Cavalry and bicycles in the Twilight War

The well known photo of a British cavalry section of the Blues and Royals in Poland in 1999 gives a good indication of the weapons and equipment typically found in a unit at that time.

The section commander is carrying an L2A3 submachine gun and has a Browning High-Power inside his assault vest in the integral holster (not visible in this picture). The second in command has an SA80A1K with the short 20 round magazine in place (unusually however it is fitted with an iron sight presumably the issued modified SUSAT has been damaged previously). Slung over his left shoulder is a 51mm mortar and over his right an ammunition bag for this. One member of the section carries a Para-Minimi with the bipod legs missing (if this was a field modification or as the result of damage is unknown). Three of the section carry SA80s, one is an A1 model while two are A2s (one of which has a UGL fitted). The soldier with the A1 has a webbing pouch containing two bullet trap rifle grenades that were obsolescent with the introduction of the UGL (although they continued in production and service throughout the war). All three of the weapons are fitted with SUSAT sights. (The SA80 series was especially popular with cavalry troopers was the sling, being in two pieces with a quick release clip it was ideal for cavalry as it was easy to sling. The bull-pup action was also ideal for use when mounted.) Two troopers wear chest rigs (one British and one Soviet issue), whilst the soldier with the UGL is wearing a US grenadier's vest As the war continued all nationalities found it more and more difficult to mechanise their new and existing forces. Initially the shortfall was made up by using reserve vehicles (often of an older pattern). Once these were exhausted then civilian vehicles were

pressed into service. These still were not enough and gradually the alternatives of horse and mechanical power were reintroduced.

1. Cavalry

Many units have converted to cavalry, accepting the vulnerability of their mounts for extra tactical mobility. In reality these units are better classed as mounted infantry but the traditional term is more common. The use of mounted infantry had never gone away indeed in the 1980s, British infantry in the aftermath of the Falklands War used Welsh mountain ponies for long range patrols on the islands (which had over 1200 horses and ponies). Switzerland surprisingly had retained a horse mounted dragoon regiment in a combat role until 1973!

The use is affected by doctrine, NATO (and particularly British) doctrine is that mounted combat should be avoided (a large number of aggressive US Cavalry officers have unofficially emphasised the use of shock action if well supported against breaking opposition), whilst Warsaw Pact doctrine involves less dismounted action and envisions the use of breakthrough large scale cavalry actions with cavalry replacing the armoured elements as these have grown rarer.

Their main role however in all armies in practice if not theory is to replace mechanised or motorised scouts (using the same methods as these in most armies – excepting the American where mechanised cavalry often fought in a mounted role and were more heavily armed). Capable of short term movement of 60 miles in a day (although without the necessary logistic back up and accepting loss of horses due to the



Illustration 1: Colonel Joshua Bond commanding the 4-12 Cavalry of the 5th Infantry Division March 2000. Col Bond was killed in action near Kalisz in the NATO summer offensive. (US Army)

"Let me tell you how I ended up on horseback. We were in Austria and we had this crazy Texan colonel in charge. He got tasked with improving our rear area security. I had just brought him a coffee (how I miss that!) when you could see the thought hit him (he told me afterwards it was being where that Disney film about Patton rescuing the horses from the Russians was set). He jumped up and called us all in. When all us officers were there he gave the order to gather all the horses we could find. Well we did what we could and got about 80 or so by various methods. Then the crazy coot orders us all to learn to ride. Fortunately we had a guy who grew up on a farm who taught us how not to fall off too often! Next thing I know the colonel convinces the brigade commander to start getting more horses for scouts, raiders, anything he can think of. He loved his horses did the colonel."

Lieutenant Paula Voight

Unit unknown

Quoted in "Soldiers on Horses" by Doug Stanton Time Warner Books 2021 forced nature of the march), cavalry were able to travel well cross country (even in snow and mud).

Armament of a cavalry unit is very similar to a light infantry unit, few carry swords as these are very limited in use (most of those that do carry one usually carry privately purchased ones). Even fewer carry lances despite the popular image (the main users appear to be Poles who carry them more as a regimental tradition than as a practical weapon – the photographs. of the Italian war correspondent Umberto Falconio are mainly to blame for the widespread belief in their use. Falconio arranged posed photographs of one of the first Polish cavalry troops in early 1998, a romantic, he decided that these archaic parade weapons would in his words "give a noble character to the unit"). A notable exception is the Army of Silesia where troopers have been known to carry them (mainly due to the lack of effectively armed opposition). It is believed that this is due to the romantic inclinations



Illustration 2: Army of Silesia on parade. Despite the outdated lances note the slung AKs (Janick Nova)

"The LT taught us something we had never thought of. He told us if we were going fast and fell off and had a foot caught then our buddies were to shoot the horse AT ONCE. We all looked stunned. Then he pointed out that we would be being dragged along behind the horse, face down with a horse panicking at this weight it suddenly had dragging behind it, oh yes and we would be right next to the rear hooves... We all agreed that it was a good SOP!"

Sergeant Jenny Whitefeather

Sergeant Jenny Whitefeather 4-12 Cavalry, 5th Infantry Division "Death of a Division" New York Military Books 2019

gave a recommendation that Soviet KGB cavalry consider the use of the lance for riot control (interestingly however no KGB cavalry units have yet been identified).

Small arms are usually short weapons for ease of carrying (although this rule is not universal), popular choices being

in woodland cam designed to carry 40mm grenade rounds. One of the remaining soldiers carries an L2A3 Sterling (note the leather reinforcement to the trousers insides shown clearly here and less obviously on at least 4 other members of the section), whilst the remaining soldier is carrying an L42A1 sniper rifle, an uncommon choice among cavalrymen. In other photos of the section, it can be seen that he has a bucket holster on the horse containing an unidentified pump-action shotgun.

Note that this field cap wearing soldier appears to have a civilian riding helmet with a Kevlar helmet camouflage cover slung on the saddle. Most of the remaining soldiers are wearing or carrying standard Mark VI helmets or (as is common in units converting from an armoured vehicle crew helmets.

of the Margrave who yearns for the glories of the past (added to which his harsh punishments encourage his

troops not to disobey his sometimes strange orders). A Soviet officer who was sent on a mission to the Black Baron's land, KGB Captain Yuri Toreivich however noted that the lance is an ideal weapon for use in riot control. He also further noted that the rumour going around the taverns was that the Baron had three cavalry re-enactors that were responsible for training his cavalrymen. His report (the copy available to the

author was in the possession of LCpl Sean Jones of the Royal Regiment of Wales who while attached to the remnants of the US 5th Division recovered it from a dead KGB officer in Silesia) on the Baron's cavalry

"We were lucky, we had this LT who had been a mounted policeman in New York. He trained us, first in how to fall off a horse, then he trained us how to not fall off as often. Next he started training us to use a sword, well a wooden baton (he liked horses to keep their ears!). Once we had mastered that we moved on to firearms. Pistols worked well he had trained for that, rifles we all made up as we went along." Sergeant Ian James 4-12 Cavalry, 5th Infantry Division "Death of a Division" New York Military Books 2019

folding stock versions of the AK series, M177s, SA80s and submachine guns. Doctrine also affects this, Russians often carry shotguns and fewer SVDs than a normal infantry unit as fighting mounted is more common. British units usually carry at least one Para-Minimi (or normal Minimi if none is available) and UGL at section level as they are seen more as mounted infantry. Weapons are usually carried slung as the less linear design of modern rifles does not allow the use of bucket holsters (Russian cavalry usually fit them for holding a shotgun, British saddles almost never feature them, American saddles sometimes feature them). American cavalry in particular are keen on pistols, these are usually non-issue although the scale issue is slightly higher than equivalent light infantry units. Many have their own purchased or looted weapons and some troopers have even been known to carry two pistols western style. It is worth noting that many troopers initially found out the hard way that drop leg holsters whilst looking impressive often caused pistols to fall out when used by cavalry. Popular trades were the shoulder holsters issued to divisional aviators. The 1999 raised CIVGOV 47th Cavalry Regiment in particular has been issued a strange mix of weapons including a large number of weapons retrieved from an old storage site including M3A1 sub machine guns, the handy M1 and M2 carbine and even the odd BAR!



Illustration 3: Night vision picture of a Tchanka being ferried across a river. Note the AGS17 and the more usual two horses compared to the previous photo. (Jack Stevenson)

Support weapons are rarer in cavalry units although this again varies by nationality. The British support weapons troop (at squadron level) is much lighter than an infantry unit with three GPMGs (usually used in the light role although they are scaled for sustained fire (SF) equipment) and three 51mm mortars. There are also six mules or ponies to carry stores. The Russians have redeveloped the cart mounted weapon platform of the Russian Revolution known as the

tachanka, a wagon towed by usually two horse with a machine gun mounted to the rear. Although in

World War Three, it is usually no longer a machine gun but

usually an AGS17 (although a significant number are DShK, NSV or occasionally KPV). The AG

"And to this day, the foe has nightmares
Of the thick rain of lead,
The battle-chariot
And the young machine gunner."
Lyrics to Tchanka, a Soviet song from 1918
which became popular again in 1998.

KPV). The AGS17 has the added advantage that due to the low velocity of the rounds the weapon must be elevated allowing fire

to the front). These are centralised at battalion level with it is believed, eight weapons in the unit. Russian nicknames for these include Hero of the Soviet Union Wagons and Corpse Carts as their exposed weapon result in a high level of casualties among

weapon. Almost every time we tried to catch raiders they sped off and when we tried to follow one of the wagons would open up and then speed off while we reorganised." Sergeant Ian James 16th Lancers "Cavalry at War" Arms and Armour Press 2023

"I hate those Russian wagons

with their rear mounted

Illustration 4: Soviet officer with tachanka. The NSV machine gun is obscured in this photo (Sovphoto)

the crews despite occasional improvised gunshields. A common unofficial tactic is to dismount the weapon at maximum effective range. US Cavalry usually used a hybrid structure with one (heavy)

squadron with armoured vehicles (usually M3 and/or LAV75 in regular units, M113ACAV plus the occasional M60A3 or 4 in National Guard units) and two or three light squadrons on horseback (by mid 1999 the armoured vehicles were often replaced by HMMWVs using their pintle mount weapons to support the lighter equipped cavalry).

Equipment is usually of normal infantry issue. As cavalry were a late innovation in the war, most units have locally manufactured saddles or requisitioned civilian ones, Only in some areas where there is still a strong government supply system are there standard patterns (and even then there are many variations within units). Saddles need to be correct for the horse and professional soldiers swear that they have never had one that fitted well yet. As a result saddle blankets are used to help achieve a reasonable fit.

"One thing we found was that our issued boots were bugger all use for riding. We got some made by a local cobbler but they were no use for marching. Most of us ended up with two pairs of boots as a result!"

Sergeant Ian James 16th Lancers
"Cavalry at War" Arms and Armour Press 2023

In British units many troops have either abandoned the thin 95 pattern combat trousers in favour of the earlier heavier 65 pattern or reinforced the inner legs.

Many non cavalry envy the cavalry the luxury of riding. What few realise is the amount of work that a horse requires in order for it to function as a cavalry horse. After a day riding the horse must be combed down, watered, fed and checked over (in game terms half a period of hard work). Feeding a normal European or American horse on grass will result in an animal that will quickly be unable to function effectively so units must provide food. Milk (and a trick used in Iceland, herring) can be used to boost the horse. Horses however require lots of water. In normal conditions this is no

problem but could pose problems in the world of 2000 (especially as horses will not drink water that has had water purification tablets added).



Illustration 5: Soviet paratrooper believed to be from the 104th Air Assault Division in Iran mid 1998 (Sovphoto)

Surprisingly one of the areas with the greatest use of horses is the (relatively) oil rich Iran. Here the rough mountainous terrain in the central and west of the country has resulted in their increased use. 2/7 Royal Gurkha Rifles have now adopted techniques from the nineteenth century French Foreign Legion for the two companies which are being used for patrol operations. A typical long range patrol of eight men will have four ponies which carry the men's equipment. The soldiers in pairs



Illustration 6: 2/75th Rangers extracting south as part op Operation Pegasus II (Fanya Wilkinson)

Air Assault Division in take turns riding the pony. This has found to be an effective way of increasing operational mobility in theatre.

In typical army manner, nicknames exist for different cavalry units. The British Army nicknames for example are:

US Army – John Waynes

US Marine – Real John Waynes (the emphasis on the first word varies considerably depending on if sarcasm is intended).

German – Ulhans (this is rarer than the other terms)

Polish – Lancers (occasionally Pointy Sticks)

Russian – Cossacks (note that the name includes all types of Russian cavalry not just those who are from the Cossack regions). This has even been found in official war diaries of units. Occasional references have been found to Steptoe Wagons – these are believed to refer to tachankas.

Canadian – Mounties or Malcoms

Iranian – Short Camel Jockeys or Humpless Camel Jockeys

Other areas where horses have proved successful on a large scale include the United States where a large supply of horses in certain areas added to a romantic liking for them has resulted in a large number of local militias using them extensively. In addition a number of units in both the MILGOV and CIVGOV forces have been raised.

The Mexican Army surprisingly still had a number of cavalry regiments pre-war. These were felt ideal

"We learnt from an American prisoner the trick of feeding our horses a little meat mixed in with their feed for extra speed. We would have used it more but even we had difficulty stomaching the meat and we loved our horses."
Sergeant Ivan Dostory
Division Cuba

for border patrols with the US and allowed small stealthy patrols on the border which were less restrained by terrain than wheeled vehicles. Once the invasion of the US began, Mexico found that it's indigenous arms industry (and poor economic position to allow purchase abroad) would result in difficulty in replacing the armoured vehicles that were being destroyed in the intensive fighting, Using the resources available in captured Texas in addition to native animals, the

Mexican Army has equipped many second line and paramilitary units with horses and it is reported that the Soviet Division Cuba also has a horse mounted element. With typical military humour these are frequently referred to by Americans as "Banditos" and "Injuns" respectively. Ironically the Russians had already referred to US mounted troops as "Cowboys."

MILGOV too is using a number of cavalry units in Texas, the largest is the 1/51st Cavalry formed from Parsons' Mounted Cavalry which was part of the Corps of Cadets at Texas A&M University (part of the ROTC). This unit which is approximately 200 strong has been active since the Mexican invasion.

The Last British Mounted Cavalry

Prior to the Twilight War, the last mounted cavalry regiment in the British Army, the Queens Own Yorkshire Dragoons had converted to an armoured role on 1st March 1942. Retained however were the Household Cavalry Mounted Squadron and King's Troop Royal Horse Artillery in a ceremonial role.

Originally one of two horsed cavalry units in the US Army at the start of the war (the other being the Horse Cavalry Detachment of the 1st Cavalry used for re-enactment displays), the unit has recently been withdrawn to Northern Texas to rest and refit (the strength includes the replacements undergoing training) after taking a large number of casualties in fighting while undertaking a series of raids towards Brownsville. Their commander Colonel Paul Dalancie is a (rapidly promoted) member of the ROTC who was a mature student studying electronics at the start of the war. Many locally recruited troops feel the Texas should become independent and are waiting to see who comes out on top before declaring for any local powers. Other units are in reality

small groups of guerrillas (although the distinction with

"What a lot of new cavalry don't get is the way that you can't just duck like an infantryman when you are on a horse. Mind you people tend to learn fast these days. Well, at least the survivors do. You need to dismount BEFORE you come under fire.

There are occasions when the enemy appears close and the best bet is just to go straight for them still mounted. A horse is very big and intimidating coming at you, especially if the rider is firing (however inaccurately!). Only snag is if they keep their nerve that just makes them a big target that isn't making any lateral movement..."

Captain Kenneth Groves 9/12 Lancers

marauders has become more and more blurred for these).

The United Kingdom has seen little use of cavalry, mainly due to the low availability of horses. Some marauder groups have started to make use of

have started to make use of **Illustration 7: Advanced cavalry** them, often for the intimidation **training at Portsmouth. (MoD)** factor, particularly as

automatic weapons are rarer in the UK. The Royal Army of Scotland

and Welsh National Army are however bigger users, equipping units with ponies for patrols in the mountainous interiors. The British Army has now started to ship back cavalry units however so their use may become more widespread



Illustration 8: British Army cavalry training Portsmouth June 2001 (Life Magazine)

The Dicken Medal

This is the highest award that can be granted to an animal in British military service. By January 2001 it was recorded that twenty six dogs and eighteen horses had been awarded it since the start of the war.

(assuming remounts can be found) and the British Army Riding School has been established in Portsmouth (despite the name it also trains troops from the other arms, mainly the Royal Marines for the Navy and the RAF Regiment for the RAF). British cavalry still use the excellent 1912 Universal Pattern saddle introduced in that year. This has the excellent property of being



Illustration 9: Col Paul Scott (late Royal Horse Artillery), commandant of the British Army Riding School (Life Magazine)

fully adjustable to any size of horse. It is used with the even older Universal Pattern bridle

The Russian Army had disbanded it's cavalry divisions in 1955 but a number of smaller units were retained. By the start of the war, the largest of these was squadron sized used as border patrols in some of the smaller republics, again using the horse's superior mobility over poor terrain (and the lack of a

Pact Cavalry Organisation

- A Warsaw Pact cavalry division is officially made up as follows:
- * Divisional Headquarters Company
- * Signals company
- * Service company
- * Tank Regiment this is theoretically part of the division but is often missing [not seen one yet!]
- * Artillery Regiment [often horse drawn]. Usual organisation 2 mortar battalions and 1 gun battalion [seems to be often replaced with an AT battalion with Rapira-3]
- * Engineer company
- * Three cavalry regiments of four troops each [often amalgamated] Tchankas are held at troop level.

US Army Intelligence Summary 1999 (the items in brackets are the handwritten additions in the copy belonging to the New Library of Congress collection.

offensive in southern Poland that was changed to the counter-attack against the NATO summer offensive). The first cavalry division to be formed as opposed to re-rolled as cavalry was the 89th Cavalry Division which was a category III division that was intended to be a Motor Rifle Division. The Ural Military District however was by this point unable to equip the unit as such so the decision was made to equip it as cavalry for an internal security role in Romania.

Poland has taken to using cavalry and has hit upon a unique solution to encourage farmers to be willing to part with their horses. It has taken to hiring the horses and their owners, along with any carts or similar that are required. These will be

cost effective replacement unit). Aided by the larger horse population in Russia, by late 1997 some units already had mounted cavalry squadrons or even battalions particularly in China for increased mobility in

"When we found we were to be cavalry we were amazed, we knew things were bad but nobody suspected how bad. Well one person was happy, General Lesovich the divisional commander, he had been a junior officer in the cavalry in the 1950s and was overjoyed to get horses back"

Junior Lieutenant Sergi Alexander, 89th Cavalry Division

poor terrain hunting guerillas. A move to full divisional cavalry was a logical move in light of the doctrine of breakthrough tactics still being used. In mid 1998 the Soviets took the decision to authorise the conversion of two Motor Rifle Divisions to cavalry, the 43rd and 98th. In late 1999 these plus the 89th Cavalry Division were brought together as the 22nd Soviet Cavalry Army and assigned to the Baltic Front. German intelligence documents recently declassified suggest that for this was intended as an attempt to create a unit that was capable of breakthrough action without the need for large amounts of fuel (this may have been in preparation for the 2000



Illustration 10: German cavalry rest somewhere in Austria March 1999. This was probably taken on a raid to gather breeding stock. It is good practice to dismount as much as possible and remove the tack as much as possible) (Bundersarchive)



Illustration 12: Technique pioneered by the 4-12th Cavalry of the US 5th Division for river crossing (collection of Sergeant Ian James)

released back to their farms for the harvest and planting periods where the cavalrymen often act as labourers and guards. The combination of payment and ability to be used when desperately needed for farming has resulted in a population that is very supportive. It has however obviously had an impact on the cavalry's mobility for part of the year.

A more normal technique used was that used by the Czechoslovak 17th Tank Division when the division was re-designated as a cavalry division in early 1998. The 2nd Army gathered as many horses as could be found in its area (including many of the famed Lipizzaner stallions from the Spanish Riding School in Vienna). In theory these horses were to be paid for but in reality many were seized and the

money that should have been used appropriated either officially by the unit or unofficially by the remount officers. A Czech breeding programme instituted on the 17th's return (and disbanding) was undoubtedly helped by the Lipizzaner stallions.

Pre-war, Switzerland had considered that cavalry would be a useful resource for reconnaissance and



Illustration 11: Training cavalry horses is a lot more complex than people realise. Here trainee Dutch cavalry horses are being accustomed to the noise and smoke of the battlefield. (Free Dutch Forces)

delivery of supplies in the mountainous areas. As a result the government had paid a subsidy to keep mules and horses to farmers (amounting to about \$500 annually in 1990). This ensured that in 1996 the Swiss government had an adequate supply of horses to requisition and as supplies of fuels and vehicle spares ran low the Swiss were able to maintain a

mobile reserve (in addition to the more road bound bicycle troops detailed below).

Europe has seen cavalry used to a fair degree but the

biggest limitation is the non-availability of horses and more importantly soldiers trained to look after them. Most armies now have cavalry

"Just remember when fighting on horseback you are fighting by committee, you and he will have different recognitions of threats, different plans and different priorities. You will both be scared and determined to be in charge. A good cavalryman is one who can be in charge MOST of the time." Sergeant Jenny Whitefeather 4-12 Cavalry, 5th Infantry Division "Death of a Division" New York Military Books 2019

animals increasingly. Many an officer has faced resistance (both verbal and physical) and many tavern stories revolve around how one was tricked.



units but officers seeking remounts are an alarmingly

common sight for European farmers who rely upon the

Illustration 13: Chinese cavalry in May 1995 (Chinese Information Ministry)

When the Russians invaded the Chinese Army still had a number of horsed cavalry units for both border patrols in rough terrain and emergency civil disaster relief. These spent the first months of the war in a cat and mouse battle with Soviet patrols in terrain that was too rough for the Soviets to use their superior vehicle mobility to great effect. Eventually though the winter conditions and an intensive operation by two soviet airborne divisions resulted in the destruction of the larger groups. As the war has progressed, the Steppe ponies have been widely taken into service by both Soviet and Chinese armies. With the widespread dispersion of unit caused by widespread use of NBC weapons the ability to graze these hardy ponies has made their use much more practical. At least one

cavalry verses cavalry battle was reported by the US Ambassador to China when he was returned via the Soviet forces.



Illustration 14: British cavalry horseshoes being produced for US troops moving towards Bremehaven, Paderborne September 2000 (Life magazine)

It is also worth noting that the logistics tail of a horse unit is much larger than most people think - a typical cavalry squadron of four troops totalling 132 men requires 18 wagons at full strength according to British doctrine, more if long distance moves were required. These are split 2 per troop, 2 for headquarters troop, 1 for the veterinary section (composed of a vet and three untrained assistants), 1 for the farrier and saddler (supplementing the items carried by each individual trooper), 1 for the remount section, 1 for the medical section (this is often expanded if required – often from the troop wagons but sometimes from locally acquired ones) and 4 for the logistics section. As an example of the need for such a large logistic train, horseshoes are expected to

last for four to six weeks of normal cavalry use.

As a result the tactical mobility of a horse is high (although severely reduced in bad terrain) but the operational mobility due to the logistics train is only slightly higher than non-mechanised infantry. One big advantage however is that the ground covered may be higher as units can disperse further than mechanised units and concentrate faster than foot units. Consequently cavalry have taken over much of the role that recce units had previously and many infantry units have a small number of horses for their recce patrols.

casualties were increased as

Illustration 16: Although taken from a Soviet military magazine of 2009 this shows an example of effective NBC a horse in post war camouflage that gives credence to stories of similar equipment being available during the war years (often put down to being NBC suit experiments).



demonstrating an interesting recoilless rifle captured from marauders. The original caption in Time magazine helpfully pointed out this was most definitely not designed to be fired from the mount! (Josh Gibson)

protection for a horse with what remained of the industrial base. although rudimentary masks had been created in the First World War and some were produced. As a result cavalry units made efforts to acquire extra horses at every opportunity and the sight of a cavalry officer looking for remounts was a feared sight among farmers. This also led on occasion to units making raids on their own side's camps to steal horses and a number of documented blue

on blue incidents occurred as a result of this. Most units branded their horses as a precaution against theft by their own side (the best known example being the USMC badge used by US Marines in Poland documented by Oliver North for Fox News).

nobody could

create any



Illustration 17: Soviet Rapira-3 being towed. Note the locally manufactured limber and the horses used are cart horses resulting in the crew walking alongside or riding the limber removing the need for supporting vehicles. This solution was more common in areas where the front line was relatively static. (Pravda)

Another area that horses became increasingly used in the Warsaw Pact was as a substitute for mechanised towing vehicles. The biggest problem they had here was the difficulty in transporting the ammunition and crew. The end result was often that a motorised vehicle would be used to supplement the crew by transporting the ammunition and crews for the whole battery. Western nations used little towed artillery and as a result very rarely used horses in this role. Harnesses were initially a major problem as few realised the difficulty of getting this correctly sized for the different sizes of horse breeds and several attempts were needed to build them the right size (even using historical items from museums was not ideal as these were rarely scaled for the horses available).

In rules terms horses should be treated as vehicles having a wear value and a maintenance number of 12 (if left to rest then maintenance drops to 6). If a horse is only grazed and asked to do any work then the wear value will increase temporarily by 1 and will increase permanently by 1 on a D6 roll of 1 on 1D6 per period of light work or 1-3 for heavy work.

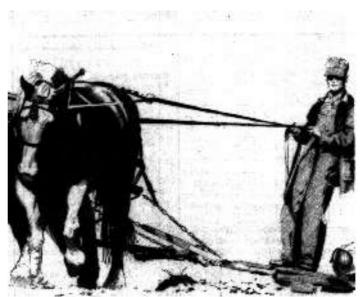


Illustration 18: Unidentified Polish cavalryman with a horse (obviously not his mount as it is the wrong breed) assisting in ploughing. (Duchy of Warsaw Museum)

trailer used by weapon teams. The example photographed in France is of German manufacture but captured from a Dutch unit.

commandos landing on D-Day were issued them for exactly this reason although many abandoned them on landing). German troops retreating from Holland in August 1944 made extensive use of confiscated bicycles (indeed even in the years leading up to the Twilight War, German tourists were still being greeted with "give us our bicycles back" by the Dutch). The German late Second World War raised Volksgrenadier Divisions used bicycle equipped troops to provide a recce element in lieu of motorised recce. They were also used very successfully by the Japanese during their invasion of Malaya when the troops who had a very limited

logistic chain used bicycles (mainly civilian ones

"We were briefed that if the church bell rang we were to all get on our bikes and ride like hell to the church when the officers would brief us. It worked too, actually just ringing the bell drove off the marauders once." Patrick Harris Militia member, Mansfield

2. Bicycles

A major alternative to the horse was pedal power with many countries lacking the horse breeding programmes necessary for cavalry using bicycles. Military use of the bicycle goes back to the 19th century when most western nations created units (often made up of part time volunteers). They were used in combat in a number of cases although their use declined during the First World War. In the Second World War Hungary maintained six battalions of bicycle troops (alongside cavalry and Illustration 20: Post war photo of a typical armour) in the Rapid Corps. This participated in Operation Barbarossa (the invasion of Russia). This highlighted the problems with bicycle equipped troops, namely the logistic trail does not fit well with the troops, despite perceptions the units were heavily reliant on roads

and that troops who cycled were unfit for combat (in game terms travelling by bike counts as a period of hard work for fatigue purposes). They were however useful for short range rapid movement (British



Illustration 19: Swiss Army Bicycle Regiment captured during the training in late 1996.

advance) to keep on the heels of the retreating British. Post World War Two a number of countries continued to have bicycle infantry units (Sweden for example only re-rolled the bicycle battalions in the late 1980s and Switzerland still had them at the start of the war).

Bicycles are also capable of being used as load carrying devices, a method used extensively by the Viet Cong in the Vietnam War. The bicycle is loaded with the equipment to be carried and a pole used to help steer it. Veteran US troops are known to have passed on this tip and it has been seen used regularly in Europe where the sight of refugees or small scale merchants using a bicycle for this is now very

common.

By the summer of 2000 one of the major users of bicycles was the Krakow ORMO. The part time companies are encouraged to buy (at a subsidised price) one of the locally produced bicycles (while still not cheap they are a very attractive offer to the militia). This policy is intended to allow the fast concentration of the militia in an emergency. With relatively intact road network in the city this policy has worked well and approximately 75% of the part-time ORMO are bicycle mounted. Whilst many communities followed a similar approach Krakow is perhaps the best documented and had the highest percentage of bicycles (mainly due to the local production facilities).

In the Warsaw area the defenders of Warsaw used bicycles far less (mainly due to the rubble caused by the conventional fighting and nuclear strikes). They did however maintain a small pool that were issued to units that were using them for patrols outside the city. The Baron on the other hand had used bicycles to give a degree of mobility to the Fourth and Fifth Warsaw Companies of his army that were used to patrol the roads.

Russian troops have used bicycles less than their NATO opponents but even here it is common for a division to include at least one battalion on bicycles (or equivalent, often it is broken down into companies to give each brigade an independent recce unit).

The German Army has taken to using bicycles heavily in an internal security role. Each German infantry and panzer division will have a rear area security battalion of fusiliers (fusilier hintere Bereichssicherheit)mounted on bicycles and each brigade its own company (the exception to this is the Gerbesjaeger who instead of bicycles use horses or ponies due to their mountain role). These are tasked with patrolling the roads in the rear of the unit to keep them free from marauders. By the spring of 2001 many divisions have added a second battalion to the role with each having one of the three companies mounted in vehicles as a quick response force. As Illustration 21: German fusilier yet the brigade component has not been increased. The exception to this is the 1st Panzer Division which temporarily mounted it's entire 2nd Panzer Brigade on bicycles during the



photographed on the outskirts of **Bremehaven November 2000**

American Operation Omega. In December 2000 the division officially reorganised the brigades to have two over-strength companies each in order to deal with the large number of troops that missed the deadline. The companies consist of two bicycle mounted fusilier companies and two fusilier companies mounted in assorted HMMWVs left by the US Army. Each of these platoons include at least one ATGM armed HMMWV in response to the expected number of vehicles in the area. The divisional fusilier battalion was not expanded but the third company had it's bicycles replaced by Marders as a quick response unit. In March 2001the fusiliers adopted the tan colour beret as a mark of distinction.



Illustration 22: Dutch cycle troops photographed in late 1999. Unfortunately no details of the unit are available.

Illustration 23: A folded down

bicycle being unloaded for trials

The Dutch were (pre-war) a nation where the bicycle was a common form of transportation. With the French invasion many Dutch units requisitioned bicycles to gain local mobility. The 105th Recon Battalion was quickly outfitted with bicycles during the French invasion and used them to quickly move into blocking positions around Arnheim. French reports indicated that they believed the

105th had been reinforced by a second battalion due to the skilful Dutch local counterattacks. The 302nd Reserve

Infantry Brigade which was being used for internal security duties had already converted one battalion to bicycle borne and was part way through converting a second when it was attacked by the French 8th Marine Parachute Regiment in the Breda-Tilburg area. Initially the 302nd was successful but as French reinforcements arrived it was forced to withdraw to the Rhine

fighting in small elements

at Fort Dill September 1998 using the bicycles to break contact and withdraw before repeating the delaying actions. The surviving elements that did reach the Rhine were primarily the ones equipped with bicycles. To commemorate this the 302nd adopted a yellow bicycle badge on a black background to be worn on the lower right sleeve.

American troops were not as big users of the bicycle. No formal adoption of the bicycle was ever made (a number of models had been purchased in low numbers for trials but the nuclear exchange



Illustration 24: An alternative model undergoing road trials from the same footage.



Illustration 25: US troops believed to be from the 1st **Armoured Division in October** 2000. Note the different types of bike and the locally manufactured stowage on the bike to the left.

stopped any formal adoption) but many units acquired them for local mobility. They were however a frequent sight during Operation Omega as the troops headed for Bremehaven. Here troops were using every opportunity they could to ensure that they were not left behind. As a result everything available was commandeered, particularly when motor transport broke down or ran out of fuel.

The British Army has also been known to use bicycles. In a scene very reminiscent of 6th June 1944, 41 Commando landed on the outskirts of Harwich in mid 2001 and using bicycles moved around the town to attack from an unexpected direction, catching the local marauders by surprise.

Switzerland with its large citizen militia also took to the bicycle as petrol supplies ran low. In addition at the start of the war there was even a regular army unit the Bicycle Regiment known as Radfahrer Kompanien (bicycle soldiers). For the reservists, stocks of bicycles were requisitioned from the community and each battalion was issued enough to supply a company. These were stored at the headquarters and were to be used move the first company to assemble to the battalion's battle position

with the remainder arriving on foot as soon as possible afterwards.

Illustration 26: British and American troops in Iran hold a jousting tournament in January 2001. No evidence has yet come to light showing the alleged 75th Ranger/5th SFG variant using motorcycles.

Outside of Europe bicycles were far less common, in Iran the availability of fuel reduced the need although some where obviously deployed there or bought locally as evidence has surfaced of their use (although predominantly they appear to have been used in base areas). In America the vast distances reduced their use to local areas. Militias have been known to use them in the same way as in Poland to gather the part time troops together in an emergency.