

# Armor Battles on the Eastern Front

(2) Downfall of the Reich 1943-1945

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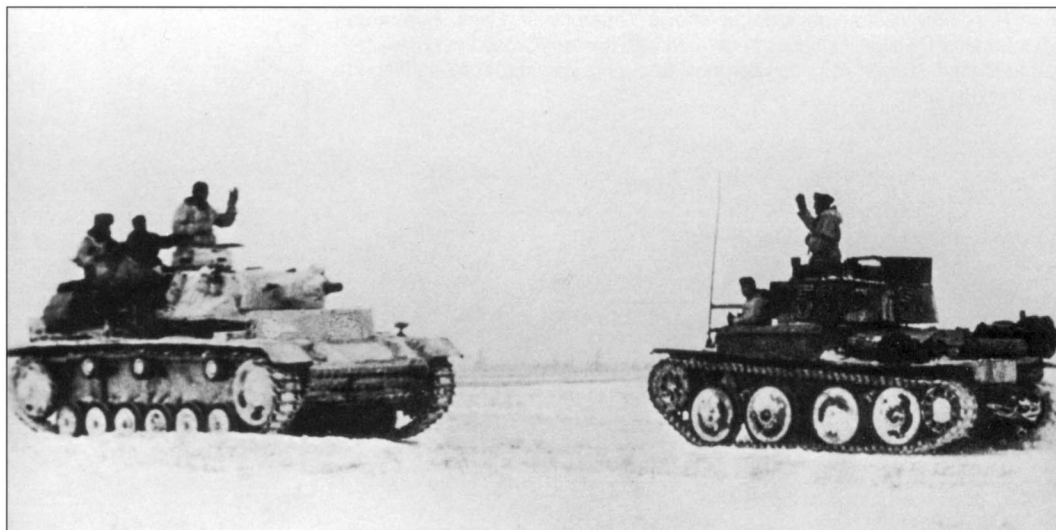
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Greetings from brothers-in-arms. At the right is a Hungarian Pz.Kpfw. 38(t) from the 1st Armored Division. It has the large tactical number "52" painted on each side of the turret. At the left is a white camouflaged Pz.Kpfw. III Ausf. N from a German armored division. The Hungarian armored division was smashed during the Soviet offensive at Voronezh in January 1943.



This wreck of a Pz.Kpfw. III Ausf. J from 9.Panzer-Division was photographed in January 1943 at the central part of the Eastern Front. The tank is painted dark yellow and the unit emblem is visible on the right part of the frontal superstructure plate. The road wheels and tracks were "borrowed" by other crews to improve the protection of their tanks against anti-tank rounds.

A Pz.Kpfw. I Ausf. B abandoned by its crew during the January fighting for Velikiye Luki on the Kalinin Front. It is unarmed, which could indicate that it was used as the armored personnel vehicle for a staff sub-unit. Note the markings on this vehicle. The unit emblem is clearly visible on the hull, and on the opposite side of the hull is a tactical sign. Beneath the turret is the name of the tank – "Schorse".





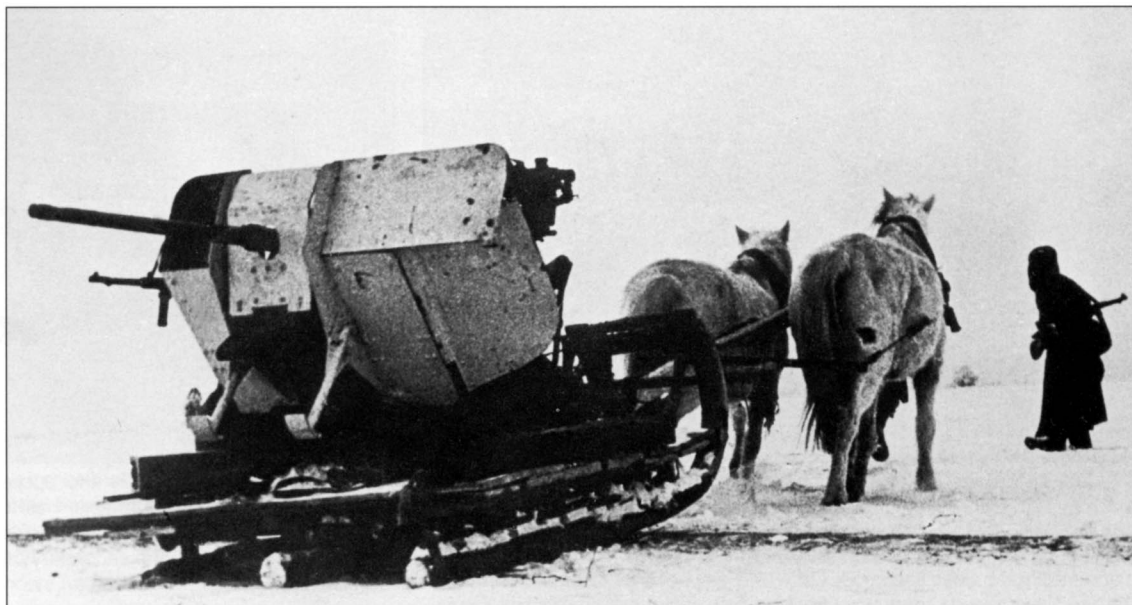
This very casual photograph shows Unteroffizier Hans Hoff from 98.Infanterie-Division. Hoff was decorated with the Iron Cross First Class for capturing a T-70 with its complete crew during the January 1943 fighting in the Vyazma area.



Are these Germans testing a new captured Soviet tank? No, it is only a dummy "T-70" tank constructed of wood and fabric. The Soviets started to employ such "weapons" beginning in the summer of 1942, and they were sometimes quite successful. On occasion German reconnaissance aircraft identified them as groups of new armored units on the front line.

Seen here is a medium anti-aircraft artillery piece installed on a 5-ton Daimler-Benz L-4500R Maultier truck with a half-track chassis. This was quite a rare combination; usually 3.7cm Flak 38 guns were installed on half-tracked tractors, which were stronger than the trucks. Note the strange style of gun camouflage — it indicates that the barrel may have been replaced a short time before the photo was taken.

This is entirely different sort of mobile anti-aircraft artillery — a 2cm gun with a heavy armored shield installed on a sled commonly used in Soviet villages. Improvised use of such vehicles by various units that had lost all of their trucks led to the later organization of entire batteries with specially fabricated sleds.

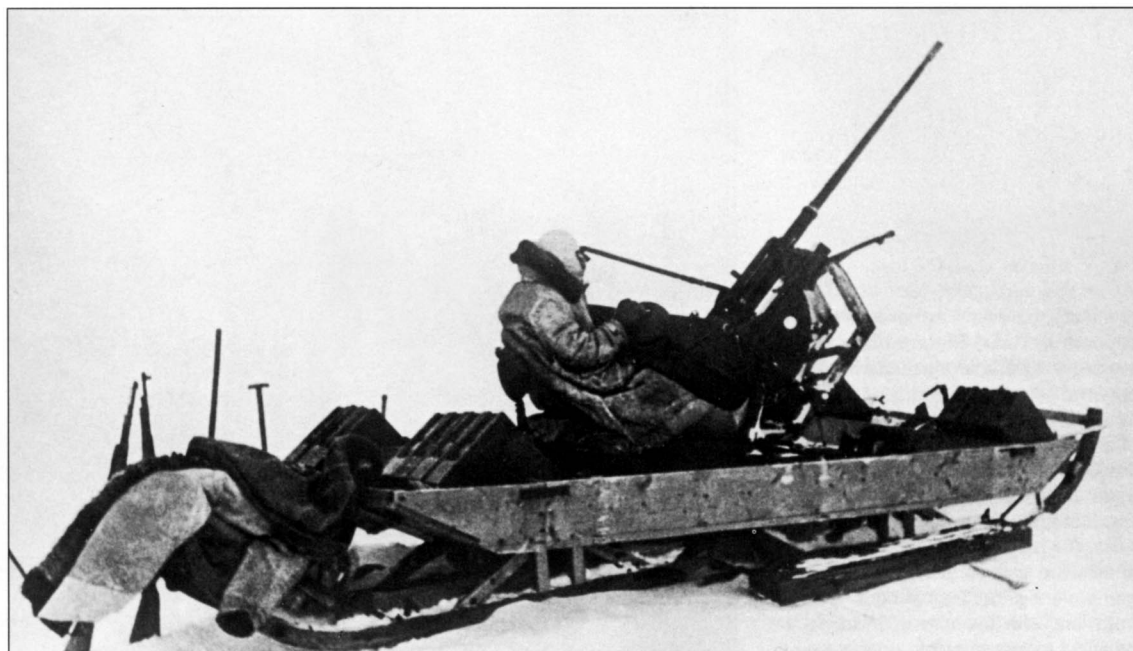


The same type of 2cm gun but the sled is different. It looks like a civilian one that was altered for the installation of a gun. The horses hauling such carts led a hard life, and the losses among these charming animals must have been very high.



An entire battery of 2cm guns is visible in this scene, including the "support vehicles" — one for each gun — that carry the ammunition. This was probably the most amazing sort of "self-propelled artillery" seen in Russia since the Soviet "Tachankas" armed with Maxim 76.2mm heavy machine guns, who won the Bolshevik revolution and then the civil war in Soviet motion pictures.

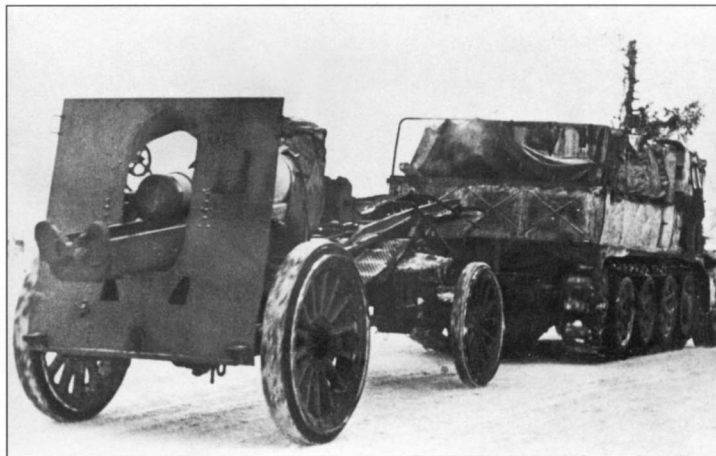
Here is another improvised artillery sled. Manufactured by field workshops, it features a top secret invisible "combat compartment" for the 2cm gun and "storage spaces" for the ammunition boxes, where the rest of gun crew could be transported.



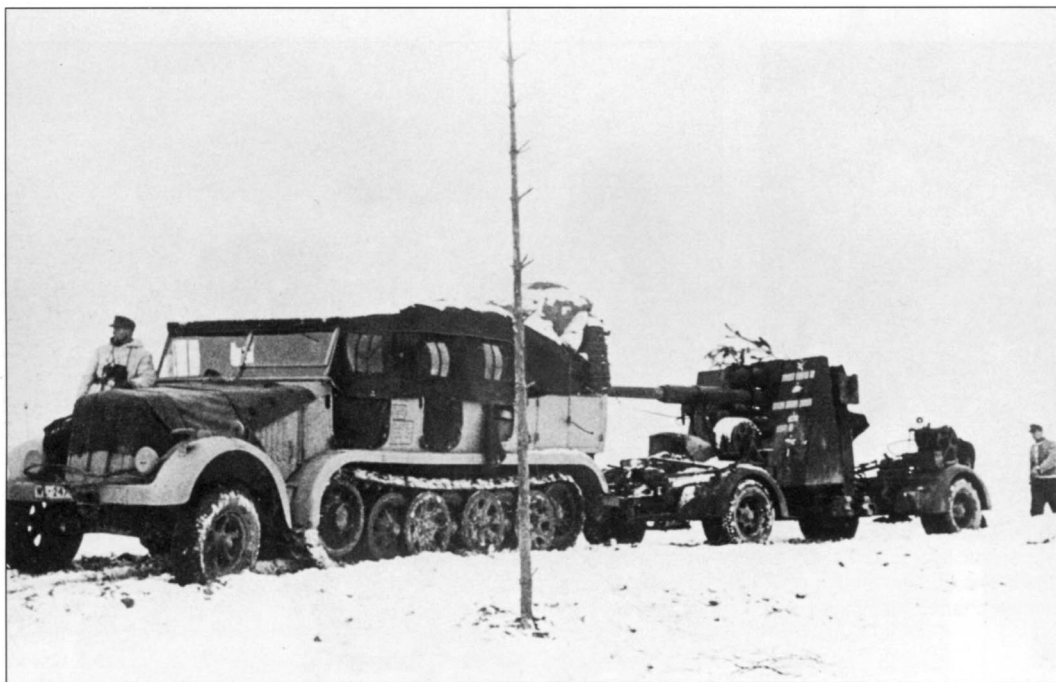




The final stage in the evolution of the Panzerwaffe motorization. Here a 3.7cm PAK 36/37 gun is towed by soldiers during the winter of 1942/43. The specially prepared skis for these guns were quite common among the German units during this winter season.



Within the Panzerwaffe the opposite of the makeshift horse-drawn vehicles were the strong, mobile half-tracked tractors used to transport a variety of artillery. Unfortunately, they were produced in too small a quantity throughout the war, so the secondary units had to use horses. This is a 12-ton Sd.Kfz. 8 prime mover with an incomplete 15cm sIG 33 gun.



Another Sd.Kfz. 8 tows an 8.8cm Flak 36/37 gun belonging to a Luftwaffe unit. Of special interest is that both the half-track and the gun are not painted with white camouflage. The Sd.Kfz. 8 wears the standard dark yellow camouflage with white tactical markings on the right mudguard, while the Flak gun is painted in dark gray with white victory markings. There are 14 victory markings for aircraft (the row on the top), 18 for combat against tanks, 8 for strong points and one for the destruction of a balloon. The rear of the vehicle is loaded with plenty of personal gear and ammunition.

Armor and armored infantry support of II.SS-Panzer-Korps move towards Kharkov through a snow-covered steppe in early 1943. The struggle for Kharkov changed the style of armor battles on the Eastern Front. In the earlier period armored units were used in cooperation with infantry to conduct raids deep into enemy territory. After the winter of 1942/43 armored units were independently employed in maneuvering battles without a static front line with the aim of inflicting the heaviest losses possible on the enemy.





A column of Soviet mechanized troops that were surprised by Germans from the rear and exterminated. In the foreground are two T-60 light tanks with white camouflage. Note that only half of the hull rear plate was painted with white removable paint on both vehicles.



A dumping ground for Soviet armor destroyed in battle and then gathered from the killing fields. All vehicles seen in the first row are T-60 tanks rebuilt into the BM-8-24 vehicle, the so-called "Stalin organ". These "combat machines" (from BM - Boyevaya Mashina) were first produced in the late autumn of 1941 on the T-40 and T-60 chassis following the removal of the turrets and the installation on their mounts of special scaffolding for M-8 missile launchers.

StuG III Ausf. F armored vehicles from StuG.Abt.243 are prepared for combat in the early spring of 1943. The unit emblem is visible on the StuG in the center, just under the crew member in the hatch. Note that the frontal part of the hull is up-armored with additional plates. The StuG is painted in dark yellow camouflage with unusual green blotches.



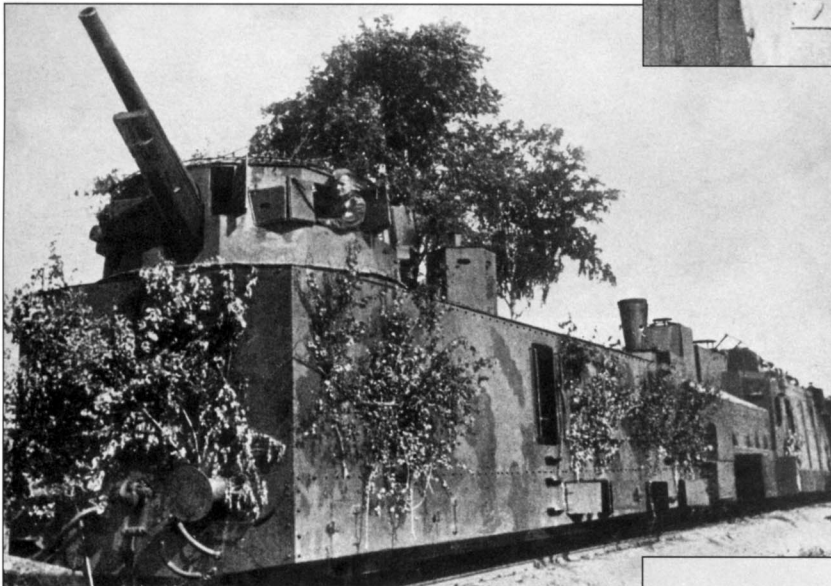
These four 8.8cm guns from two different batteries of "Flak trains" were photographed while guarding a railway station. Note the two different types of wagons used as platforms for the guns — both are armored, but they are constructed with slight differences. The wagons at the left are painted in the spring camouflage pattern (green on a dark yellow background), while those at the right wear the old type of camouflage: dark gray with remnants of winter camouflage. Note the national cross on the wagon at the left; it is quite an unusual marking for these vehicles.





Following the German collapses in North Africa and at Stalingrad, partisan activity in almost the whole of Europe began to be much more aggressive. The most troublesome to the Germans were those groups that had fought in the vast forests of eastern Europe. One of their main targets was railways used by "Panzerzug" armored trains for anti-partisan actions and for defending main railway junctions against Soviet air attacks. Here is a close-up of one of the Panzerzug wagons fitted with a 2cm Flakvierling 38 anti-aircraft gun. The 2cm gun was intended as defense against aircraft, but it could also be used against ground targets. Note the style of applying the removable white camouflage.

Another shot of the same 2cm Flak 38 mounted on another Panzerzug. This one is painted in the standard dark yellow camouflage and has special markings: a black and white national cross, the inscription "Wg 7" (it probably means "Wagon 7") and two white bars. The Panzerzugs were a formidable enemy for the partisan groups because they were well armed and armored, and during action they used their great firepower at close range with very destructive results.



The Germans also used captured Soviet armored trains, like the one shown here, to fight against the partisan groups in eastern Europe. Before being sent into action it was repainted with German colors: dark yellow and (most probably) green. Note the heavy foliage camouflage — it wasn't used for camouflage against partisans, but against Soviet aircraft.

Another type of Panzerzug originally produced by the Germans is shown here in a photograph taken in June 1944. The platforms seen here are not true armored wagons, but standard railway equipment prepared for combat use. The most interesting is the wagon in the middle with a Pz.Kpfw. IV mounted on it, which was used as an improvised artillery wagon. The Pz.Kpfw. IV is without its tracks, and the crew has used wooden boards to conceal the sides of the tank. The flatcar in between the armored wagon and the gun car was used as a transport wagon for the Pz.Kpfw. 38(t) tank.



During the spring and early summer of 1943 the Germans planned and carried out operations against Soviet partisan actions. This photo shows such an operation, and the use of a StuG III Ausf. F that is painted in spring camouflage (brown or green pattern on a dark yellow background). A unit emblem is just visible on the left part of the hull's rear plate.



Even though the anti-partisan operations could be described as successful, their actual achievements were far from satisfactory, so the German units had to fight almost non-stop with small partisan groups, which directed their assaults on lonely strong points. Here a StuG III Ausf. F participates in anti-partisan combat. Note that only the side of the superstructure and frontal part of StuG are painted with camouflaging blotches, while the rear and chassis of the vehicle are dark yellow.

Another StuG III conducting anti-partisan sweeps enters a village. This vehicle is an old version, probably from the Ausf. C or Ausf. D series, put into service again in 1943 for second-line duty. During the overhaul the vehicle received the new paint scheme typical of that period — a dark yellow background with a camouflage pattern (probably green). Note that this pattern was painted on all of the tank equipment. On 1 June 1943 there were only 142 old StuGs in the Panzerwaffe, but that number increased so that there were between 220-225 such vehicles in the last months of 1944.



The most famous event of 1943 was, of course, Operation "Zitadelle", the largest tank battle in history. Here two tanks belonging to 7. Panzer-Division move into position to prepare for battle. The tank in the foreground, an old model Pz.Kpfw. III rebuilt to the Pz.Bef.Wg. III standard, is equipped with a dummy short 5cm gun and is devoid of a machine gun in the superstructure. It carries summer camouflage (green pattern on a dark yellow background) and division markings on the superstructure frontal plate.





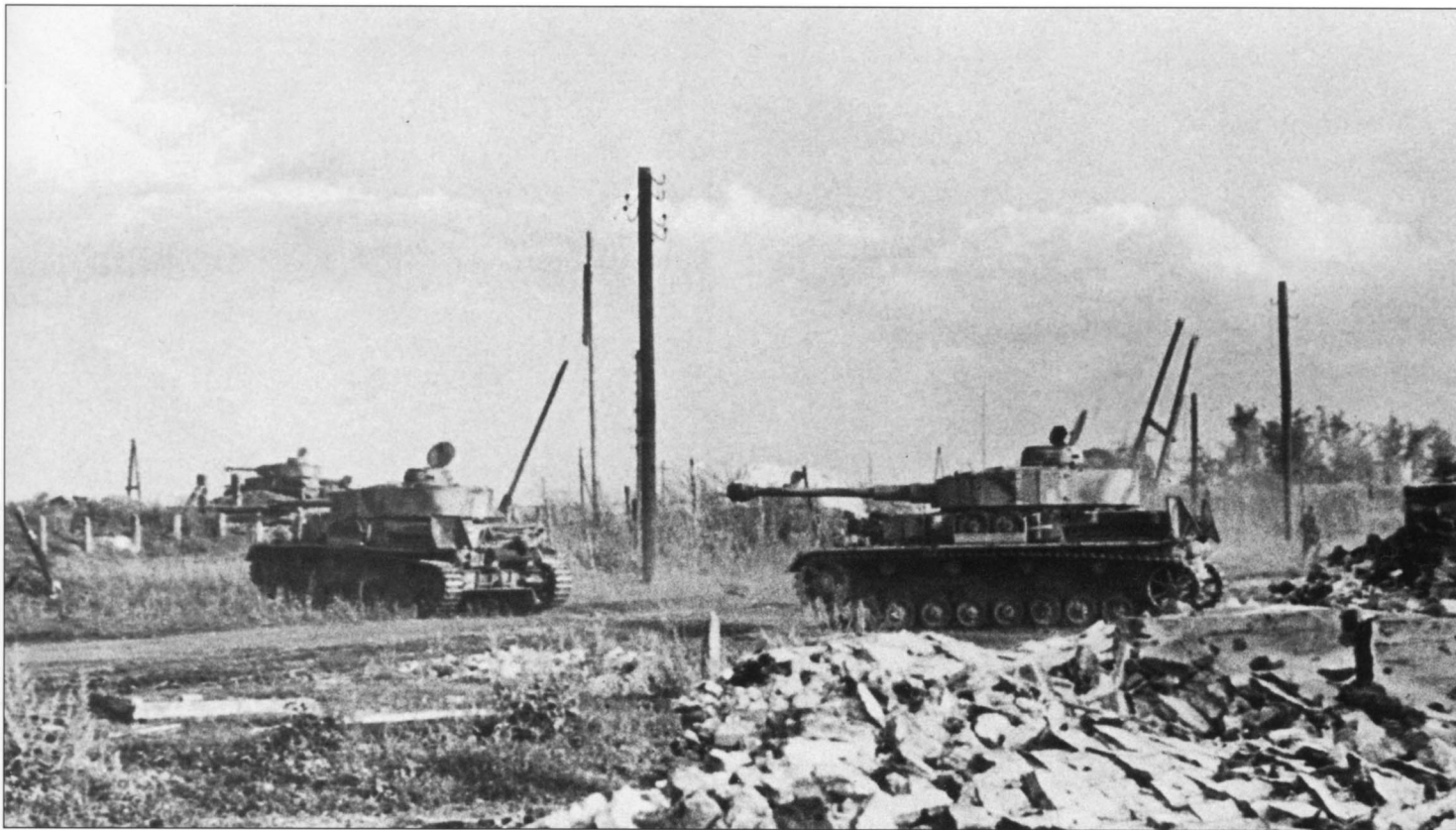
A column of Pz.Kpfw. IIIs from an unidentified division. The tank at the right is the standard version, but the one at the left lacks additional mantlet armor. It also features a very strange, square-shaped hatch in the superstructure frontal plate where the machine gun position should be. Behind this tank is a Pz.Bef.Wg. III Ausf. H fitted with a dummy 3.7cm gun. Note that none of the tanks seen in this photo have side skirts.



SS armored troops close in on an enemy position across the steppes from the Kursk area in preparation for Operation "Zitadelle". Note the tactical sign painted near the door of this Sd.Kfz. 250/1; it indicates the 2nd company of a reconnaissance battalion of a Panzer-Grenadier division. In the background are three other Sd.Kfz. 250s, and behind them are two Pz.Kpfw. Vs. The II.SS-Panzer-Korps played a major role during the July fighting in the southern part of the Kursk bulge.

This Pz.Kpfw. III Ausf. L was photographed while its crew made preparations for Operation "Zitadelle". Note the chassis — there were problems with mud in Russia even in the summer. The tank wears tactical number "232" and a Nazi flag on the stowage bin for air identification. During the battle of the Kursk bulge all types and models of the Pz.Kpfw. III tank were shown to be obsolete.





The second main tank used by the Panzerwaffe at this time was the Pz.Kpfw. IV. Already by the beginning of June 1943 — when there were 932 Pz.Kpfw. IIIs and 1,047 Pz.Kpfw. IVs available — this tank was being used in the Panzerwaffe units in greater numbers than the Pz.Kpfw. III. In this photo we see a platoon of Pz.Kpfw. IV Ausf. H with three-tone camouflage passing by the ruins of a town in the Kursk area. The Pz.Kpfw. IV was better in combat than the Soviet T-34, and the quality of German steel was better than Soviet's.



The best medium tank of the second part of WWII — the Pz.Kpfw. V Panther — suffered from some technical problems in the middle of 1943. Nevertheless, it was a very dangerous weapon to the Soviet tank crews, who appreciated the tank very much. Here a soldier poses with a Pz.Kpfw. V Ausf. D belonging to the staff of an Abteilung. The tank is marked with the two-color (red outlined with white) tactical marking "A13". Note the camouflage of the tank; it is covered with solid coat of brown and green spots, so the dark yellow color is only occasionally visible. The Ausf. D had no machine gun in the glacis plate, this being the standard for the tanks and self-propelled guns of the Panzerwaffe during this period of the war.



Of course there was no lack of StuGs in Operation "Zitadelle". Many of the German divisions were supported by a StuG.Abt., which in some cases were subordinated to a given division for weeks. This StuG III Ausf. F is fitted with a gun barrel apparently painted in a dark color. Its frontal plates are covered with tracks for added protection against anti-tank rounds.

This is a frontal view of the scourge of the Red Army — the Pz.Kpfw. VI Tiger. The Soviets were quite familiar with this tank, and they knew before "Zitadelle" that it would be the most troublesome weapon on the ground during this operation. For this reason the Red Army command issued instructions to the Soviet troops on how to fight the Tigers. History has shown that these preventative measures were not useful, however. The tank seen here is one of the brand-new Pz.Kpfw. VIs shown during pre-battle exercises. Note the two-color camouflage of the tank. There are only two dark spots on the superstructure frontal plate, there is no camouflage pattern on the mantlet, but there is quite a complicated pattern on the superstructure side. Note that the third color of the camouflage is visible on the frontal plate of the hull.

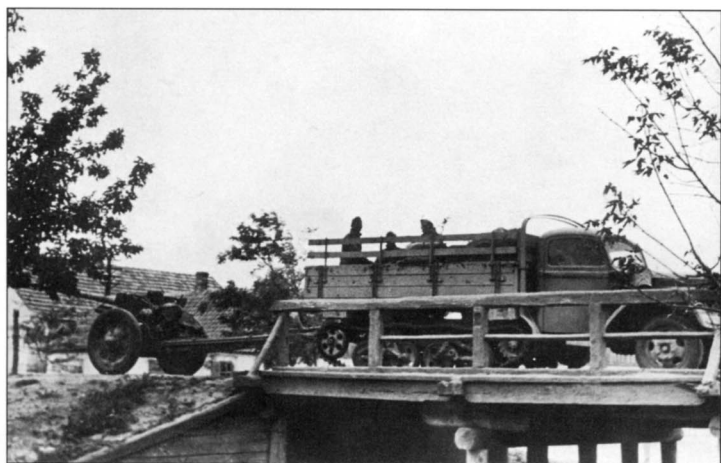


Tank units used Tigers during the fighting on the Kursk bulge — two battalions and four companies with 146 Pz.Kpfw. VIs. They lost 33 tanks, but destroyed about 30 times more Soviet tanks, many other weapons, as well as field installations. They lead almost every assault and gave immediate destructive support for attacking infantry. This photo shows one of these Tigers, which carries the tactical number "321" and is painted in a two-color camouflage scheme.



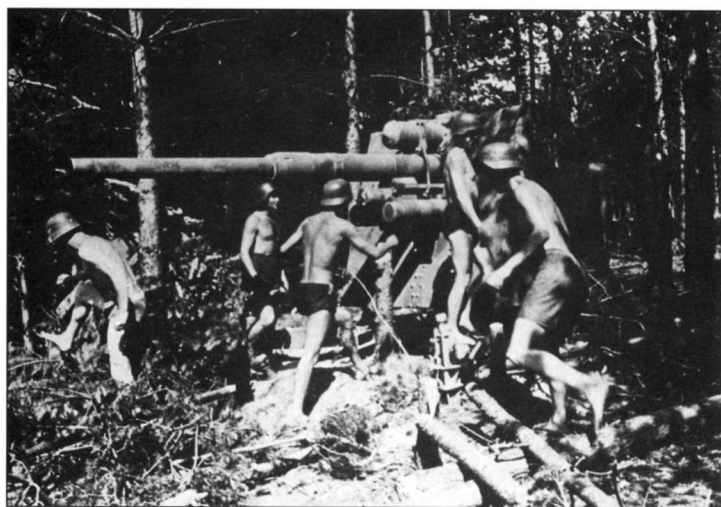


Two different sorts of anti-tank artillery are visible here, though they do have something in common — improvisation. In the foreground is a 7.5cm PAK 97/38 gun, which was improvised based on German and French elements after the Germans learned during the first two years of the 1940s that they did not have enough powerful guns to fight against heavy armored vehicles. In the background is a Panzerjäger Marder II, which was improvised on the Pz.Kpfw. II chassis with a 7.5cm PAK 40/2 gun when the Germans discovered that anti-tank guns needed to be self-propelled if combat against tanks was to be more fruitful and with fewer losses. Note the interesting camouflage pattern on this vehicle.



Another example of improvisation. This captured 76.2mm F-22 gun is being towed by a German half-track, the Ford V 3000 Maultier, which was improvised during the war after the Germans were taken by surprise by the difficult terrain of the Soviet Union . . . and the fully tracked Soviet tractors. The German divisions needed tracked or half-tracked tractors that could drag their anti-tank guns to a battle position in a field, and not the small, wheeled trucks whose use was limited almost entirely to roads. Because the Germans did not have such tractors, trucks were modified for a half-track chassis. The truck in this photo is painted dark yellow, while the gun is probably in the original Soviet color — dark green.

The importance of the 8.8cm Flak 36 gun was diminished after the introduction of heavily armed vehicles like the Tiger, Panther, Elefant and Nashorn, but it was still needed in many divisions due to the shortage of such vehicles. Here is an "88" from a Luftwaffe unit painted in a two-color camouflage waiting for the enemy at a camouflaged battle position on the outskirts of a forest. The semi-clad soldiers give a whole new meaning to the term "undress uniform".

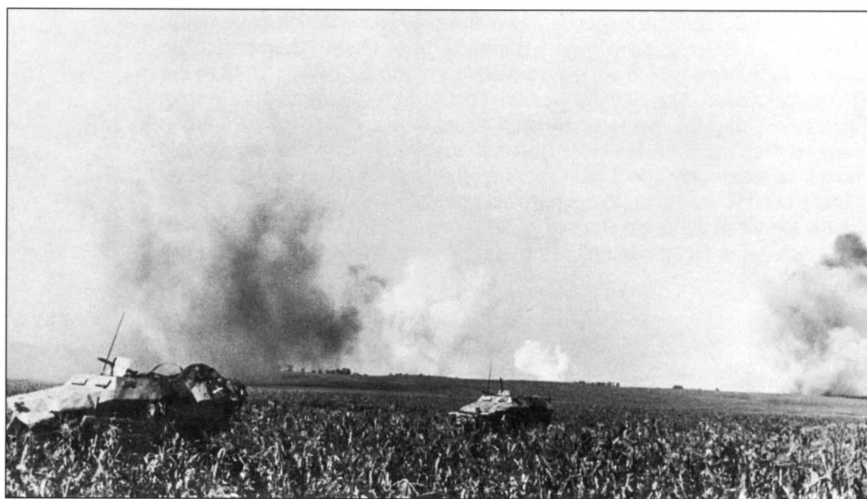




The crew members of a Soviet 85mm Model 39 anti-tank gun get ready for action. This gun was almost the equivalent of the German "88", being just a bit less powerful. An anti-tank round from this gun could penetrate 100mm vertical armored plate at a range of 1,000 meters (about 1,100 yards), while the "88" could penetrate almost 140mm of armor at a 30 degree angle.



Both the 12-ton Sd.Kfz. 8 half-track (at right) and the 8.8cm Flak 36 it is towing are camouflaged with a dark yellow pattern over dark gray. They are passing by the weapon that turned out to be the hit of the summer of 1943 — the Elephant. During the fighting on the Kursk bulge, the Elephant won immortal fame as the heaviest AFV of this period. In the following decades this vehicle was described almost solely as unsuccessful and basically inefficient in combat. This description is based mainly on one statistic — the number of Elephants that were lost, which was 39 pieces. The losses were, in fact, heavy, but they were only about 50% of the strength of Jagdpanzer Regiment 656 (comprising Pz.Jäg.Abt.653 and Pz.Jäg.Abt.654). It should be noted that the same percentage of losses was experienced in some Tiger units. The German Elephant crews forced the Soviets to pay a very high price for their victories. As of 27 July 1943, during only 22 days of battle, the Elephants destroyed 502 tanks and many other weapons. The camouflage of the Elephant seen in this photo consists of large green spots on a dark yellow background. Note that there is no tactical number.



Hanomags under fire in a cornfield. German armored personnel carriers were not as heavily armored as tanks, but they caused the Soviet infantry many problems anyway. Sd.Kfz. 251s gave support and cover for attacking infantry, so they were sometimes better protected than the Soviet infantry in trenches, whose anti-tank weapons were engaged against German tanks and could not deal with the Hanomags.

The Elefants were so heavily armored (200mm armor on the superstructure) that not one Soviet gun could penetrate their frontal armor during gun duels. Only anti-tank rounds from 152mm guns were effective in face-to-face duels, and then they enjoyed only limited success, however, if they were fired from ranges under 500 meters (547 yards). On the other hand, rounds from the Elephant's 8.8cm gun could destroy any Soviet armored target at any range, even over 2,000 meters. In this photo the crew of an Elephant is examining traces of hits from 76.2mm guns. These rounds could penetrate only about 1/3 - 1/4 of the armor plate's thickness.



One of the 39 Elefants lost was captured in almost perfect condition by the Soviets. The vehicle showed only minor damages (the frontal parts of mudguards are shot off, for example). Note the camouflage pattern that was not typical of these self-propelled guns. The inscription on the superstructure reads: "Self propelled German gun 'Ferdinand' taken into captivity, together with the crew, by soldiers of 129th Orel Division". The division, commanded by Col. I.V. Panchjuk, took part in the capture of Orel city (with 4 other divisions and 3 tank units), and it was honored with the name of the city. For many years it was thought that most of the Elefants were lost because they had no machine guns, but this is not true. Many of them were lost due to damage or a lack of fuel, not because of deadly shooting from enemy guns or infantry. The Elephant was an offensive weapon, so during retreating combat it had less chance of fighting successfully (especially in cities!), and many of them had to be abandoned on battlefields with only minor damage, like the one seen here.



Waffen-SS soldiers inspect a recent armored victim during the summer of 1943. The SU-152 seen here is probably from 689th Regiment of 5th Guards Tank Army, which was destroyed in the middle of July 1943 in the Prokhorovka area. The SU-152 was the Red Army's answer to the German Tiger tanks, and the battle of Kursk was its first action. This SPG soon received the nickname "Zvierboi" (animal hunter) because, as the Soviets claimed, it was highly effective in combat against enemy armored "animals". It is still difficult, however, to confirm this point of view because the Soviets usually identified standard German tanks — like the Pz.Kpfw. III and IV with side skirts — as Tigers, and all self-propelled guns as Elefants.



The Panzerwaffe left behind many tanks on the killing fields of Kursk. Here are two of them, a Pz.Kpfw. III (left) and a Pz.Kpfw. II (right). Both vehicles are from a staff unit, as indicated by the tactical number "R10" on the turret skirt of the Pz.Kpfw. III. The interesting camouflage pattern on the Pz.Kpfw. II is composed of dark yellow irregular patterns on a dark gray background.



What we see in this photo are the few remains of a T-34 that exploded after receiving a direct hit from an 8.8cm round. The armor-piercing rounds of 8.8cm KwK36 L/56 and 7.5cm KwK42 L/70 guns had tremendous power and easily penetrated the low-quality steel armor of the Soviet tanks produced in 1942 and early 1943.



Another T-34 destroyed by the Germans. A well-aimed round hit the tank in the engine compartment, which burst into flames. During "Zitadelle" German tank crews enjoyed complete superiority over the enemy armor. Nevertheless, the Soviets did manage to win many armored duels. For each of their own tanks or SPGs lost in the tank clashes, the Germans destroyed 4-5 enemy tanks.

After the middle of July 1943 the Germans abandoned many vehicles because they were damaged or had empty fuel tanks. After receiving repairs (often only minor ones), they were put into service in Soviet units without special paint schemes or markings. Here is one such tank — the Pz.Kpfw. IV Ausf. H, minus its rear road wheel. Note the side skirts — their lower parts are bent inward!



Soviet artillery crews showed no mercy to German armor and often shot tanks to pieces, a fate suffered by this Pz.Kpfw. IV, for example. Note the unusual cover for spare road wheels and the tactical number "732" painted on the sides of the turret skirts.

This unfortunate Pz.Kpfw. V Ausf. D was knocked out of combat during a gun duel. The tank is identified by the tactical number "834" and wears a three-tone camouflage paint scheme. Note the Russian inscription on the frontal plate. It is the unfinished word "Tigr" (without the letter "r"), which means "Tiger" in Russian. The misidentification of tanks was very common in the Red Army. Following the propaganda campaign waged prior to "Zitadelle", soldiers identified almost every German tank as a Tiger, especially Panthers, of which they knew very little. During July 1943 the Panzerwaffe lost only 83 Panthers, which was not a heavy loss (20% of their strength as of 1 July).





One of three main tanks used by the Red Army during the fighting in the Kursk bulge was the T-70. History has judged it to be a weak tank, but it was actually the best light tank of its time. After the modification of its chassis at the end of 1942 it was quite easy to drive, well armored (the same armor was used on T-34 tanks), and not badly armed. Anti-tank rounds from its 45mm gun could penetrate almost 50mm of vertical armor at a range of 500 meters, so it was almost as powerful as the 37mm gun on the M3/M5 "Stuart" tank. However, these tanks were very rarely equipped with radio equipment.



This sub-unit equipped with T-70s was photographed during exercises. Note that a few tanks in the background are still camouflaged with white winter camouflage. The tank at left has white only on its turret, while the one in the center of the photo is entirely covered with whitewash. The standard tank brigade was equipped with 32 T-34s and 21 T-70s at the time of "Zitadelle", but there were also units equipped only, or almost only, with T-34s.



The most popular tank of the Red Army during "Zitadelle" was still the T-34, of course. In 1942, after complaints by tank crew members that the KV-1 was too heavy and had too weak a gun, Soviets began to limit production of the KV-1S tank and increased the production of T-34 tanks. This proved to be a mistake, though, because the T-34 was a weaker vehicle than the medium and heavy German tanks of this period. Here a column of T-34s is led by Lt. D. Zernov in a tank bearing the inscription "From the Trade Union of Cooperative Centers".



The staff of 5th Guards Tank Corps enjoys an impromptu concert in the summer of 1943. The officer on the right is Col. A.G. Kravchenko, the commander of the unit. Note the unit markings: "52" is the code of the unit, while "02" is the tank's tactical number, which indicated the second tank in the staff sub-unit. The same code was painted on the rear plate of the turret, but a little smaller. Kravchenko used the tank with the tactical number "52-01".



T-34s advance on enemy positions through the billowing smoke of battle. Such an attack took place on the fields of Prokhorovka, for example, where the Russian 5th Guards Tank Army (with 850 tanks, SU-152 and SU-122 self-propelled guns), under the command of General-Lieutenant Pavel Rotmistrov, tried unsuccessfully to stop the advance of II.SS-Panzer-Korps (with 310 tanks and self-propelled guns). Some believe that the Soviets' frantic advances resulted in a draw, with both sides losing about 300 tanks each, but this is not true. On 12 July II.SS-Panzer-Korps destroyed 120 tanks, adding another 250 tanks on 13 July. During those two days the Waffen-SS divisions lost about 50 tanks damaged and (mainly) destroyed. Though the Soviet attack was, in fact, repulsed, on the 13th Hitler canceled "Zitadelle" due to the Allied landing in Sicily.

This T-34 from one of the Soviet brigades was photographed during the summer fighting. Note the quantity of turret markings. Though it seems somewhat confusing, it makes sense when explained. The number "14" is the tactical number of the tank, and the two bars at the rear of the turret indicate the second battalion in the brigade. In the upper part of the rhomboid marking is the number "22", which may indicate 22nd Tank Brigade from 6th Guards Tank Corps, which is distinguished from other brigades of this Corps by the bar on the mantlet.





Soviet tanks loaded with support troops attack over the vast Russian landscape. The markings on the tanks are composed of a three-digit number with a letter as a fourth digit.



This photo shows the remains of three Pz.Kpfw. IV Ausf. Hs that were shot to pieces by the Soviets after stopping near some houses in the town of Makeyevka in the autumn of 1943.



A scene like this was common only on the Russian steppes and in the fields, where the Red Army tank units launched the most hazardous assaults — as fast as possible, through smoke, dust and artillery and bomb explosions. These two T-34s were lost when they fell into a crater made by a 250 kg or — more probably — a 500 kg bomb during such a charge. The Luftwaffe posed a serious danger to Soviet armor, and there are known examples when the main tank forces of corps were lost due to air assaults. The Russian 1st Tank Army, for example, was sent into action on 14 July, but was so terribly bombarded by the Luftwaffe that its commander needed four days to reorganize. On the fifth day it was again so badly damaged by the Luftwaffe that it was withdrawn from action. The fuel drum and ammunition boxes on the tanks indicate that this unit was sent out on a long-range operation.



Here is a similar, but even more amazing situation. A KV-1 tank, which had become stuck in an enemy entrenchment, was run over by another one, which lost its right track during the accident. It vividly illustrates what soldiers could expect to see in the chaos of battle on the Eastern Front.



Russian mechanics overhaul the engine of a T-34 tank. The V-2-34 engine was a simple machine that weighed 750 kg and could produce 500 HP, but it had quite a short operating time between overhauls. Of special interest is the vehicle in the background, a German Sd.Kfz. 251 half-track APC captured by the Soviets and adapted to recovery duties.





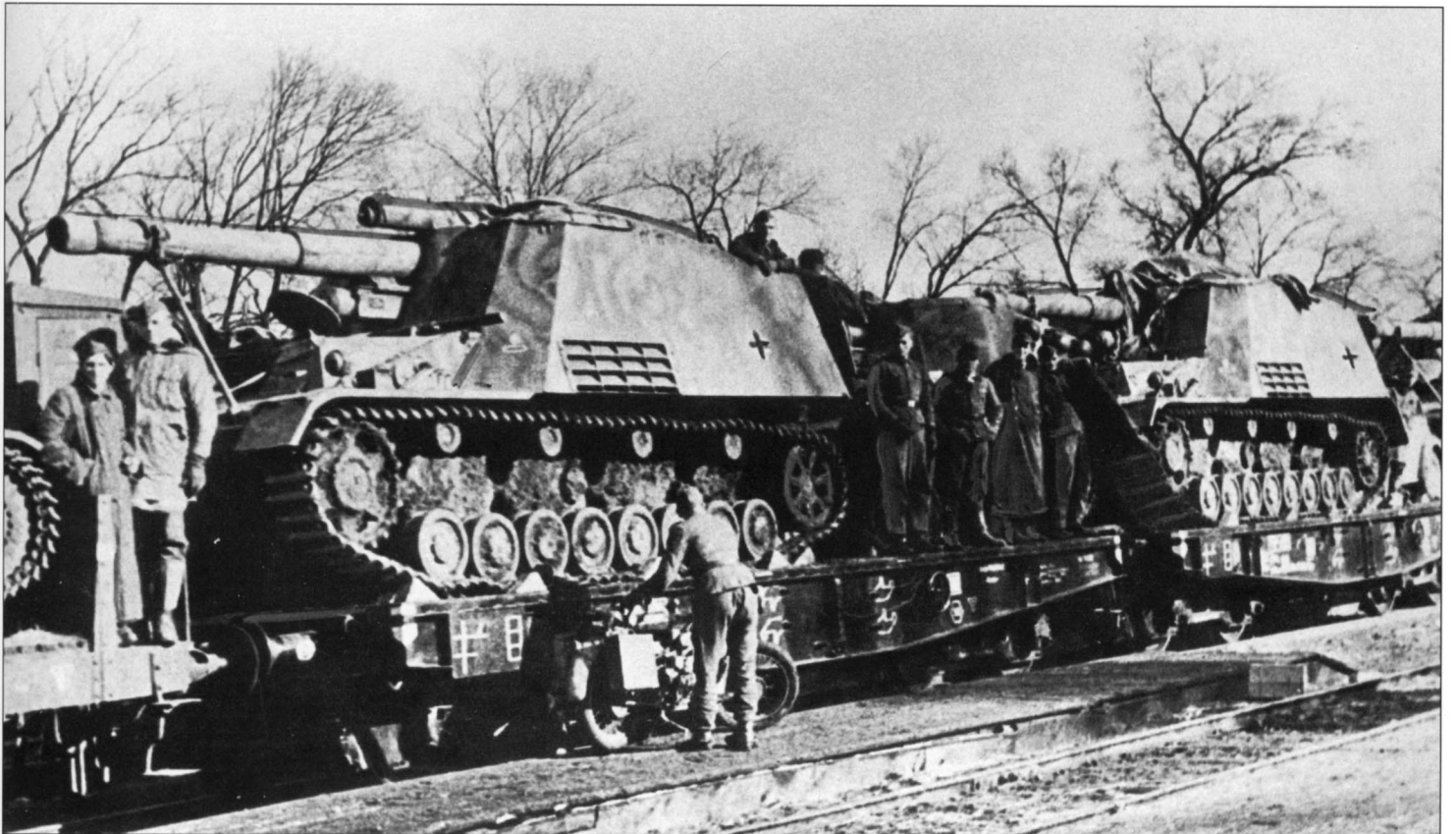
A Sd.Kfz. 250/1 sits at the side of a road loaded down with a squad of stormtroops. This half-track belonged to a StuG battery from StuG.Abt.191, which was employed by Herresgruppe Sud throughout most of 1943, mainly on the Kuban bridgehead. Note that the front plate of the engine armor features a number of markings but lacks a license plate. The unit emblem is visible at left and on the right is the tactical sign.

Another example of a German armored train — an artillery support train fitted with heavy artillery guns. The weapons seen on these rail flatcars are probably 100mm guns with special armored shields. The camouflage on the wagons consists of two different colored spots (green and brown) on a dark yellow background. The nearest wagon is also marked with a prominent national cross. It is easy to see that these wagons were specially constructed for these guns. The combat compartment is even composed of two supplementary compartments, one for the crew and one for the ammunition.





Crew members of a light self-propelled howitzer protect their ears from noise as their gun goes to work. The Wespe was the only vehicle of the Panzerwaffe in which the 10.5cm howitzers were installed. The conception of this vehicle was the same as all the other self-propelled guns of the Panzerwaffe. An obsolete tank chassis was adapted for the leFH 18 howitzer, so the Wespe gun crew had little space for comfortable work. Therefore, only two soldiers were stationed in the combat compartment, while three others, as well as the ammunition, remained outside of it. This Wespe is camouflaged with green or brown spots and marked with the letter "E", which indicates that it is from an independent artillery unit used by the staff of an army corps.



The heavier brother of the Wespe was the Hummel self-propelled howitzer, which was armed with a 15cm sFH 18 howitzer. The Hummel was one of the most modern armored weapons; only the British and the Americans employed self-propelled artillery (the Priest and the Sexton) for support duties, but they had a weaker armament and were introduced almost a year later than the Hummel. Note the interesting camouflage pattern on the nearest Hummel. Of special note are the other vehicles on the rail flatcars just visible behind the Hummels. At the left is a section of a Pz.Kpfw. II chassis, and behind the nearest Hummel is probably a Marder II tank destroyer.



A T-34 Model 1942 passes through a city as it advances toward the Dnieper river in September 1943. Note the markings on the turret and the different width of the road wheels: the first and the last are pierced rubber-rimmed, the second and fourth are the standard rubber-rimmed style, while the road wheel in the middle is the all-steel version.



It was in 1943 that Red Army units formed from soldiers of other nations, which were allied — for different reasons and in different ways — to the Soviet Union, first saw action. Seen here is a ceremony in a tank unit formed, theoretically, from Estonians, which later fought for a “free” Estonia. In the photo the leader of the Estonian Communist Party, N.G. Karotamm, is shaking hands with Lt. Yevstratenko, the leading tank commander in this unit. The unit was equipped with T-60 and T-70 light tanks, and with T-34 Model 1942 medium tanks, which bore the inscription “For Soviet’s Estonia” in Russian and “Long live Estonia” in Estonian.



A close-up of a T-34 Model 1942 from the Polish 1st Polk Czolgow photographed during the loading of ammunition during the winter season. Note the many details of the construction of the tank produced by Factory No. 112, such as the raised casting of the number “26” on the side of the turret, which may indicate the production series. This white residue on the armor is the remains of the removable white paint used for winter camouflage. The white eagle, the national insignia of the Polish People’s Army, was painted with the help of a stencil in a dark color (maybe black) over the tank’s base color. The shells passing through the hands of the crew are high explosive rounds.



Another tank unit that was used for combat for the first time in 1943 was the Polish 1st Polk Czolgow, commanded by a Soviet officer of Polish descent, Col. A. Vojnovski. The regiment was involved in the battle of Lenino, where it gave a completely disappointing performance, suffering a loss of seven tanks destroyed and two damaged. After this action the unit remained out of action until the summer of 1944. Here is a T-34 Model 1942 from 1st Polk Czolgow produced by Factory No. 112 on its way to the assembly area in the Lenino area.



The first Soviet self-propelled guns (SU-76I and SU-76) were introduced at the end of 1942, but due to technical troubles the real history of the Red Army's self-propelled artillery started in the beginning of 1943. In January of that year the Soviets sent into action at the Volkhov Front, near Leningrad, the first two SPA regiments, which had a mixed composition of 17 SU-76M light self-propelled guns and 8 SU-122 medium self-propelled guns. The regiments were the 1433rd and 1434th Independent Regiments of Self-Propelled Artillery. The photo shows two SU-122 self-propelled guns of the later series, with installations for fuel drums, in the heat of winter combat on the Baltic Front near Nevel in December 1943. Of special interest are the two "cupolas" seen on the combat compartment — known photos of the SU-122 show vehicles with only one "cupola".



A motorcycle crew delivers an order from headquarters to its advanced reconnaissance unit, which is equipped with an American M3 Scout Car. Note the interesting winter camouflage pattern on the M3 and the chain on the rear tire. Thanks to American armored personnel carriers and trucks, the Soviets created their first, real armored corps, which up to the middle of 1943 was equipped with a lot of tanks and only a few trucks.



An interesting scene of German soldiers resting alongside a T-34. This T-34 is from the series in the second half of 1943 and exhibits all of the details typical of this model — fuel drums, a commander cupola on the turret and only rubber-rimmed road wheels. After the tank received a direct hit and was burned out, it was used by advanced enemy troops as an observation post.



This was a typical sight during the winter fighting of 1943/1944, when infantry troops had to be transported on tanks and similar vehicles because soft-skinned vehicles were rendered useless by deep or wet snow and the lack of fuel. Note the way the soldiers transport the machine gun ammunition — they were so lazy (or creative?) that they attached the ammo box to the tank and towed it on a “leash”!



A T-34 performs a chilly river crossing in the dead of winter. Note the tactical number “210” painted in white on the glacis plate. This was very rare in 1944 since by that time Soviet crews had begun to paint red stars on the glacis.



StuGs advance toward the enemy somewhere in the Ukraine during the winter of 1943/44. Note the white camouflage on the nearest StuG. The rear of the superstructure is painted in white, as is a portion of the spare wheels, but the upper and side surfaces were left in the original color. In the background to the left of the StuG is a Sturmhaubitze 42 armed with a 10.5cm howitzer. Delivery of the StuH42 only began in March of 1943.

A pair of StuGs at their battle station on the outskirts of a forest that are covered in a solid coat of white camouflage paint on every surface; even the side of the hull is carefully covered with this paint. Note the national markings on the vehicle nearest to the camera. The one on the rear is the new style painted on white camouflage, while the one on the side of the superstructure is the old version, surrounded only by white paint.

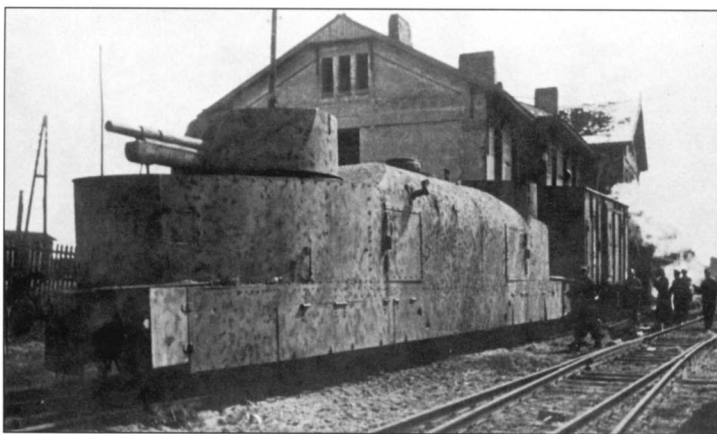


Two Sd.Kfz. 251 armored personnel carriers from a Panzer division involved in the fighting on the southern part of the Eastern Front during the winter of 1943/44. The half-track at the left is the standard version, the 251/1, but the one on the right is the Ausf. D communications model with a star antenna installed on the right side of the vehicle, not on the left like it was usually done. Note that this antenna is inside, not outside, the combat compartment, on a special mount. Also noteworthy are the markings seen on the doors of this Hanomag, especially the unusual national cross. In the background is a Sd.Kfz. 250 Neu.

Crowded on a Russian road are columns of SS vehicles, probably from 5.SS-Panzer-Division "Wiking", which was involved in the struggle for Kovel in March 1944. In this action the division tried to break the Soviet defense in a frontal attack through the one main road leading to Kovel from the west. Note the half-track at the left — quite a rare vehicle for this period of the war. It is the anti-tank version of the Sd.Kfz. 10, armed with the old 5cm PAK 38 L/60 gun and equipped with thin armor protection for the cab and engine. Of special interest is its four-color camouflage composed of dark yellow, green and brown on the armor cover (it is most clearly visible on the cab's cover) and the white pattern on the gun barrel and shield.







Sitting at a rail station at Kovel in late March 1944 is a wagon (No. 2 or 3) from Panzerzug 10. The armored train was badly bombed by the Soviet Air Force, and due to resulting damage this wagon is being towed by a standard locomotive (at the extreme right in clouds of steam). This Panzerzug had a very interesting history. It was originally built by the Poles as armored train No. 53 "Smialy" ("Brave"). Then, in the middle of September 1939, it was captured by the Soviets at Kovel and used as BEPO 75. Later, in the beginning of July 1941, it was captured again by the Germans and named "Panzerzug 10". Note the interesting camouflage on this wagon and the cupola from a Pz.Kpfw. III/IV, which is visible on the central part of the wagon. The curious feature visible above the closest door is a chimney from a stove used by the crew.



A Marder III guards one of the roads used by retreating German troops. Such a lone self-propelled gun was very often deployed in the rear guard against attacking Soviet armor. If successfully employed in combat, the gun could win some precious hours for the German troops, separating the last German vehicles of the long retreating columns from the first Soviet advanced units.



A variety of different German armored fighting vehicles wait to be transported by rail. In the first row, among others, are two Pz.Kpfw. IVs and a StuG III. To the left of the Pz.Kpfw. IV is a Hummel ammunition vehicle. In the second row, at the extreme right, is a Pz.Kpfw. VI "Tiger", then a Pz.Kpfw. III (standard version), a Pz.Kpfw. IV, next to which is another Pz.Kpfw. III, but in the command version this time. Armor modelers will want to take note of the different types of camouflage used on these vehicles. One of the Pz.Kpfw. IVs is partially painted in white while others are painted in two- or three-color camouflage. Others vehicles wear the standard dark yellow camouflage, some covered with mud.



This T-34 Model 1942 with the Uralmash turret typical of the Chelyabinsk Tractor Works factory was photographed in the Crimea in the spring of 1944. The turret is marked with two different numbers: 12 (probably in yellow) and 1109 (in white), and the tank is equipped with a lot of combat equipment — boxes with gun ammunition and a fuel drum behind the turret. Note that the tank has no radio antenna, so it may not be fitted with radio equipment.



This action photo shows a typical Soviet tank attack in 1944. The infantry, still without armored personnel carriers, was carried on tanks during the charge. Just before reaching the enemy trenches they dismounted and stormed the Germans on foot, covered by fire from the tank's gun and machine guns. This photo was taken in the Odessa area, which was recaptured by 23rd Tank Corps at the end of April 1944.



An SU-76M's engine compartment is engulfed in flames after being hit by a well-aimed round during combat in a village in the spring of 1944. The "bitches" — as the crews called the SU-76s — were very useful SPGs, but they were often used in an unsuitable way, so there were sometimes heavy losses in the units equipped with these vehicles.



The remains of a Soviet KV-85 heavy tank destroyed somewhere on the flat landscape of western Ukraine. This was one of the rarest series of Soviet tanks. Nevertheless, one of them was captured by the Germans and tested at the Kumersdorf testing ground. There is no doubt that the tank was hit hard at short range by an 8.8cm anti-tank round, or maybe even by a Panzerfaust warhead, which caused the internal explosion of the ammunition.



A German tank hunter armed with a Panzerfaust anti-tank weapon cautiously watches a destroyed T-34 burn on the outskirts of a village in west Ukraine. The Panzerfaust weapon was simple, but quite troublesome to the Soviet armored units. Used in large numbers for the first time in the spring of 1944, the Panzerfaust dominated the battlefields of eastern Europe during the last year of the war, despite its shortcomings. One of these was its range of fire, which was limited to 100 meters (193 yards).



The famous American Dodge cross-country vehicle was usually used as a tractor for Soviet medium anti-tank artillery. In this photo is one of these vehicles that was sent to Soviet Union towing a 76.2mm ZIS-3 gun, which was the best Soviet anti-tank gun of the war. It has been marked with a unit code on its fender. Note the soldier at the right — his helmet is still painted white.



The Red Army was the greatest military power at the beginning of the 1940s, but still Russia had to import equipment from other countries. Here is one of three of the most important vehicles that the Red Army received from their American "comrades", the Dodge WC-51. These vehicles were mainly used as a tractor for anti-tank guns, in this instance the 57mm ZIS-2M gun. This weapon was first produced at the beginning of 1943, on the base of the 76.2mm ZIS-3 gun. Interestingly, it was ready for production in early 1941, but was introduced two years later as the Soviet's response to the German Tiger tanks. The Soviets soon learned, however, that the time for this type of gun had passed, even though the ZIS-2M had good ballistic capabilities (APDS rounds could penetrate 145mm-thick vertical plate at 500 meters [546 yards], for example). But the weight of the round was too light, so in the middle of 1944 the Soviets began production on the 100mm BS-3 anti-tank gun.



This photo was taken during the late spring joint exercises of the Polish 1st Dewizja Piechoty and a Soviet armored brigade equipped with US Lend-Lease M4A2 Shermans. The tank's aggressive activity seems to impress a group of onlookers.

Its distinctive profile reveals this armored vehicle to be another Lend-Lease Sherman medium tank engaged in exercises on an open East European plain. Note the cover on the turret-mounted machine gun.





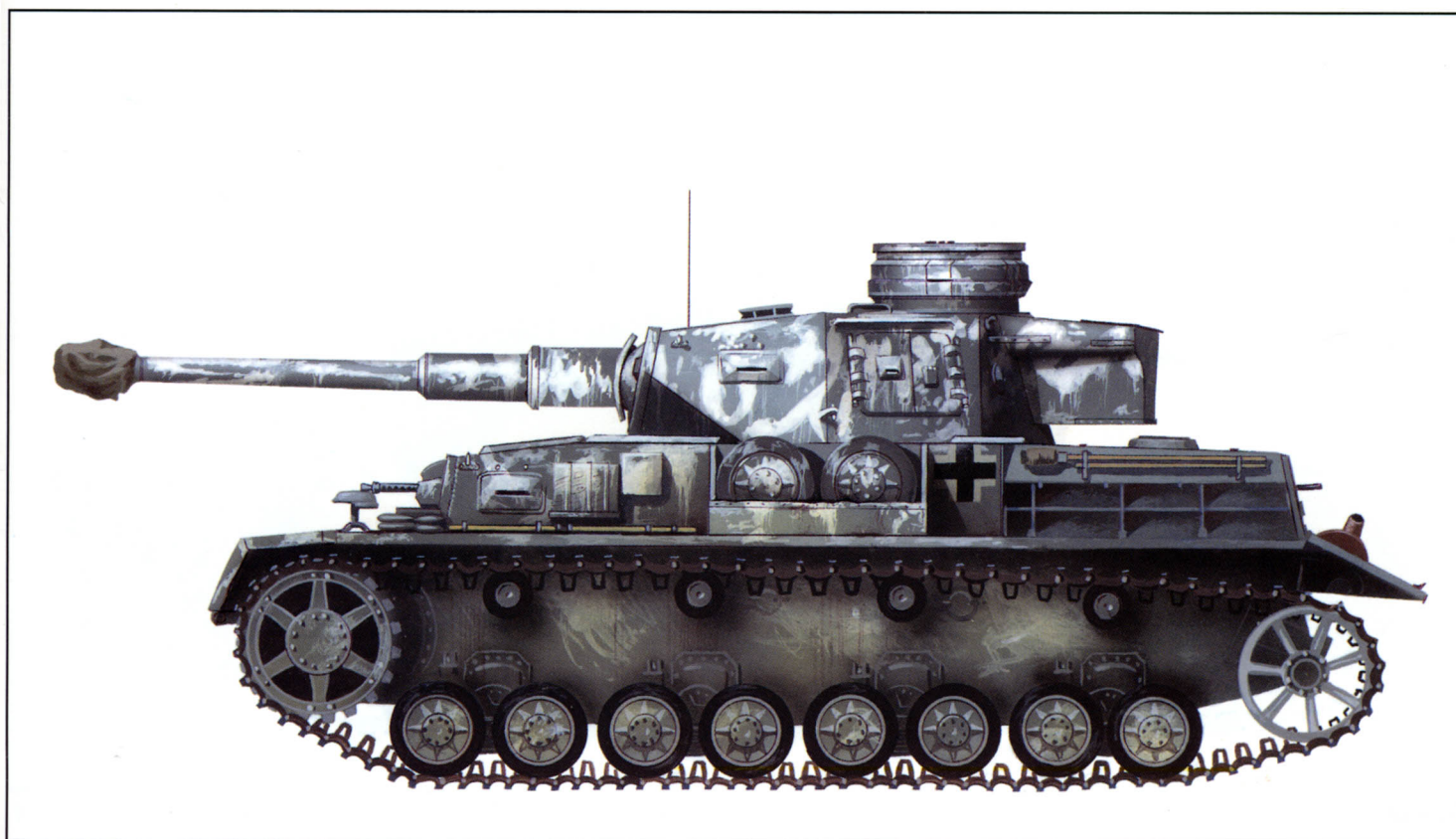
Frontal view of a Sherman tank traversing some uneven ground during the joint exercises of Polish and Soviet troops. The Shermans offered for Soviet service were M4A2 models, 1,990 of which were sent to the Soviet Union during the war years.

A pair of Shermans lend support to a squad of Red Army soldiers during exercises. The turret markings on the tanks are composed of a special unit emblem that is typical of armored units (with numbers in a geometrical figure), a red national star (which appeared on tanks for the first time during this period following the initiation by the Russians of the "liberation" operations outside of the Soviet Union), and a three-digit tactical number.



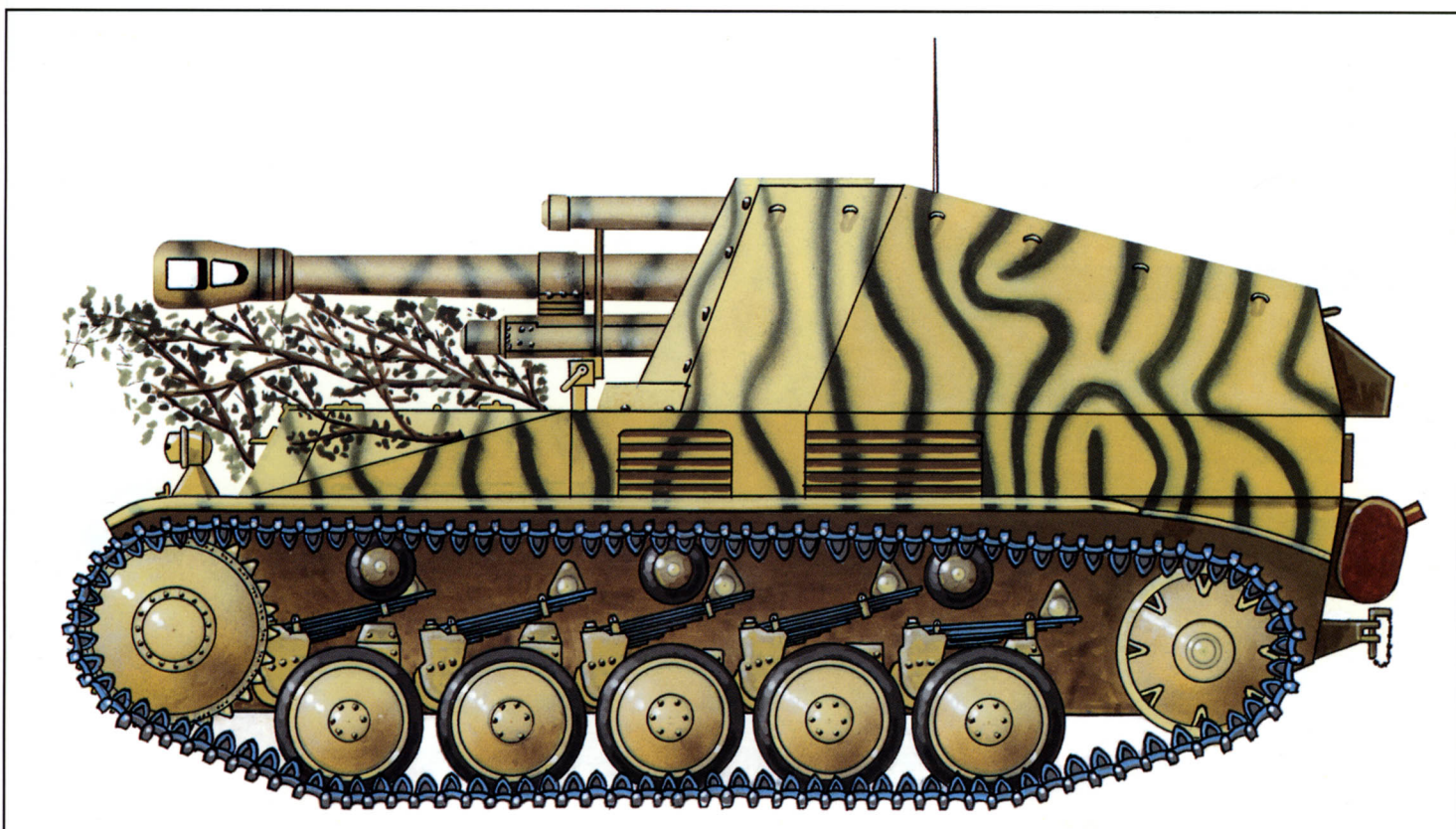
Like other tanks imported from United States, the Shermans used by the Soviets were painted in standard American camouflage, i.e., olive drab (except a small batch of M3 Lee tanks, which were sent to the Soviet Union in 1942 painted in a sand color).





**Pz.Kpfw. IV Ausf. G, Pz.Gren.Div. "Großdeutschland", Borissovka, early 1943**

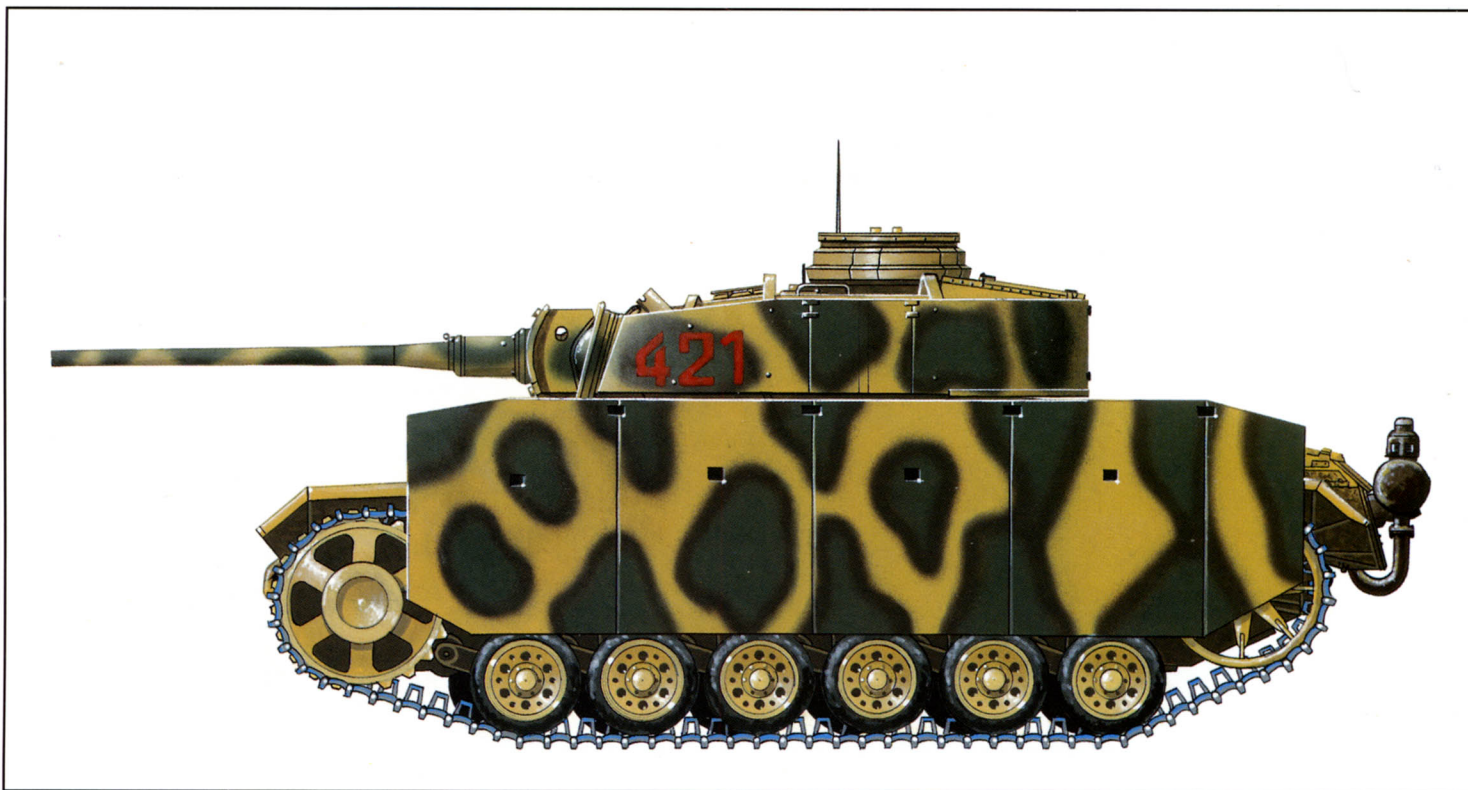
A very new tank, this Pz.Kpfw. IV was issued to the tank regiment of Panzer-Grenadier-Division "Großdeutschland" as February turned to March in 1943, prior to the offensive at Kharkov. Borissovka was located west of Belgorod in the southern sector of the Eastern Front. The tank was painted in standard dark gray camouflage covered with an irregular pattern of white winter camouflage, which was applied with a brush.



**Sd.Kfz. 124 Wespe, unknown unit, Kursk bulge, July 1943**

The Wespe first saw major action at Kursk in the summer of 1943; it was issued to self-propelled detachments of the Panzerartillerie regiments in both Panzer and Panzergrenadier divisions. Since there is no tactical number, it is possible that this self-propelled howitzer belonged to an independent artillery battalion. This Wespe is camouflaged with a wavy pattern of green lines over a dark yellow background. Foliage is used to further camouflage the vehicle.





**Pz.Kpfw. III Ausf. M, Pz.Rgt.15, 11.Panzer-Division, Kursk bulge, July 1943**

This vehicle was used by the 2nd platoon commander of 4th Company, Panzer-Regiment 15, 11.Panzer-Division (XXXXVIII Pz.Kp., Pz.Ar.4), and saw action in the southern sector of the Kursk bulge in July 1943. The tank wears the typical camouflage of this period. Clearly visible are the exhaust valve for deep wading at the rear of the tank and the Schürzen (armor skirts) fastened to the sides of the tank and around its turret.



**StuG III Ausf. G, unknown StuG.Abt., Heeresgruppe Mitte, Belorussia, summer 1944**

There were seven Sturmgeschütz Abteilungen in Army Group Center during the Soviet offensive Operation "Bagration", which was launched on 22 June 1944: StuG.Abt. 185, 190, 244, 245, 278, 281, and 667. This vehicle belonged to one of these units. It is covered in the typical camouflage for the summer season — olive green patches over a dark yellow background. Armor plates that have been bolted onto the side of the superstructure have a tactical sign, tactical number and national cross painted on them.





**T-34-85, 8th Guards Tank Corps, 2nd Tank Army, Lublin, Poland, July 1944**

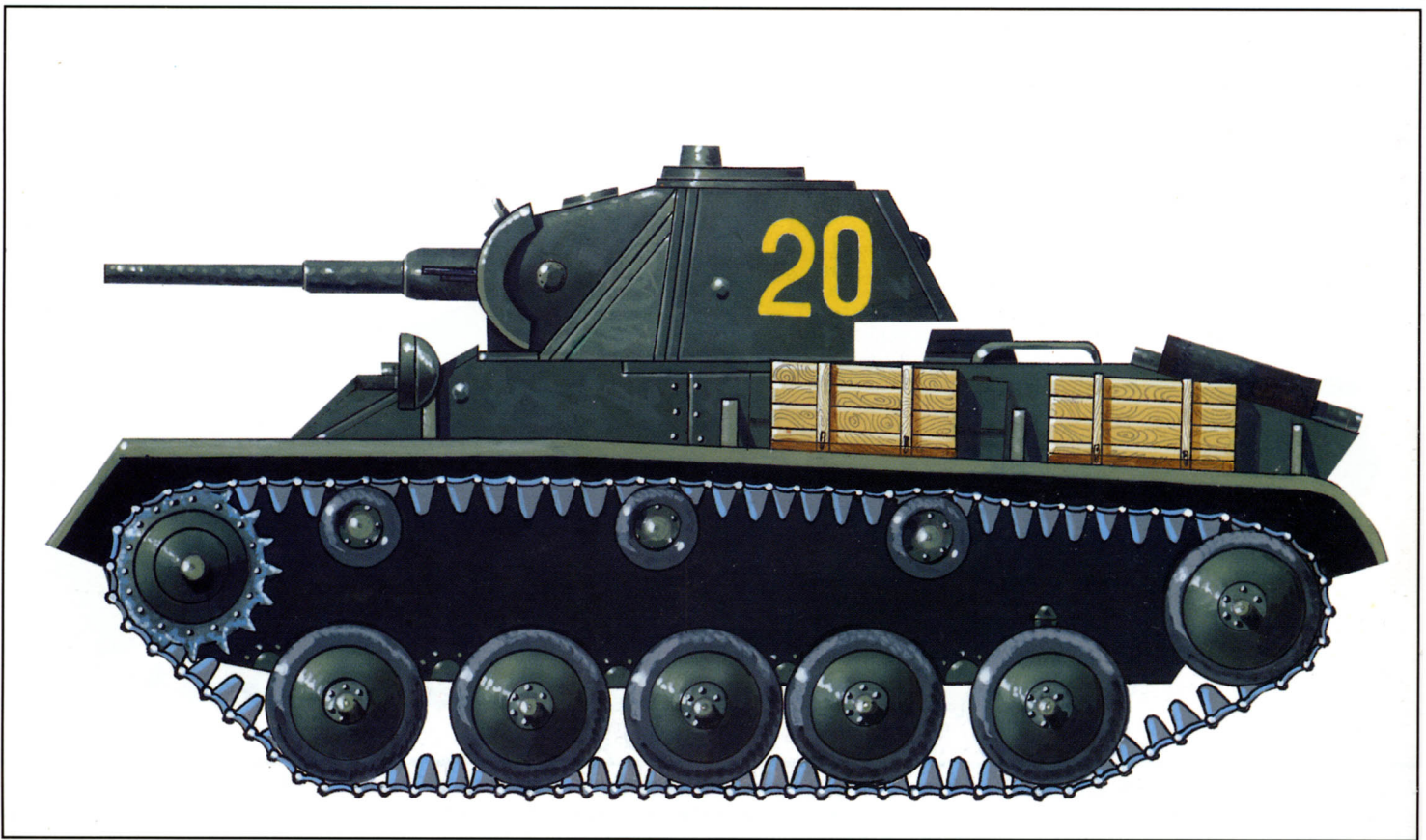
This corps was composed of three tank brigades — 58th, 59th and 60th, all of which were Guard units. The tank wears standard dark olive-green camouflage with white corps markings. The three-digit tactical number next to the corps marking indicates the regiment within the brigade (first number), the company (second number) and the vehicle number (last number).



**M4A2 Sherman, 3rd Tank Corps, 2nd Tank Army, Lublin, Poland, July 1944**

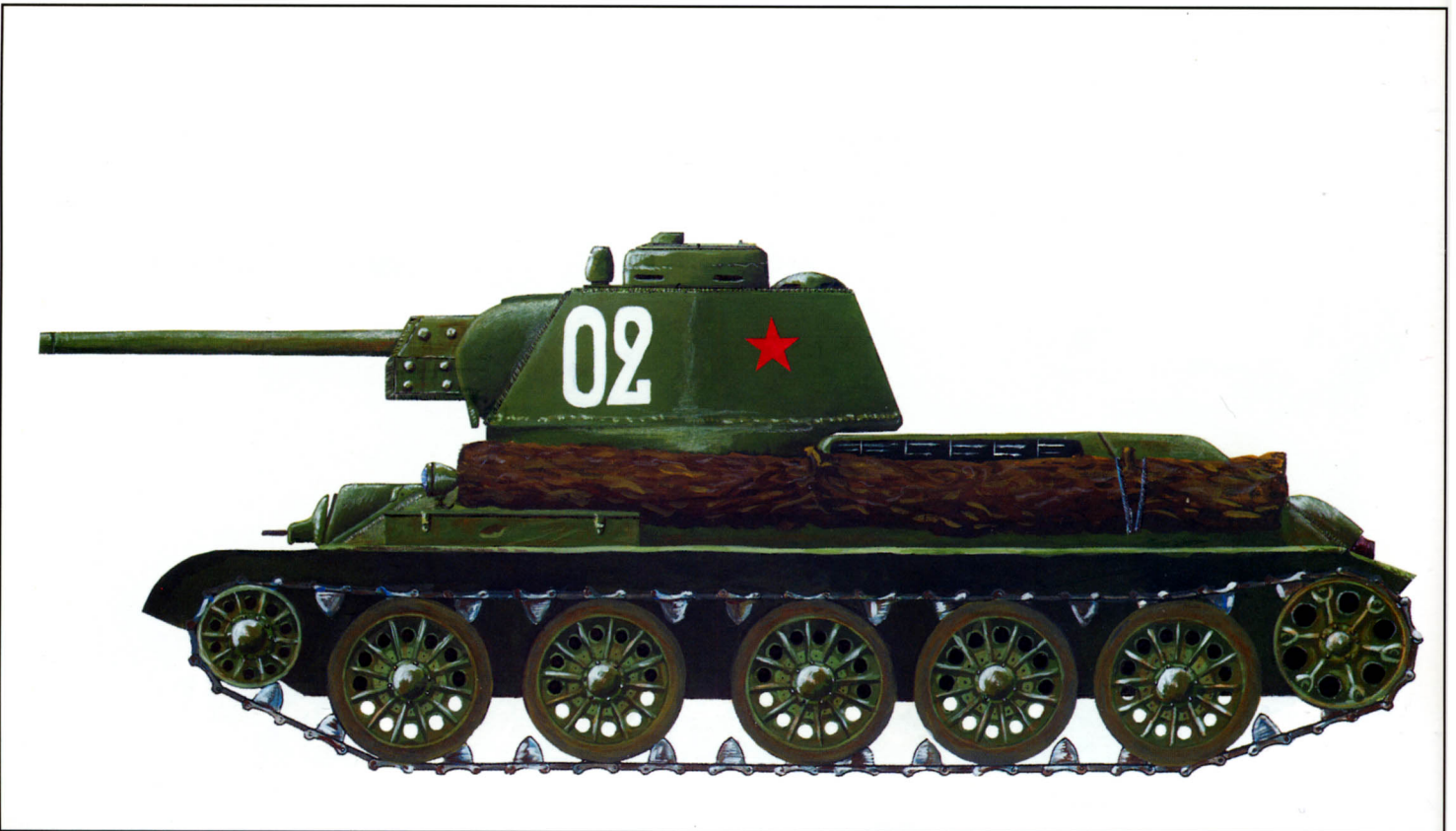
This corps was composed of three tank brigades: 50th, 51st and 103rd. The tank is painted in standard American camouflage, i.e., olive drab, with the tactical number "765" in white (which is repeated on the turret rear), along with a corps marking. Note the fuel drum on the engine deck. A total of 1,990 U.S. Lend-Lease Shermans saw service in the Soviet armored corps.





**T-70, unknown tank brigade, 2nd Tank Army, Lublin, Poland, July 1944**

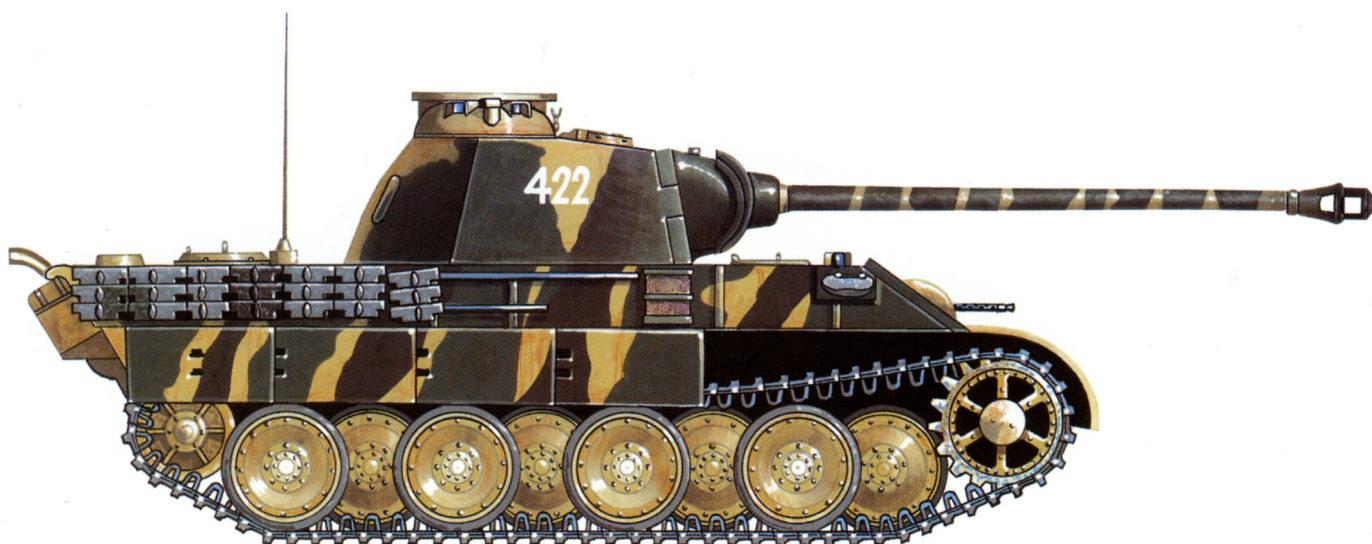
This T-70 light tank is painted in standard dark olive-green camouflage, but the tactical number "20" is atypical, being painted in yellow. This was rare in Soviet armored units. Armed with a 45mm gun, the T-70 was an obsolete tank by 1944 and was no match for its German counterparts.



**T-34 Model 1943, 70th Tank Brigade or 178th Tank Brigade, Riga area, early autumn 1944**

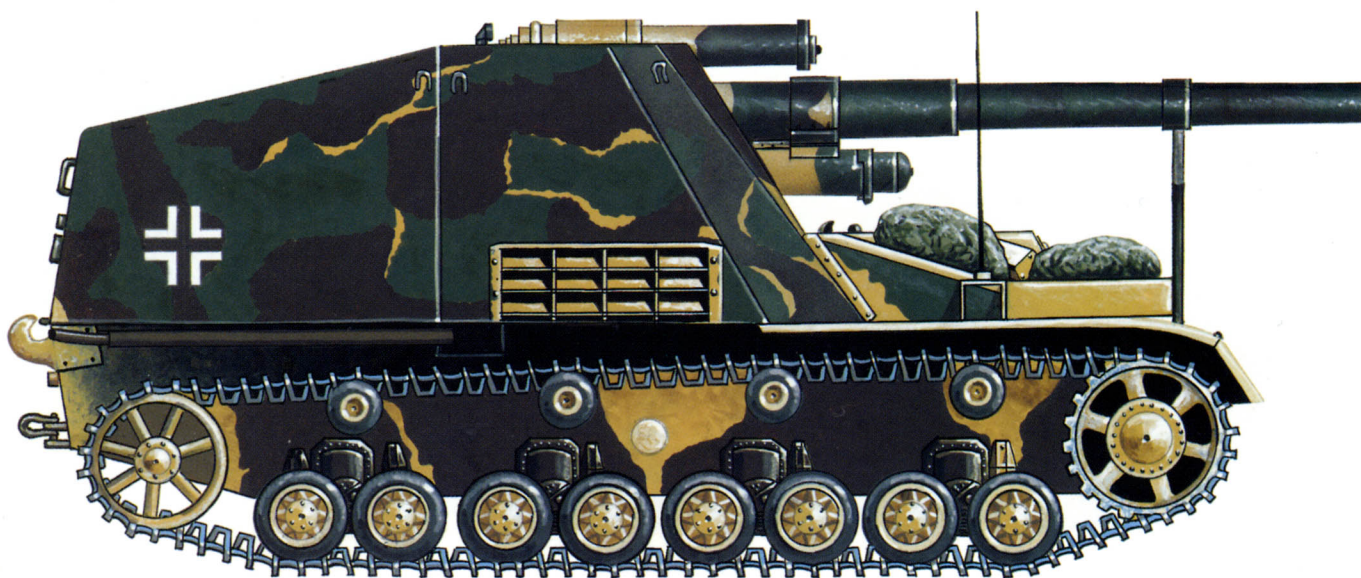
This T-34 is covered in standard dark olive-green camouflage and is marked with the tactical number "02", which indicates the staff unit in the brigade. This number is repeated on the rear plate of the turret. The red star national marking was first painted on Russian tanks in the summer of 1944, when the Soviets began fighting in Central Europe.





**Pz.Kpfw. V Ausf. A Panther, unknown unit, Poland/East Prussia, autumn 1944**

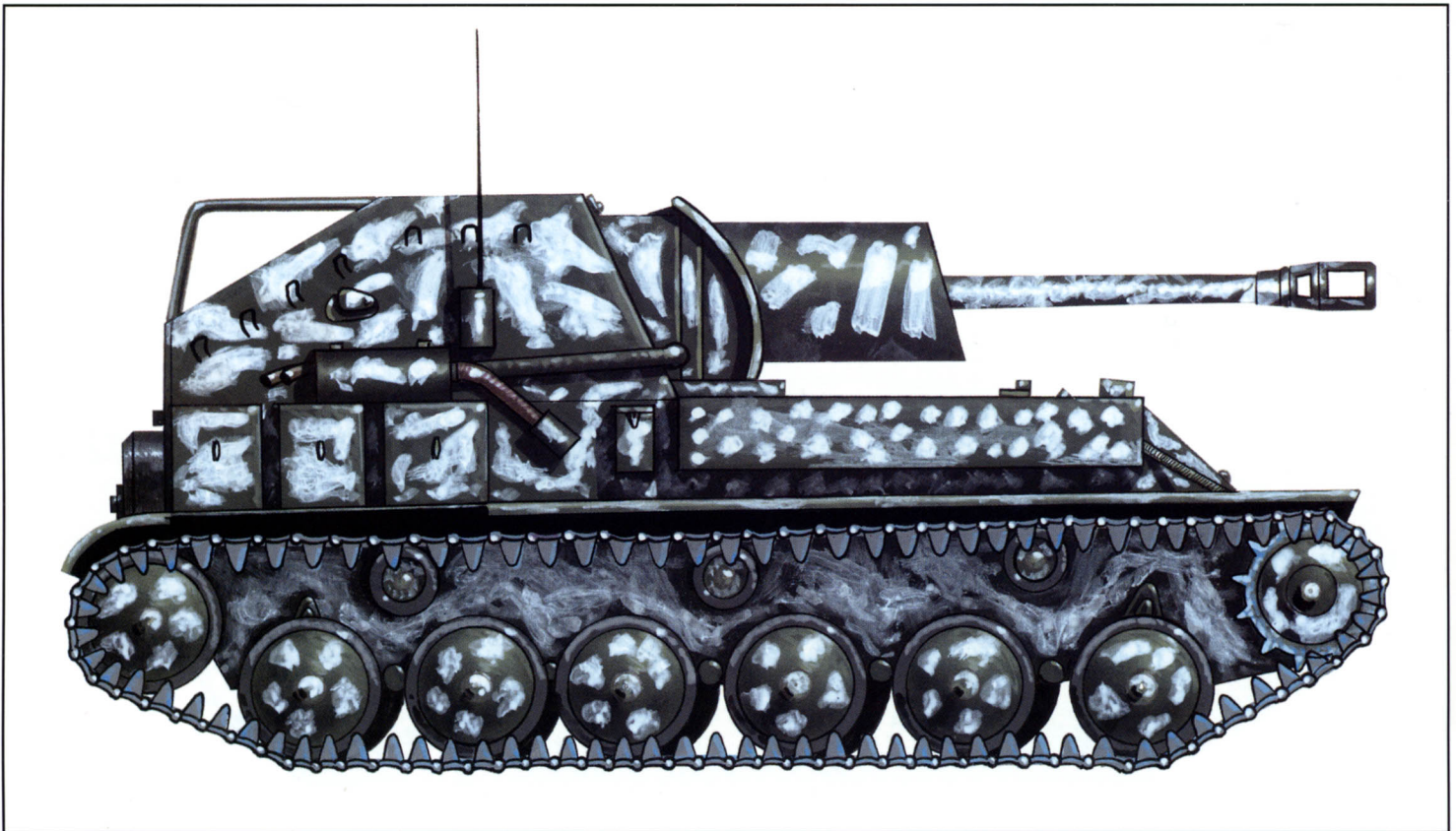
This Panther belonged to the 2nd platoon of the 4th company of an unknown Panzer division that was fighting a retreating action in the central Poland/western East Prussia region in the autumn of 1944. It is camouflaged with a two-color pattern of green and brown patches over a dark yellow background. The tactical number "422" is in white. The gun barrel also wears the distinctive camouflage.



**Sd.Kfz. 165 Hummel, unknown unit, central Poland/western East Prussia region, late autumn 1944**

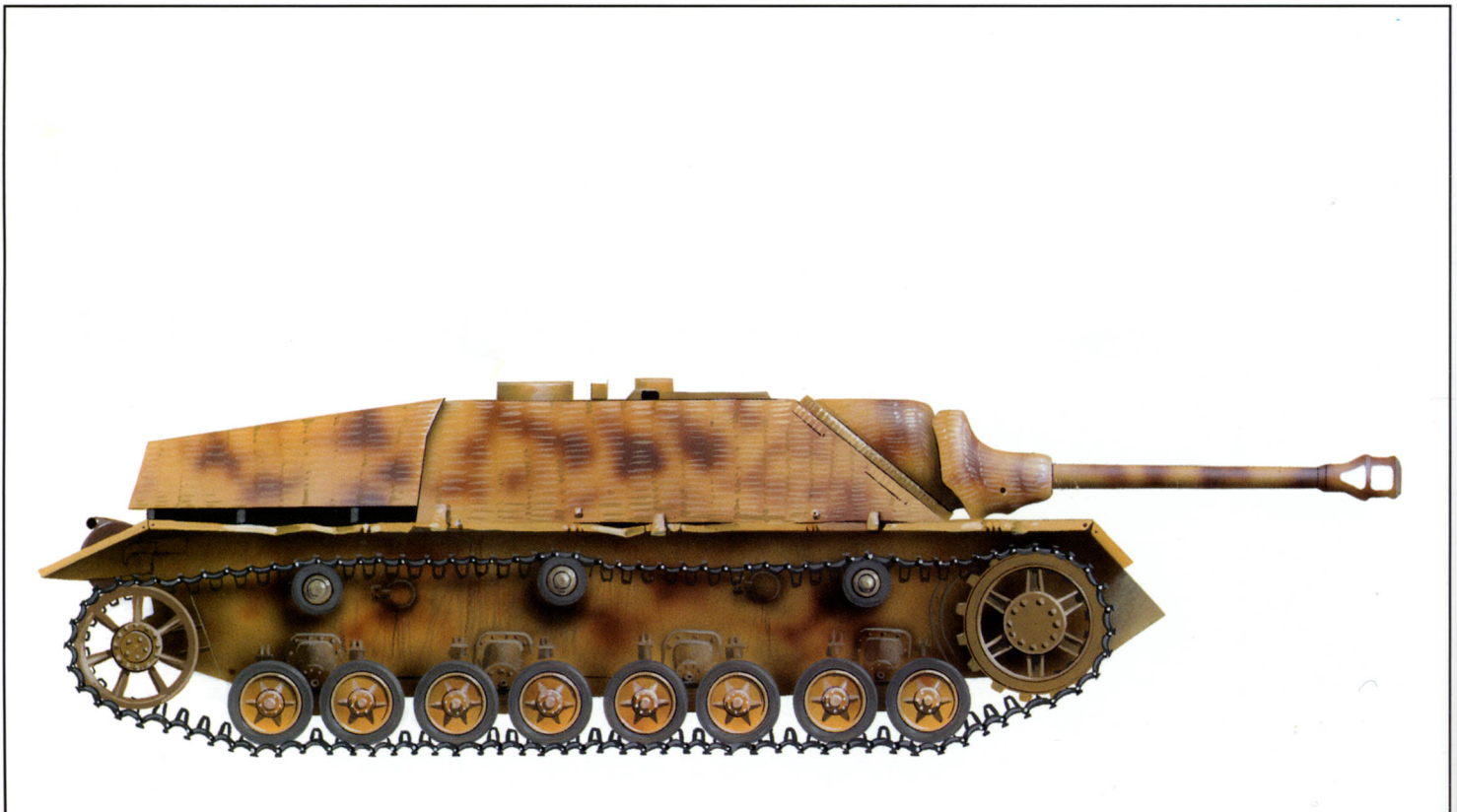
Like the Panther, this Hummel saw combat in the central Poland/western East Prussia region in the autumn of 1944. The Hummel was issued to heavy batteries of the self-propelled artillery detachments of the Panzer divisions. This vehicle is covered with a heavy camouflage of green and large brown spots over a dark yellow background.





**SU-76 Suka, unknown self-propelled regiment, 1st Belorussian Front, eastern Germany, February 1945**

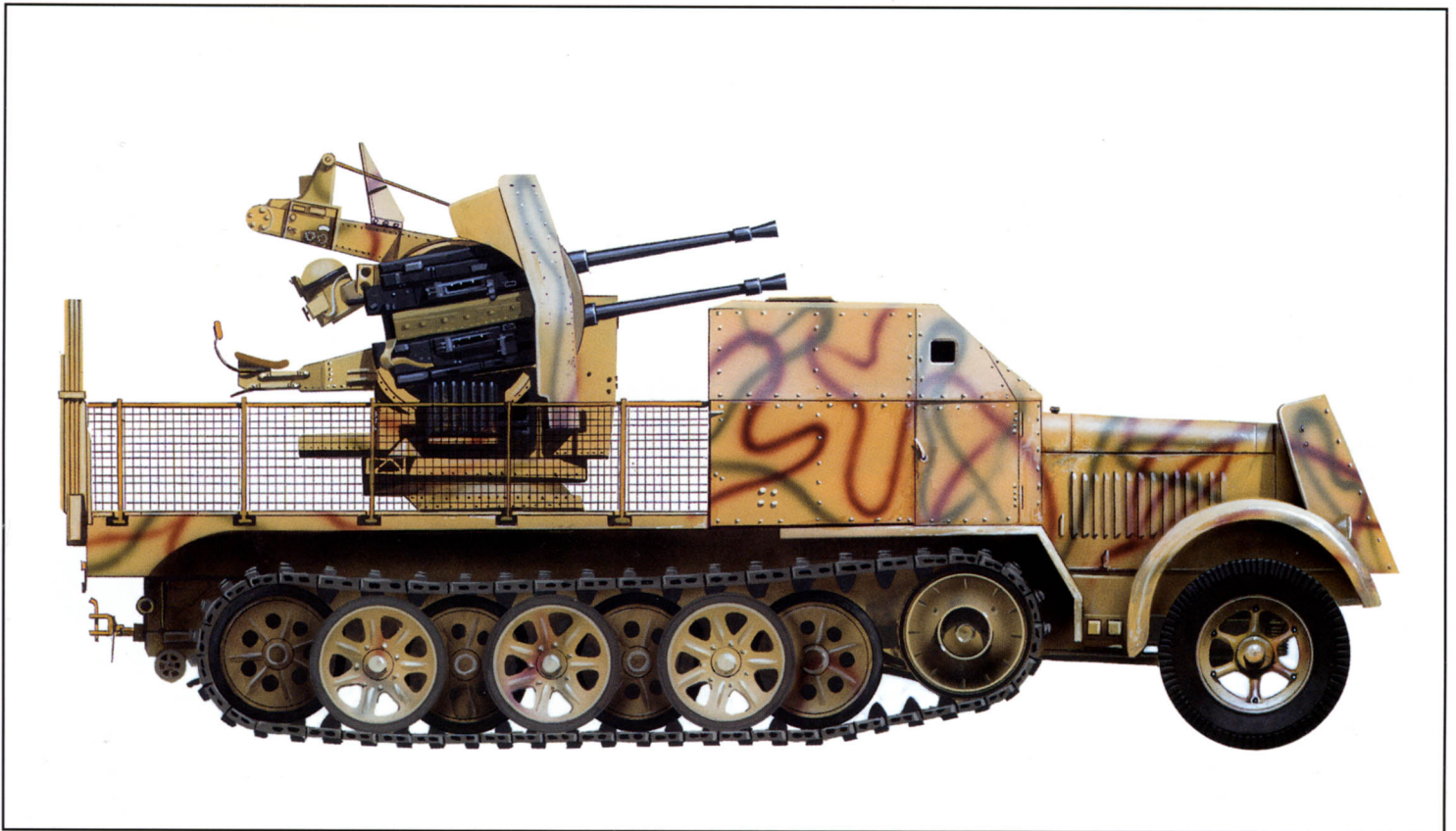
This SU-76 Suka self-propelled gun of the 1st Belorussian Front is camouflaged in the winter scheme of splotches of white over the standard base color, which is fairly unique for Soviet vehicles. Most SU-76 carried regimental insignia, as well as a 6-digit serial number.



**Jagdpanzer IV, unknown Pz.Jäg.Abt., Balaton lake area, early 1945**

This Jagdpanzer IV was employed in the counter-offensive in the Balaton lake area in early 1945. The vehicle has no markings, and even the national cross is missing. An autumn/spring camouflage pattern has been applied to the tank in the form of irregular spots of brown over dark yellow on all side surfaces and the gun barrel. The last winter of the war was quite warm so white camouflage was not in use in most areas of Europe.





**Sd.Kfz. 7/1, Panzer Lehr Division, Budapest, Hungary, early spring 1945**

This half-track carries the standard camouflage for German armored vehicles during this period. It was composed of irregular wavy lines of green and brown applied over a dark yellow background. Such camouflage was painted on the main part of the vehicle, on all the surfaces of the cab and on the gun shield, but the platform of the 2cm Flakvierling 38 retained the dark yellow color that was applied at the factory.



**Sturmgeschütz Tiger, unknown unit, suburbs of Berlin, April 1945**

This tank was abandoned by its crew and captured by the Soviets, who tested it along with other of the latest pieces of German armor throughout the first year after the war. The tank was camouflaged in the three-colored "Ambush" pattern used in the latter part of the war. Some sections of the tank are missing, which could identify it as one of the last five vehicles of this type, which were built in late 1944 but were not completely finished. There were 18 "Sturmtiger" tanks built in 1944, and 13 of them were incorporated into four companies of platoon-size: Sturmgeschütz Companies 1000, 1001, 1002, and 1003. The first one saw combat when it was put into action in Warsaw in early August 1944.





**IS-2, unknown heavy tank regiment, Berlin area, April 1945**

This IS-2 was probably one of the tanks of Gen. Rybalko's 3rd Guards Tank Army, which fought near Berlin in April 1945. The tank is painted in the standard way, with a coat of dark olive-green over the entire surface of the tank. The tactical markings applied to the turret are composed of two elements. One of them is the three-digit tactical number, which indicates the given tank within the regiment. Next to it is the tactical marking that indicates a unit within the higher level formation, a corps for example. The bar under the circle could be a sign of the first unit.



**T-34-85, 6th Guards Tank Corps, 3rd Guards Tank Army, Berlin, April 1945**

This late-series production T-34-85 was employed by the 6th Guards Tank Corps, which took part in the Berlin operation in April 1945. The camouflage of the tank is standard and the markings are typical. Concentric circles were often utilized by the Soviets for markings. A few similar markings are known to have been used by different units. The tactical number "252" could be an example of the standard system, which identifies it as the 2nd tank in the 5th platoon of the 2nd regiment in a brigade. However, the first number, "2", could also indicate the 52nd Guards Tank Brigade, the second brigade within the corps.

A Red Army M4A2 Sherman, tactical number "346", receives a great deal of attention from curious Russian soldiers as they march past the American tank. The turret markings are well displayed in this photo.



Two T-34 tanks with PT-34 mine rollers clear the way for the rest of an armored unit in Byelorussia. These tanks were used in different brigades while breaking through front lines, but usually they were organized into independent tank-engineer regiments. Note the cover on the light on tank number "253", as well as the two drums secured to its right side. T-34s normally carried only one such drum on each side.



A column of M38 amphibious vehicles travels down a road somewhere on the Polish-Soviet border. The M38 was built on the base of the famous GPA amphibious jeep and was later copied by the Soviets.



These M-13-16 rocket launchers are each mounted on an American truck, the General Motors COE. Here a battery is ready to fire a salvo. Note the unit markings painted on the cab doors and, particularly, the white circle on the wheels — the Red Army, along with other communist armies, had a special affection for such markings.



An ISU-122 heavy self-propelled gun and a column of trucks (in the background) are shown on the march toward an assembly area. The ISU-122, designed just after the ISU-152, was a powerful vehicle armed with a 122mm A-19 gun, but it was also slow, not maneuverable and had a short range. Like the ISU-152 it was very similar to the German Elephant, so it had to be used properly and thoughtfully if success was to be achieved. However, the actual performance of the ISU-152 on the Ukrainian battlefields in the winter of 1944 was a disaster: two regiments of these vehicles were wiped out in one action. These losses were so heavy that a special commission had to visit the front to find out the reason for this collapse.



This is a special version of the T-34 Model 1943 converted to a propaganda vehicle and equipped for psychological warfare with loudspeakers in armored casings on the fender. These propaganda vehicles were quite successful in 1944 when the Wehrmacht losses led to many desertions. Note the new type of additional fuel tanks affixed to the side of the superstructure and not to the rear plate. Originally there were two such tanks used, but later their number was increased to three, and sometimes the addition of big drums hiked the total to four and five.



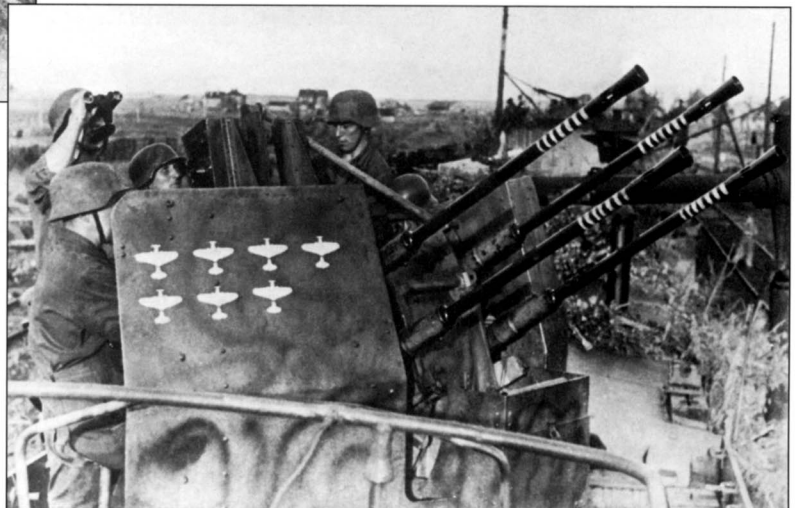


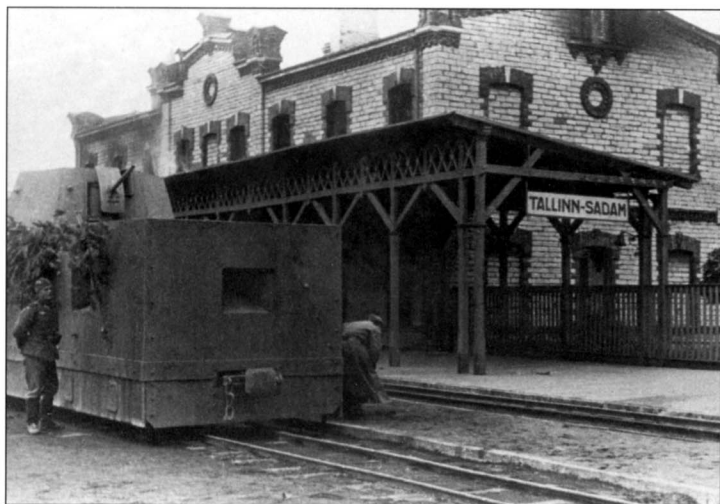
The Panzer IV chassis of this Nashorn is submerged as the tank killer fords a river. This vehicle was the best tank destroyer used by either side on the Eastern Front. No tank or self-propelled gun was safe when the Nashorn went into action.



A column of StuG III Ausf. Gs from Panzer-Grenadier-Division "Großdeutschland" travels across Romania in June 1944. In July "Großdeutschland" was assigned to the Herresgruppe Mitte sector, where the situation was tragic for the Germans. Note the side skirt on the left side of the StuG — it looks as if a front skirt was attached in the normal location for a second plate.

As the battle front approached the line on the Bug river, German armored trains started to play a more important role as they gave support to fighting troops and provided cover for the railroads against the Soviet Air Force. This anti-aircraft station situated on a Panzerzug is equipped with a quadruple 2cm Flak 38 gun. Note the camouflage and the markings, which indicate seven victories over Il-2 assault aircraft. Their silhouettes are painted on the shield, and the same "kills" are marked by victory rings on the gun barrels.





A wagon from a German armored train takes a rest at Tallinn railway station in between operations against partisan actions. In the summer of 1944 almost all German armored trains were involved in combat at the front lines with regular Soviet troops, which occupied territory previously controlled by partisans. A few of them were successful, like Panzerzug 67, which was involved in a costly struggle for the Riga area.

The anti-partisan forces inflicted great losses on the enemy, but their operations were not completely successful, and many German troops suffered casualties during small skirmishes, especially in the summer of 1944. This photo shows that the partisans were sometimes victorious even in clashes with German armored units. The remains of a Pz.Kpfw. IV indicates that the vehicle was blown up by internal explosion.



Two T-34 Model 1942s go to battle supported by infantry troops. Note the markings on the tank turrets. In the geometrical figure is the number "2", under it is the number "7", and to the right of it is the number "1". This marking is repeated on all three sides of the turret. The tank in the background has slightly different markings, but probably has a large tactical number on the side of the turret. During the three months of summer operations in 1944 between Lithuania and Slovakia, the Soviets lost 4,200 tanks and self-propelled guns.

A tank crewman poses for a photograph atop a T-34-85 armed with the long-barreled 85mm gun that was introduced in March 1944. This new version of the T-34 was very warmly welcomed by Soviet tankers because the new model gave them superiority over the Pz.Kpfw. IV and an even chance against the Pz.Kpfw. V. Here is the earliest version armed with the D-5T gun, which was slightly better than the ZIS 85mm gun. However, because its installation was more difficult, it was installed only in the first 800 tanks in the spring of 1944. It had some minor differences from the ZIS gun, most noticeably a different gun mantlet. The first idea for an up-gunned tank was put forth in the middle of the spring of 1943, but production only began in autumn of that year! As always in the Soviet Union, modernization had to be completed without stopping mass production, and the builders tried the simplest solutions first. So, the work went on, not for three months, but for six months, with the end result being a completely new turret.





All that remains of a Soviet armored unit are these silent reminders of the destruction doled out in war. In the foreground are portions of a T-34 tank, while a wreck of a KV-1S is in the background. Note the interesting markings on its turret. The same markings were used during the Berlin offensive in April 1945, but this photo was taken much earlier.



German soldiers from either 4. or 19. Panzer-Division inspect a killing ground east of Warsaw in early August 1944 after repulsing armored units of 3rd Tank Corps of 2nd Tank Army, which charged on the right bank of the Vistula river in the direction of Warsaw. It was the greatest single tank battle on the Eastern Front in 1944. It ended with high losses for the Soviets, who were forced to retreat and relinquish previously captured terrain. In the foreground is a T-34-85. Behind it is the remains of an SU-85.



The heaviest tank on the Eastern Front in 1944 was the Pz.Kpfw. VI Ausf. B "Tiger II". They were used for the first time by sPz.Abt. 501 in August 1944 during the battle for the bridgehead at the Vistula river in the Sandomierz area. The first clash was won by the Soviets, when ml.Lt. (2nd Lieutenant) A. Oskin from 53rd Guards Tank Brigade surprised three Tigers that were not ready for combat, destroying all of them. It is important to note that the Soviet tank commander used BR-365P APDS rounds, which theoretically could penetrate 138mm vertical armored plate at a range of 500 meters (546 yards). They were useless in this situation, however, even though they were fired at a range of 200 meters (219 yards) against the Tigers' side armor! During the next few days the same Soviet unit again met the German Abteilung and knocked out another five Tigers. On 13 August 53rd Guards Tank Brigade captured three others in perfect condition, including one used by a company or unit commander. All Tigers IIs found by the Soviets on the battlefield or captured by them during combat were sent to Moscow for testing. Here is one of them, the Pz.Bef.Wg. VI Ausf. B with tactical number "502", being inspected by Soviet officers of the 1st Ukrainian Front. Written in Russian on the tank are: "Captured 13-8-44 Z-B-N" and (further toward the rear) "53-Tankovaya Brigada" (probably).





In August, another bridgehead at Vistula was captured in the Magnuszew area when the Germans counterattacked a Soviet infantry corps. After a small success they launched a second phase of the attack, this time with the participation of Fallschirm Panzer-Division "Hermann Göring". The division could use only about 100 tanks and self-propelled guns with two regiments of its infantry, so it broke the Soviet lines with a wedge about 2 km (1.3 miles) deep, but only 700 meters (765 yards) wide! Then "Hermann Göring" sub-units met the Polish 1st Brygada Pancerna (B.Panc.) with its 86 T-34 and T-70 tanks, which was supported by Soviet units. After only a few days "Hermann Göring" had been stopped and beaten back. This T-34 Model 1942 from a Polish unit is traveling to the Studzianki bridgehead, where the battle took place. It is marked with three-digit tactical number and covered with a variety of foliage.



Soviet sources indicate that Fallschirm Panzer-Division "Hermann Göring" suffered the following losses: 6 Tigers, 1 Panther, 16 Pz.Kpfw. IVs, 1 Pz.Kpfw. III, 13 self-propelled guns, 1 Elephant, 3 StuGs and 9 Hanomags. It is believed that 20 of these tanks and self-propelled guns were destroyed by Polish crews, but it looks more like a fifty-fifty split. The claimed Elephant was probably a Jagdpanzer IV or similar vehicle, while all "Tigers" were, in fact, Panther tanks. Several photos of different Panthers were taken on this battleground, so it is impossible that the Germans lost only one such tank, as the Soviets claimed. Here is one of the seven Panthers, an Ausf. G modification with a white or yellow tactical number "414" outlined in black.

A photo of a T-34 tank, a Model 1942 with the old type of turret, belonging to the Polish 1st Brygada Pancerna. The Polish unit suffered the loss of 18 tanks and had nine damaged. The Soviets lost ten IS-2s from 40th Heavy Tank Regiment, as well as a few self-propelled guns (SU-76M), in the course of the battle for the bridgehead.



Arriving a few days after the Polish brigade at the Magnuszew bridgehead were T-34-85s from 164th Tank Brigade of 16th Tank Corps, which belonged to 2nd Tank Army. The standard gun for these vehicles was the 85mm ZIS S-53, one of three previously prepared for this tank (the two others being the LB-85 and the D-5T). Thanks to this modernization, the anti-tank rounds fired from the new gun could penetrate even Tiger tanks in the right situation.

A similar tank from the same 164th Tank Brigade seems to float on a cloud of smoke just after firing a shot. The tank carries the same style of unit tactical markings as the tank in the above photo. The two-digit number is preceded by the letter "T", which is the sign of the regiment in the brigade. The digit "3" is the number of the company in the regiment, and the digit "1" is the number of the tank. To the right of this code is the red national star. These stars were always red, even though they appear to be white stars in photographs.





A Pz.Kpfw. V Ausf. G in action in a destroyed village. This vehicle is from the early series, without reinforced armor on the mantlet below the gun. The towing hooks are fixed in working position. Note that the black national cross at the very front on the side of the superstructure appears to be composed of just a couple of brush strokes. There are no other markings. The anti-tank rounds fired from a Panther tank could penetrate armor plating of about 150mm at a 30 degree angle at 1,000 meters, so its ballistic capabilities were much better than Soviet 85mm guns on the T-34 or SU-85 vehicles, and very similar to those of the IS-2's gun.



German rounds struck this SU-76M on the outskirts of a village. Note the dark color of the vehicle's interior. It was painted with a dark green camouflage paint, but in 1944 the Soviets introduced white interiors to all their armored fighting vehicles.

It was no real problem for the Panther crews to fight even the most powerful tanks of the Red Army, for example the IS-2, the burning wreckage of which we see in this photo. These heavy tanks were protected by only 90mm armor plates and 120mm plates on the turret's front, so the Panther crews could destroy these "Stalins" at ranges as far as 1,500-2,000 meters. On the other hand, the rounds fired by the crews of the "Josef Stalin" tanks from their long-barreled D-25T guns rounds could penetrate 150mm plate only at a range of 1,000 meters. This means that at the distant range they had trouble penetrating the Panther's glacis plate.







When the Soviets were fighting at the Vistula bridgeheads, the Polish underground government decided to start an uprising in Warsaw to liberate the capital of Poland. Poles armed with rifles were badly surprised, however, when the Soviets stopped their advance into Warsaw and the Germans began to crush the uprising with tanks, which had to be battled with "Molotov cocktails". These attacks were sometimes successful, as seen in the photo here of a Pz.Kpfw. IV destroyed by gasoline-filled bottles on Grochowska Street on 14 September 1944. Note that the whole tank is completely burnt and blackened by smoke.



In the two months of fighting during the Warsaw uprising — 1 August 1944 to 2 October 1944 — three Hetzer self-propelled guns were captured, among them this one, which the Poles used in combat after it was repaired. The vehicle was painted in a three-tone camouflage scheme and marked with the national insignia of the Polish People's Army, the white Piast eagle. The eagle was painted on a dark spot of an unknown color.



This same vehicle was photographed just after the war at a museum in Warsaw. Note the camouflage pattern, especially on the frontal part of the vehicle. This Hetzer was later scrapped because, from the communist point of view, it was not "politically correct" to operate it.



During the fighting in October 1944, troops of 3rd Belorussian Front were stopped on the border of East Prussia, where the Germans organized a strong and determined defense. In every village and small town, German soldiers armed with Panzerfausts and other anti-tank weapons hunted down as many Soviet tanks as they could find. It was common for the Red Army armored units to enter combat without a strong infantry support, and the troops that rode on the tanks were quickly eliminated. This unfortunate T-34-85 was a victim of both these tactics and of the German defenders. Its unit markings are clearly visible on the turret.

Another T-34-85 from the same unit, shown here upended on a pile of rubble, was lost when a bridge exploded. The tank has the same style of turret markings as the tank shown above except the tactical number is different.



This platoon of T-34-85 tanks is preparing for action in the Vistula-Oder Offensive of January 1945. The markings on the front of the mudguards are absolutely atypical for the Red Army system. Both left and right mudguards are painted with a red star on the outside and a tank number on the inside. The nearest tank has tactical number "154" on the turret, the next one has "153", another one has "152", and the last, which is the platoon commander's tank, wears number "150".





A column of T-34-85 tanks takes a break on a Königsberg street. The tactical number of the tank is "24", and on the other side of it are painted the unit markings. The winter of 1944/45 was quite warm with little snow, so only a few of the armored units used winter camouflage. There are no known examples of solid coats of white on armored fighting vehicles in this period. During the three months of fighting for East Prussia, the Soviets lost 3,500 tanks, about the same number of vehicles they had on the first day of the operation.



This casualty of the Eastern Front, a T-34 armed with a 76.2mm gun, was hit by an anti-tank round and burst into flames after running into a drainage ditch alongside a road. The dark signs of a fire are clearly visible.

About a month after the opening of the offensive in East Prussia another offensive began in Pomerania. Every armored unit of the Polish 1st Army was put into service in this operation: 1st B.Panc. (T-34), 4th SPCzC (IS-2) and 13th PAC (SU-85). This T-35-85 from the 1st Brygada Pancerna's staff unit was used by the commander of the brigade, Col. Malutin, a Soviet officer. Due to the lack of trained Polish soldiers and officers, many Soviets served in the Polish armored and aviation units, and sometimes an entire Soviet unit was transferred into the Polish Army to serve in a new Polish unit. The tank is covered with old winter camouflage (probably consisting of whitewash) and marked with a white Piast eagle and white tactical number "1000".







One of the units involved in the operation in Pomerania was the Polish 4th SPCzC (the Polish abbreviation for Independent Heavy Tank Regiment), which took part in the skirmish at Mirosławiec on 10 February 1945. Note that the turret on the last IS-2 heavy tank in this photo is covered with a solid coat of winter camouflage, while the rest of tanks are in standard dark green camouflage. A few of this unit's IS-2s were still marked with four-digit tactical markings at this time.



This is an excellent portrait of an IS-2 heavy tank from the Polish 4th SPCzC. It is the later model with a rebuilt frontal part of the superstructure. Note the many details on this tank, including the crew's mascot (a teddy bear) seated behind the front light. The lack of the rear road wheel was quite a common sight in units equipped with these tanks. The Soviets did not care for spare wheels, and when the chassis was damaged by a mine, they simply replaced the damaged road wheel with one from the rear. Remnants of white paint, which was removed soon after December 1944, may be seen on the turret and gun barrel. The clothes worn by the soldiers show just how warm this winter was. This photo was taken in the first half of February 1945!



During the pursuit action across the Pomeranian fields in the first week of March 1945, Polish troops captured 22 tanks and self-propelled guns. Among them was this StuG III Ausf. G, which was captured by the Polish 4th Infantry Division. Note the steel return roller that replaced the standard one in late 1944.



Another German vehicle abandoned on a Pomeranian road — a Pz.Kpfw. IV Ausf. J with wire mesh side skirts and standard armored skirting on the turret. Note the additional armored plate bolted onto the frontal wall of the superstructure and the two entry holes where rounds hit the turret. One of them blew off the doors and a piece of turret in the area at the upper right corner of the hatch.



A German assault gun destroyed during the fight for Pomerania in early spring of 1945. This is a late production StuG III Ausf. G with the "Saukopf" gun mantlet and the small, remote control MG42 mount. The entire surface of the vehicle is covered with a camouflage pattern. Polish troops examine the vehicle even as it burns after receiving several hits.





Wreckage of the Panzerwaffe found by victorious Polish and Soviet units in captured Kolberg (Kolobrzeg) in March 1945. This photo shows the remains of a Sd.Kfz. 7/2 armed with a 3.7cm Flak 36 anti-aircraft gun and equipped with an armored cab. Like many of the Panzerwaffe's other wheeled or half-tracked vehicles, this half-track had its wheels plundered for the benefit of a needy Soviet vehicle that suffered from the general lack of spare wheels. The Sd.Kfz. 7/2, license plate number "WH-152661", is painted in a three-tone camouflage (small green and brown spots on a dark yellow background).



Though knocked out of battle, a damaged Jagdpanzer Hetzer still manages to be of service. Here it is used as part of a barricade across a Kolberg street in March 1945. Note the extensive damage inflicted on the vehicle at left.



Also photographed in Kolberg in Pomerania in March 1945 was this destroyed wagon from an armored train. It was discovered at a rail depot at the Kolberg rail station.



A recovery vehicle built on the chassis of a T-34 tank travels down a main street in Zoppot (now Sopot) in March 1945. Vehicles of this type were usually built by rear echelon recovery depots by converting damaged tanks that had lost their turrets in combat.



One of 1st B.Panc's platoons commanded by chor. (ensign in Polish Army) Daszkiewicz (from 2nd Company of 2nd Battalion) rolls through Zoppot on its way to Danzig on 27 March 1945. The tank still has signs of winter camouflage on its turret. Polish sources often claim that this platoon (four tanks) supported by an infantry battalion was sent to Danzig to support the Soviet units engaged in the battle for the city, but this is inaccurate. They were sent to Danzig for propaganda purposes. At midday of the 28th they took part in a political rally in the Danzig town square. They practically were not involved in combat for this city at all.





This T-34-85 was photographed during the fight for Danzig (now Gdansk) in March 1945. Note the unit markings on the front part of the turret's side. To the right of this rhomboid emblem is the tactical number "32" painted in white. It is repeated in the lower part of the rhomboid markings, while in the top of it, is the tank brigade number "45". There are also traces of white removable paint on the side of the turret. In the background is an American-built M16 half-track equipped for anti-aircraft duty. The Soviets did not own armored personnel carriers, so their motorized armored units included American half-tracks during the entire war. The Soviets did not understand that well-equipped units should be equipped with different sorts of weapons, so their motorized battalions often fielded armored personnel carriers that were used strictly for transporting infantry. Other armored personnel carriers designed for anti-aircraft, anti-tank and artillery support were often organized into independent regiments or brigades.



The pitiful remains of a German motorized unit that retreated from Gdynia to Kepa Oksywska, and then into the Baltic Sea to find freedom on board ships that transported them to the Hel peninsula. Note that the half-track seen at the extreme right was towing its howitzer up to the very end. This could indicate that the retreat was orderly. The camouflage on the two vehicles in the foreground looks like it is composed of a dark yellow pattern over a dark gray background. Visible in the background is a group of Sd.Kfz. 251 armored personnel carriers, including the Sd.Kfz. 251/22 Ausf. D (partly in the water) fitted with a 7.5cm PAK 40 gun.



A SU-76M (serial number "412145") is involved in a street fight in a small German town. The self-propelled gun was commanded by Lt. A.L. Lalak. Note that the interior of the "bitch" (as the gun was nicknamed) is painted in white.



Battery commander Lt. V.P. Lobachev gives orders to crew commander ml.Lt. A.M. Lifanov as they stand on a street in a German city in front of an SU-76. The SU-76 was a very good self-propelled anti-tank gun. The vehicle was similar to the German Panzerjäger, but it was often used as a self-propelled assault gun. Many units equipped with these vehicles suffered heavy losses because of the vulnerable combat compartment. Crews of the SU-76 often complained that it should have been enclosed in armor.





Furious combat could sometimes create the impression that day had turned into night due to the huge clouds of smoke and dust generated in the fight. This firing T-34, photographed in such combat, helps to create this eerie phenomenon. Note the strange installation around the tank barrel.

A battery of SU-76Ms enters a German city. All these self-propelled guns are marked with a white two-digit tactical number, which indicates the number of the battery in the regiment (first number: one of "1" through "5") and the vehicle number (second number: one of "1" through "4").



What remains of a T-34-85 column sits silently on the road to Brandenburg. Note the tactical markings and the tactical numbers on each of the tank's turrets — they look like markings of an independent brigade. In the foreground are the remnants of a Sd.Kfz. 10 half-track.



Soviet troops supported by an IS-2 storm a city in Germany. The IS-2 was armed with the 122mm D-25T Model 43 gun, which was capable of accurate shooting at a range of 1,100 meters (1,202 yards) with a muzzle velocity of 800 m/s. The anti-tank rounds could penetrate vertical plates 150mm thick at a range of 1,000 meters (1,093 yards). It was a powerful gun, but because of its size and weight it proved difficult in actual operation. Compare this gun to the 8.8cm German KwK43 L/71, which was introduced at the same time. This smaller gun was accurate at a range of 1,500 meters (1,640 yards) with a muzzle velocity of 1,130 m/s. Anti-tank rounds from an "88" could penetrate 193mm armor plate slanting at a 30 degree angle at a range of 1,000 meters.



This photograph of more street fighting shows German troops after their successful repulse of a Soviet attack. Unlike the above photo, this one shows an IS-2 of the early series, with the front part of the superstructure similar in concept to the KV-1. It is important to note that the side armor plates of the IS-2 were 90mm thick, which is the same thickness as the frontal plates! This mistake was constantly repeated on all main Soviet tanks (the T-34 and KV-1).



This T-34 fitted with a 76.2mm gun was knocked out by the Germans on the outskirts of a village in the spring of 1945. The crew tried to use the ruined wall as cover, but to no avail. They lost the duel.



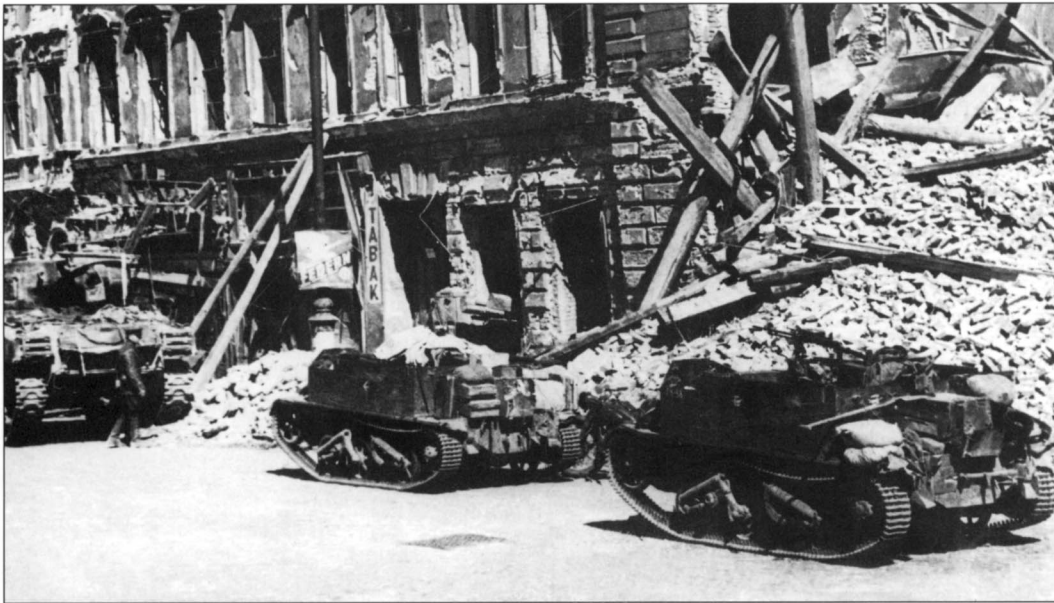
A T-34-85 crew from the 2nd Ukrainian Front poses with their tank in Austria in the spring of 1945. Note the tactical markings on the turret — a "K" followed by the number "3" in a circle and then the large tactical number "3193" — and an additional machine gun on the turret.



The 2nd Ukrainian Front that attacked Vienna was equipped with many Lend-Lease M4A2 Shermans. One of these Shermans is seen here crossing a pontoon bridge on its way to Vienna in April 1945. In the opinion of the Soviets, the best Lend-Lease tank was the Sherman. The quality of this tank was the same as the T-34. The Lend-Lease Sherman armed with the short 75mm gun (2,007 vehicles) was comparable to the T-34 Model 1943, and Sherman with the long 76mm gun (2,095 vehicles) was comparable to the T-34-85. The Sherman tank was more comfortable, required less maintenance, and was a little better armored. This tank is the M4A2(76)W model with two-digit tactical number.

An M4A2 Sherman tank rumbles down a street in an Austrian city. The Soviets received 2,073 such tanks during the last year of the war. This type of Sherman was fitted with the 76mm long-barreled gun, which was better than the Soviet 85mm ZIS-S-53 gun installed in the T-34-85. The best anti-tank round from the American gun could penetrate 135mm plating at a 30 degree angle within 1,000 meters, while a similar Soviet 85mm round could only penetrate 138mm vertical armor plate at the same range.





Another view of a Soviet M4A2 in Austria, this time accompanied by two Universal Carriers in the streets of Vienna. Both the British-made Bren Carriers carry the storm-bird marking on their side and rear. The unit code "54-38" is visible on the side of the rear vehicle. A total of 1,212 Universal Carriers were provided by the British, and a further 1,348 vehicles were acquired from the Canadians during the war.

A T-34-85 travels down a road in a small town somewhere near the Austria-Germany-Czech border. There is no doubt that the war was over for this crew, unless the suitcases stowed all around the tank were some kind of secret anti-tank weapon.



Here is a T-34-85 from a typical Polish unit, 16th B.Panc., which was originally the Soviet 16th Tank Brigade, a unit that was "re-nationalized" in early 1945 to support the Polish 2nd Army on its way to Dresden in April/May 1945. Unfortunately, it had no luck. The main part of the unit was surrounded and destroyed in Forstgen, where its two main Soviet commanding officers were killed and 23 T-34s were knocked out. The tank displays the white Piast eagle, but the unit markings are typical of the Soviet independent tank brigades.



This Polish SU-85 was completely burned out during the heavy fighting on the way to Dresden. This later model, which features a commander's cupola, belonged to 24th PAS. Out of 431 tanks and self-propelled guns used by the Polish 2nd Army during these fights, a little over 200 of them were destroyed in almost two weeks of fighting.





A Jagdpanzer IV with a 7.5cm gun (minus its muzzle break) that was knocked out in the Dresden area. This self-propelled gun received no fewer than three hits in the left side — one in the superstructure, another in the engine compartment and the third in the hull near the middle return roller. Note the tactical number "300" painted on the front part of the side plate. The vehicle has a coating of Zimmerit anti-mine paste on its armor, but it has lost its side skirts.



Two IS-2 heavy tanks demolished by German defenders. This photo is a good commentary on the quality of Soviet tank production. Both tanks lost their turrets after receiving hits, and both of them were blown to pieces from explosions or the shock of the collision with the ground. Note the interesting markings on the nearest turret. There is a white band around the turret that is interrupted by unit markings (white triangle with the Russian letter "N"), the number "45" (tactical markings) in white and a vertical band from the white cross painted on the top plate of the turret.



This Sd.Kfz. 251/7 Ausf. D Pionierpanzerwagen was left abandoned on a German street. Note the remains of the standard German camouflage seen in the final period of the war. It was composed of three colors — dark yellow, brown and green, which were painted in equal proportions.



Soviet armored troops advance past the demolished remains of a German town on their way to Berlin in April 1945. Both IS-2 tanks are from a late production series and probably belong to the same unit since they carry the same emblem painted in different places on their turrets. Note that most of the armored vehicles in this photo are missing their front mudguards. This was typical of Soviet tanks throughout the war.



An American-made Dodge 1.5-ton truck tows a ZIS-3 gun on its way to Wriezen in April 1945. The American trucks like GMC and Dodge were instrumental in transporting troops, weapons and equipment for the Soviets from late 1943 onward. In 1942 the Soviets could only equip their armored units with two types of obsolete light trucks produced in small numbers. This photo offers a great challenge to modelers who build dioramas.



A battery of ZIS-3 guns towed by GMC trucks awaits orders to march while sitting in a destroyed German city on the road to Berlin. Note the unit markings painted on the rear of the truck.

A "Royal Tiger" knocked out probably east of Berlin. It may belong to sSS-Pz.Abt.502 and is being used as a "tourist attraction" after the fighting ended. The sSS-Pz.Abt.502, which was reformed from sSS-Pz.Abt.102, was equipped with Tiger II Ausf. Bs to defend Berlin. The full complement of 37 Tiger IIs was totally destroyed by the end of the war. The "Royal Tiger" is probably the oddest name for a tank that was given during WWII. It is useful to remember that this name was created not by the Germans, but by an anonymous Soviet interpreter from the 1st Ukrainian Front staff, who interrogated German prisoners from sPz.Abt.501 who were captured near Sandomierz in the middle of August 1944. He did not know the German language very well, and the parts that were not clear to him were altered slightly in his interpretation.





Another Tiger II (in the foreground) abandoned on a street in an unknown German city somewhere in the Berlin area. Note that the tank's muzzle break and machine gun are missing. Behind the Tiger II is a Flakpanzer "Wirbelwind" and a Panther.



The same street as just seen but photographed from another position. In the foreground is a Bergepanther armored recovery vehicle, while in the background is the Tiger II seen in the above photo.





And here is a small surprise — a Pz.Kpfw. VI Ausf. B armed with the 7.5cm KwK42 L/70 from a Panther tank. The standard model of Tiger II was armed with the 8.8cm KwK43 L/71 gun. The reason for rearming this tank is not known. However, it is possible that the original gun was damaged and then replaced with the only one available at the time. This tank was probably from sSS-Pz.Abt.502, which was assigned to defend Berlin.



This photograph of the same scene was taken from a different angle. It shows a final series Pz.Kpfw. V Ausf. G Panther with a chin-type gun mantlet used to prevent shells from deflecting onto the thin roof. Note the three-color camouflage pattern seen on the glacis.



One noteworthy invention in the Panzerwaffe's arsenal in the last year of the war was the "Panther pillbox", i.e., a Pz.Kpfw. V turret converted into a fortification or pillbox. This photo shows preparations being made to build a concrete fortification beneath a Panther's turret. These turrets were often taken from damaged or destroyed tanks, especially older ones.

A dug-in Panther defends a main street in Berlin. Usually damaged Panthers were sent back to Germany where they were used to defend the capital.



This view of the same dug-in Panther might give armor modelers an idea for an unusual subject. Note how the rubble was deliberately placed around the Panther to protect it and reducing its vulnerability and making it a less conspicuous target.

This Panther pillbox received several hits that destroyed the turret. Note that it was buried deeper in the ground than the other pillboxes we have seen, and its cupola was separated from the turret. Note also the throngs of German POWs in the background.







One of the soft-skinned vehicles that strengthened the Red Army — the GMC truck. Thanks to these trucks, by the end of 1943 the Soviets could organize its armored and motorized corps in a more modern and useful way than in the previous years. Before then each tank had to carry its own infantry unit of 6-8 soldiers because of a lack of trucks. Here a GMC truck wearing numerous white unit, road and air identification markings tows a ZIS-3 gun. This photo was taken in Berlin in April 1945.



A T-34-85 hit and burned out on a street in the completely demolished city of Berlin, May 1945. Despite the smoke stains that cover the entire vehicle, the tactical number "232" is still visible, as is the white band around the turret. Note that the first number "2" is painted in different style than the second. The Red Army lost 800 tanks while reducing the size of the German pocket in central Berlin.



This is a view of the final minutes of the war in the slaughter pen of Berlin. The T-34-85 at the left is marked with a white band around the turret (an Allied recognition sign) and is equipped with wire mesh skirts to protect the tank against Panzerfaust anti-tank weapons. One of them is affixed to the turret in front of the crew hatches. Note that the skirts that were attached to the frontal parts of the turret and superstructure were shot off. Note also the tactical numbers on the turret. One of them is small and painted above the white bar, while another larger one was painted at the same time and with the same paint as the bar. The existence of the unit markings just visible under the number "09" could be explained if the tank carries the markings of two units that used the tank within a few days.



A souvenir photo of an IS-2 tank and crew taken in Berlin. This photo shows the white band around the turret, which carries the tactical number "13". The Victory Column commemorating the Prussian victory over France in the Franco-Prussian War in 1871 stands prominently in the background.

This photo of the same IS-2 shows well the style of painting the white band around the turret. Note that this band is painted only on the front part of the right side of the turret, while the second tank in the column has no such band. Also note that the air vent on the turret is partly white, which may indicate that a white cross (Allied recognition insignia) was painted on top of the turret.



T-34-85s of 55th Guards Tank Brigade entered Prague on 9 May 1945. The unit was part of 7th Guards Tank Corps, which was employed by 3rd Guards Tank Army whose commander was Gen. I.G. Ziberov. The fighting was over for both sides, and the tanks are loaded with Soviet troops and Czech insurgents. The flags of the unit are being displayed proudly.





A T-34 recovery tank travels down a street in Prague during a victory parade in May 1945 just after the liberation of the city. The T-34 recovery tank was built in front-line workshops utilizing damaged tanks with turrets that were beyond repair. The 1st Ukrainian Front under Marshal Ivan Konev was the main force assigned the task of liberating Prague. Feldmarschall Ferdinand Schoerner, who was defending Prague, finally surrendered on 11 May.



Soviet and Polish brothers-in-arms pose for a souvenir photo celebrating the May 1945 victory. The SU-85 seen in this photo has very interesting markings. Its 85mm gun barrel is painted like the lance of a Middle Ages knight with (probably) white and red stripes. Note the Polish national emblem, the white Piast eagle, and the yellow tactical number "321". This is of special interest because the Soviets and Poles always used white paint for tactical markings. Note also the Polish white and red flag hanging on a small flag pole behind the man at right in the foreground. Armor modelers will want to study the appearance of the coat of mud on the chassis and hull.



One of dozens of many victory parades of all sizes that took place between May and June 1945 all around the Soviet fronts. This ceremony was held by the Polish 1st Infantry Division in Neu Hardenberg on 22 May 1945. The tank at right is a Pz.Kpfw. V Ausf. G Panther captured by the Poles during the last weeks of the war. It still carries the German camouflage pattern with an inscription in Polish on the glacis: "To turn the tables on one's enemy". On the side of the turret is the emblem of the Polish armored troops, the red and white rhomboid checkerboard and the tactical number. Note that the crew is wearing standard Soviet helmets, which might indicate that they had to exchange German radio equipment for the Soviet equipment.



This shot of a Pz.Kpfw. V Ausf. A Panther manned by a Soviet crew from the Guards company commanded by Lt. Sotnikov was taken in Praha in May 1945. This was one of three such Panthers used by this sub-unit, all of which were painted with standard dark yellow camouflage and marked with white, three-digit tactical numbers ("503", "513" and "518") and stars.



Hundreds of other Panthers that were left behind the front lines could be seen on killing fields all over Poland up to the 1950s. One of them is seen here — an Ausf. A model with the front part of its hull demolished. A military commission discovered it somewhere in southern Poland in the late 1940s. Note the yellow tactical number "414" outlined in black painted on all three sides of the turret.

The war ended officially at the beginning of May 1945, and the peace agreement was signed on 8 May 1945, but that did not mean that the war was actually over. The fighting still raged until about the beginning of the 1950s, with the heaviest taking place in southeastern Poland where the Ukrainian partisan movement and Polish "desperado" partisan units had trouble accepting the fact that they had lost the war. Feeling betrayed, taken advantage of and forsaken by both Anglo-Saxons and Germans, friendly forces and people who were tired of the war dug in amidst the forests and waited for either final destruction or a miracle. In reaction to this, in 1948 the Polish communist government launched a large-scale operation named "Vistula" against the Ukrainians (partisans and civilian), even involving small aviation and armored units. Seen here are two BA-64 scout cars during a pause in the fighting during this operation.



