of their 20 base strength, or 25, which for their cost of 135 is not bad at all, considering that a rifleman costs 110 and has a strength of 14, and a machine-gun has 18. They are also useful when you have a technological lead, as they are very useful against Cavalry, and to guard inland cities which are in no real danger of being attacked by the enemy.

When you get the chance to update them to Mechanised Infantry, do so, it gives March (allowing a massive amount of endurance) and an ability to take out air units. Mechanised Infantry also have the advantage of speed, enabling them to keep up with Tanks and Modern Armour stacks. They should be used both in defense and attack; with strength 32 they are truly the most versatile of units.

The task of slogging falls to the machine-gunners, who have first strikes and are immune to collateral damage but are not able to make attacks. These have only three roles; defending your cities (there is no excuse for not having one in every city), going along with siege stacks to protect them, and to provide an off-loadable garrison for cities which are taken on campaign. If they have the City Garrison and Drill lines of promotion, they are truly mighty defensive units; but note that they need to have been upgraded from older units to get these as they are technically Siege units. Even then, ensure that you keep a

mobile unit in the cities to launch counter-attacks against any siege units which can make mincemeat of your defences. Fully fortified, not counting promotions, they have strength of 22.5, which coupled with first-strikes is good, and since they have +50% against gunpowder units, this makes 27 without any fortifications, promotions or city bonuses!

Tanks should be the upgrade for cavalry; they are fast and strong and as such form the offensive arm of your armies. They are more expensive than Infantry, so do not have the massive expendability of the footmen, but are definitely the superior in nearly all situations. Their speed gives them a great advantage over the AI in that it cannot react capably, so use them aggressively to take on cities and weak stacks. They are, in particular, brutally effective against pre-modern units, and so if the enemy have tech inferiority then they will make mincemeat of them. They need to be used against cities as the machine-gun's bonus against powder units does not apply to them, so their strength of 28 will slaughter the defences, assuming that they city bonus is 0%, and they get a free Blitz promotion, enabling them to attack twice so they can tear up large stacks in no time. Of course, they suffer from the major disadvantage of needing oil, so you can find yourself in deep trouble if your oil sources are pillaged or cut off and that they get no defensive bonuses so can't be used to defend cities. Modern armour is simply a more powerful version of the tank which needs not fear any other unit, being strength 40 and thus it can take out any defence it turns its mind to. You should beware of anti-tank units; they get 14 strength and +125%, or 31.5, which is bigger than a tank for a fraction of the price; but no match for Modern Armour. The only thing that Modern Armour needs beware of is Gunships and the fact that they need Aluminium to be built.

Tanks should take the Raider line of promotion, the Drill line or Combat and Ambush lines. The first will be used in the attacks on cities and work best if they have the Pinch promotion as well, the second are for cleaning up the enemy when they are weak while suffering only a little damage, and the last are good for stopping the enemy tanks and troops when they come to attack the stack. You can also have a pillager Tank which takes the Combat promotions and then gets Commando, the result is that you can launch attacks on enemy infrastructure quickly, then get out and maybe even survive.

Of course, no siege army is complete without something which can lob shells in the general direction of a city and blow stuff up. In the modern age, that job is ably done by the two artillery units. The difference between the basic artillery and the mobile artillery is that the basic artillery acts a lot like cannons and catapults; it needs to be moved slowly up to a city by infantrymen and then used to bombard during a long siege. Mobile artillery has high Strength, fast movement and the ability to deal 85% damage; it can thus be escorted by armour or not at all (but they do run risk if they are not protected, as they cannot actually kill enemy units), as it has more punch at 26; good against all infantry units on the condition that they are not fortified.

Marines, when they come, are the modern answer to Infantry and can, on lower difficulties, be used to replace the former. However, they lack the bonus against gun units except the machine-gun, which they take +50% against, and so are not so good in field warfare against Infantry or tanks, so they have two roles. The first, seeing their +50% against artillery, is to sit in cities and attack them if they come for you, but this is not very reliable as they will be matched with Infantry or tanks. The second and greater use is to go on transports to attack island cities, as they have high strength and a free amphibious promotion; and as we will see later battleships can remove the defences there. Marines are also good to defend

yourself against non-gunpowder units, especially Cavalry if you have a technological lead, but not Mechanised Infantry.

The Paratrooper is the best ambush unit in the game; it has the ability to parachute jump three tiles into the enemy, which they will be totally unable to deal with. As such, they should be used like real-world paratroopers in a commando capacity to attack supply lines and vulnerable positions. Their other use is the jump from your own cities to newly captured cities that are nearby; getting a garrison into enemy territory fast.

Gunships are the upgrade for Cavalry and the only helicopter unit in the game; meaning that they cannot go on the sea and do not use roads and rail, but ignore penalties to move into terrain. They can work like cavalry and knights in ages past; moving quickly and providing heavy firepower to ground units. One useful thing that should be mentioned is that they excel in the art of chasing down tanks; with high movement and a bonus against armour, tanks provide fair game. The fact that they are unable to take cities cements their role as support units as opposed to line-of-battle fighters. They should watch out for SAM infantry, who get a substantial bonus against them. They have the other uses of Flanking Artillery and Mobile Artillery, being great at ambushing units then running away and being excellent pillagers. With the Blitz promotion they are frighteningly powerful; being able to attack four or five (if you gave a Great General to an old Cavalry unit) times a turn; so they can plough through weak units at will.

SAM units are support troops. They need to be used to accompany stacks – infantry with siege stacks, Mobile SAM with Tanks; and to ward off the hail of bombs that you will get from the defending Air Force. They are also stout enough to be used as battle-units, but you may consider them too valuable to risk in action. They are good where you cannot get Carriers or land-based aircraft, but since planes can reach almost 100% interception chance they are better if you can get them.

By now, you should have no shortage of good land officers from your past campaigns, and they should be used carefully. If you have given them to your mobile units, you will have a very powerful gunship arm which can be useful; but you need to keep some ground units around to ensure that you can actually capture cities. The best units to give Great Generals to are armour, as they are fast and will end up doing a lot of the 'donkey work' in your armies, but very strong infantry units are good as well, or maybe the main capital guard unit.

If you want medics, I suggest using explorers as they are 2 moves, get free promotions, and with a Great General can reach Medic III. This lets them go along with stacks (though they should never be used alone) and heal them ably while their low strength keeps them from being chosen to fight if the stack comes under fire. They provide very useful help when being bombarded and at siege lines. The only weakness that they have is not being able to get Woodsman III, so you may want to get an older unit with a Great General, Medic III and Woodsman III and refrain from using it in action when the odds are not >99.9%; because they need to be at least Level 6.

If you have access to Flight, ensure that you have plenty of Airports so that you can rush in garrisoning Machine Guns to cities that you take. It leaves the battle-hardened army to continue, and cuts down on the time taken to bring up an army to defend it or train one from scratch. It should be noted that you can only lift one unit per turn; so have many cities ready to move their defenders in, preferably those who are a long way from the frontiers.

When raiding enemy territory, it is useful to build a railway back to your own country with a pair of covered workers. If you use Infantry or Machine Guns to cover them (I recommend the former) then they can lay the foundations of quick re-enforcement while the Tanks and Gunships take on the enemy.

On Espionage

Espionage is as much a part of the face of war as ever, but is now a lot more difficult. With the rise of Security Bureaus and the like, your missions are more expensive and have a greater chance of failing. However, this is balanced by the massive amount of damage you can do by cutting off oil, uranium and aluminium supplies, which are needed for all units except infantry. Spies can also be used as spotters for nuclear weapons; as they are invisible and nukes have unlimited range, the two go naturally together.

Spies also have a capacity to protect your empire from the unwanted attention of the enemy spies; put one over an oil well so as to keep away saboteurs – your Army, Navy and Air Force depend on the black liquid to make vehicles of every sort, so do not, under any circumstances, neglect it. I would also suggest putting one in the enemy capital to Counterspy as this makes the job of enemy Spies very difficult.

With the Privateers obsolete, you may find yourself lacking for money and opportunity to pillage the foe. However, spies do this job perfectly; and they are invisible. Using them to steal money and destroy enemy resources and railroads is a perfect use for them; this should also be a priority for any invasion force you send. As Sun Tzu said: first attack the enemy's strategy. It can be efficient to steal technologies if you are behind on Research but ahead on Espionage. If you do want to destroy routes, do it en masse to impair the enemy's ability to fix them and then rush the army in so that their Workers will have more work than they can cope with; and so their cities will be tied up producing them rather than soldiers to repel you.

To get the most Espionage possible, you should have one city which is designated as the 'spy city' – with Scotland Yard, loads of Spy specialists and no others, all the Espionage buildings (Courthouse, Security Bureau, Intelligence Agency et cetera) and use it to pump out spies exclusively. It is easier to get Espionage points if you run the quota at 100% against individual enemies for a period of time; this also eliminates 'waste' points if you make a blanket allocation.

When using spies to help attack his cities, there are numerous tactics you can use. First, Spreading Culture to border cities with some of your influence in them can cause them to revolt, and so should be done to avoid a fight over them. Secondly, if you can identify his military production city and then sabotage his mines and Barracks-type structures, he will be in difficulty to produce units effectively – and even better, try sabotaging the only oil well on a continent and blocking the trade in with ships!

Nukes

A special mention is due to nukes. They come in two categories, ICBMs and Tactical Nukes. The former is has a longer range and is more expensive but is also easier for SDI to intercept. As such, ICBMs are for destroying cities while Tactical weapons are for taking out large armies which would otherwise be unassailable; a mission to a city can, in general, wait while the elimination of an army is urgent and must be done fast, and you are more likely to be doing these missions at shorter range. Be aware first that the

detonation of nukes causes a massive fallout; the terrain is devastated, Global Warming starts to work its evil magic and all of the world's leaders who are friends with the target will become suspicious of you (to twice the value of if you had declared war), and also that nuclear weapons do not work as a deterrent; having the same 'scare factor' as a Mechanised Infantry.

First, I would say that the best thing to do with nukes is to get the UN to pass the nuclear non-proliferation treaty. While this is not binding, like in the original Civ 4, few civilisations are willing to openly defy the UN and doing so will trigger some diplomatic fallout and happiness penalties. If you insist on using the things, then since they have infinite range if operated by spotter my advice is to load them onto missile cruisers and submarines and use spies to look at their cities, and then launch the payload from thousands of miles away. Only vital cities should be targeted; capitals and military bases, as Global Warming increases with every nuke launched and so the fertile land of the world is consumed by desert. If you can see where the enemy's nukes are, try to bomb them to prevent a counter-attack. To protect yourself, it is vital that you have SDI and Bomb Shelters in all cities to defend them against the enemy nukes.

Ruling the Sea

Especially on Island maps, controlling the sea is vital. You will by now have lucrative trade routes between islands and the mainland in various theatres, and the same can probably be said for the enemy. If you can control them, you can have small cities on islands turning out full forces of nuclear weapons and tanks, while lacking them can mean that if you have more than one continent in your empire the second can be bare and poor, unable to get power or produce units.

War at sea is different to fighting on the land in that operations must be carried out at the stack level; each stack can expect to spend long periods of time away from base and therefore should be able to support itself; as opposed to land units who can take a city and then refuel and rest before making a new attack. The basic principle of naval warfare is to destroy the enemy utterly in a quick battle; because if they survive then they will be back, and more experienced. Due to the lack of defences in the sea, having promoted units is not such a big deal as it is on land – ships get sunk a lot.

Sea units begin as Battleships, Destroyers, Submarines and Carriers, and before long Attack Submarines, Missile Cruisers and Stealth destroyers come into the mix. Transports are used throughout the whole era, as no other unit can carry troops.

When using Transports, there are a few things to bear in mind. First, they must always be escorted (see below), and if you can make them in a military city with West Point and Great Military Instructors you can easily give them the Navigation line of promotions; these let them keep up with the rest of the ships.

In the early days of the Modern epoch, Battleships are the Gods of the sea. With masses of gun-power and fast engines, they can flatten into submission any other vessel for a long time, except massed destroyers. They should be used as the workhorses of the fleet, since their role is fixed to bashing in ships and bombarding coastal cities; they have a capacity to destroy the defences of enemy cities but not to hurt the units inside. Once Missile Cruisers come along, however, their role changes completely. They can be relegated to escort vessels, as it is not often worth the money to upgrade them – all you get is the ability to carry missiles, and the supply of Cruisers is normally bigger than that of Missiles anyway.

Where battleships are the offensive side of the early modern fleet; destroyers exist to defend it. They are not as powerful as battleships, but they can intercept aircraft and see submarines. As such, a small detachment should go with every fleet that you send out to, so that while the Battleships take care of the enemy warships the destroyers can make sure that they are not threatened by submarines and air strikes. They are also powerful enough to be used in wolf-packs to hunt down transports, but Submarines and Attack Submarines are probably better in this role. Destroyers should never be upgraded; they are far too useful as escorts for the fleets, and you can always build more Stealth Destroyers as they never obsolete.

Stealth Destroyers are not, in any way, simply an upgrade on Destroyers. They are completely different in terms of their use. They can do the same task, but take on two new roles – spying and sniping. A 'Spy' Stealth Destroyer should have the Flanking and Sentry promotions to maximise its line of sight, and they should be deployed in a line so that you can see a line which any ship coming from enemy territory to yours will be seen, intercepted, and destroyed. It is important to have at least two lines of Stealth Destroyers with nine tiles between them, so the enemy cannot simply sail past.

The other role of the Stealth Destroyer, Sniping the enemy, should be carried out by Stealth Destroyers with Drill promotions and preferably at one promotion at any given time in reserve to heal itself. The first-strikes mean that the ship can get in and destroy enemy Stealth Destroyers or other ships that get through the line, acting on the information given by the 'spy' units. Ideally, the targets will have been wounded by the ships in the line, but this is not entirely essential. They also make great ships for getting the transports and carriers of a civilisation without their own Stealth Destroyers, as no other unit can see them. Bear in mind that if a Stealth Destroyer is wounded, it can heal almost anywhere without being bothered by the enemy. 'Assassin' Stealth Destroyers are also useful to take out the enemy's coastal resources before disappearing. Another trick that your 'Spy' ships can do is scouting the enemy coast if your Spies are busy or non-existent.

Submarines are tricky blighters. They cannot be seen except by other submarine units and destroyers, and come in two sorts; standard subs and Attack Submarines. The former can carry missiles, and as such is useful to carry a payload of ICBMs, like in the real world, so that regardless of where on the land the enemy strikes you can still strike back. Attack Submarines have a higher strength, and so are useful to move in wolf-packs, hunting down transports and unescorted carriers and destroying them, before escaping into the deep blue sea, or to guard fleets against conventional submarines. Note that submarines become a lot more nasty when loaded with, say, guided missiles, as they can blast a large fleet to pieces very quickly, but then need to be re-supplied; and they cannot fight once their payload is exhausted against any ship except maybe Transports or wounded vessels. Attack Submarines are essential to protect you against a nuclear strike coming off a standard Submarine – use them accordingly in conjunction with the Stealth Destroyers that survey your waters. Bear in mind that Airships can see Submarines - so watch the sky!

The other role of the conventional Submarine, which is often overlooked, is to go to base where a payload of missiles is waiting and re-supply Missile Cruisers after they have fought. This works because they are invisible to nearly everything and fast enough to be able to get around the AI easily; but their ability to attack ships is limited to ambushing Transports, so they are best used in this logistical capacity – leave the missiles to the Missile Cruisers, who can follow up a bombardment with aggressive close combat. Submarines, and especially Attack Submarines, can be used in a capacity like the German U-

Boats of the World Wars - with two Flanking promotions, 80% will survive an attack at 0.1% odds. This makes them good for wounding the enemy fleets before you use more conventional ships to defeat them.

Attack Submarines have a sneaky trick that you can use near the poles; that of hiding under Ice (which they can do) and ambushing other units; if they are well promoted they are only assailable by other Submarines, and they will beat all of them; and they can attack Transports which come near from their safe hiding places under the Ice.

Carriers are arguably the best, most powerful vessels afloat if used properly. Loaded with three Jet Fighters (although Fighters do a similar job, but less well) they can be used to sink ships, bombard cities, destroy terrain improvements and to recon a large area of sea or enemy territory. They are, however, incredibly costly to put to sea fully armed, and as such should always be escorted, probably by Destroyers as a carrier can sink anything else that they see. They are probably not worth committing to sea battles; as other ships are far better than them; but they are unbelievably good at spotting an invasion fleet (which must contain visible Transports) and their greatest uses are to get Submarines that you have already spotted and to provide fire support to a beachhead. A good use of them is to have a stock of Fighters ready at home then destroy the Fighters atop enemy Carriers, then send in Stealth Bombers and Stealth Destroyers to sink them. You can use them the turn you declare war to recon large areas of sea and coast to make sure that none of your men or ships walk into an ambush, then you need to bomb the enemy mercilessly; denying them resources and forcing them to work to repair their infrastructure.

Coming up to rival those for the top position are Missile Cruisers. Again, they are very expensive to sail but they can carry missiles and have an awesome strength of 40, meaning that they can devastate both enemy fleets and cities. They are probably a better choice, if you can afford them, to store a nuclear arsenal on than Submarines because when escorted by Destroyers and Attack Submarines they are far less vulnerable to enemy attack. They should take first the two Drill promotions, and then Barrage, as their role is to bombard the enemy fleet then to fight the weakened units. Unloaded, they are a Battleship, and so you don't need to keep them full, but expect to use and lose a lot of them. They come in two roles; Nuclear Porters and Battle Cruisers. Nuclear Porters are there to act like the modern Trident system, carrying ICBMs to attack the enemy on land in their cities. Battle Cruisers are loaded with Guided Missiles or Tactical Nukes, which are for bombarding the enemy's fleet at sea. Once they have unleashed their payload, attack without mercy with the Cruiser (which has strength 40 anyway) and other ships; 'sniper' Stealth Destroyers are good for this, as are Submarines and Attack Submarines.

Naval warfare makes bases more important as all units operating are fast and many will just disappear the turn after you spot them. Forts are incredibly useful; they can now be used to make canals across peninsulas; so you can transfer your own ships in a fraction of the time, and as safe havens to put wounded or waiting ships. The best place to put them, outside of using them as canals, is to put them on one-tile islands with a small defence on the land, like a machine-gun. You will see the enemy before they get there, and then you can put to sea and destroy them. These bases can be used to house fleets and air units (more on that in the next section) and as stepping-stones to get Transports over the ocean safely.

The two things that you need to consider with ships are, first, how to protect your country from nuclear strikes (the sea is now the best way of making these.) and secondly how to use them to facilitate the

invasion of an enemy. With the demise of Privateers, an economic sea-war no longer makes sense, and because they are not able to capture cities they are only good for getting units there and helping in the attack. Luckily, they do that rather well. The Navy does, once it has made the invasion easy, have the role of denying enemy resources like Oil and sea-based food (which can starve islands completely) and of cutting off trade; this can cripple enemy economy.

First, on defence and what the Navy must protect. I will say now that anything that a Work Boat built, with the possible exception of your only source of Oil, is not worth defending by a large fleet, so use airpower and maybe the odd Submarine. They take one turn to make, and seeing as Work Boats are cheap it is more worth your while to let the enemy get them then pounce on the enemy, and then after you finish the battle sending in some of a stockpile of Work Boats to re-build. It's a simple equation – a Fishing Boat is not worth a Missile Cruiser; but by all means go ahead if you can use the Air Force. To make a defence, you have surveillance provided by Stealth Destroyers, as we saw before, and then at strategic points you have fleets of warships and Attack Submarines to take out the enemy, and you can also use Airships to watch the coast for Submarine attack. What is sometimes a good idea is to have your line of Stealth Destroyers, then another line of Attack Submarines as they can attack anything, especially ICBM-toting Submarines.

When you move into attack mode, you want to both land Army units on the enemy shores, using your command of the sea to ensure that the enemy cannot stop them and to destroy the enemy infrastructure and defences to make the invasion easier. Think carefully before using an ICBM strike to settle a war. You begin by getting Transports to the enemy along a sea lane:

Escorting Transports

You need to have the lane secured and the Transport itself escorted heavily. The beauty of an escort is that, if done properly, you can have an almost infinite number of Transports in the stack because they are well-defended. To make the lane secure, you have the Stealth Destroyer lines, and also you should have Submarines loaded with Guided Missiles patrolling along it; this not only enables you to detect and eliminate the enemy should they evade the lines but makes it easier to re-supply your Missile Cruisers, which is their chief job. You probably only need one of them; but will need to move at most five tiles a turn with any Cruiser wanting re-supplying as Submarines can only move 6 tiles per turn.

The escort on a Transport needs to be heavy; as D-Day showed; amphibious invasions are not small affairs. You need to determine the size of the escort relative to t, the number of turns you intend to spend at sea, and use the following: 3t loaded Missile Cruisers, 2t 'Sniper' Stealth Destroyers, t Destroyers (this is why you need to conserve them) and probably three Carriers loaded with Jet Fighters. To use this, first advance two tiles with the Carriers and send out two recon planes to detect large fleets, then make a circular movement with the Destroyers to detect Submarines finishing at the point where you intend to end up. Then, strike anything that you spotted with Air Strikes followed by the Stealth Destroyers. On landing, try to make the last move as long as possible to minimise the chance of being caught by coastal defences; which tend to be weaker the further out you go.

The final phase of the attack is to actually cause some damage. This should be done by both softening up coastal (with Battleships and Destroyers) and non-coastal (with Carriers and Missile Cruisers/Submarines) cities so that their defence bonus is as low as possible, and by destroying valuable

improvements and routes with Air Bomb missions and Missiles. Once this is achieved, you can make Air Strikes against units to devastate the garrisons of the enemy cities and support troops on the ground. As you get no money for sea-borne damage, it is only worth going after production resources and possibly farms/mines; towns and villages should be attacked by the land units.

Death From Above

Fighting in the sky is a new concept for the modern age. Aeroplanes are unique in that they do not move like other units; they are based on a fort, city or carrier and have an operational range from there, which they can recon, strike (hurting units) or bomb (destroying defences and improvements). They can re-base at unlimited range to another city, fort or carrier. They are also unusual in that they do not attack each other, rather they can be set to intercept other aeroplanes coming over their location; and if they manage to intercept they will deal damage to the target, but in general it will escape having failed its mission. All air units need oil; bear that in mind when choosing where to attack or protect as losing oil will cripple your air power.

Air units are fairly simple; first you will see Airships, then Fighters and Bombers, which will later turn into Jet Fighters and Stealth Bombers. There are also Guided Missiles (I have already discussed Nuclear missiles), which add a one-time destructive power to your air force.

Airships are at first the only air unit and so are good for everything that you would use a Fighter for until the enemy get Flight; at which point you must stop completely, as it is very rare for an Airship to beat a Fighter in action. They should not be upgraded, however, as they are the only air units that can see Submarines; so you can base them along the coast to guard against unwanted attacks.

Fighters and Jet Fighters are the aggressive arm who can do the striking missions without much fear of being intercepted and they are also good to protect your cities from the enemy's effort to bomb them. They should be sent as the first wave of an air raid to try and remove the enemy air force in position, or put on Carriers to transform the fairly strong vessels into powerhouses. They can carry out bombing missions, which is worth remembering, and if they do well they can get promotions; they get these either by defeating enemy planes in attack or by shooting down the enemy who come to bomb you.

Bombers do a lot more damage when they hit the target, but are a lot easier to intercept (the Stealth Bomber has a 50-50 chance, which is better but not great). As such, until you get your hands on Stealth Bombers (the technology required is among the latest in the game) they should only be used where you are confident that there are no enemy fighters, SAM units, destroyers et cetera. To protect yourself from them, build bunkers in every city; they are cheap and minimise damage. Stealth Bombers still need a bit of caution, as they are not likely to survive interception, but not as much as normal Bombers.

You need to think very carefully about where you base your Air Force. As with the Navy, Forts are useful to make sure that they are close to far-away combat zones, and from there they can attack the enemy without fear of giving away the position of a city. Carriers are also very, very good bases for fighters – hard to pin down and they can get close-in to any enemy (except a landlocked one) to bomb a long way into his empire. A few fighters should be stationed over important cities to intercept bombing raids, and you probably need to give the same sort of protection to at least one Oil Well, considering that your Air Force drinks it. You can increase the Fighter per tile limit by loading some Fighters onto Carriers and

putting them into cities or forts which already have Fighters in. You can put aeroplanes in neutral cities with whom you have Open Borders, but be sure to put your own land units there because if the city is lost so are your aeroplanes.

On Unique Units

There are two Unique Units which come in the Modern Age – the SEAL (American Empire) and the Panzer (German Empire). The first Unique Unit that I will discuss is the American Navy SEAL which replaces the marine. While it does not look, at first glance, to be a very useful unit, it is in fact amazingly useful.

The fact that you have first strikes and chances for them means that you are able to hit the enemy before he can hit you and negate enemy first-strikes, like the machine-gun's. In addition to this excellent ability to protect themselves from damage, they can heal without needing to fortify in a position for a long time, meaning that you can send them into action, then off to the next theatre and by the time you arrive they will have healed! If you bring a Medic III unit (Needs a Great General), then as long as they are above 16.8% health they will fully heal in one turn – and considering the usefulness of healing at sea, if you attack an island you will almost certainly have one in the fleet.

The truly awesome thing about SEALs is their ability to deal with artillery and machine-guns. They get +50% against both of these, which means that they have a whopping 36 strength, and they are immune to collateral damage. This means two things: they can take on any city without a tank in it easily, due to their machine-gun expertise, and they provide excellent units to defend you from artillery; especially in city battles where you defend. The only way to hurt them is to attack them, and they don't get hurt easily nor stay hurt for long. A Medic III SEAL is a force to be reckoned with when in a stack.

The Panzer is the latest Unique Unit in the game, without a doubt, but also a very powerful one. It's large bonus against armour means that it can flatten early vehicles and even go toe-to-toe with modern armour.

The only counter to Panzers which you need to be wary of is Gunships. If you can get Panzers before your enemies get Advanced Flight, then simply take out their oil wells. This means that the only thing facing you will be Tanks and Infantry, and so if you get some experience points from killing tanks you can get the Pinch promotion, which means that in a straight fight you can match Mechanised Infantry.

When using Panzers against cities, be sure to have the Pinch and Drill promotions, and ideally go in with Bombers first, like the real Panzer commanders did. This means that neither tanks, machine-gunners nor anti-tank units can stop you – and with the bombing, the enemy will have no chance whatsoever. The great advantage to them is that you can put off researching Composites and you don't need Aluminium for land campaigns, as they can replace Modern Armour. Of course, you still need oil, and they come very late in the game, but if used well they might just tip you from a Score Victory to Domination.

Logistics – On Resources

To get a war running, you need money and materials. You are blessed in the modern age that no Gunpowder units need any resources, but cursed in that all other units – tanks, planes, ships and helicopters – want copious amounts of them.

The resources that you need, in order of how valuable they are, are:

- **Oil.** It fuels almost all of your units, gives health benefits and power in your cities, increasing their capacity to churn out units, and without it the only method of getting tanks, aeroplanes and helicopters (most ships can run off Uranium) is to get Standard Ethanol corporation, which sucks up food and money – and your rivals may get there first. As a power source it is reasonable, but causes a lot of unhealthiness without a Recycling Centre.
- **Uranium.** Its most important use is to make Nukes of all sorts, but it has the other uses of being mined, so you may discover it (although the odds are 10000/number of non-resourcing mines to 1), and providing an alternative fuel source for the Navy. It is a power source for cities, but runs the risk of Nuclear Meltdown, which devastates the surrounding area – think Chernobyl.
- **Aluminium.** For really powerful units, such as Modern Armour, and the Jet Fighter, it is essential. Again, it can be mined and so discovered by your existing mines, but as with Uranium it is unlikely that you will discover it, so don't base a strategy on that. It gives high yields if the mine is worked.
- **Coal.** This is the last resource that you need, and you only need it if you lack both Oil and Uranium. What it does is it gives you power, which means that factories are more productive. The only other way of getting power, without any resources, is to either build the Three Gorges Dam on the same continent – not great on Island maps, or to hope that the city has a river and to build a Hydro Plant.

Combined Arms – A Unified Strategy

Now that we have discussed the different facets of Modern Warfare, we must go about sticking them together into one big strategy, which includes how to manage the non-military side of the era in order to run war more smoothly. What is clear from what we have seen is that speed is essential to any campaign; as is getting, Napoleon-style, an overwhelming force into a small area.

War can always be divided into defense and offence. Every campaign that you mount must either be fought to acquire land or resources, or to prevent the loss of land and resources. I will focus on defending your ground first, before moving on to attacking the enemy at home.

When you protect your cities and land, you have a massive advantage that you are near your supply and production bases. Your men heal a lot faster than the enemy's. You can move almost all land units ten tiles for one point of movement, when all but his Commando units are relegated to 1-for-1. This means that you can rush re-enforcements in and wounded men out fast, and then rotate them easily and quickly, which the enemy cannot do – once over the border, he is in Sun Tzu's Death Ground.

As such, you need to smash his offensives. Bombing his men with aeroplanes and if absolutely necessary Tactical Nukes, but then you will damage your own land, so use this sparingly. Colateral

damage, although traditionally an attacker's tool, will work wonders: Mobile Artillery are perfect, dealing up to 85% damage on the attack. These units can be used to weaken the enemy, forcing him either to stop and fortify, where you can catch him, or to attack at low strength and be repulsed. In essence, having a strong logistical system will let you overwhelm units that he sends in.

Now we come to the fun part – attack. Having seen how you can defend your land, it is important to avoid running into the same situation that he did. What did he do wrong? Ultimately, he allowed himself to be overrun because you were able to get forces to stop him, and then he stopped moving to heal himself or attacked at low strength. To avoid being overrun, you should use Spies, Air Units or fast-moving detachments to destroy his rail links, and put pressure on different parts of the border. Wars need to be a long time in the making to work, and so if you have three or four armies in position to invade on one turn, he will be unable to deal with you.

The other method of avoiding interception is to attack from the sea, which you should be in control of using the methods described in that section. Transports give very little warning of their presence, and by using Marines and Coastal Bombardment, either directly from ships or by missile, you can attack the city just like an inland one straight off the transports. Be sure to use air support to weaken his troops – you want to get in, take the target, then be gone before he can marshal his armies to defeat you.

To invade, you need endurance. The March promotion is endurance in a small box – it allows you to heal without needing to stop at all. If you have a Medic III Explorer unit, they will be excellent with the Marching unit to increase its rate of healing – remember always that Navy SEALs and Mechanised Infantry get the March promotion for free. Above all; ensure that you always have in your stacks something to keep the air units off – SAM Infantry or Mobile SAM.

Divide your forces into two groups – the Fast Stuff and the Slow Stuff. Fast Stuff is Tanks, Mobile SAM, Mobile Artillery and Gunships, and its role is to destroy the infrastructure of the enemy nation and to force the enemy onto the defensive and sometimes to take weaker cities (but never, ever get bogged down in sieges); and the Slow Stuff (Infantry, Marines, Artillery and SAM Infantry) is for slogging and destroying the pockets created by the Fast Stuff – taking enemy cities and winning the war.

By Flying Pig at 2009-05-09