SOVIET TANKS IN MANCHURIA 1945

The Red Army's ruthless last blitzkrieg of World War II

WILLIAM E. HIESTAND

ILLUSTRATED BY HENRY MORSHEAD
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NEW VANGUARD 316

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INTRODUCTION

Red Blitzkrieg

Long overshadowed in the West by the use of the atomic bomb against Hiroshima and Nagasaki, the USSR's lightning campaign in Manchuria was one of the most unique and successful strategic operations of World War II. Led by tank and mechanized units, the Red Army overcame deserts, swamps, and mountains to smash Japan's 1-million-strong Kwantung Army in two weeks.

Although Japanese forces were weak in training and modern equipment, its units often fought fanatically, and the victory cost the Soviets 32,000 casualties. Red Army operations were characterized by surprise, speed, and deep maneuver by tank-heavy forces employing the armored vehicles, organizations, and doctrine developed at great cost fighting the Wehrmacht.

Stalin had pledged that the Soviet Union would enter the war against Japan three months after the fall of Germany, and as fighting raged for Berlin, select Red Army units began to move along the Trans-Siberian Railway to the east. Thirty divisions and nine brigades amounting to over 750,000 troops made the transit beginning in April, and 136,000 railcar loads arrived

T-34s and infantry advancing over the terrain faced by the 6th Guards Tank Army as it moved toward the Greater Khingan Mountains. Heavy rains and extreme heat made conditions miserable for the tank riders and crews during the Soviet offensive. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

between May and July. By August the Soviets had massed a force consisting of three Fronts, 11 combined arms armies, a tank army, three air armies, 80 divisions, and over 5,500 tanks and self-propelled guns. The Soviet plan was for nothing less than a "strategic Cannae" – a double envelopment with a thrust from Mongolia advancing to meet forces attacking from north of Vladivostok in the central Manchurian plain.

Balance of forces, Manchuria, August 1945		
	Soviet	**Japanese***
Troops	1,500,000	1,217,000
Armies	12 (+3 air)	5 (+ 1 air)
Divisions	80	31
Independent brigades	3 (motorized/mechanized)	9 (Infantry)
Tank and mechanized corps	4	0
Independent tank brigades	23	2
Tanks	3,704	1,115
Self-propelled guns	1,852	0
Artillery	26,000	5,360
Aircraft	3,721	1,800

*Totals include the Kwantung Army in Manchuria and Japanese 38th Army in Korea; does not include the three additional divisions and one brigade defending Sakhalin and the Kurile Islands.

Soviet tanks and self-propelled guns (SPGs) would play the decisive role in the offensive. The attack was led by battle-hardened tank and mechanized corps recently arrived from central Europe and tank brigades that had been stationed in the Far East during the war years to deter Japanese attack. The major tank formation arriving from the west, the 6th Guards Tank Army, left its battle-worn tanks in central Europe and entered battle against the Japanese with newly produced T-34s from the Ural factories and new lend-lease M4A2 Shermans. The tank brigades in the Far East had a mix of T-34s and 1930s-era BT-5s, -7s, and T-26s. As a result, the Manchurian campaign would feature a unique array of pre-war tanks operating alongside the T-34-85s, SU-100s, and ISU-152s developed to defeat the Wehrmacht.

SOVIET ARMORED FORCE EVOLUTION, ORGANIZATION, AND DOCTRINE

The Soviet armored force massed to attack the Kwantung Army on August 8 had emerged from years of doctrinal turbulence and the devastating war unleashed by Hitler in 1941. In the decade before the war, Stalin had insisted on the creation of a modern military, even during the crash industrialization of the 1930s, and ordered the mass production of tanks. Tankettes and T-26 tanks were built in large numbers for infantry support, and BT-2, -5, and -7 "fast tanks" to serve in the cavalry and mechanized exploitation role. Heavier tanks such as the medium T-28 and multi-turreted T-35 were produced in more limited numbers.

Doctrinal developments paralleled the expansion of the tank force. While the Western powers focused on the problem of breaking a World War I-style trench deadlock, Soviet military theorists developed the concept of "deep battle": armored forces supported by airborne landings mounting sequenced

Soviet tanks in attack formation. While tactical execution was often crude during the early years of combat on the Eastern Front, by 1944–45 the Soviets had developed sophisticated combined arms organizations and dramatically improved tactics. (Courtesy of the Central Museum of the Armed Forces, Moscow, via Stavka)

operations to break through enemy positions and attain operational and strategic objectives. Four mechanized corps were formed and tested deep-battle concepts in a series of major maneuvers in the mid-1930s. By 1937 the USSR had the largest tank force in the world – in fact, more tanks than the rest of the world altogether – and an advanced doctrine for its employment.

Unfortunately for the USSR, Stalin's paranoia turned to the military in 1937, and a massive purge of the officer corps followed. Senior leaders who had promulgated deep-battle concepts including Marshal Mikhail Tukhachevsky were executed or jailed, leaving Stalin's more conservative cronies in charge. Soviet observers felt that the Spanish Civil War showed that tanks were too vulnerable for independent operations, resulting in the breakup of the mechanized corps and the relegation of tanks to the infantry support role. The stunning success of the Wehrmacht's Panzer force against France in 1940 led to a sudden reversal in Moscow's views, and the Soviets began a crash program to rebuild its armored force. Large numbers of new mechanized corps were to be formed with a standardized organization of one mechanized and two tank divisions. On paper, these were powerful formations with as many tanks as a German Panzer group, but the German invasion of June 1941 caught them in the midst of formation. Almost none of the new corps had adequate training, and most were largely equipped with

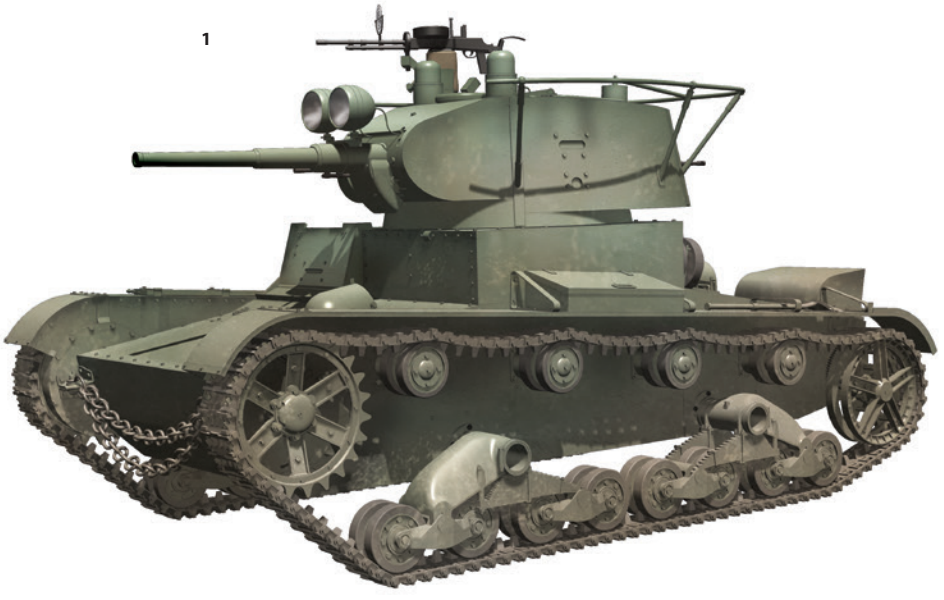
GUARDIANS OF THE EAST

A

1. T-26. The T-26 was a capable design for its time, and Spanish Nationalists preferred to operate captured T-26s with their 45mm main armament rather than the machine gun-armed *Panzerkampfwagen Is* and Italian tankettes provided by Hitler and Mussolini. In the Far East, T-26s first engaged the Japanese at Lake Khasan and at Khalkhin Gol in 1938 and 1939. This T-26, deployed in 1945, features headlights mounted over the 45mm K-20 main armament, a 7.62mm DT machine gun mounted on the turret with the P-40 anti-aircraft mount, and the older "clothesline" radio antenna. This version has the late 1930s turret with sloped turret armor. The tank is painted the standard Soviet wartime 4BO dark protective green. The USSR did not use standard tank markings during the war due partly to security concerns and as the lack of radios in many tanks limited the utility of tactical markings. T-26s were maintained in the Far East throughout the war to keep watch on the Kwantung Army, and large numbers were used alongside the more modern T-34s for the August offensive.

2. BT-7. The BT-5 and -7 shared the same 45mm main armament as the T-26, but while the later tank had a cross-country speed of 16kph and was intended for infantry support, the BT "fast tanks" were designed for mobile exploitation operations. The BTs had a top speed of 52kph on the road with tracks and up to 72kph if traveling on its wheels. Although like most tanks of the era it was vulnerable due to its thin armor, the BT-5 and -7 performed capably in the Spanish Civil War and at Khalkhin Gol and its 45mm gun could easily handle the enemy tanks it encountered. The BT force in European Russia was destroyed by the German offensive in 1941, but over 1,000 remained in the Far East. For the August 1945 offensive, four battalions of BTs were assigned to the 6th Guards Tank Army to give it an additional force of fast tanks, and 200 BTs were in the 111th Tank Division retained as the Trans-Baikal Front's reserve force.

1



2

Soviet T-34s with their tank riders advance past 76.2mm divisional guns, probably during a training exercise. The Soviets employed the 76.2mm and their SPGs for direct fire rather than for indirect fire support. (Courtesy of the Central Museum of the Armed Forces, Moscow, via Stavka)

worn-out T-26 and BT tanks, many off-line due to maintenance issues. The new KV-1, -2, and 76mm-armed T-34 being fielded were far superior to any other tank in the world, but in 1941 numbers were limited and their crews untrained. The Soviet Army and its tank force were massive, but cumbersome and ponderous.

The mechanized corps disintegrated rapidly in the face of attacks by the Wehrmacht's veteran Panzer divisions in early 1941, and over 20,000 of the Soviet's 22,600 tanks were lost in the first six months of combat. The tank divisions that survived were disbanded, except for a small number serving in the Far East, and the USSR employed its remaining tank force in brigades with mixes of T-34s, KV-1s, and light tanks. The brigades were small, often the size of Western tank battalions, had only limited maintenance and support units, and wasted away rapidly in combat. The USSR had 7,700 tanks in the force in January 1942, but only 600 were KV-1 and -2s, and 800 T-34s.

By early 1942, the factories that had been evacuated from the path of the German offensive to the safety of the Urals began to produce increasing numbers of T-34s and KV-1s, and the Soviets began to build a force structure that could perform the deep-battle operations visualized during the Tukhachevsky era. The Soviets began to group their tank brigades into tank corps, formations the size of a Western armored division, consisting of one motorized rifle and three tank brigades. The tank corps was a powerful shock and breakthrough force, but unlike German Panzer divisions it lacked adequate infantry and indirect-fire artillery to perform the full spectrum of offensive and defensive tasks. The early corps could inflict major defeats on the Wehrmacht in the right circumstances, such as during the November encirclement of the Sixth Army at Stalingrad, but remained vulnerable to German counterattacks and wasted away rapidly in combat.

As a result, the Soviets added more combat support elements to the organization as the war progressed. *Katyusha* multiple rocket launchers and 120mm mortars gave the tank corps increased firepower. The Soviets also

Soviet tank riders dismounting. Each Soviet tank brigade contained an infantry battalion, and the T-34s carried SMG-armed *tankodesantniki* to provide close support against enemy infantry. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

Soviet tank crews gathered on a 76mm-armed T-34. Numbers of 76mm-armed T-34s continued in service in Manchuria along with T-34-85s. In combat with the Japanese, the 76.2mm on the earlier version of the tank could easily outmatch any Japanese armor encountered and provided an excellent HE capability against soft targets or fortified positions. (Courtesy of the Central Museum of the Armed Forces, Moscow, via Stavka)

added self-propelled guns – *Samokhodnaya Ustanovka* – to the tank corps table of organization. SPGs lacked traditional tank turrets but could carry a larger gun. Unlike Western self-propelled artillery, Soviet SPGs were used almost exclusively for direct fire. By 1944 the tank corps table of organization included three SPG regiments. In August 1945, a tank corps at full strength fielded 11,788 men, 208 medium tanks, 21 heavy tanks or heavy SUs, and 21 medium and 21 light SUs.

The tank corps was an armor-heavy formation with great shock power, but despite the addition of more fire support units still had difficulty consolidating and holding objectives. The Soviet solution was the mechanized corps, first formed in September 1942. The corps' key maneuver units were three mechanized brigades, each with three motorized infantry battalions and a battalion-sized tank regiment. An additional tank brigade and the same combat support elements as the tank corps filled out the unit. The final composition of the mechanized corps from June 1944 to the end of the war consisted of 16,318 men, 183 medium tanks, 21 heavy tanks or heavy self-propelled guns, along with 21 medium and 21 light SUs. The mechanized corps often had more tank battalions (nine to ten) than the tank corps (six to nine), and at the same time had ten motorized rifle battalions while the tank corps had six. These mechanized corps were very powerful formations, and 14 were ultimately raised. Mechanized corps were expensive to field, however, requiring many trucks and large numbers of scarce, highly trained specialist personnel.

The Red Army began to form its growing force of tank and mechanized corps into tank army formations in 1942. The early tank armies were often little more than gatherings of tank corps and fared poorly fighting the German 1942 summer offensive, but by 1943 tank army command and organization had matured, and the tank army became the pre-eminent Soviet deep exploitation formation. Similar in size and combat power to a Western corps, the tank army was formally to be composed of two tank and one mechanized corps, although the mix of corps could vary due to mission, terrain, and unit availability. Given the limited availability of full-strength mechanized corps, tank armies in 1944–45 often consisted of two or three tank corps. In 1944, the USSR fielded 26 tank and 11 mechanized corps and six tank armies.

By 1944–45, the Soviets had refined their approach to offensive operations. Typically, a major offensive would be conducted by multiple

A late-model T-26 with sloped turret armor and the clothesline radio antenna. Some T-26s were produced in 1940 with more modern whip antennas. This T-26 does not have the rear-firing machine gun mounted in some versions to defend against infantry attack from the rear. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

The Soviets suffered catastrophic losses during 1941, amounting to over 20,000 tanks. By 1942, few BTs were still in operation against the Wehrmacht, but over 1,000 BT-5s and -7s were retained in the Far East to deter any Japanese offensive moves. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

Fronts, with special representatives from the General Staff such as Zhukov or Vasilevsky dispatched from Moscow to coordinate. *Maskirovka* camouflage and deception techniques were used to hide the large-scale buildups of troops, tanks, artillery, and supplies and to deceive the enemy as to the major zones for attack. The Fronts would attack with their combined arms armies, breaking through enemy defenses with a heavy artillery barrage followed by infantry assault supported by SPGs and heavy tank regiments. Some armies were designated "shock" armies due to particularly heavy augmentation with artillery and mechanized assets.

Tank armies were positioned in the second echelon behind the attacking forces to quickly exploit breakthroughs in the enemy front. Second echelon formations were not reserves in the Western sense but positioned behind the first wave to develop the attack. Mixed cavalry-mechanized corps were also used in the exploitation role and were valued for their ability to operate in difficult terrain such as the Pripet Marshes. With the enemy front line broken, the second echelon exploitation formations would drive deep into enemy rear areas to shatter the defense, seize key objectives, and envelop enemy units. The Soviets paid great attention to doctrine for pursuit operations and meeting engagements. Tank and mechanized corps led the advance with light reconnaissance elements ahead and on the flanks, and powerful forward detachments typically built around a reinforced tank brigade led the main column and brushed aside any light resistance. If a major enemy force was encountered, the advance detachment would engage and pin it in place so the following main body could maneuver to strike from the flank.

Late war Soviet offensives were massive in scale. Over 2 million Soviet troops participated in the Vistula–Oder offensive launched in January 1945, along with over 6,000 tanks and SPGs and 13,000 artillery pieces. Although German forces continued to inflict heavy losses on the attackers, Soviet offensives were usually only halted when their supply lines became overstretched, leading to a period of consolidation and buildup before the next attack. Due to the massive losses in personnel suffered by the USSR in the early years of the war, the Red Army's deep-battle doctrine emphasized firepower and maneuver through the use of massed artillery and deep exploitation by combined arms mechanized units. In August 1945, the USSR turned this war machine against Japan, and the vast scope of the theater of operations and need for long-range maneuver would bring Soviet tanks and SPGs even more to the fore.

T-26s on parade. These models feature sloped turret armor, the clothesline antenna, and the double forward headlights over the 45mm main armament. The lead two tanks have mounts for the anti-aircraft 7.62mm machine gun but lack the MG. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

TECHNICAL FACTORS

Tanks

The Soviet tank force in the Far East in August 1945 contained a unique mix of pre-war designs and more powerful armored fighting vehicles developed in response to the intense combat on the Eastern Front. The USSR had approximately 3,000 T-26 tanks in the Far East in 1941, and 1,272 were still in the inventory and operational in August 1945. The T-26 was a licensed production variant of the British Vickers 6-ton tank obtained in 1930. The initial version featured two turrets with machine guns followed by a single-turret version with the 45mm K-20 main armament and a coaxial machine gun. Unlike many other tank guns of the era, the 45mm was able to deliver an effective high-explosive shell in addition to an antitank round. Vehicle weight was 10.5 tons, and the 91hp engine drove the tank to speeds of 26kph on roads and 16 cross-country, which was adequate for its infantry support role. A portion of the force were produced as command tanks with horseshoe radios around the turret. T-26s were produced during the 1930s in large numbers – over 12,000 in total – more than the combined tank production of Germany and France.

The T-26 was a capable design for its era and served in tank battalions assigned to rifle divisions as well as separate tank regiments and brigades. Captured T-26s were preferred by the Nationalists to the light machine gun-armed tanks received from Italy and Germany during the Spanish Civil War. The T-26 carried a larger main gun than the majority of German tanks in 1941 but training, command, maintenance, and readiness issues led to the rapid destruction of the vast bulk of the Soviet tank force in a matter of months. The T-26 survived in the Trans-Baikal and Far East Fronts where the USSR maintained forces to deter a Japanese attack. Fifty-five T-26 chassis were rebuilt into armored transporters, which served with the First Far Eastern Front's 10th Mechanized Corps in 1945. To help with traction in the region's difficult terrain, a wider

Soviet tank holdings in the Far East, August 5, 1945

Type	Order of battle	Operational
T-34	1,899	1,794
M4A2	250	250
BT-5	190	101
BT-7	1,030	797
T-26	1,461	1,272
KV	77	47
Valentine	81	78
T-60/70	46	14
T-38	325	304
Tankettes	52	52
IS	19	6
T-27	56	56
T-37	52	52
M3 light	1	-
M3 medium	1	-

Soviet BT-7 Model 1937s at Khalkhin Gol, 1939, where the first major clash between Soviet and Japanese tanks took place. Several brigades with BT tanks made up the bulk of the Soviet armored force, with smaller numbers of T-26s present in the tank battalions in the rifle divisions. Soviet forces under future Marshal Georgy Zhukov inflicted a severe defeat on the Japanese, encircling and destroying several divisions. (Wikimedia Commons/Public Domain)

track grouser was locally manufactured for the T-26s. In March 1945, Stalin ordered that the tank forces of the Far East be strengthened, and enough T-34s were sent to re-equip one battalion of each tank brigade, but the remaining battalions retained large numbers of T-26s during the August offensive.

While the T-26 was developed for infantry support, the USSR designed the BT *Bystrochodya Takhn* ("fast tank") series for the deep-battle exploitation role. The bulk of the 8,000 BTs produced were lost in the first months of Operation *Barbarossa* in 1941, but over a thousand were stationed in the Far East and were available for the 1945 offensive. Like the T-26 infantry support tank, the BTs were based on a foreign design, in this case that of J. Walter Christie, an eccentric US tank designer. Christie's focus was mobility, and he designed tanks that could conserve track life and increase

B

MAIN BATTLE TANKS

1. T-34-85. A T-34-85 assigned to one of the First Far Eastern Front's independent tank brigades. T-34s led the 1st Red Banner Army's regimental columns, knocking down trees used by the attached engineers to construct primitive corduroy roads. After Soviet forces broke through the difficult frontier terrain, the tank brigades were augmented with SMG-armed infantry and SPG regiments to form forward detachments and attacked through disorganized Japanese defenders toward Mutanchiang. While Soviet tanks did not carry uniform tactical markings, local commanders sometimes directed unit-specific markings be used, as on this T-34. Soviet tanks also often carried patriotic slogans during the war, and in the Manchurian campaign references to victory and Stalin were typically featured. This tank carries the words "Stalin is with us – Victory is with us."

2. M4A2 (76mm), 46th Guards Tank Brigade, 9th Guards Mechanized Corps. Soviet-era historical accounts were dismissive of the impact of lend-lease tanks, but the Red Army retained a number of formations fully outfitted with US Shermans even when T-34s had been produced in adequate numbers. The 9th Guards Mechanized Corps of the 6th Guards Tank Army operated 250 M4A2 Shermans, dubbed "Emchas" by their crews. The 9th Guards M4 crews left their worn-out tanks in eastern Europe and received new lend-lease Shermans in their assembly areas in Mongolia. While typically more reliable than Soviet-produced tanks, the Shermans struggled in Manchuria, burning fuel at a higher rate than the T-34s, and having more trouble negotiating difficult terrain due to their narrower tracks. Lend-lease vehicles were often left in their original olive drab and not repainted with the Soviet dark green 4BO. The numbers on the turret, a unit-specific usage, are from a Sherman from the 9th Guards' 46th Guards Tank Brigade photographed in 1945 in Prague. It is uncertain if similar identifiers were employed by the unit during the attack into Manchuria.

1

2

ABOVE LEFT
Soviet troops ride SU-76M SPGs over a bridge. Rifle divisions in Manchuria typically were supported by an organic SU-76M battalion, an organization that was made permanent in the Soviet 1946 revision of its tables of organization and equipment. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

ABOVE RIGHT
An SU-76M crew at rest in Manchuria, with a tarp over the open fighting compartment in the rear to protect against the intense heat. While favored for its mobility and firepower, SU-76M crews criticized the SPG's vulnerability due to light armor and the open rear compartment. (Courtesy of the Central Museum of the Armed Forces, Moscow, via Stavka)

speed by moving on their wheels with the tracks removed. Christie was unsuccessful in selling his designs to the US Army, but the Soviets bought two turretless M1928 Christie tanks – labeled "tractors" to bypass export restrictions – in 1930. The first resulting design, the BT-2, was equipped with either dual machine guns or a licensed version of the German Rheinmetall 37mm antitank gun. The Soviets soon chose to mount the same 45mm 20-K gun used on the T-26 on the BT. The resulting design was designated the BT-5 and production began in 1933. The BT-7 with an improved M-17T engine soon followed.

The BT's powerful 500hp engine gave the light vehicle high speed both with and without tracks. Its 6–22mm armor provided protection against small-arms fire and artillery fragments, and some protection against small-caliber antitank weapons used in the 1930s and still in the Kwantung Army's arsenal in 1945. The 45mm gun which the BT shared with the T-26 was capable of defeating the lightly armored Japanese tanks in 1939 as well as six years later, and in addition could deliver effective HE rounds against soft targets or enemy defensive positions. In 1944, the 203rd Tank Brigade in the Far East tested a BT variant with appliqué armor, but it is unknown how many were upgraded. A total of 1,030 BT-7s and 190 BT-5s remained with units in the Far East in 1945, including in tank battalions in some of the independent tank brigades, in four independent tank battalions assigned to the 6th Guards Tank Army, and 200 with the Trans-Baikal Front's 111th Tank Division.

Basic characteristics of Soviet tanks and SPGs

	T-26	BT-7M	T-34-85	M4A2 (76)	KV-1	Valentine	SU-76M	SU-100	ISU-152
Crew	3	3	5	5	5	3	4	4	5
Main armament (mm)	45	45	85	76	76.2	57	76.2	100	152.4
Main rounds carried	165	172	55–60	71	114	53	60	34	20
Frontal armor (mm)	7–15	15–22	60–90	51–108	40–120	20–90	15–75	45–110	60–90
Weight (tons)	10.5	14.5	32	33.3	47.5	18.6	11.2	31.6	45.5

The legendary 76mm-armed T-34 played a major role in the survival of the USSR in the first desperate years of the war. Its powerful 76.2mm main armament and sloped armor were superior to that of all German tanks of the time and ignited a gunpower and armor race on the Eastern Front. The T-34's powerful 500hp diesel engine and broad tracks gave it good mobility in snow and difficult terrain. Facing the new German Tiger and Panther tanks in 1943,

the Soviets upgraded the design with a more powerful 85mm gun in a redesigned turret. The new T-34-85 not only provided superior firepower, but it also greatly improved combat effectiveness by allowing for a three-man turret, freeing the tank commander to concentrate on directing tank operations and identifying targets. Stalin ordered the strengthening of the Far East tank force in March 1945, and 670 new T-34s were shipped east over the summer, replacing one tank battalion in each of the independent tank brigades. Over the summer, the 6th Guards Tank Army arrived with the T-34-85-equipped 5th Guards Tank and 7th Mechanized Corps. A total of 1,899 T-34s were in the Far East in August 1945.

T-34-85s of the Second Far Eastern Front. The T-34-85, first fielded in 1943, had a more powerful 85mm main armament, and allowed for three crewmen in the turret. The presence of a dedicated gunner allowed the tank commander to concentrate on directing vehicle movement and fire, dramatically improving situational awareness and tank efficiency. (Sovfoto/Universal Images Group via Getty Images)

The Soviet force in the Far East included 250 lend-lease M4A2 Sherman medium tanks outfitting the 6th Guards Tank Army's 9th Guards Mechanized Corps. Soviet officials often complained about the quality of the 11,600 lend-lease tanks received from Great Britain and the United States during the war. The Matildas, Valentines, and Stuarts first received were inferior to T-34s, although certainly superior to the T-60 and T-70 light tanks the USSR had to field in large numbers early in the conflict. The US Grant/Lee (M3S in Soviet service) was dubbed the "coffin for seven brothers" due to its vulnerable high silhouette. In 1943, unhappy with the vulnerability of gasoline-powered Shermans to fire, the Soviets requested only M4A2 variants with diesel engines. The M4A2's production quality and reliability were superior to the often crudely produced T-34, and the Soviets retained several corps with Shermans through the end of the war. In Manchuria, Shermans had more difficulty transiting soft sand and the rugged trails through the Greater Khingan Mountains than the T-34s, due to their narrow tracks.

76mm-armed T-34s on the move in the Far East carrying *tankodesantniki* supporting infantry. The T-34's broad tracks and powerful 500hp engine gave it excellent mobility, critical as Soviet forces had to traverse deserts, mountains, and rugged hills covered with taiga forest during the Manchurian campaign. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

The Soviets also continued to request lend-lease Valentine tanks from the Western Allies during the last two years of the war. Produced by Britain to replace the Matilda for infantry support, the Valentine had been almost completely replaced by Churchills in Allied service by 1944. The Valentine remained popular with the Soviets, however, and production continued after 1943 in Britain and Canada purely for delivery to the USSR. The first Valentines received were equipped with the 40mm 2-pounder main armament and deployed in brigade-sized units. By 1945, the Soviets were able to use later-model Valentines equipped with the superior 57mm 6-pounder gun as reconnaissance tanks due to their superiority to the T-60 or T-70 light tanks. The Soviets investigated replacing the 6-pounder with the superior 76.2mm, but the turret ring was too small. Of the 81 Valentines in the Far East in 1945, 78 were operational and were used to equip reconnaissance elements.

Small numbers of the KV-1 heavy tank, another survivor of the early war years, remained in service in the Far East in 1945. Encounters with the heavily armored KV-1 and KV-2 tanks generated a measure of "tank panic" amongst German units during the first days of Operation *Barbarossa*. By 1942 the KV-1 design was losing its luster, as improved German ammunition and antitank guns were available, and the KV was a heavier and less mobile vehicle than the T-34 but mounted the same 76.2mm gun. The KV-1's 46-ton combat weight posed challenges, as the standard Soviet engineer bridging set was intended for 30 tons. By 1943, the KVs were removed from tank brigades, where the mismatch in speeds and capabilities of the T-34s, T-70s, and KV-1s had in any case proved problematic, and KV-1s were formed into 21-tank guards breakthrough tank regiments. Very rare in the war against Germany after 1944, 77 remained in the Far East, but only 47 were operational and equipped two regiments.

Mobility characteristics of Soviet tanks and SPGs

	T-26	BT-7M	T-34-85	M4A2	KV-1	Valentine	SU-76M	SU-100	ISU-152
Horsepower @ rpm	91 @ 2,200	500 @ 2,200	500 @ 1,800	375-400 @ 2,100–2,900	600 @ 2,000	138 @ 1,800	2x85 @ 3,000	520 @ 1,800	600 @ 2,000
Hp/wt	8.6	34	15.6	12.3	14.1	7.99	15.2	16.5	13
Ground pressure (kg/cm2)	.68	.78	.78	1.06	.8	.72	.57	.77	.81
Ground clearance (m)	.38	.4	.4	.43	.45	.41	.3	.4	.46
Fording ability (m)	.8	1.2	1.3	1.06	1.5	.91	.9	1.3	1.3
Vertical obstacles (m)	.7	.55–.75	.8	.61	1.0	.838	.7	.8	1.0
Trench crossing (m)	1.8	2.0	2.5	2.3	2.7	2.286	2.0	2.5	2.5
Maximum grade (degrees)	32	40	35	31	36	32	25	35	36
Max speed road (kph)	26	50–86 (wheels)	55	40–48	43	24	45	50	37
Max speed terrain (kph)	16	38–62 (tracks)	30	27	19	15	32	40	16
Fuel (liters) – internal + external	292	790	500 + 180	673	600	164 + 136	420	500 + 270	520 + 270
Max range, road (km)	225	250	360	240	335	177	265	320	220

Self-propelled guns

As the armor-gun race on the Eastern Front intensified, both Germany and the USSR realized they could mount larger guns at less cost by placing them in fixed forward-firing mounts rather than on rotating turrets. Berlin used its Sturmgeshütz assault guns as substitute tanks and also developed self-propelled artillery pieces such as the Wespe and Hummel for indirect fire support to its mobile divisions. Soviet practice differed, with its SPGs employed for direct fire, but typically held back in overwatch or flanking positions to support tank and infantry assaults rather than leading the attack.

An M4A2 (76mm) in 1945 in Eastern Europe. The Soviets disliked the early gasoline-engine Shermans received from the Western Allies in the earlier years of the war and requested M4A2 models with diesel engines. A total of 4,252 M4A2s were received from the US, evenly split between 75mm and 76mm versions. (US Army)

In 1942, the USSR searched for a way to employ its poor T-70 light tank design and mounted the standard ZiS-3 76.2mm divisional gun-howitzer on the chassis. The initial SU-76 version retained the poor twin-engine position of the T-70, with an engine positioned to power each track, causing many mechanical problems in the field. The subsequent SU-76M design arranged the two engines in tandem on the right side of the tank, leading to the main armament being offset 20 degrees to the left, and the driver sitting with two unshielded engines to his right. The SU-76M had an open fighting compartment, giving space for working the 76.2mm and allowing for good observation. A DT 7.62mm machine gun was clipped inside the compartment to be used for close defense if needed. The SPG's armor was only adequate against small-arms fire or shell fragments, and the open fighting compartment left the crew vulnerable to artillery fire or grenades. Due to its cheap construction and vulnerability, the SPG had a mixed reputation, and its nickname – *suka* – can be translated as either "little Su" or "bitch." The SU-76M's light weight, low ground pressure, and small size allowed for good mobility in poor terrain, including swamps and urban terrain.

The SU-76M became the second most produced Soviet AFV of the war, and while its utility as an antitank weapon waned due to the increasing

Infantry and M4 "Emchas" in the Far East, probably in pre-offensive training. Here, the SMG-armed tank riders have dismounted and are following the M4 toward an objective. The USSR did not produce armored personnel carriers during the war, as it had to focus almost exclusively on tank and SPG production to compensate for the heavy losses suffered in combat with the Wehrmacht. As a result, the Soviets relied on SMG-armed infantry riding on tank decks where they were extremely vulnerable to enemy small-arms and artillery fire. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

A lend-lease Valentine in Soviet service. The Red Army preferred the Valentine to the earlier Matilda heavy tank due to its superior mobility, especially in winter conditions. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

armor on enemy tanks, it continued to serve as the primary Soviet infantry fire-support SPG. SU-76Ms were deployed in 21-vehicle SPG regiments assigned to tank or mechanized corps or controlled at army or Front levels, with 119 regiments in service in May 1945. Beginning in 1944, the Soviets began to form separate self-propelled artillery battalions with three four-gun batteries and an additional SU-76M in the headquarters to be assigned to rifle divisions. A total of 952 SU-76Ms were deployed in the Far East for the Manchuria offensive in regiments attached to the mechanized and tank corps and separate SPG battalions assigned to the rifle divisions. The SU-76M's good mobility proved useful as Soviet forces attacked across deserts, forested hills, and mountains in the Far East.

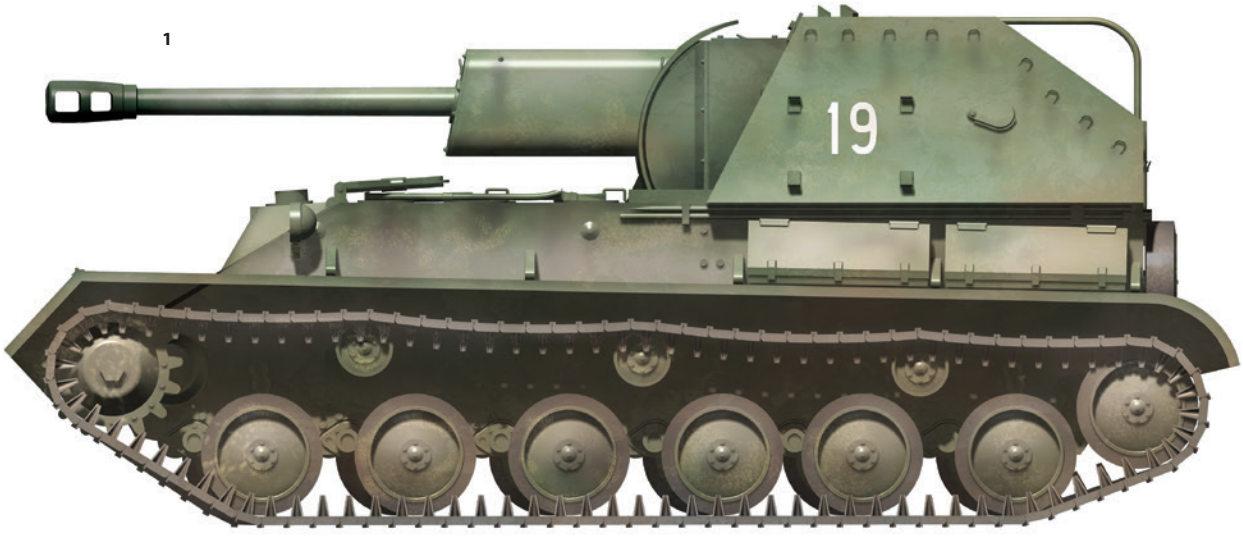
C

MOBILE FIRE SUPPORT

1. SU-76M. A SU-76M self-propelled gun in standard 4BO dark green. A total of 952 SU-76Ms were in the inventory of Soviet forces in the Far East in 1945, the majority serving in independent SPG battalions assigned to directly support rifle divisions, and some in light self-propelled artillery regiments assigned to the tank and mechanized corps. While lightly armored and with a vulnerable fighting compartment, when properly employed the SU-76M could deliver effective support fire to aid attacking infantry. While largely ineffective as an antitank gun during 1944–45 against late-war German AFBs, the 76.2mm armament on the SU-76M would have been able to deal with the light Japanese Type 94 and 97 tanks in Manchuria. During the campaign, the SU-76M's light weight and good mobility allowed it to traverse difficult terrain and, loaded with infantry, they helped keep the Soviet advance moving.

2. SU-100. When large numbers of T-34-85s entered action against the Germans, the SU-85 was rendered redundant, and the Soviets launched a rapid effort to produce an antitank SPG with a larger gun. A prototype using the basic SU-85 chassis but carrying a 100mm gun was designed in only 18 days. By the last year of the war, large numbers of SU-100s had entered action, with a gun able to penetrate the armor on almost all German tanks. The heavy 100mm strained the front of the vehicle, however, causing mechanical difficulties. A total of 262 SU-100s were deployed with Soviet forces in Manchuria in 1945, but appear to have seen little action, and certainly had no armored opposition requiring their 100mm antitank capabilities. Like many Soviet armored fighting vehicles of World War II, the SU-100 was widely exported both to Warsaw Pact client states and abroad, notably serving in the Egyptian army during the 1956 and 1967 wars with Israel, and as late as 2015–16 in the civil war in Yemen.

1



2

As the SU-76's capabilities against enemy armor declined, the Soviets developed additional SPGs with larger guns. Moscow produced 2,600 SU-85s with an 85mm cannon on a turretless T-34 chassis. Effective in 1943–44, the SU-85's usefulness declined due to the heavier armor on the German Tiger and Panther as well as the large-scale deployment in 1944 of T-34-85s carrying the same armament in a rotating turret. To up-gun the vehicle a prototype was designed in 18 days mounting a DS-10S 100mm gun on a modified SU-85 chassis. The SU-100 largely used the SU-85's design, with an improved commander's cupola and the front rollers strengthened to support the much longer 100mm gun. SU-100s were fielded in regiments with 21 and brigades with 65 SU-100s. The 6th Guards Tank Army deployed for the offensive into Manchuria with the 208th and 231st SU-100-equipped brigades controlled at the army level, and a regiment each organic to its 5th Guards Tank, 7th Mechanized, and 9th Guards Mechanized Corps.

Soviet SPG holdings in the Far East, August 5, 1945

Type	Full order of battle	Operational
ISU-152	197	188
SU-152	11	-
SU-100	262	261
SU-76M	952	944
SU-122	6	2
ISU-122	1	1
SU-85	6	1

The most powerful Soviet self-propelled gun was the ISU-152. In 1943, the SU-152 mounted a 152mm ML-20 Model 1937 gun-howitzer on a KV tank chassis. Numbers were deployed during the battle of Kursk, and their ability to take out German Panther and Tiger tanks led to it being nicknamed *Zvierboiy* ("Animal Hunter"). The ISU-152 followed with the same weapon placed on the Joseph Stalin/IS heavy tank chassis. ISU-152s were organized into independent Guards heavy SU regiments and typically followed tanks in the assault. Although formally considered artillery, like all SUs the ISU-152s were almost exclusively used for direct fire. One hundred eighty-eight operational ISU-152s and 11 of the older SU-152s were in the Far East for the offensive, organized in nine Guards heavy self-propelled artillery regiments each of 21 SPGs. The ISU-152 regiments were concentrated in the 1st Red Banner and 5th Armies that made the First Far Eastern Front's main attack through the Japanese fortified zone.

Miscellaneous AFVs

Soviet forces in the Far East held a stockpile of older armored vehicles held in storage or used as training vehicles. None appear to have participated in the offensive. These included 57 T-27s, tankette-sized vehicles with a 37mm gun in place of the typical machine gun. Most T-27s had already been placed in the reserve by the Red Army in the late 1930s. The Soviets also held a substantial number of pre-war light tanks, including 52 T-37s, 325 T-38s, and 46 T-60/70s. The arsenal also had small numbers of wartime tank and SPG models, including one M3L (an M3 Stuart light tank), an M3M (an M3 Lee/Grant medium), 19 IS-2 heavy tanks, and six SU-85, six SU-122, and 11 ISU-122 SPGs.

THE CAMPAIGN

Forces and plans

Soviet tank and SPG order of battle, August 9, 1945							
Unit	**Tank Corps**	**Mechanized Corps**	**Tank Divisions**	**Tank Brigades**	**Tank Battalions**	**SPG Brigades**	**SPG Regiments**
Trans-Baikal Front			1 (111)*	1 (201)			
17th Army					2 (70, 82)		
36th Army				1 (205)	2 (33,35)		
39th Army			1 (61)	2 (44, 206)			3 (735, 927, 1197)
6th GTA	1 (5 G)	2 (7, 9G)			4 (1, 2,3, 4)	2 (208, 231)	
Cav-Mech GP				1 (43)**			
53rd Army							
1st Far Eastern Front		1 (10)					
1st Red Banner Army				3 (75, 77, 257)***			3 (335, 338, 339 G)
5th Army				5 (72, 78, 208, 210, 218)			6 (333, 338, 395. 478, 479, 480 G)
25th Army				1 (259)			
35th Army				2 (125, 209)			
2nd Far Eastern Front							
2nd Army				3 (73, 74, 258)			
15th Army				3 (165, 171, 203)			
16th Army				1 (214)	2 (178, 678)		
Totals:	**1**	**3**	**2**	**23**	**10**	**2**	**12**

* Table includes the total number of formations followed by their designation(s) in parenthesis.
** Cav-Mech Group also included 3rd Mongolian Tank Regiment.
*** Also included the 48th Heavy Tank Regiment.

The Soviets faced major challenges as planning began for the offensive. The theater of operations was vast – Manchuria amounted to 1.5 million square miles, roughly the size of France and Germany together. Manchuria is a natural redoubt, with a central plain surrounded by a horseshoe-shaped series of barriers including the deserts of Mongolia and the Greater Khingan Mountains to the west, the Lesser Khingans to the north, and the eastern highlands to the east. Rivers, taiga forests, and swampy terrain complicate movement in the east, and any good avenues of approach were defended by Japanese fortified positions. The Soviets attacked during the rainy season and would face incessant rain and muddy terrain. Nor would the attackers have time for a methodical advance, as Soviets accelerated their planning as the Japanese began to move toward surrender. Once begun, Stalin pushed Red Army forces to press their attacks and consolidate objectives before the possible arrival of US forces.

The Soviets faced a large but poorly trained and equipped opponent in Manchuria. The Kwantung Army had been Japan's premier ground force but during the war became a source of reinforcements for other theaters. In early 1945 ten divisions departed for the defense of the home islands. The

The 48th Guards Heavy Tank Regiment supported the 1st Red Banner Army's attack against the Japanese frontier defense with 21 KV-1 tanks. This KV-1 has an unditching beam attached to the tank's right side. (Courtesy of the Central Museum of the Armed Forces, Moscow, via Stavka)

2nd Armored Division was sent from Manchuria to the Philippines in 1944, and the 1st Armored Division to the home islands in early 1945. By August 1945 the Kwantung Army in Manchuria and the garrison in Korea contained 31 infantry divisions and nine infantry and two tank brigades organized into the 3rd and 1st Area Armies, equivalent to a Western army group, and the 4th Separate Army. Three additional divisions and one brigade were stationed on Sakhalin and the Kurile Islands. Including the 300,000 troops from the puppet Manchukuo state, Japanese forces in Manchuria and Korea amounted to 1.2 million men.

Although Japanese forces would often fight with suicidal ferocity in Manchuria, low levels of training and obsolete equipment hindered the defense. Twenty-six of the Kwantung Army's 31 divisions had been formed since the beginning of the year, and many were filled out with levies and militia drawn from the Japanese colonist population in the region, or from cannibalized and disbanded smaller units. Equipment was lacking or obsolete, and there was little artillery over 75mm and no modern antitank guns. The Japanese rated the combat power of the 24 divisions in Manchuria as equal to seven to eight full-strength divisions, and the seven in Korea as equal to two. The Kwantung Army contained only two tank brigades, the 1st and the 9th, as well as scattered tank companies with some infantry divisions. Two of the brigades' four tank regiments had been formed days before the Soviet attack.

The Japanese leadership realized their pre-1945 plans for offensive operations were impractical and prepared for delaying actions and ultimately a stand in a large defensive zone along the Korea–Manchuria border designated the Tunghua Area Redoubt. These defense plans were compromised by flawed analysis of terrain and likely Soviet avenues of attack. In the west, the Kwantung Army viewed the Mongolian Desert and Greater Khingan Mountains as impassable for large units. As a result, the Japanese Third Area Army did not guard the easily defended mountain passes. Only the Hailar and Wuchakou corridors in the west, both served by rail links, were viewed as practicable, and the Kwantung posted an infantry division in fortified positions to guard each.

Against the Germans, Stalin and the high command would frequently send a representative such as Marshal Aleksandr Vasilevsky or Georgy Zhukhov with small staffs to coordinate the operations of multiple Fronts when needed. For the Manchurian campaign, the need to control three Fronts operating in such a vast area of operations led to the creation of a fully staffed theater headquarters under Marshal A. M. Vasilevsky, Stalin's capable Chief of the General Staff. Vasilevsky would control three fronts and all air and naval operations. Marshal R. Ya. Malinovsky's Trans-Baikal Front's 650,000 troops were positioned to attack from Mongolia across the Gobi Desert and Greater Khingan Mountains, led by the 6th Guards Tank Army. Marshal K. A. Meretskov's First Far Eastern Front would strike

through the Japanese fortified zone facing the Soviet Maritime Provinces and meet Malinovsky in the central Manchurian plain. The Second Far Eastern Front under General of the Army M. A. Purkayev would launch a pinning attack aimed at Harbin, and controlled the 16th Army on northern Sakhalin. The Soviet Pacific Fleet would launch amphibious operations against the Kurile Islands, Sakhalin, and the Korean coast.

Malinovsky's Trans-Baikal Front would strike through Mongolia with almost half of the total combat power in theater and led by the most powerful Soviet armored formation, the 6th Guards Tank Army. The Front's ultimate objectives, Changchun and Mukden in the central plain, were 800kms from the start line. The tanks of the 6th Guards would launch the decisive attack across the Greater Khingan Mountains, which the Japanese considered impassable to large formations. On the Front's right flank, the Soviet-Mongolian Mechanized-Cavalry Group and the 17th Army would strike south across desert terrain in the direction of the Great Wall and Mao's

A photo of an SU-100, to the left, next to its SU-85 predecessor at the Ural Heavy Machinery Factory that developed the SU-100 prototype. The SU-100 was a dramatic improvement over the SU-85 it replaced, with a gun capable of penetrating German tank armor at long range and an improved commander's cupola for better visibility. Roof ventilation fans improved crew conditions when using the main armament. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

Chinese communist forces. On the Front's northern flank, the 36th and 39th Armies would launch holding attacks against Japanese forces holding the fortifications at Hailar and Wuchakou. The Trans-Baikal's 53rd Army would be in the second echelon and enter the battle where needed.

The commanders and formations transferred from Europe were specifically selected due to their expertise in fighting the Germans. The 6th Guards Tank and 53rd Armies had fought through the Carpathian Mountains and were now selected to attack through the Greater Khingans. The 39th Army had most recently attacked strong German fortifications in East Prussia and would now operate against Japanese fortified positions to the north of the main 6th Guards Tank Army attack. The Front's 17th and 36th Armies had guarded the area throughout the war and were heavily reinforced for the offensive.

Meretskov's First Far Eastern Front would launch the second pincer from the Soviet Maritime Provinces. Meretskov had commanded the Soviet forces battling the Finnish fortifications in the difficult terrain of the Karelian Isthmus in both 1939 and 1944. The First Far Eastern Front was reinforced with the 5th Army transferred from the west, a veteran formation with extensive experience breaking through German defenses. The 1st Red Banner and 5th Armies would conduct the primary attack aimed at the key communication hub of Mutanchiang, attacking through forested hills and Japanese fortified zones,

An excellent photo of SU-100s on a road march on the Eastern Front. As with most Soviet vehicles, crew conditions were cramped, and the heavy gun stressed the forward road wheels, leading to breakdowns. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

and would ultimately advance to meet the Trans-Baikal's forces around Changchun. The 25th Army would attack to the south into Korea, and the 35th to the north of the main attack would launch another supporting attack toward Harbin. The first-echelon armies were reinforced by separate tank brigades and nine heavy ISU-152 self-propelled artillery regiments. The rifle divisions had SU-76M light self-propelled gun battalions for direct support. The 10th Mechanized Corps, with 249 tanks in one tank and two mechanized brigades, was the Front's second-echelon exploitation force and ready to exploit once the 5th and 1st Red Banner Armies had broken through.

Purkayev's Second Far Eastern Front was to launch a secondary attack to pin Japanese forces to the north and advance on Harbin. The Front's 2nd Red Banner and 15th Armies faced the initial challenge of crossing the Amur and Ussuriysk Rivers and then advancing through marshy terrain. The Second Far Eastern Front also controlled the 16th Army on northern Sakhalin assigned to secure the entire island, as well as a group of forces on the Kamchatka Peninsula ready to take the Kurile Islands. The Amur River Flotilla would support the move against Harbin, and the Pacific Fleet would support Purkayev's operations with small-scale amphibious landings on the Kuriles, Sakhalin, and the coast of Korea.

A head-on view of an SU-100. Like the other Soviet SPGs, the SU-100 lacked a coaxial machine gun, and the crew would need to use their small arms to defend against a close assault. Soviet tactical doctrine called for their SPGs to operate in an overwatch fire-support role as infantry or tanks closed with the enemy and take identified targets under fire from a distance. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

The Soviet armored force in Manchuria in 1945 contained units with both early and late war tables of organization and equipment. The 61st and 111th Tank Divisions, organized according to the 1941 mechanized corps table of organization and equipment (TO&E) but operating independently, remained in the Trans-Baikal Front's force structure. Each division contained two tank regiments along with motorized rifle and mixed artillery-antitank regiments. The 61st contained 164 T-34-85s in August 1945, and the 111th 200 BT-7s. For the August 9 attack, the T-34-equipped 61st was assigned as the 39th Army's forward detachment, while the 111th was retained as a reserve under Front control. Two 1941-pattern motorized rifle divisions, the 36th and 57th, also remained in the Trans-Baikal's order of battle in 1945. These consisted of one light artillery and three motorized rifle regiments along with an additional light tank battalion with BTs. Both motorized rifle divisions had served throughout the war with the Trans-Baikal Front's 17th Army and were assigned to the 6th Guards Tank Army to lend their experience with operations in the region.

The Soviets used independent tank battalions in the first years of combat with the Wehrmacht, and while these had become uncommon amongst the forces fighting the Germans by the end of the war, ten remained in the Far East in 1945. A full-strength independent tank battalion would operate 36 tanks. The Trans-Baikal Front had eight of these. Four independent tank battalions were added to the 6th Guards Tank Army to lend their high speed to the thrust from Mongolia. The 17th Army, striking to the south of the 6th Guards, had the 70th and 82nd Tank Battalions for tank support, and the 36th Army had the 33rd and 35th Independent Tank Battalions to support

its rifle units. The 178th and 678th were on Sakhalin supporting the Second Far Eastern Front's 16th Army.

The 23 Soviet independent tank brigades played a key role in the attack against the Kwantung Army. Tank brigade TO&Es included one motorized rifle and two tank battalions, totaling 1,300 men and 65 tanks. The brigades also contained light antitank and anti-aircraft units but lacked indirect artillery support. A unique aspect of Soviet tank brigade tactics was the use of tank-riders, with eight to ten submachine-gun armed troops from the motorized rifle battalion assigned to ride each tank. This provided immediate infantry support to the tanks, especially critical to defend them in close terrain, but the riders often took heavy losses. Tank brigades serving as forward detachments in Manchuria usually had additional SPG and infantry units attached to improve combat power.

Soviet Front manning and equipment

	Trans-Baikal	First Far Eastern	Second Far Eastern
Manpower	656,040	586,589	337,096
Armies	5	4	3
Tank/Mechanized corps	3	1	0
Rifle divisions	30	31	11
Cavalry divisions	5	1	0
Tank divisions	2	0	0
Independent tank brigades	5	11	7
Independent self-propelled artillery brigades/regiments	2/3	0/9	0/0
Tanks and SP guns	2,416	1,860	1,280
Artillery	9,668	11,430	5,988
Multiple rocket launchers	583	516	72
Aircraft	1,324	1,137	1,260
Frontage	2,300	700	2,130

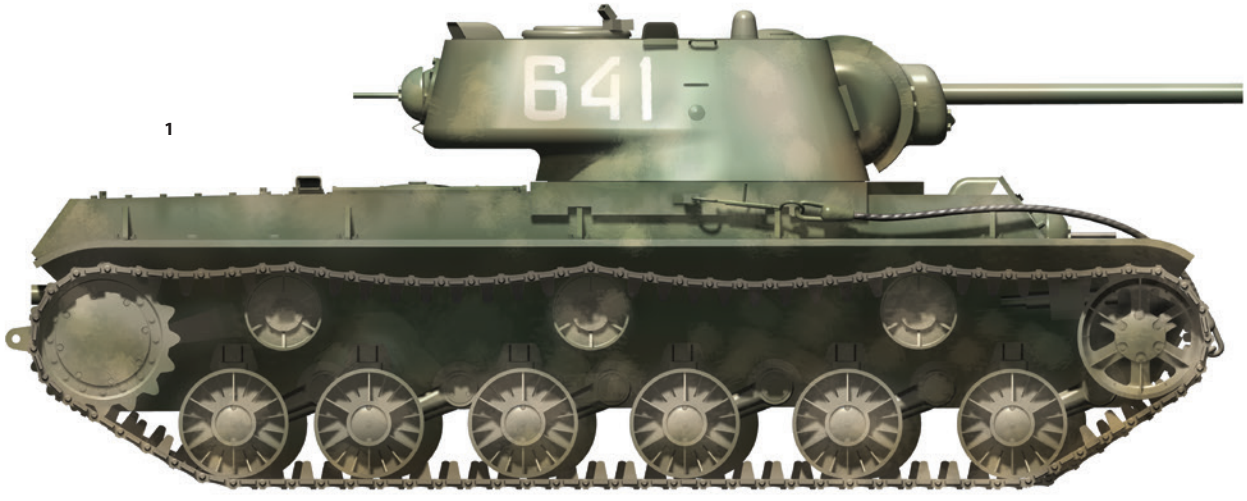
D

HEAVY FIRE SUPPORT

1. KV-1. Soviet forces in the Far East retained two heavy tank regiments with KV-1s in their order of battle in 1945. The KV-1 had a major impact on the course of the war when German forces invading the USSR in 1941 were shocked to encounter KV-1s and 76mm-armed T-34s. These tanks were equipped with the powerful 76.2mm guns, and their heavy armor led the standard Wehrmacht 37mm antitank guns to be dubbed "door knockers." The KV-1 had lesser impact in 1942–44, as improvements in armor and gunpower led to heavier and more powerfully armed tanks being produced on both sides, but some were retained in battalion-sized Guards heavy tank regiments, each with 21 KV-1s. The tank featured the typical World War II coaxial and bow machine gun, and also an MG mounted in the rear of the turret to engage enemy infantry attacking the tank on the rear deck.

2. ISU-152. The Soviet force of 192 ISU-152 SPGs probably fired more rounds in combat than any other Soviet AFV during the Manchurian campaign. Nine 21-SPG Guards heavy self-propelled artillery regiments were assigned to the First Far Eastern Front's main attack, and typically two or three 152s were assigned to each Soviet infantry and engineer assault team as they moved to attack the Japanese fortifications dotting the rugged, forested hill country on the frontier. A total of 690 SU-152s were built based on the KV-1S chassis, followed by the ISU-152 using chassis from the IS Stalin heavy tank series. Dubbed *Zveroboiy* or "animal killer" in 1943 due to the ability of the large 152mm gun-howitzer to destroy the German Tiger and Panther tanks, in Manchuria the ISUs used HE shells from their main armament to destroy Japanese pillboxes and other fortified positions. ISU-152s photographed during the offensive often have foliage attached for camouflage.

1



2

A head-on view of an ISU-152 ready for operations against the Japanese, emphasizing the size of the 152mm gun-howitzer. Intended for antitank and fire support duties, the vehicle did not have a coaxial machine gun, although there were three ports, one visible above the open front hatch, to allow the crew to fire out with their personal armament. (Courtesy of the Central Museum of the Armed Forces, Moscow, via Stavka)

Across deserts and mountains: The Trans-Baikal Front

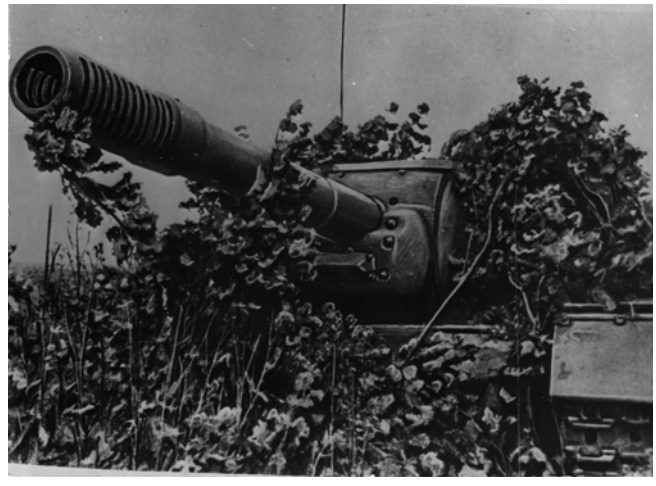
The Soviet offensive achieved strategic and tactical surprise on all Fronts. Although the Japanese were aware of the Red Army buildup, Soviet *maskirovka* denial and deception measures obscured the extent of their preparations. Japanese intelligence expected the offensive to begin in September if not later, after additional forces arrived from the west and the end of the rainy season. The Soviets were careful to camouflage unit movements and maintain routine operations at border guard outposts, and the initial assaults took the defenders by surprise. Soviet assault groups moved out in darkness, with no artillery barrage, and amidst heavy rainstorms secured many Japanese forward positions before they could be fully manned.

The Trans-Baikal's primary attack force was Colonel General of Tank Troops A. G. Kravchenko's 6th Guards Tank Army. The 6th had a unique structure of two mechanized and one tank corps rather than the tank-heavy two to three tank corps organization typically used against the Wehrmacht. The 5th Guards Tank and 7th Mechanized Corps were equipped with T-34-85s, and the 9th Guards with M4A2s. The two truck-borne motorized rifle divisions and four separate tank battalions totaling 88 BT-5 and -7 light tanks from the Far East garrison were added to provide infantry support and speed, giving the army a unique mix of 25 tank and 44 mechanized or motorized rifle battalions. The 6th Guards was equipped with 826 tanks, 193 SU-76M and SU-100 SPGs, 188 other armored vehicles, 6,489 vehicles, 948 motorcycles, and 1,150 guns and mortars. Due to the vast area of operations, the Soviets assigned an aviation division to survey 50–1,000kms in front of the advance, and each corps had a reinforced motorcycle battalion with powerful radios to patrol 70–80kms ahead and maintain communication between the widely separated corps columns. Commanders realized that logistics would be a major challenge, and units advanced with 2.5 units of fuel for tanks and 3.7 for other vehicles. Kravchenko's army had to road

Soviet T-38 light scout tanks crossing a river in a pre-war exercise. A total of 325 T-38s were in the Far East in 1945, but these extremely light vehicles armed only with an MG were likely not employed during the offensive. (Nik Cornish at www.Stavka.org.uk)

march over 300kms from its railhead to its assembly areas before the attack was launched on August 9.

Tank armies had always been placed in the second echelon in offensives against the Wehrmacht, poised to exploit breakthroughs opened in enemy defenses by infantry and artillery attacks. As the Japanese had not defended the Greater Khingans, Vasilevsky and Malinovsky positioned the 6th Guards Tank Army in the first echelon to allow the rapid seizure of the mountain passes. On August 9 the tanks advanced, initially facing several hundred kilometers of desert terrain, water shortages, soft sand, and heat. The blazing sun proved especially grueling for the infantry riding on the T-34s and M4s. The 7th Mechanized Corps advanced to the north, and the 9th Guards Mechanized followed by the 5th Guards Tank 60–70kms to the south. The columns were led by reconnaissance elements, followed by strong forward detachments composed of a tank brigade reinforced by a rifle regiment and artillery battalion, and reached the foothills of the Greater Khingans on the evening of August 9.



A heavily camouflaged ISU-152 self-propelled gun. Soviet forces took all possible measures to disguise the pace and size of their buildup, and the August 9 attack achieved both strategic and tactical surprise. (Courtesy of the Central Museum of the Armed Forces, Moscow, via Stavka)

The only paths across the mountains were trails with inclines of up to 30 degrees, sharp turns, and narrow passages that the army's attached engineers worked to make passable. Fuel consumption in the 9th Guards Mechanized Corps was higher due to its larger number of wheeled vehicles, and Kravchenko directed that the 5th Guards Tank Corps move forward to lead the southern column. The wider tracks of the T-34s provided better mobility on the rocky trails, and the 5th Guards Tank Corps transited 40kms over the mountains in a night march of seven hours, employing only its tracked vehicles. At the Korobonlin Pass, 1,298m above sea level, the 9th Guards Mechanized Corps had to rig two armored recovery vehicles, one to serve as "anchor" and one as a "mule" to winch the Shermans down the steep grade one at a time. The 7th Mechanized Corps transit to the north was slower, and it emerged from the mountains only late on the 11th. Rains beginning on the 10th complicated movement, particularly for wheeled vehicles.

Soviet T-60 light tanks in action in combat on the Eastern Front. The two-man T-60 had inferior mobility, weak armor, and a 20mm main gun, and was only used in 1941–42 as better tanks were not available in adequate numbers. A total of 46 T-60s and T-70s were in the Far East in 1945, but only 14 were operational. (Courtesy of the Central Museum of the Armed Forces, Moscow, via Stavka)

Kravchenko's tank army had transited 350kms in the first three days of the offensive. The 6th Guards Army's line of communications stretched 700kms by this point, and heavy rains made the mountain trails over the Khingans virtually impassable for supply trucks. The difficult terrain had forced the tanks to use up their fuel supplies more rapidly than expected, and the 5th Guards Tank Corps had only a .4 refill available, the 7th Mechanized .5, and the 9th Guards none. With most of the army's trucks and supplies stranded

ISU-152 SPGs marshaled for the offensive. These vehicles appear to carry a camouflage paint scheme, unusual for Soviet armored vehicles in World War II, which typically were only painted in the standard protective green 4BO. These vehicles likely have the green, yellow, and dark earth camouflage scheme occasionally applied. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

on the western slopes of the mountains, Kravchenko employed 400 aircraft from two 12th Air Army transport divisions to fly fuel to his stalled columns. The aircraft were mostly Li-2 versions of the US C-47 and managed 160–170 sorties a day, with their cargo areas packed with fuel drums. By August 15 Kravchenko had enough fuel to renew the advance with two strong forward detachments built around tank brigades, with the 100km gap between the Soviet columns screened by motorcycle and air patrols.

The 6th Guards' advance had encountered almost no Japanese resistance but completely unbalanced Japanese defenses. The Kwantung Army plan directed its forces to conduct delaying and harassing operations against any enemy activity in the west before retiring, but in the face of the Soviet attack the Third Area Army commander unilaterally ordered his forces to retire to the Mukden area to protect the army's families and Japanese residents in the central plain. As a result, the only enemy resistance faced by the 6th Guards came from small detachments and air attacks. On August 12, the Japanese launched 184 fighter sorties against the 7th Mechanized Corps, followed by seven sorties on the 13th and 29 on the 14th. The Japanese claimed to have destroyed trucks, guns, and 11 tanks. Soviet accounts report two M4A2s damaged and one truck lost to a kamikaze attack by seven aircraft on August 19.

While the 6th Guards Tank Army made the main effort, the Trans-Baikal Front's attacks to the south also made rapid progress. The Soviet-Mongolian

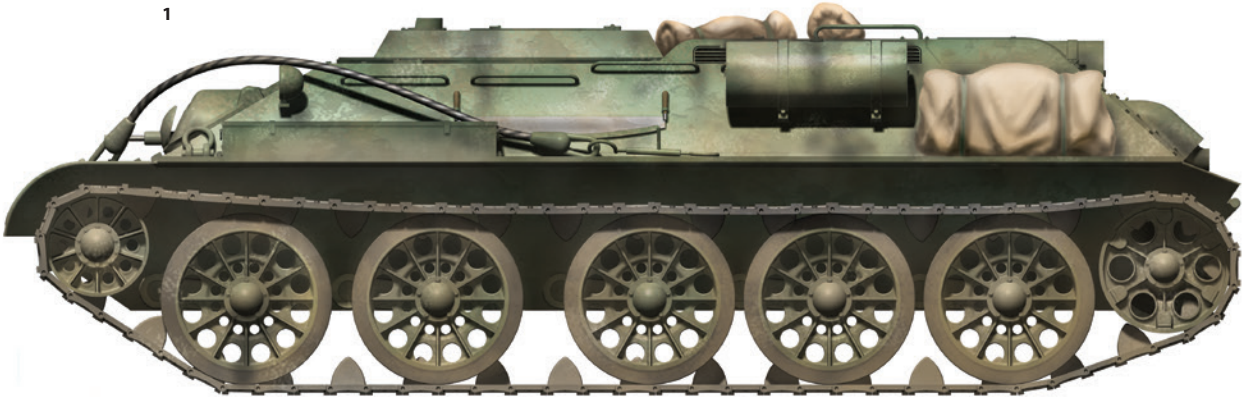
E

RECOVERY AND RECONNAISSANCE

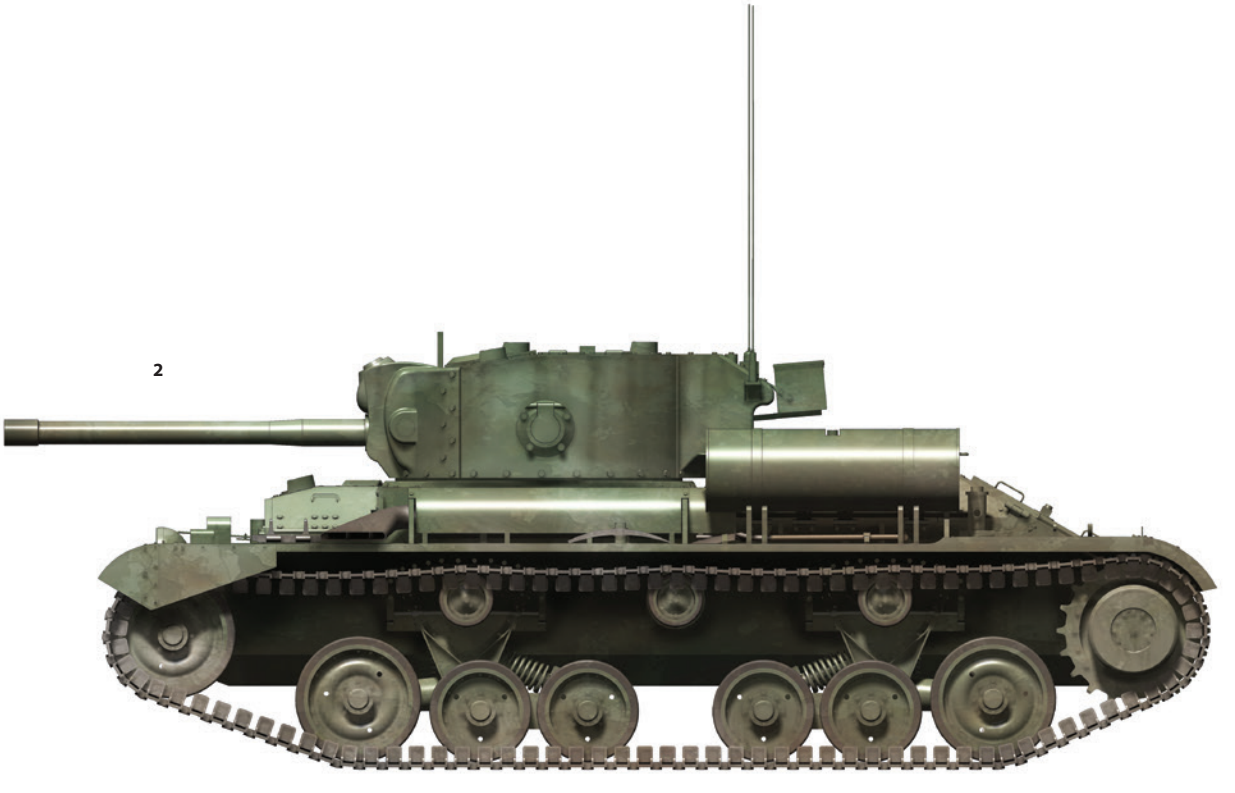
1. T-34 T (*Tyagach*) Armored Recovery Vehicle. The USSR did not build specialized armored recovery vehicles during World War II, and generally used S-60 tractors to tow damaged or broken-down tanks along with some US M31 ARVs received through lend-lease. Some T-34s with severe damage to their turrets were fielded again with the turret removed and plated over and used as armored recovery vehicles. These were variously referred to as T-34 T (for *Tyagach* or tractor) or T-34 TT. Some appear to have had small cranes and winches attached, and likely aided in the 6th Guards Tank Army's crossing of the Greater Khingan Mountains, with one vehicle winching a tank down a slope, attached to another vehicle serving as an anchor.

2. Valentine Mark IX Tank. While often critical of Western tank designs received through lend-lease, the Soviets considered the Valentine useful, and favored it for its superior mobility to the earlier Matilda tank, especially in winter conditions. Valentine production continued in 1944 solely to meet Soviet requirements, and all Valentines produced in Canada were used for lend-lease. Later models such as the Mark IX were equipped with the 6-pounder (57mm) main armament, with superior anti-armor performance to the early models with the 40mm 2-pounder, and most critically, the ability to deliver a useful HE round against soft targets. The 81 Valentines deployed to the Far East for the Manchurian offensive likely served with 6th Guards Tank Army reconnaissance elements.

1



2



Soviet tank crews receiving orders before the offensive. The T-34-85s appear pristine; the 6th Guards Tank Army transferred via the Trans-Siberian Railroad without their tanks and received new-production T-34-85s in their assembly areas in the Far East. (Courtesy of the Central Museum of the Armed Forces, Moscow, via Stavka)

joint Cavalry-Mechanized Group attacked with one Soviet cavalry and four Mongolian divisions, and one tank, one motorized, and one mechanized brigade and a Mongolian tank regiment. Soviet commanders had used similar mixed cavalry-mechanized groups in the war against Germany, and they proved valuable in difficult terrain such as the Pripyat Marshes. Led by forward detachments formed around tank and mechanized battalions, the group moved in two columns 150kms apart, surprising Japanese border detachments and making 70kms on the first day. The 17th Army on its left flank, also led by forward detachments formed around its 70th and 82nd Tank Battalions, made similar progress. Both formations encountered little resistance but faced difficulties moving through the arid desert terrain.

Malinovsky's 39th and 36th Armies were ordered to attack on the Front's northern flank to pin the Japanese defenders in the Wuchakou and Hailar fortified zones. These were avenues served by rail lines that the Kwantung Army considered likely targets and strongly defended. Both armies formed forward detachments built around tank units to bypass and encircle the defender's fortifications. The 36th Army's reinforced 205th Tank Brigade marched 100kms on August 9, seized a bridge behind the Hailar defenses, and attacked that night into the city from the east. Two 36th Army rifle corps systematically attacked the fortifications from the north which, despite a tenacious defense by the troops of the 80th Brigade, ultimately fell on August 18. The 39th Army pinned Japanese defenders in the Wuchakou Fortified Zone with one rifle division, while its army forward detachment consisting of the 61st Tank Division swept around to the south. The force drove 100kms forward on the first day, but the impact of the rapid pace and difficult terrain on troops and tanks was so severe that further daily advances were not to exceed 40–50kms. On August 12 the flanking force drove north, cutting off the Japanese fortifications and allowing other 39th Army forces to continue to attack to the east.

Through fortified hills and forests: The First Far Eastern Front's attack

The First Far Eastern Front faced complex terrain and the sophisticated fortifications built by the Kwantung Army to protect access to the central Manchurian plain. Meretskov's primary attack was in the center, with the 1st Red Banner and 5th Armies tasked to break through the frontier defenses and seize the key communications center at Mutanchiang, after which the Front's 10th Mechanized Corps would exploit to meet the Trans-Baikal Front around Mukden and Changchun. The Kwantung Army's fortifications blocked the likely avenues of approach through the area's rugged, forested hills, typically with wire and antitank barriers encircling defensive positions with bunkers and concrete pillboxes. Some

T-34-85s of the 20th Guards Tank Brigade, 5th Guards Tank Corps, moving through the Greater Khingan Mountains. The 5th Guards was able to move rapidly through the mountain passes, but the heavy rains that began on August 11 made it impossible for supply trucks to follow. (Photo by Sovfoto/Universal Images Group via Getty Images)

of the defensives featured more sophisticated complexes with concrete gun positions and underground shelters that led to comparisons to the Maginot Line.

The Soviets planned to begin the assault with an artillery barrage and illumination by searchlights. The heavy rainstorms during the early morning hours of the attack forced cancellation, and the assault groups attacked covered by the rain and darkness. The 5th Army was heavily reinforced with six ISU-152 SPG regiments, each with 21 SPGs, and five tank brigades each with a battalion of T-34s and one of T-26s or BTs. Soviet officers calculated the army had 30–40 tanks or SPGs and 200–260 artillery pieces of 76mm or larger per kilometer of front. Combined arms assault teams with infantry, engineers with explosive charges and flamethrowers, and two ISU-152 SPGs each avoided the main fortification zones and attacked the smaller outposts guarding the surrounding forested hills. By the end of the first day the 5th Army had torn a gap 35kms wide in the Japanese front, and lead elements had advanced up to 16–22kms.

The 1st Red Banner on the 5th's northern flank faced even more rugged terrain. The Japanese considered the area only suitable for small light infantry detachments and defended it with platoon- and company-sized outposts backed by battalion-sized defensive positions where the terrain became more open behind the frontier zone. The 1st received heavy engineer reinforcement as well as three tank brigades with mixes of T-34-85s, T-26s, and BT-7s and three Guards heavy self-propelled artillery regiments with 21 ISU-152s each. A heavy tank regiment with 21 KV-1s and the rifle divisions' own SU-76M battalions completed the army's armored capabilities. In total it fielded 410 tanks and SP guns.

A rear view of an ISU-152 SPG on the advance with infantry support. Unlike almost all Soviet AFVs, the ISU-152 had a relatively roomy crew compartment and a variety of access hatches. Here, the loader looks out from his large, two-piece hatch while the vehicle commander surveys the way forward. (Courtesy of the Central Museum of the Armed Forces, Moscow, via Stavka)

1st Red Banner Army tank and SP gun inventory, August 8, 1945												
Unit	**Authorized strength**						**Actual strength**					
	KV	**T-34**	**BT-7**	**T-26**	**ISU-152**	**SU-76**	**KV**	**T-34**	**BT-7**	**T-26**	**ISU-152**	**SU-76**
75th Tank Brigade	-	86	-	-	-	-	-	43	-	46	-	-
77th Tank Brigade	-	86	-	-	-	-	-	42	42	-	-	-
257th Tank Brigade	-	86	-	-	-	-	-	40	-	46	-	-
48th Independent Tank Regiment	21	-	-	-	-	-	21	-	-	-	-	-
335th Heavy SPG Regiment	-	-	-	-	21	-	-	-	-	-	21	-
338th Heavy SPG Regiment	-	-	-	-	21	-	-	-	-	-	21	-
339th Heavy SPG Regiment	-	-	-	-	21	-	-	-	-	-	21	-
455th SPG Battalion	-	-	-	-	-	13	-	-	-	-	-	13
456th SPG Battalion	-	-	-	-	-	13	-	-	-	-	-	13
457th SPG Battalion	-	-	-	-	-	13	-	-	-	-	-	13
459th SPG Battalion	-	-	-	-	-	13	-	-	-	-	-	13
460th SPG Battalion	-	-	-	-	-	13	-	-	-	-	-	13
466th SPG Battalion	-	-	-	-	-	13	-	-	-	-	-	13
Total	**21**	**258**	**-**	**-**	**63**	**78**	**21**	**125**	**42**	**92**	**63**	**78**

To transit the difficult terrain, the army's six rifle divisions used two or three regimental columns each led by three to five T-34-85 tanks that forged a path by knocking down trees. Two attached SMG-armed infantry companies provided security, and engineer units used the downed trees to build rough, 5m-wide corduroyed roads. The army's tank brigades were held behind the attacking rifle divisions, ready to move forward when the advance reached the more open terrain 15–20kms behind the frontier. Combined arms assault groups with a platoon of infantry, one or two assault engineer squads, two tanks or SP guns, an antitank rifle squad, and one or two flamethrower platoons destroyed the small Japanese outposts encountered.

By August 11, the 1st Red Banner and 5th Armies had broken through the Japanese frontier zone and Meretskov ordered an accelerated advance on Mutanchiang, the gateway to the central Manchurian plain. Both armies led their advance with strong forward detachments formed around reinforced tank brigades. The 1st Red Banner Army's 257th Tank Brigade, reinforced by a battery of SPGs, an automatic weapons company, and a sapper platoon, broke into the Japanese rear area and attacked the 126th Infantry Division's headquarters. Lacking an effective antitank capability, the Japanese launched suicide squads with troops strapped with explosives against the tanks. The 257th was halted by a destroyed bridge at Hualin

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TRAIN AMBUSH, HUALIN, AUGUST 11, 1945

The 1st Red Banner Army's 257th Tank Brigade formed one of the most successful forward detachments of the campaign. After the army broke through the frontier defenses, the 257th's commander, Lieutenant Colonel Anishchik, was assigned to approach Mutanchiang from the north. It engaged and bypassed a battalion of the Japanese 279th Infantry Regiment, then pushed on to Hsientung, destroying 40 warehouses there, intercepting an enemy troop train, and finding fuel to refuel the tanks. The engagements and road march had reduced the brigade's original 65 tanks to 19 by this point, but it pushed on. The railway bridge at Hualin was destroyed before the Soviet tanks could cross. Occupying a nearby hill, the brigade ambushed another train moving south to reinforce Mutanchiang that had to halt due to the destroyed bridge. The Soviets claimed to have destroyed 24 guns, 30 vehicles, and 30 train cars loaded with ammunition. The commander of the 135th Division, General Hitomi, traveling with elements of his unit on the train, survived and made his way to Mutanchiang across the river.

The Soviets heavily employed motorcycle battalions for reconnaissance during the advance of the 6th Guards Tank Army. Motorcycle detachments ranged up to 50–70kms ahead of the main body of the tank and mechanized corps, followed by reinforced brigades serving as forward detachments. Motorcycle patrols also helped maintain communication between the army's widely separated axes of advance, which were 70kms apart after the crossing of the Greater Khingan Mountains. (Photo by Sovfoto/Universal Images Group via Getty Images)

but ambushed a troop train halted at the bridge a few hours later. As the 1st Red Banner approached from the north, the 5th Army led its attack from the east with a strong forward detachment formed around the 76th Tank Brigade reinforced with two rifle battalions with automatic weapons and the 478th Heavy Self-Propelled Artillery Regiment with ISU-152s. The force was hit with battalion-sized counterattacks supported by artillery from Japanese armored trains on August 12, and additional attacks by the 5th Army's rifle divisions were necessary to break through.

Due to Japanese resistance Meretskov issued orders for the 5th Army to bypass Mutanchiang to the south while the 1st Red Banner secured the city from the north. The 77th and 257th Tank Brigades and 1st Army

T-34-85s on the advance in Manchuria. The Soviets used aircraft extensively to maintain contact between and scout ahead of the widely separated tank and mechanized corps. The T-34 carries the patriotic slogan "for Stalin," and the apparent muzzle brake is a sock tied on the end of the barrel to keep out dust and debris. (Courtesy of the Central Museum of the Armed Forces, Moscow, via Stavka)

Rifle Divisions began to attack into the city using infantry, engineer, and flamethrower teams supported by tanks and self-propelled guns to clear out Japanese holdouts. As the last Japanese forces were destroyed, a regimental commander launched a final charge and committed ritual suicide within sight of the Soviets. The Japanese defenders reported the loss of 20,000 of 60,000 troops engaged at Mutanchiang, along with 86 guns and 18 mortars and claimed to have inflicted 7,000–10,000 losses on the attackers.

The First Far Eastern Front's flank armies also made progress. To the north, the 35th Army had three rifle divisions and 166–205 tanks and SPGs in two tank brigades, a brigade of SU-100s, and SU-76M SPG battalions assigned to the rifle divisions. The 35th's attack was complicated by waterlogged terrain and faced a major Japanese fortified position at Hutou equipped with a 240mm railway gun and 410mm howitzer in a concrete emplacement positioned to shell two bridges across the border and cut the Trans-Siberian Railway. The Soviet infantry were able to advance with little resistance through the heavy rains, often carrying their weapons over their heads due to the inundated ground, but the heavily fortified position at Hutou held out until August 20. The resistance by the garrison was some of the most tenacious of the whole campaign, and a prisoner sent forward later in the siege with word that Japan had surrendered was killed by a defending officer with a sword. The Soviets used tank-supported assault groups to drive the defenders into their underground shelters, where they were ultimately destroyed with explosive charges and ignited gasoline. On the Front's southern flank, the 25th Army with 121 tanks and SPGs attacked both toward the west and southwest into Korea. Like the other armies of Meretskov's Front, the attack went in with assault groups moving through the rain and taking most of the Japanese border defenses by surprise. By the end of the first day, the 25th's single tank brigade, the 259th, was leading the breakout to the west.

Supporting attack: The Second Far Eastern Front

General Purkayev's Second Far Eastern Front was the smallest of the three but had wide-ranging responsibilities, including secondary attacks by its 2nd Red Banner and 15th Armies toward Harbin and attacks by the 16th Army to seize the southern portion of Sakhalin. The attack on Harbin was complicated by the need to cross the Ussuriysk and Amur Rivers. Heavy rains on the 9th swelled the rivers, but the initial crossings were unopposed. The Soviets used the 200 vessels of the Amur Flotilla for transport and riverine gunfire support, bypassing and enveloping Japanese positions. A supporting thrust by the 5th Rifle Corps was slowed by the river crossing, as the engineer's ferries could only transport two T-34s or six T-26s at a time. As Japanese forces began to surrender, Soviet forces moved to secure their objectives. One hundred twenty troops landed by air to accept the surrender of Harbin, and the Amur Flotilla moved 300kms upriver to link up with them on August 20.

Soviet troops faced intense resistance on Sakhalin. The Second Far Eastern Front's 16th Army attacked south with its 56th Rifle Corps, supported by the 214th Tank Brigade with 85 T-26 tanks, while the 178th and 673rd Independent Tank Battalions were held in reserve. The Japanese defense force on Sakhalin had around 20,000 troops and 13 airfields but no aircraft. The Soviet offensive began on August 11, but the avenues of approach were

ISU-152s advancing during the Manchurian campaign. The nine Guards heavy self-propelled artillery regiments transferred east for the campaign supported the First Far Eastern Front's attack through rugged, forested hills toward Mutanchiang, and were camouflaged with branches and foliage for the attack. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

limited and heavily fortified, and the assault ran into strong opposition and degenerated into a series of costly frontal attacks. A renewed offensive began on the 16th led by assault groups each of two tanks supporting infantry and engineers backed by artillery that was prepared to hit specific pre-planned targets on call. A series of small-scale amphibious landings on the coast helped break the stalemate, and by the 25th the tanks of the 214th had overrun the entire island.

Amphibious operations on the flanks

The Soviets lacked the Western Allies' extensive experience and specialized landing craft, and their amphibious operations against the Germans had been improvised affairs. The US transferred 180 small combatants including minesweepers, submarine chasers, patrol frigates, and landing craft to the Soviets in early 1945 at Cold Bay, Alaska, to aid their capabilities when they entered the war against Japan. The Pacific Fleet still, however, lacked experience and amphibious armor, and its landings were often small scale – succeeding where opposition was light but struggling when opposed. The first landings were launched against the Korean coast as the First Far Eastern Front's 25th Army began to enter the peninsula. Battalions of naval infantry conducted two successful operations against no resistance on the 11th and 12th, but a subsequent landing on the 13th at Chongjin was pinned down. Only on the 15th did the Soviets, realizing the extent of opposition, allocate the full 5,000-man 113th Naval Infantry Brigade to reinforce the bridgehead. Chongjin was finally cleared the next day, and the advance elements of the 25th Army reached the town that night. As the Japanese surrender began to take effect, the Soviets moved to secure their objectives and stop any evacuations to Japan. Wonsan was occupied by a naval landing force on the 21st, and a small unit air-landed at Pyongyang three days later. All Japanese forces north of the 38th parallel soon surrendered, and US forces landed on September 8 to secure the south.

Soviet forces assaulted the Kurile Islands on the 18th. The major clash was on Shimushu, only 2.5kms from southern Kamchatka and strongly defended by 8,500 troops and the 11th Tank Regiment with 39 Type 97

T-34s, likely from the First or Second Far Eastern Fronts, advancing through low scrub brush. Like the ISU-152s, some Soviet tanks advanced carrying foliage for camouflage. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

medium and 25 Type 95 light tanks. The first wave of Soviet landing troops was pinned down, but a Japanese tank counterattack, led by the regimental commander waving a sword and flag in a lead tank, was defeated by Soviet troops using their PTRD-41 14.5 antitank rifles, antitank guns, and RPG-43 antitank grenades. The Soviets reinforced the landing party, and the Japanese surrendered on August 23. The remaining Kuriles were occupied by Soviet landing parties without resistance, with the last secured by Soviet troops on September 5.

Surrender and seizing the spoils

The Soviets had shattered Japanese defense plans in the first days of the offensive. Resistance began to weaken as news filtered in of Japan's intention to surrender, although some units continued to resist even after receiving orders to capitulate. The broadcast of the emperor's decision to surrender was received at headquarters on August 14, but an ensuing ceasefire order was immediately rescinded by the Kwantung Army commander. Formal direction to arrange a ceasefire came from Tokyo on August 17, and negotiations with the Soviets two days later identified August 25 as the formal surrender date. In many places Japanese units began to halt operations before the 25th, although some die-hard elements fought on into September. Stalin announced that the operation had been completed on August 23, and the formal Japanese surrender on the USS *Missouri* followed on September 2.

The Soviets moved rapidly to secure their objectives in the central Manchurian plain as Japanese resistance waned. A series of company-sized air-landings secured the airfields at Harbin, Mukden, and Changchun on the 18th and 19th to halt any Japanese efforts to withdraw or destroy supplies. Malinovsky ordered the 6th Guards Tank Army, still strung out due to fuel shortages, to dispatch single battalions from the two forward detachment tank brigades to secure Changchun and Mukden. The 5th Guards Tank Corps and 9th Mechanized Corps battalions moved along

Terrain and weather were major challenges faced by Soviet forces in Manchuria. Here, ISU-152s with their foliage camouflage ford a water obstacle. Despite their heavy weight, the ISUs provided effective support to the 1st Red Banner and 5th Armies as they attacked through the Japanese frontier defenses and advanced toward Mutanchiang. (Courtesy of the Central Museum of the Armed Forces, Moscow, via Stavka)

elevated rail embankments on the march to Mukden due to the rain-soaked terrain. The T-34s could straddle the rails, but the narrower Shermans had to move with one track on the railway ties and suffered suspension damage from the vibration. On August 20 the tanks met a detachment airlifted to seize Mukden's airfield, and the 7th Mechanized Corps detachments reached Changchun the next day. Small detachments were flown to Port Arthur and Dairen on August 22, and the tanks of the 6th Guards Tank Army, now conducting administrative moves by rail, arrived the same day. Stalin personally directed that the 5th Guards Tank Corps secure the ports rather than the 9th Guards Mechanized so that Soviet-built T-34s and not lend-lease Shermans were used to retake the ports lost in the 1904–05 war with Japan. To the far south, the Soviet-Mongolian Mechanized-Cavalry Group made a ceremonial crossing of the Great Wall and established contact with the Chinese communist 8th Route Army.

The Soviet military is notable for retaining older equipment for reserve purposes – IS-2 tank turrets were used as coastal defenses in the Far East into the 1990s – but in 1947 Moscow decided to dispose of its 1930s tanks in the area, including the T-26 and BT fleets. Two of each type were to be retained for museum display, and the remainder scrapped or sent for use as civilian tractors.

BATTLE ANALYSIS

The Soviet offensive was a model application of overwhelming force and rapid mechanized exploitation. The Red Army achieved operational and tactical surprise and the breakthrough of the fortified zone by the First Far Eastern Front, and the sweeping, unopposed advance by the tanks of the 6th Guards Tank Army fatally compromised the Kwantung Army's defensive plans in a matter of days. Soviet tanks and SPGs led advances over mountains, swamps, and forested hills thought impassable by the Japanese. Army, corps, and division commanders demonstrated initiative

and creativity, having tanks clear roads through forested hills, closely integrating operations with riverine forces, flying fuel to resupply units, and even placing tanks on captured railcars to secure key objectives as the Japanese defenses collapsed. Japanese units could still fight fanatically, inflicting 32,000 casualties on the attackers, holding out in fortifications such as Hutou to the death, and launching repeated suicide attacks against Soviet tanks.

The Soviets were careful to organize and equip each force specifically for terrain and mission. The Trans-Baikal Front included the only army-level tank and mechanized force, with extra transport and an assigned aviation division to help it cover the long distance to its objectives. Units facing heavy Japanese fortifications such as the 36th and 39th Armies and the First Far Eastern Front were heavily reinforced with engineers and artillery, and the First Far Eastern Front contained all the Soviet heavy ISU-152 SPG regiments. Many armies had additional engineer support to help deal with terrain challenges including swamps, rivers, and the need to construct new roads to support the advance.

T-34s preparing for the assault heavily laden with infantry. Soviets used all available AFVs to transport troops and keep the assault moving. (Courtesy of the Central Museum of the Armed Forces, Moscow, via Stavka)

Due to the heavy reliance on maneuver rather than static fighting, tanks played a central role, and forward detachments formed around tank and SPG units played a major role in the offensive. These units could vary in composition, with army-level forward detachments typically consisting of a tank brigade reinforced with an SPG regiment and one or two battalions of SMG-armed infantry. Forward detachments drove into enemy rear areas to sow confusion, overrun enemy headquarters and logistical facilities, and secure key objectives such as bridges. Forward detachment tanks could inflict heavy losses on enemy units unaware of their presence, as when the 1st Red Banner Army's reinforced 257th Tank Brigade ambushed and destroyed two troop trains. While effective in fluid situations, the detachments could be halted by strong enemy defenses as at Hailar and Mutanchiang, leaving the attack to full assaults by the following rifle divisions.

Given the lack of Japanese armor, infantry support was the primary task for the Soviet tank and SPG force in Manchuria. Even the 1930s-era T-26s and BT-5/7s had a good high-explosive capability with their 45mm main gun, although along with the SU-76M SPG their light armor was only proof against small-arms fire. T-34s, either in the 76mm- or 85mm-armed

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SMERTNIKS ATTACK SOVIET TANKS

While the 1st Red Banner Army approached Mutanchiang from the north, the 5th Army attacked from the east. On August 14, elements of the 5th Army's 210th Tank Brigade and 63rd Rifle Division attacked toward the headquarters of the 126th Infantry Division. A suicide squad from a transport unit threw themselves against the tanks carrying explosives, claiming five destroyed. In this scene, the Soviet tank riders are firing and dismounting as the Japanese attackers attempt to reach their targets. Japanese officers reported their frustration in post-war accounts due to their inability to halt Soviet tanks with the available antitank guns and artillery. Japanese units were forced to resort to attacks by suicide squads, dubbed *smertniks* (condemned men) by the Soviets, and there was at least one reported attempt to crash kamikaze aircraft into tank columns. The Soviets lost relatively few tanks to enemy action during the campaign, but large numbers due to mechanical problems or the difficult terrain.

Logistics and terrain were the main obstacles faced by the Trans-Baikal and Second Far Eastern Fronts. One of the T-34s is carrying an extra fuel drum lashed to the rear deck as the column makes its way through forested terrain. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

versions, had armor that could withstand almost any Japanese fire, and their primary armament had an excellent HE capability against soft targets or enemy fortifications. The pre-eminent armored asset for infantry support was the ISU-152, nine regiments of which supported the First Far Eastern Front's assault against the Japanese fortified zones in the east. Its heavy armor and 152mm howitzer were a devastating combination, and the 1st Red Banner and 5th Armies' infantry-engineer assault teams typically included two ISU-152s for fire support.

Japanese tank, antitank tactics, and operations

After the war, Japanese officers identified their inability to defeat Soviet armor as a key weakness in Manchuria. The limited numbers of Type 97 mediums and Type 95 lights were matched by the T-26s and BTs, and completely outclassed by the 76mm-armed T-34s and other late-war Soviet tanks and SPGs. On August 12, in a rare tank-against-tank action, a hastily formed company of nine Type 95 light tanks engaged a large force of T-34s near Mutanchiang, losing three of their number and retreating having inflicted no losses. The two Japanese tank brigades were held in reserve in the central plain and never engaged by the Soviets, who captured 369 tanks after the surrender. The 11th Tank Regiment on Shimushu Island in the Kuriles was the only major Japanese armor unit to engage in combat, but it lost 21 Type 95s and 97s to Soviet antitank guns, rifles, and grenades.

The Japanese 37mm antitank guns could penetrate the light armor of the T-26s and BT-5/7 tanks but were ineffective against the heavier tanks and the ISU-152 SPGs used by the First Far Eastern Front, where the most intense fighting took place. Japanese officers after the surrender recalled their anger

76mm-armed T-34s moving through the arid terrain faced by many Soviet formations during the campaign. The 6th Guards Tank Army found that the weight of several tanks driving close together could break through the top crust and bog down in the softer sand beneath, leading the units to spread out for the advance. (From the fonds of the RGAKFD in Krasnogorsk via Stavka)

at being able to hit the T-34s of the 257th Tank Brigade with artillery but, lacking armor-piercing shells, having no effect. The Japanese were reduced to using suicide infantry attacks, with soldiers throwing themselves under enemy tanks laden with explosive charges. Some of these attacks by what the Soviets dubbed *smertniks* (condemned men) succeeded against Soviet T-34s attacking Mutanchiang, although many of the attackers were shot down, and there are also reports of the attackers carrying charges too small to disable their targets even if successfully detonated.

SU-76M loss rates during the campaign reflect the limited Japanese anti-armor capabilities. These SPGs were lightly armored and heavily used in the frontier zone and battle for Mutanchiang, but while 146 of the 952 SU-76Ms used in the campaign were listed as losses, only 20 were from enemy action. The remainder were disabled by terrain or mechanical breakdowns. Of the 146 losses, only 15 were written off and the rest returned to service.

AFTERMATH

The Soviet Manchurian offensive was the largest armored action in Asia during World War II, and the resulting geostrategic changes had impacts that continue to this day. The relative impact of the military situation and the US atomic bomb attacks on Tokyo's decision-making remains the subject of intense historical debate, but the defeat of the Kwantung Army played a role in the Japanese decision to capitulate. After the surrender, Soviet forces occupying Manchuria transferred captured Japanese weapons to Mao's Chinese communist forces, aiding their victory over the Nationalists in 1949. The Soviet occupation of northern Korea spawned a client state that attacked South Korea in 1950 and a divided peninsula. The lack of a formal peace agreement and Japanese claims to the four southern Kurile islands remain an issue between Japan and the Russian Federation.

The Manchurian campaign offered lessons that influenced the development of the Soviet military for decades. Soviet divisional organizations were reshaped in 1946, with the organizations used on an ad hoc basis in Manchuria made permanent. The full mechanization of Soviet ground forces rapidly followed. Interest in the tactical, operational, and strategic lessons of the campaign increased in Soviet military writings sharply after 1960 as relations with communist China deteriorated. Soviet military theorists looked to the Manchurian operation as a model for the rapid attainment of strategic goals in what the Soviets termed "the initial period of war" – the first weeks and months of a conflict. Authors stressed the role of surprise, massing forces on key axes, and the need for rapid and sustained advances in the offensive.

In addition to strategic lessons, Soviet authors explored the implications of the campaign for artillery, infantry, engineer, aviation, and armored operations. The placement of the 6th Guards Tank Army in the first attack echelon – unique to that point – was hailed as a great success, allowing for the immediate dislocation of the enemy's defensive plans. The army's composition, with two mechanized to one tank corps and augmented by the 36th and 57th Motorized Rifle Divisions, gave it a true combined arms capability emulated in subsequent Soviet combined arms armies. Similarly, the utility of tank-led forward detachments for the other attacking armies

was favored for its ability to maintain momentum and strike deep and shatter enemy defenses.

The Manchurian campaign also played a role in the evolution of the Western picture of Soviet military capabilities during the Cold War. Initially, Western perceptions of the Red Army were heavily influenced by the post-war memoirs of German generals who portrayed it as unimaginative, tactically rigid, and only able to succeed due to overwhelming superiority of numbers. By the 1980s, Western analysts began to better exploit Soviet sources and recognize that Moscow's forces had sharply improved during the Great Patriotic War, becoming much more agile and adept at the strategic and operational levels. LTC David Glantz's 1986 studies on the Manchurian campaign were very much part of this renaissance of study on Soviet military art, stressing the flexibility, initiative, and boldness demonstrated in Manchuria.

FURTHER READING

The standard works on military aspects of the Manchurian campaign are David Glantz's two Leavenworth Papers on the subject published in the 1980s. Paper Number 7 covers strategic aspects of the campaign, while Number 8 focuses on select actions at the operational and tactical levels. Glantz's works played an important role in correcting the West's German-influenced negative view of Soviet military performance in World War II. *Stalin's War on Japan* by Charles Stephenson, published in 2021, covers the geostrategic background of the offensive, provides an updated analysis of operations in Manchuria, and adds discussions of the Sakhalin and Kurile Island operations not covered in Glantz's works.

Robert Forczyk's two books on tank warfare on the Eastern Front give insight into the evolution of the Soviet armored force under the pressure of combat with the Wehrmacht. The volumes in the Nafziger series by Charles Sharp are useful for in-depth information on the order of battle and tables of organization and equipment of Soviet forces in Manchuria. Steven Zaloga's comprehensive *Soviet Tanks and Armored Combat Vehicles of World War II* provides a detailed examination of the development of Moscow's tank and self-propelled guns from a technical and organizational standpoint. The Osprey volumes listed below feature more in-depth information on specific tanks and SPGs used in Manchuria.

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Zaloga, Steven J., *T-26 Light Tank: Backbone of the Red Army*, New Vanguard Series No. 218 (Osprey Publishing, 2015)
Soviet Order of Battle in World War II volumes by Charles S. Sharp
Vol. I, *The Deadly Beginning: Soviet Tank, Mechanized, Motorized Divisions and Tank Brigades of 1940–1942* (George F. Nafziger, 1995)
Vol. II, *School of Battle: Soviet Tank Corps and Tank Brigades January 1942 to 1945* (George F. Nafziger, 1995)
Vol. III, *Red Storm: Soviet Mechanized Corps and Guards Armored Units 1942 to 1945* (George F. Nafziger, 1995)
Vol. XII, *Red Hammers: Soviet Self-Propelled Artillery and Lend-Lease Armor 1941–1945* (George F. Nafziger, 1998)

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OSPREY PUBLISHING
Bloomsbury Publishing Plc
Kemp House, Chawley Park, Cumnor Hill, Oxford OX2 9PH, UK
29 Earlsfort Terrace, Dublin 2, Ireland
1385 Broadway, 5th Floor, New York, NY 10018, USA
E-mail: info@ospreypublishing.com
www.ospreypublishing.com

OSPREY is a trademark of Osprey Publishing Ltd

First published in Great Britain in 2023
This electronic edition published in 2023 by Bloomsbury Publishing Plc

A catalogue record for this book is available from the British Library.

ISBN: PB 9781472853721; eBook: 9781472853752;;ePDF 9781472853738; XML: 9781472853745

Index by Alan Rutter
Typeset by PDQ Digital Media Solutions, Bungay, UK
Printed and bound in India by Replika Press Private Ltd.

Osprey Publishing supports the Woodland Trust, the UK's leading woodland conservation charity.

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AUTHOR'S NOTE

In this book, I have used the 1945-era names for the major cities. For reference, Mukden is now known as Shenyang, Dairen is Dalian, Port Arthur is Lushun, Mutanchiang is Mudanjiang, and Peking is Beijing.