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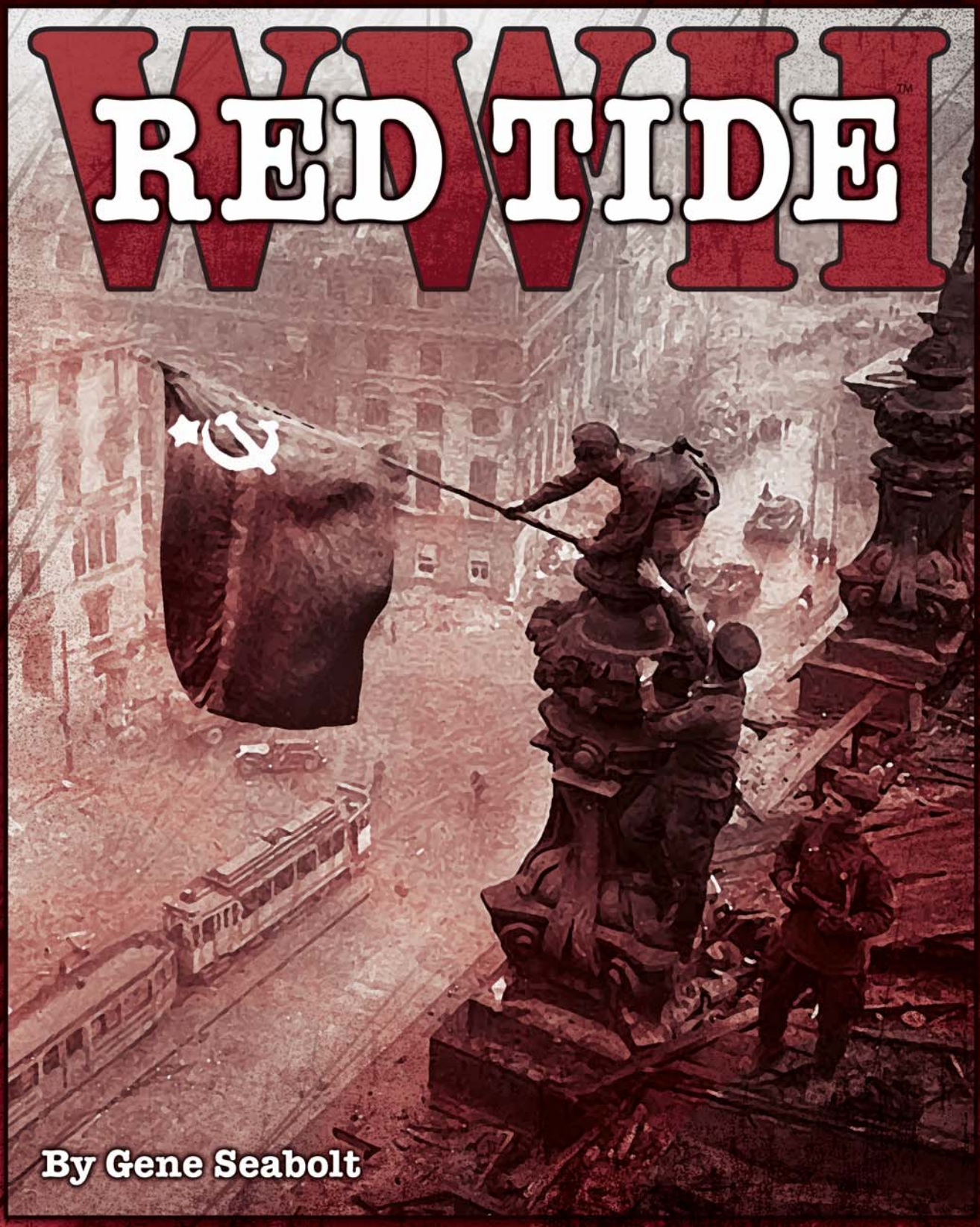
RED TIDE



By Gene Seabolt

STEVE JACKSON GAMES

GURPS®

WWII™

RED TIDE

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STEVE JACKSON GAMES

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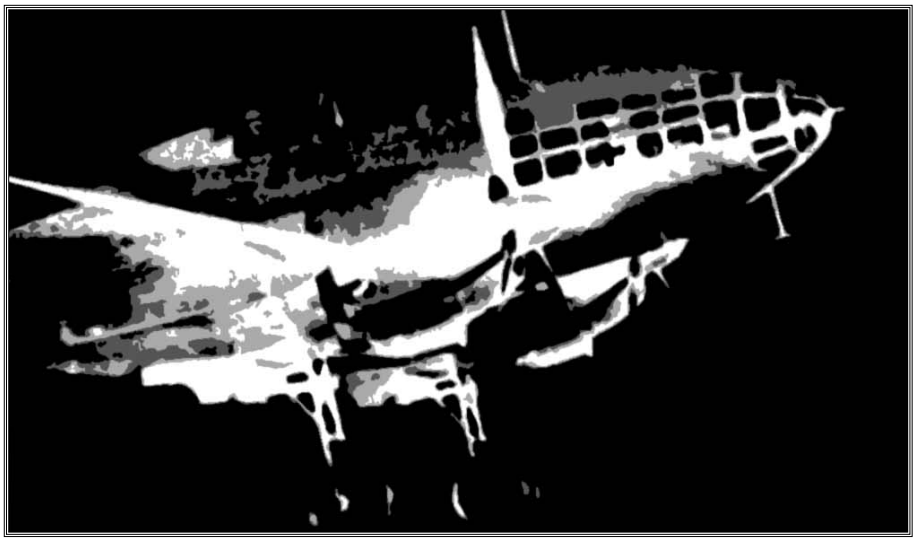

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Page References

Rules and statistics in this book are specifically for the ***GURPS Basic Set,*** *Third Edition.* Any page reference that begins with a B refers to the ***GURPS Basic Set*** – e.g., p. B102 means p. 102 of the ***GURPS Basic Set,*** *Third Edition.* Page references that begin with CI indicate ***GURPS Compendium I.*** Other references are CII to ***Compendium II***, HT to ***High-Tech***, W to ***WWII***, W:D to ***WWII: Dogfaces***, W:FH to ***WWII: Frozen Hell***, W:HS to ***WWII: Hand of Steel***, W:IC to ***WWII: Iron Cross***, W:MP to ***WWII: Motor Pool,*** and W:RH to ***WWII: Return to Honor***. The abbreviation for *this* book is W:RT. For a full list, see p. CI181 or the updated web list at **www.sjgames.com/gurps/abbrevs.html**.

INTRODUCTION

Those who know a little history, and like to toy with the less informed, sometimes assert that the Russians won WWII pretty much on their own. This is, at best, a qualified truth. Others who also know a little history tire of that argument and counter that the Russians would have lost without U.S. and British aid. That, also, is a half-truth at best.

To begin with, half of those "Russians" weren't Russians at all, but rather Ukrainians, Georgians, and scores of other nationalities. These aggregate Soviets had to deal with internal grudges far worse than any dispute between the western allies.

They made common cause, for the most part, to fight Fascism. They died by the millions to stop Hitler. This awesome sacrifice – far more horrible than anything that the West had to endure – does not receive its due outside the former Soviet lands. In the western "truth," Stalin killed more of his own people than Hitler. The West may applaud the Soviets for repulsing a nasty invader, even under their own nasty regime, but we rarely feel moved to standing ovation.

The truth is that we can hardly count how many war dead the Soviets suffered, nor do we have any common standard to number Stalin's victims. He was a mass murderer. He was also the hard-nosed leader of a state seeking utopia in the face of a hostile world. Some of the Soviets fought despite Stalin's shortcomings. Others served gladly because they saw those same qualities as strengths. A few still do.

To modern American eyes, Stalin and his supporters were callous, even to the point of evil. That said, two points should be kept in mind. First, many of Stalin's victims would have done the same, or worse. The heavy hand of the Communist state wrongfully oppressed millions. The USSR was also home to millions of violent racists and ultra-rightists, who were only prevented from slaughtering their neighbors by that same heavy hand. Certainly, Stalin's state took its security to paranoid excess, using terror as a weapon, but a frightening reckoning awaited if its iron grip slipped. Whether or not we agree with their choice, many clear-eyed Soviets willingly traded personal freedoms to get the stability Stalin offered.

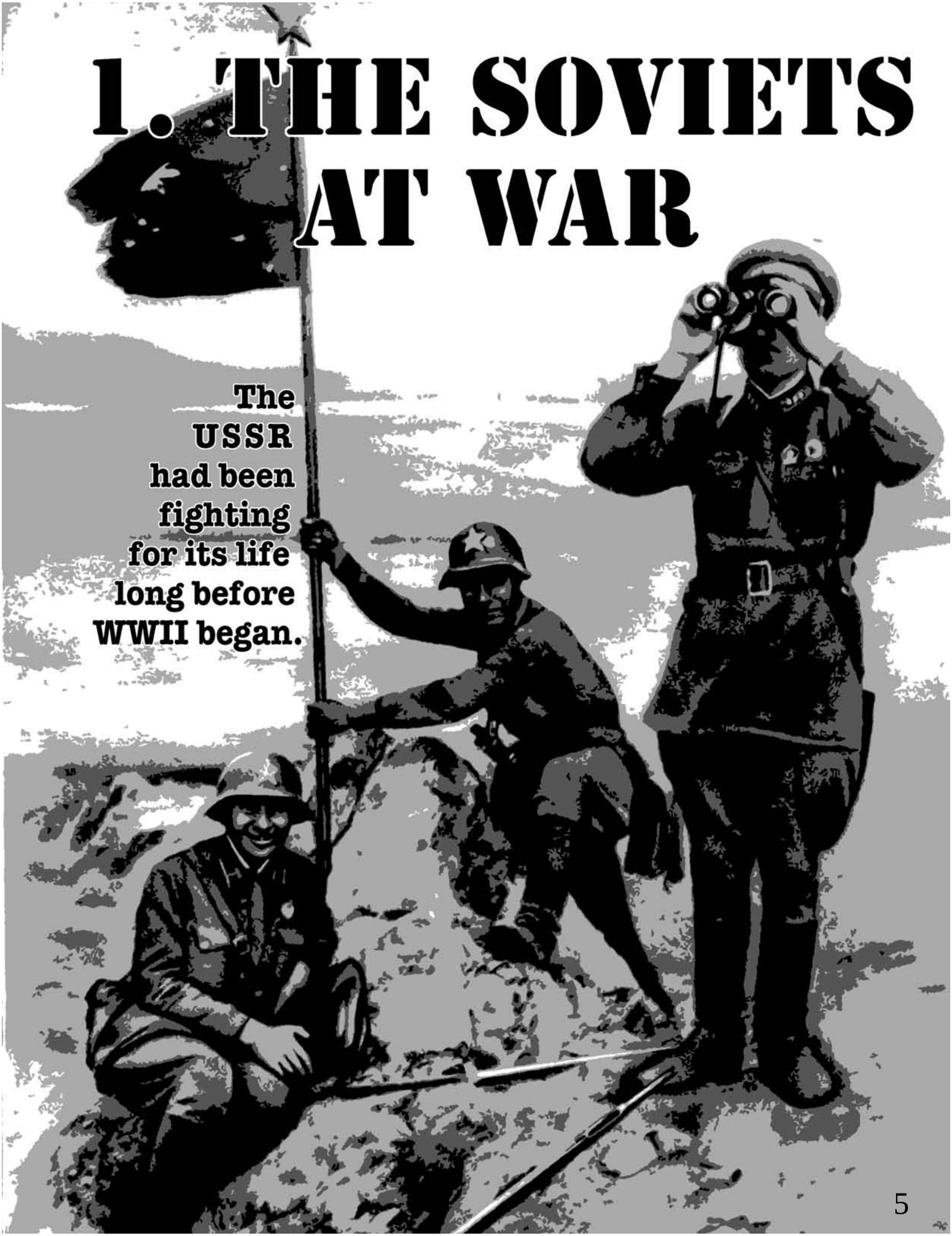
Second, the Soviets saved the western Allies from a conflict of a far greater magnitude. Some of us would not be here – because our father or grandfather would not have made it back alive – if the Soviets had folded their tent and waited for the Nazi regime to collapse, or for others to take it down.

Alone, the Soviets might have won the war . . . or they might have collapsed, giving the Nazis critical momentum. We'll never know. The brutal Communist rule may have cost more lives than the Balkan feuding that it prevented. We'll never know that, either. By turns clumsy and cunning, awful and noble, the early Soviets were hard men negotiating the hardest of times. At a minimum, we can honor their monumental sacrifice by attempting to understand – if not embrace – the tough choices that defined them.

About the Author

Gene Seabolt was the ***GURPS WWII*** line editor at the time he wrote ***GURPS WWII: Iron Cross***. He lives in San Antonio with his wife and sons.

1. THE SOVIETS AT WAR



ALIENATED NATION

In June 1812, the man who had mastered Europe – the French Emperor Napoleon Bonaparte – set out to conquer the Eurasian giant that was Russia. He took along 500,000 troops. Six months later, he returned with a few thousand survivors.

This set a slippery stage for Russia and its autocratic Romanov rulers. Napoleon's successors took it as self-evident that no nation could hope to master Russia – what madman would try where Bonaparte had so utterly failed? – but nothing kept Russia from attempting its own conquests. Even as the tsars joined Prussia and Austria in enforcing conservative world politics, Russia became a mysterious bogeyman in the minds of some world leaders.

Socialism's Uneasy Birth

Any eastern menace lurked in the future, however. The present had its own concerns. For the first half of the 19th century, Britain led Europe into industrialization. This created immense social pressures, as the new factory owners amassed splendid wealth while the growing urban masses found their lives intolerably squalid. Benjamin Disraeli said this wealth gap created "two nations, between whom there is no intercourse and no sympathy." In response, liberal theorists began proposing socialism, in which the state would guarantee everyone a job and a minimum standard of living.

Of course, all that splendid wealth would have to be spread about to pay for this, giving those in power reason to resist the new political model. Some socialist subgroups, such as the Communists led by the German exiles Karl Marx and Friedrich Engels, began to argue that the working class (proletariat) would have to seize power, not just wait for upper-class benefaction. This proved less than tactful. In 1848, the first of several continental uprisings created the supposedly socialist Second Republic in France. By the time the shouting and shooting died down, Europe's already oppressive regimes were equating socialism with villainy.

The gap was especially wide between Russia's few haves and teeming have-nots, but Nicholas I ruled an illiterate citizenry who had little hope of pronouncing, much less embracing, dialectical materialism. No unrest diverted him from the eroding Ottoman Empire and the temptation to take Constantinople.

The Crimean War

In 1853, Nicholas I struck. Britain and France rapidly joined Turkey and, with tacit Austrian support, repulsed the Russian invasion. Alarmed by the waking eastern colossus, they invaded the Crimea to destroy the naval base there to discourage future Russian offensives. The resulting land campaign featured nasty new technology, becoming what many historians consider the first modern war. (The generals in the U.S. Civil War would learn as much from the Crimean War as the Civil War would teach to Europe in turn.) Eventually, the western allies forced satisfactory peace terms from Russia, but not before Nicholas' favorite generals – January and February – had taken an eye-opening toll.

The Communists Diverge

In 1871, Paris' laborers refused to give up their guns after having been armed to defend the city from the Germans (see p. W6). They formed the socialist Paris Commune, then bungled its defense. A disappointed Marx wrote off mainstream socialists, with their preference for ballot boxes over bullets. His writings focused on the revolution that would manifest *despite* these moderates, not in harmony with them.

His extreme measures, or Marxism, to create a humanistic utopia, or Communism, would appeal to a generation of frustrated revolutionaries. They failed, or refused, to see the conflict between means and goal, while others could not see past it.

From Straggling to Soviets

By the time of Marx's death in 1883, capitalism's profits were trickling down to the workers. An expanding bourgeoisie dampened the revolutionary fires. Russia, however, was still in industrialization's first agonies in 1905 when Tsar Nicholas II illustrated his brutal ineptitude in a losing war with Japan. A workers' demonstration on "Bloody Sunday" left more than 100 dead, and the crew of the battleship *Potemkin* began a wide mutiny. A revolution was born. The moderate Communist (or "Menshevik") Leon Trotsky established the first of more than 50 workers' *soviets* (councils). The expatriate Marxist Lenin returned to lead the extreme Communist (or "Bolshevik") faction to the fore. Agrarian reformers, the Social Revolutionaries, led more moderate elements of the left-wing uprising.

Nicholas II destroyed early resistance with false promises of reform. The skeptical holdouts were crushed by force. Within a few years, he was running things as boldly and badly as before, but with an even sharper eye out for leftist agitators.

The Eve of Armageddon

Nicholas II did not confine his bluffs to the internal sphere. When Austria declared war on Serbia in 1914 (see p. W6), Russia declared war to keep Austria – and by association, Germany – safely away from the Balkans and Constantinople. The tsar thought that Austria was engaging in diplomacy by threat of force, and that he was, too. He didn't expect armed conflict, nor had Russia prepared for a war. Nevertheless, it got one.

THE TSAR'S LAST BATTLE

Russia began WWI with its easiest victory. Entering East Prussia on Aug. 17, 1914, its 1st Army under General von Rennenkampf met the Germans three days later, and beat back a clumsy counterattack. The Germans found some braver generals to put in charge (see p. W:IC7) while the Russian 2nd Army under General Samsonov advanced from farther south.

The Russian armies moved west haphazardly and slowly, broadcasting their uncoded orders over the radio, while the Germans massed their troops quickly and quietly. Beginning Aug. 26, at Tannenburg, the Germans encircled the 2nd Army, inflicting 125,000 casualties to 15,000 of their own and virtually destroying it. Samsonov shot himself. His rival, von Rennenkampf, had stood idle even when ordered to help, but his turn came on Sept. 9, when the Germans wheeled and struck the 1st Army at the Masurian Lakes, adding another 125,000 casualties. Victory had about-faced into debacle. Never again would the tsar's armies enter Germany.

The Eastern Grind

Through 1915, the Germans kept hammering away in hopes of landing a fatal blow. The Russians endured it all, just barely, losing well over 1 million men in the process. On Sept. 8, disgusted with the state of the war, Tsar Nicholas II sacked his commander in chief and took the post himself.

In February 1916, the French appealed for a Russian diversion as the Germans began their Verdun offensive in the west. The tsar unwisely agreed, and lost more than 100,000 men in a brief offensive. In June, the competent General Brusilov launched a larger attack against the Austrians. This would become their finest hour for the tsar's troops, but ultimately their own ammunition shortages and lack of support from their flanking armies halted Brusilov's men.

Afterward, the front wound down into an exhausted stalemate. Russian troops in the Caucasus would make some further gains against Turkey, but in the main Russia already had done its best fighting – with nothing to show for it.

The February Revolution

The public grew tired of this poorly conducted war, and of its conductor. Nicholas' decision to run the army himself grew even less popular when it came to light that he was spending little time at the capital, leaving many decisions to the German-born Tsarina Alexandra and her unpopular adviser, Rasputin.

It hardly helped that the war effort had gone from bad to worse. Ammunition for the army's obsolete weapons became critically scarce. The troops lacked food, clothing, decent medical care, even barbed wire to defend their trenches. The hardships rapidly spread to civilian life. The military authorities commandeered the rail cars, shipping troops instead of grain. The price of food quintupled as the peasants realized that the tsar's paper war currency was worthless.

Russia's various socialists had gone to ground after the 1905 uprising, staging scattered demonstrations but living much like bandits in fear of the tsar's brutal secret police, the Okrana, and his Cossack enforcers. As discontent swept the land, they began to re-emerge. Unrest grew into localized labor strikes. In St. Petersburg – renamed Petrograd in 1914 to scour away all things German – a food riot broke out in March 1917. (It remained February by the old Russian calendar, which lagged 13 days behind everyone else.) The soldiers sent to quell the uprising joined it instead. The revolution was reborn.

The October Revolution

Nicholas II quickly abdicated, ending the 301-year Romanov dynasty in favor of a bourgeoisie Provisional Government. This regime kept fighting the Germans, as well as the socialist agitators. One of those agitators, Lenin, returned from his Swiss exile in April only to go into hiding in July.

Meanwhile, Brusilov led Russia's last offensive into defeat, causing an uproar. As Tsarist loyalists began to plan the recapture of Petrograd, the Germans mounted their own attack Sept. 1. Only Lenin's Bolsheviks stood in unalloyed opposition to this "imperialistic" war. War-weary soldiers and socialists of all stripes gathered under the Bolshevik banner, even after Lenin demanded armed revolution. After dark on Nov. 6, armed workers seized key Petrograd buildings. The next day the cruiser *Aurora* shelled the palace, signaling the Red Guard to seize it and capture the Provisional Government. The Bolsheviks had seized at least the trappings of power in Russia.

Lenin signed an armistice with Germany on Dec. 15, but Europe's pariah nation had now taken on Europe's pariah political philosophy. True peace would yet prove elusive.

THE CIVIL WAR

Never free from labor woes themselves, Britain, the United States, and other free-market countries feared the prospect of Russia illustrating that socialism could prosper. They also loathed the idea that Germany, or even Japan, would poach territory from their sickly former ally. They made the latter their pretext to make sure the former did not happen.

Being Marxists, the Bolsheviks *expected* this conflict, but the Great War left them with far more rubble than rubles. *Winning* the coming battles would prove quite the greater challenge.

The Enemy Within

In December 1917, the Japanese had landed the first of more than 72,000 troops at Vladivostok, and the Don Cossacks had begun revolting. With these worries at home, the Bolsheviks began discussing permanent peace with Germany, negotiations in which Lenin and company would prove they were better revolutionaries than statesmen. Sensing that the Reds were coming from hunger, the Germans raised their demands. The Russians had to give them a third of their best lands and people, and half of their industry, in the March 1918 Treaty of Brest-Litovsk.

The harsh terms stirred up opposition within the shaky socialist coalition, and added credibility to Tsarists and others opposing the Bolsheviks. By May, Trotsky's new Red Army was sparring with a Czech contingent (see p. W7) formed to fight Germans. The Czechs had been moving *east*, taking the long route back to the war. They seized the Trans-Siberian Railroad and, with the local Social Revolutionaries, declared two independent governments in Siberia. On July 17, the Bolsheviks murdered the tsar and his family at Ekaterinburg, rather than have them fall into the Czechs' hands. Throughout the civil war, Lenin and Trotsky would demand this sort of unblinking ruthlessness, both with their foes and in their own ranks. Their ends justified any means in their Marxist eyes.

As early as March 1918, with Bolshevik blessings, the British had landed at Murmansk to guard the arms stored there against German invasion. By August, the British and French were seizing Archangel in opposition to the Bolsheviks, and U.S. troops landed at Vladivostok, ostensibly to support the Czechs but in reality to defy both Bolsheviks and Japanese. In November, a general armistice ended the Great War, and with it much of the western rationale for intervention. Still, western troops continued to take territory the Reds could not defend.

In the meantime, the ramshackle Cossack rebellion had expanded into a White, or vaguely imperialist, army led by General Denikin. Baltic troops joined Russians in forming another White army under General Yudenich aimed at seizing Petrograd. A White army in Siberia, led by Admiral Kolchak, was squaring off against socialist rebels and Reds alike. (Also, an anarchist army, of sorts, fought both Reds and Whites in the Ukraine, and the Japanese set up a puppet frontman at Vladivostok. *Many* smaller factions muddied this war's waters . . .)

In 1919, with their western support, the varied Whites got the Reds on the ropes. By October, Denikin was within a fortnight's march of Moscow, where Lenin had moved the capital in March 1918 fearing a German invasion of Petrograd. Yudenich's troops stood within 10 miles of Petrograd itself.

The Whites' Night

As militarily savvy as he was savage, Trotsky exploited his main advantage over the Whites. Holding the railroad hub of Moscow, he could move most of the Red Army to face each White army in turn. In addition, Britain, France, and the United States had begun withdrawing their war-weary troops, thus abandoning the Whites to a piecemeal defeat.

In October 1919, Trotsky personally led a defense of Petrograd that shattered the Baltic Whites and sent Yudenich into exile. By February 1920, the Reds had captured and executed Kolchak. The next month, the Bolsheviks had pushed Denikin out of the Ukraine. The White cause had faded to black.

Polish Climax

After some 1919 skirmishes, the Poles invaded the Ukraine in April 1920. They rapidly took Kiev, but the Reds then turned the overextended Polish troops. Caught up in their recent success, Lenin and Trotsky pushed their counterattack to just short of Warsaw by August. They envisioned sweeping across Europe as revolutionary fervor swept the continent.

Instead, the Poles routed the Red troops, who had become severely overextended in their turn. In October, the chastened Lenin signed an armistice, turning his attention back to crucial matters in Russia itself.

ORPHAN IN A COLD WORLD

After taking power, the Bolsheviks called themselves simply "Communists." By 1922, they had killed or assimilated all other Russians with claim to that title, or to "socialist" or "Soviet" for that matter. They soon renamed their empire as the Union of Soviet Socialist Republics.

The Soviet leadership had also muscled its way to the fore of the international socialist movement. They saw this as a matter of survival; they did not think that the Soviet Union could stand alone. In addition, Marxist doctrine assumed immediate conflict with capitalism. During their civil war, Communist uprisings had failed in Hungary, Austria, and Germany. (Lenin even anticipated that *Germany* would take the lead role in the coming Communist epoch.) The Polish debacle further illustrated that this revolution would not be sweeping the world like wildfire, but the Soviet leadership continued to aggressively support Marxist agitators wherever found.

Aghast at Red methods, some of the world's socialists declined to join the Soviet bandwagon. At home, a 1917 election had given the Social Revolutionaries more than twice the representation of the Bolsheviks, prompting Lenin to form a dictatorship that paid mere lip service to democracy. The SRs attempted to assassinate Lenin in August 1918, leading him to unleash his secret police – the Cheka – to terrorize the working masses that they ostensibly served. Lenin had gathered support by promising freedom and bread, with the implication that tough measures today would usher in utopia tomorrow, but Soviet practice was beginning to take a totalitarian turn from the already ruthless Marxist theory.

Capitalistic nations could hardly ignore this cold-blooded regime with intent to spread its red-handed ways. They demonized Lenin as both an oppressive dictator and an anticapitalist intellectual with a gaping ignorance of economic realities.

War Communism and the NEP

Lenin left himself open to both charges. From 1914 to 1922, fighting, terror programs, and a 1920-21 drought had killed some 20 million Soviet subjects. These crises had ravaged the agricultural infrastructure, which could barely feed the 147 million souls that remained, and industry had shrunk to miniscule outputs of the 19th century.

The de facto dictator had contributed mightily to this state of affairs by plunging the country into a purely Communist economic model. The state seized all industry. It determined needs, then ordered its factories to meet them. The Soviets forced subjects to work in specific jobs. Troops tried to gather all produce for redistribution by master plan.

Production collapsed. Factories' state orders rarely matched the raw materials that were supplied. Peasants balked at giving up the harvests that would keep them alive through winter. Uprisings and protests reached a dangerous frequency as living standards plummeted and Red soldiers enforced the unpopular measures.

Covering his tracks, Lenin dubbed these policies "War Communism," though wartime expediencies had not motivated him. Ideology had. In March 1921, he began replacing them with a capitalism-laced "New Economic Policy." Private owners, called *nepmany*, could reclaim small factories, hire up to 20 workers, and sell their goods at market. Free-market farmers, called *kulaks*, enjoyed similar liberties. These reforms, in turn, infuriated many of the hard-liners who had fought for Communism, but they revitalized the Soviet economy.

SLOW, HASTENED DEATH

In May 1922, Lenin suffered a stroke. After a second stroke in December, the new and still fragile Soviet Union appeared likely to undergo a change of leadership.

An informal dictator can't really formalize a plan of succession. Officially, the party took directions from a *Politburo* with four full members other than Lenin – among them Trotsky and Josef Stalin (see pp. W104-105) – and a few junior members. These men had an inside track on assuming Lenin's role as first among equals, with Stalin holding an ace up his sleeve because Lenin and his intellectual aides had governed via a vast bureaucracy. They had expected many of these agencies to limit themselves to narrow agendas, or tackle short-term issues and then disband. Predictably, the men running these agencies did neither, instead creating a Byzantine court of bureaucrats assembling webs of personal power that even they found hard to navigate. Stalin had mastered these machine politics, in which just keeping score was a challenge.

Lenin endorsed Trotsky, a former critic who had become his merciless equal in theories and superior in putting them into practice. He also moved to remove Stalin from power, having come to perceive him as a crude thug. In March 1923, a third stroke left Lenin helpless. The physicians attending him worked for Stalin. The world's foremost Marxist died Jan. 21, 1924, perhaps nudged along by his doctors.

A War Commissar of Words

The skirmishing began before Lenin's death, with two serious contenders from the Politburo, Lev Kamenev and Grigorii Zinoviev, taking on Stalin as a junior partner to form a triumvirate with the goal of keeping Trotsky at bay.

Through 1924, this internal war intensified. Both sides wanted to consolidate power; an old-school socialist did not last long in this battle if he suggested that the time had come to put power in the people's hands. Trotsky and his supporters wanted to move in strict step with Marxist principle, an intellectual exercise that the pragmatic Stalin derided as "Trotskyism." As part of that pure Marxism, Trotsky wanted to aim Soviet efforts further toward igniting a world revolution. With a cynical eye on the assets of their paper-mâché juggernaut, Stalin formed a convenient "Socialism in One Country" theory, arguing that the USSR could and should go it alone.

The two camps waged war in Lenin's venerable propaganda organ, the newspaper *Pravda*, and various committees, with Stalin more willing to resort to the low blow. Little by little, Trotsky's position slipped, until in January 1925 he lost his most important state post, that of war commissar.

The Stalin Era Begins

With Trotsky tarnished, the triumvirate began to disintegrate. Stalin proved the better infighter. He had found new allies who wielded enough power to be useful, but too little to threaten Stalin himself – most prominently junior Politburo members Nikolai Bukharin and Viacheslav Molotov. His ex-partners joined Trotsky and others in July 1926 to denounce Stalin's heavy-handed methods, a conflict that came to a head in October when Trotsky and Kamenev called Stalin "the gravedigger of the revolution." Stalin pushed them from their Politburo posts, having already toppled Zinoviev.

An idealist in Lenin's mold, Trotsky kept arguing his confrontational case for the next two years, digging himself into a deeper and deeper hole. In October 1927, he and Zinoviev lost their positions in the Central Committee, which supervised daily party operations between meetings of the Party Congress. In November, they lost their party cards. In December, an official purge of Trotskyism began.

In January 1928, Trotsky was exiled to a remote village on the Chinese border, where he persisted in his agitations until deported in February 1929. On Aug. 20, 1940, an NKVD (see p. W47) agent assassinated him in Mexico City.

Meanwhile, Stalin had consolidated his position enough to allow Kamenev and Zinoviev back into the party in June 1928. By December 1929, his "cult of personality" had grown to the extent that his 50th-birthday celebrations became a state event. Lenin's last choice had become his creation's leading man.

The Great Famine

In 1927, the semicapitalistic New Economic Policy reached a crisis point, as fear of another Polish invasion, along with price drops, resulted in hoarding. In January 1928, Stalin visited Siberia, where he saw barns bursting with grain that the kulaks refused to sell at the state's fixed price. He told the local authorities to take the grain anyway. The seizures created unrest, then rationing, both worsening when the autumn crop failed. Regardless, Stalin spread his seizure policy nationwide in 1929, a year in which Bukharin's loyalty to the NEP prompted his fall from grace. On Feb. 1, 1930, Stalin declared war on the kulaks. Some were killed and some relocated as the Soviets began violent "collectivization" (state control) of farms.

This combined with crop failures to trigger a staggering 1932-33 famine. Starvation victims wandered the streets, chewing all the bark off trees, fighting over horse manure in hopes of the odd undigested grain, even eating the dead. Stalin didn't blink at the horror. Collectivization continued, with state farms producing 90% of the USSR's grain by 1936.

The Five-Year Plans

Meanwhile, Stalin and other Soviet leaders desperately wanted to bring their country up to par with Europe's leading industrial nations. Marxist theory had presumed that utopia would start out by usurping all of capitalism's infrastructure. Furthermore, a Stalinist nation, going it alone, needed plants to build modern arms to defend itself in a hostile world.

In April 1929, the first five-year plan filled 1,700 pages with a sometimes contradictory scheme to electrify the entire nation, with a massive buildup of heavy industries such as steelmaking. The Soviets rushed to train a new legion of working-class engineers, began breathtakingly large projects, and fully doubled their core industrial capacity. This modernization transformed the economy, but Moscow's leadership thought it had done even more, because project managers routinely inflated their accomplishments.

In 1932-33, as the famine decimated the villages, industrial progress plummeted. The overflowing cities could no longer absorb new workers and the railroads collapsed under the strain. In January 1934, a new five-year plan focused on efficiency, training, and living standards. It ushered in an even greater industrial boom through 1936, as the first plan's grandiose projects came on line and the second plan improved output.

The Purges

In 1937, industrial expansion again entered a lull, in part because Stalin's policies were beginning to conflict with one another. He had diverted much effort from building new plants into building new weapons. Worse, he'd begun a systematic terror campaign that caused thousands of crucial managers and foremen to disappear in the dead of night.

Since assuming power, Stalin had been fighting his critics relatively discreetly by controlling party membership. Despite this, a movement based in Leningrad (the former Petrograd) was defying him. It promoted Sergei Kirov, a man Stalin had groomed like a son. In December 1934, an assassin killed the protégé turned rival. Stalin accused Trotskyites of the killing. Through 1938, after filmed show trials, the NKVD shot Kamenev, Zinoviev, Bukharin, and many more of Stalin's foes.

Then it got worse. Dispensing even with mock trials, the purges grew in scope. By mid-1937, they had become a full-scale terror campaign, the *Ezhovshchina*. For the next 18 months, the secret police swept the ranks of high officials and commoners alike. Just about anyone could denounce anyone as an anti-Soviet "wrecker." Frantic to meet their quotas lest they be judged wreckers themselves, the secret police listened eagerly. More than a third of the Party's members lost their status. The remote concentration camps established by Lenin grew into a vast network of "gulags," where millions endured hard labor and the extreme Siberian weather. Being shipped to the gulags often amounted to a death sentence.

The terror reached the Red Army (p. 29), hitting the highest ranks the hardest. Tthe NKVD relieved more than 36,000 officers, particularly Spanish Civil War veterans (see p. W10).

By October 1937, Stalin realized his efforts to remove dissent were eating the Soviet Union from within. He rapidly reformed Soviet policy and the secret police. The purges already had claimed many early NKVD executioners, who undoubtedly took many secrets to their graves. Of the two NKVD chiefs during the purges, one would be executed and the other missing by February 1939. A bootlicking henchman of Stalin, L.P. Beria, took over the post in December 1938, after which the terror subsided from surreal to merely intense.

Despite this upheaval, by 1939 the Soviets had greatly expanded their industrial base and, in the process, considerably improved the technical education of their populace. Circumstances would prove these advances had come none too soon.

ALLIES OF THE AXIS

"I cannot forecast to you the action of Russia. It is a riddle wrapped in a mystery inside an enigma: but perhaps there is a key. That key is Russian national interest."

– Winston Churchill, 1939 radio address

Unlike many world leaders in the 1930s, Stalin foresaw war. Almost all of his programs aimed to prepare the Soviet Union for the next war, by raising more crops to feed more troops, building more factories to produce more tanks, and suppressing dissent to forge a populace that would unquestioningly pursue the common goal.

By decade's end, though, the young nation remained far from ready. Stalin continued to pursue a policy of isolation. Increasingly, the rise of Fascism suggested that he would not have his way. The Soviets had not expected the Nazis to survive more than months once they seized power in Germany. Not only had Hitler's party consolidated an authority to rival Stalin's own, but in 1936 Germany signed a pact with the equally nationalist Japan (see p. W10). Russia's traditional foes in the East and West had formed a hungry alliance.

Earlier in the decade, the Soviets had tried to feel secure behind the "cordon" of nations separating them from Germany. They signed pacts with Poland and the Baltic states that they had reluctantly yielded during the civil war – Estonia, Latvia, and Lithuania. Gradually, Stalin came to suspect that this would not suffice. He instructed Communist provocateurs around the globe to quit fighting moderate socialists (until then perceived as the revolution's worst enemy) and instead form anti-Fascist "popular fronts" with them. He deepened the USSR's relationship with France and China. Still, threat lingered in the air.

FATEFUL TIMING

In mid-1939, the Japanese struck first, lashing out from their positions in China to test Soviet resources (see p. W11). The Soviet commander on the scene, General Georgy Zhukov, understood his foe's intent and gathered far superior forces. His response to the Japanese raid sent the attackers reeling. He intended to convey that the Soviet Union was a slumbering bear best left alone.

Deal With the Devil

The Japanese got the message, but it was too late. Above all, Stalin feared a two-front war. As the fighting raged in Mongolia, the Nazis offered to publicly sign a non-aggression pact and secretly divide up eastern Europe. Stalin and his new chief diplomat, Molotov, listened. The lands that Hitler offered would effectively buffer the Soviets against Hitler himself. They had explored alliance with France – and even with Britain, which Stalin mistrusted as deeply as Hitler. The capitalists showed little enthusiasm. Stalin feared that they might tacitly offer Hitler a free pass to attack the Soviets in exchange for peace in the west.

On Aug. 23, 1939, Stalin sealed the deal. He thought he had bought some security, though many Soviets suspected that he had only set back the timer on a ticking bomb. But the pact allowed the USSR to settle some old scores while maintaining a veneer of legitimacy. It transformed the Soviet Union from prey into subtle predator.

THE PACT IN PRACTICE

A week later, Germany invaded Poland. The Soviets watched with more than a little awe as the Wehrmacht sprinted eastward. Their agreement with the Nazis assured them of eastern Poland, but Stalin and his generals had expected more time to think things through. The Germans were setting an altogether different pace.

On Sept. 17, hastily formed Red Army units entered Poland, meeting little opposition from the already beaten Poles. They quickly claimed most of the promised territory, while passively resisting further Wehrmacht advances by such measures as parking tanks in the path of German troop trains and claiming they had run out of fuel. Stalin told the world that he was remaining neutral, merely moving to protect the region's large Ukrainian and Belorussian populations, many of whom truly welcomed the Reds. Meanwhile, the Nazis revealed that the Soviets had agreed to partition Poland.

World opinion found this secret aspect of the Stalin-Hitler pact rather unsettling, which in turn caused the Soviets some concern, but overall the Reds could hardly complain about their fortunes. By the end of September, they knew that they had given pause to the Japanese, and they had established a formal border with Germany down the middle of Poland.

Certainly, bringing eastern Poland into the Soviet sphere would take some bloody oppression, but it would hardly lower world opinion further, because the Reds' critics already condemned them for these practices at home. Stalin had grounds to congratulate himself on his diplomatic skills.

The Buffer States

Two decades earlier, the Reds had only grudgingly conceded independence for Estonia, Latvia, and Lithuania. Hitler had promised "rights" to the first two, while reserving Lithuania, but Stalin had horse-traded for the complete set (see p. W12). He now saw opportunity to strong-arm them back into the fold. In November 1939, Stalin suggested that the Baltic states enter the "Soviet sphere" by merging their defense with the Reds' own. With tiny armies (see pp. W57-59) facing Germany, all three agreed to what appeared the lesser of two evils.

The Finns rejected an almost reasonable proposition that they pull back their borders; only some 20 miles separated the former Russian subjects from Leningrad. Potentially, Finland also threatened Murmansk, the Soviets' only port outside the Black Sea which didn't ice over for much of the year. Though the Nazi pact had promised Finland to the Soviets, the Finns seemed likely to cut their own deal with Hitler, and they responded to the heavy-handed Soviet proposal by mobilizing some 200,000 men and arming the disputed border.

This just would not do. Stalin decided he could stretch legitimacy past its breaking point in securing this vital region.

The Winter War

The Red Army's eastern units had shown real fighting ability in Mongolia, but the Soviet leadership grossly misjudged the Polish walkover as a similar triumph in the west. On Nov. 30, they confidently dispatched an overwhelming force to take what the Finns would not willingly give.

They received an ugly surprise. Though the Finns were not fully confident in their own supply and training, they fared much better than the Red troops they faced, trained by officers who had survived 1937 by parroting the party line rather than making tough decisions. Worse yet, those same officers had little real concept of tactics and supply. Throughout December, the Finns inflicted grievous losses on Red Army troops who often were led, then slaughtered, like so many cattle. As the USSR began its obligatory celebrations of Stalin's 60th birthday on Dec. 21, disaster was brewing just beyond Leningrad.

Though willing to shrug off his dead, Stalin was dismayed when world opinion of the Soviet Union fell from distrust to outrage. Britain and France encouraged the League of Nations to evict the USSR, and began sending arms to Finland. Ever suspicious, Stalin could envision the two countries abandoning their "sitzkrieg" (see pp. W13-14) against Germany and allying with Hitler against him.

As 1940 began, the Red invasion had ground to a bloody halt at the Mannerheim Line, a thin string of bunkers named after the former Tsarist general leading the Finns. On Jan. 7, Marshal S.K. Timoshenko took over the Red command and began moving up fresh forces. The new assault began in February, advancing slowly and mostly by weight of numbers.

Numbers, ultimately, made the difference. On March 12, the Finns signed a treaty conceding the original demands, and more. Added on as a punishment for fighting rather than knuckling under, the new territory meant little to the Soviets, but it added to Finnish anger over the Red aggression.

See ***GURPS WWII: Frozen Hell*** for more.

The Nervous Year

As spring of 1940 gradually arrived, the Soviet Union enjoyed peace, but its leadership did not relish its recent victory. They feared that the Finland fiasco would tempt Hitler to try his own luck against the Soviet military.

Stalin did not want anyone suggesting that the purges might have led to the Red Army's failure. He blamed a lack of discipline within the ranks, and ordered the newly promoted Timoshenko to create a ruthless system of military justice. Timoshenko also began reorganizing Soviet arms, which had shifted from dense armor formations to sprinkling tanks throughout the infantry. Wehrmacht victories and Red Army defeats suggested that the old way had been better.

As these reforms began, Germany invaded Scandinavia (see p. W13), a move that considerably heightened tension in the Kremlin. As Soviet diplomats helped persuade Hitler to leave Sweden unoccupied, the Reds began to consider that they might not want to alienate Britain and France *too* much.

The fear only got worse. The Soviets had expected France to finally knock some steam out of the Wehrmacht juggernaut. If the French army took a beating in the process, well, that was all right, too. Instead, Hitler's panzers repeated their spectacular Polish successes (see pp. W14-16). The Soviet Union wasted little time in shifting its stance. Where *Pravda* had once praised the German victories, it began printing British Prime Minister Churchill's defiant speeches in full.

When France fell, the specter of a British surrender – leaving Hitler with no other target *except* the Soviet Union – haunted Stalin. He dropped the kid gloves, dispatching the Red Army to occupy and fortify the Baltic states on June 15 and taking Bessarabia and northern Bukovina from Romania on June 26. At home, the Soviets put their economy on a near-war footing, and enacted fierce labor laws subjecting workers to almost the same grim discipline being imposed on the army.

Meanwhile, the Soviets tried to maintain a friendly face toward the Germans. Since Feb. 11, they had been punctually delivering raw materials in exchange for increasingly late or missing German manufactured goods. They kept up what became a farce, but no shuffling of words or wheat could erase the friction as the troops edged ever nearer to one another.

Molotov paid a diplomatic call on Hitler – they met for the first time Nov. 12 – to clear the air. The Soviets had seen German troops in Finland and the part of Romania they had not claimed. The Germans had received no warning of the Soviet occupation of the Baltics and Bessarabia. They told Molotov they were signing a military pact with Japan, and invited the Soviets to join this German-Italian-Japanese axis.

Molotov asked hard questions, refused to be deflected, and infuriated Hitler. As they stood in a Berlin shelter during an air raid, Molotov's counterpart von Ribbentrop (see p. WIC54) asked why the Soviets would turn down a share in the dismembered British empire. Molotov famously responded, "If you are so sure that Britain is finished, then why are we in this shelter?"

Molotov had given nothing, and everything, away. Hitler had long contemplated an eastern campaign, but only made up his mind after meeting with the acid-tongued diplomat. His decision would shape the outcome of the war – and recast everything that had come before as mere prelude.

A CRASHING GRAY WAVE

As 1941 began, many of the Soviet Union's 194 million citizens had little idea that war loomed. The politically aware waited with mounting tension, sure that Hitler would strike, but still believing that Britain might become his target.

More immediately, German pressure in the Balkans continued to trouble the Kremlin. On April 5, Stalin signed a non-military pact with Yugoslavia, hoping it would suffice to deter Hitler. Germany invaded Yugoslavia less than 24 hours later.

This sent a message, as did a rising tide of other evidence: signals and human intelligence, Luftwaffe overflights of the border, further German tardiness on joint projects. The Red Army scrambled to reorganize and build defenses. Promoted to chief of staff based on his victories, both in the field and portraying the Germans in war games, Zhukov threw himself into the reforms begun in 1940. Despite his spirited leadership, progress was slow, spotty, and nowhere near complete.

Most limiting of all was Stalin himself. His fear of provoking Hitler almost seemed to have become the delusion that Hitler would not attack *unless* provoked. He refused to fully mobilize, and encouraged his subordinates to downplay the evidence of imminent invasion so that he could simply agree with their assessments.

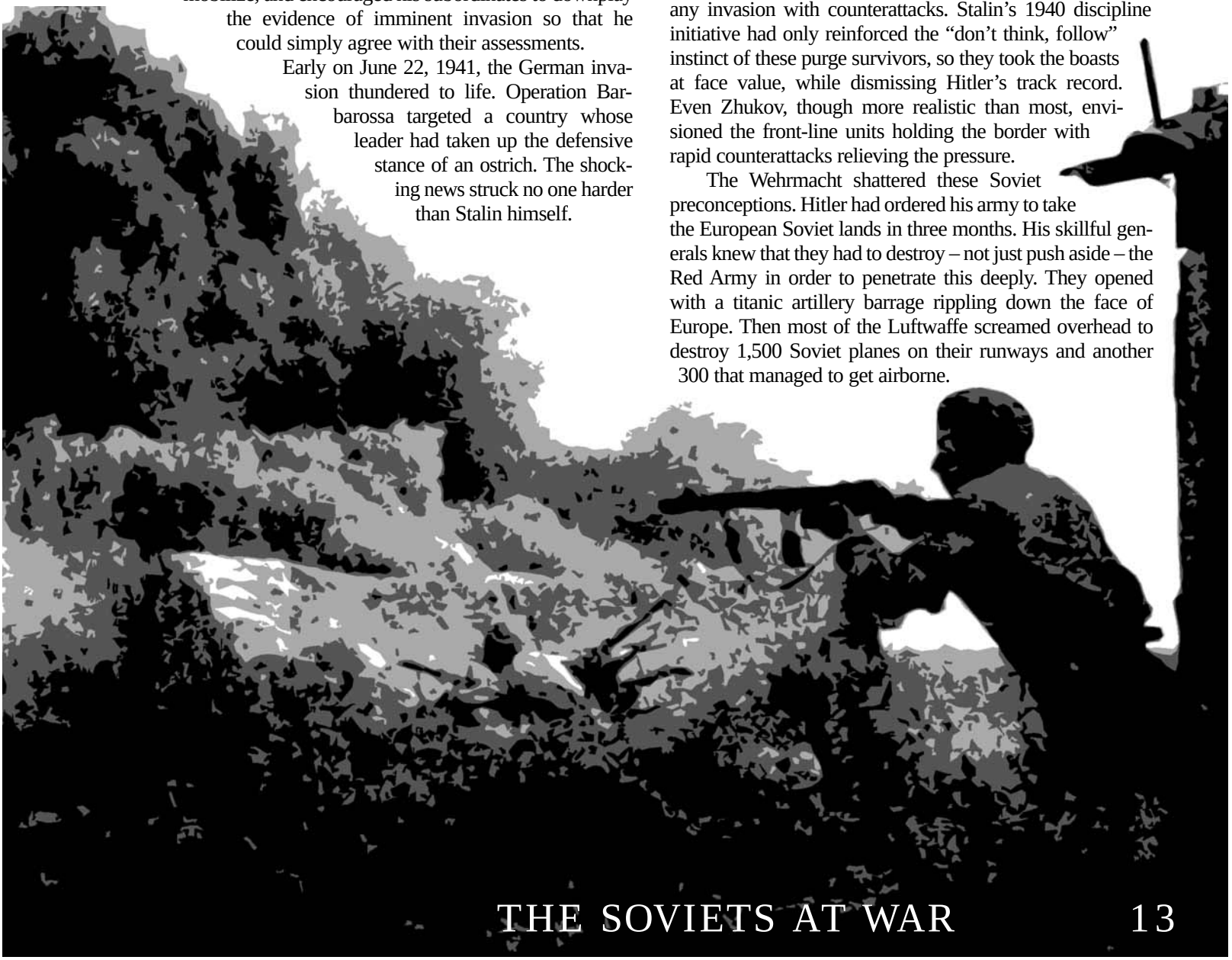
Early on June 22, 1941, the German invasion thundered to life. Operation Barbarossa targeted a country whose leader had taken up the defensive stance of an ostrich. The shocking news struck no one harder than Stalin himself.

The First Days

The Red Army defended some 1,000 miles of front with Germany and its allies. Of this, only a 100-mile stretch east of Hungary represented the 1939 Soviet borders. The remainder consisted of the Baltics, Poland, and Bessarabia – old Russian territories seized precisely for this day, to defend the USSR in front of the USSR proper. The Soviets further divided this front into four Special Military Districts: from north to south, Baltic, Western, Kiev, and Odessa. The Baltic faced the German Army Group North (see p. W21), the Western faced Army Group Center, and the Kiev Army Group South. Covering very rough terrain, the Odessa district needed and fielded few troops.

In extending their borders, the Soviets had left themselves with relatively little time to fortify them. They also had deployed poorly, cramming troops into the bulge where their front protruded into Poland. Worst of all, many Soviet generals suffered from overconfidence. For years, the party had preached the Red Army's invincibility, boasting it would rout any invasion with counterattacks. Stalin's 1940 discipline initiative had only reinforced the "don't think, follow" instinct of these purge survivors, so they took the boasts at face value, while dismissing Hitler's track record. Even Zhukov, though more realistic than most, envisioned the front-line units holding the border with rapid counterattacks relieving the pressure.

The Wehrmacht shattered these Soviet preconceptions. Hitler had ordered his army to take the European Soviet lands in three months. His skillful generals knew that they had to destroy – not just push aside – the Red Army in order to penetrate this deeply. They opened with a titanic artillery barrage rippling down the face of Europe. Then most of the Luftwaffe screamed overhead to destroy 1,500 Soviet planes on their runways and another 300 that managed to get airborne.



German special forces in Soviet uniforms ambushed Red sentries to seize bridges. The advancing panzers often rumbled past empty bunkers, in which Stalin had refused to deploy troops for fear of "provocation." The commanders of units that were in place had no idea how to respond. When they called for orders, they were told to wait, or that they must be mistaken about the shells bursting among their men.

At first, Stalin refused to believe the reports. Then he finally issued orders – counterattack back to the border, then stop. Many units did not receive the message; the Germans already had destroyed their communications. Those that did receive them usually had no idea how the war was going beyond their own line of sight, where to attack, or who would be on their flanks. Stalin's orders vanished in the general chaos that was paralyzing the Soviet defenders.

Perhaps because they had seen more of the early warnings (p. 117), the Soviet Baltic armies reacted best to the onslaught. The Germans made rapid progress on good Lithuanian roads, advancing 37 miles on the first day alone, but the Red generals – and admirals – retreated in relatively good order, often quietly glad to leave behind the defiant Baltic natives.

In the Kiev district, General M.P. Kirponos probably fielded the most powerful Soviet forces, but heeding Stalin's demands, he threw his units against Army Group South off the march, as each arrived at the battle. The Germans casually defeated each in turn. Army Group South's thin right wing advanced far enough to seize Odessa's forward defenses and secure against counterattack.

The German's biggest force, Army Group Center, skirted around the Soviet fortress at Brest-Litovsk and advanced 30 miles into Belorussia on the first day. Its two panzer armies encircled the Western troops until they met west of Minsk on June 26. The same day, Finland joined the German invasion.

By the 29th, Army Group Center's panzers had closed the noose. Some 30 Soviet divisions found themselves trapped in three pockets near Minsk or elsewhere in the German rear. Meanwhile, German mountain infantry attacked from Finland toward Murmansk, beginning an Arctic Circle campaign.

Off the Canvas

The day after war began, the Soviets created a supreme command, called STAVKA, including Stalin's compliant Marshal Timoshenko as chairman and Stalin, Molotov, Zhukov, K.Y. Voroshilov, S.M. Budenny, and Adm. N. Kuznetsov. STAVKA had needed precious days to form a picture of what was happening, but it now began trying to pry some initiative away from Hitler. Many of these early efforts did not fare well – on June 30 the Luftwaffe shot down some 100 bombers sent against the panzers at Minsk – but a new defense plan was jelling.

It was a grim plan. Stalin roused himself from an 11-day depressed isolation to address the people via radio July 3. He called for the economy to enter a complete war footing, and for anyone who got in the way to be shot on the spot. He demanded a scorched-earth policy: retreating troops and citizens were to leave leave nothing behind for the invaders to use. He called for the formation of a partisan movement behind German lines to make their lives miserable. He had begun this address by greeting his "comrades, citizens, brothers, and sisters," a marked departure from his usual aloof style. It recognized that he was asking for a lot.

He need not have worried. Most Soviets put aside their grievances with Stalin and threw themselves into the fight for the *Rodina*, or motherland. Many who might have welcomed the Germans changed their minds after a taste of Nazi brutality. Hitler had issued his savage "Commissar Order" on June 6, demanding immediate execution of Red Army political officers. Though his officers sometimes ignored the letter of his order, German troops won few admirers as they advanced.

Unblunted Momentum

Stalin's initiatives would bear fruit, but not for the moment. The Special Military Districts were renamed as what they had become, fronts, with each commanding an army group. The Baltic became the Northwestern and the Kiev and Odessa merged into the Southwestern. The Western Front generals scrambled to form a new line. They threw units into the attack, much as Kirponos had wasted them, to buy precious time.

The Wehrmacht still roared east. On July 2, the Germans and Romanians anchoring Army Group South at the Black Sea began driving to Odessa. On July 6, the Northwestern army lost 170 tanks in a futile counterattack.On July 9, the last major pocket collapsed at Minsk; 300,000 men, 2,500 tanks, and 1,400 guns fell into German hands. Meanwhile, having finally accumulated a powerful force, the Southwestern defenders attacked Army Group South west of Kiev on July 10, but the Germans beat back their obsolete tanks and tactics.

On July 11, Stalin reshuffled his top front commanders. Through 1941, he would rapidly replace generals, hunting for men who could perform the near-impossible. He executed some of those that he replaced, to motivate their successors.

Proclaiming he'd embrace the Devil himself as an ally against Hitler, Churchill had flipped his position on the Soviets

the moment that Barbarossa began. On July 12, the British and Soviets signed a mutual-assistance pact. This eventually would yield huge dividends, but at the time the Soviets continued losing the war, badly. By the end of July, the Wehrmacht seemed about to make good on Hitler's boast that it would "kick in the front door" and bring down a rotting house. Its panzers had advanced up to 300 miles, chewing up more armies en route.

A Lull in the Heat

August, though, offered hope. After six weeks at top speed, the German infantry was tiring, and half the panzers had fallen out from road wear or combat. With Poland and the Baltics behind them, German generals found their maps to be works of fiction, and few roads much better than unpaved tracks.

Taking advantage of this German fatigue required a clear-eyed leadership that the Soviets did not enjoy. On July 29, Zhukov had pointed out that the Western Front's weak southern flank would allow the Germans to punch through and sweep around the Southwestern troops, but defending against this would require a counterattack at Elnya and abandoning Kiev. Stalin roared that the latter, painful suggestion was "nonsense." The just-as-fiery Zhukov resigned as chief of staff, but received command of his counterattack.

Stalin's reluctance to retreat would cost him dearly Aug. 3, when Army Group South managed to pin most of three armies at Uman. As ordered, the Reds sat under withering artillery fire until 103,000 survivors trudged into captivity Aug. 10.

The Siege of Leningrad

On June 26, the Luftwaffe began attacking Leningrad as the Soviet troops retreated toward it in front of Army Group North. Meanwhile, the Finns pushed down from the north. By July 14, the Axis forces stood some 80 miles away from the historic former capital.

Army Group North launched its main assault Aug. 8, but collided with a Soviet counterattack. The huge Wehrmacht artillery park and the Reds' Baltic Fleet contributed their guns to a ferocious battle. The Germans flanked but did not break the desperate Soviet infantry.

Momentarily halted, the Germans then swung south, cutting an arc around the disorganized ring of defenders manning trenches dug by youth volunteers. By the end of August, only a narrow corridor between Lyuban and the Gulf of Finland remained open. As the noose closed, Stalin ordered the inhabitants to fight to the bitter end.

In September, the Germans planned to finish off Leningrad with their allies' help, but the Finns balked. Instead, the Wehrmacht closed its ring around the city on Sept. 8. Four days later, the first snow fell on Leningrad's 2.5 million people, already enduring the German barrage and hunger's first pangs. As Leningrad's factory workers transformed their city into a fortress, and themselves into battalions, Zhukov took command of the defenses on Sept. 11. His subordinates surveyed their miserable food stores and realized famine was inevitable.

Other surrounded Reds, however, were mastering the art of dying hard, in the mold of the Brest-Litovsk defenders who had held out until July 24. Though another 310,000 men would become POWs as the Smolensk pocket (see p. W21) collapsed Aug. 5, trapped Soviets were learning to dig in and take a grim toll. Already well in the Axis rear, Odessa would fiercely resist a Romanian siege beginning Aug. 5. Axis losses mounted.

On Aug. 7, Stalin declared himself generalissimo, or supreme commander, of the Red Army, beating even Hitler to this self-promotion. More importantly, on the 16th, he signed the agreement that would lead to massive Lend-Lease shipments from the western Allies.

The next day, Zhukov launched his counterattack, in which the Soviets introduced the Katyusha (p. 69), and badly savaged two panzer divisions. The Germans had been slowed in the north and center, but in the south they ran rampant. Zhukov could only watch in dread as his predictions came true.

Southern Sacrifice

After stalling for a month, the panzer commander Guderian finally obeyed Hitler's order to swing south (see p. W21). On Sept. 10, he linked up with Army Group South's panzers to form a massive pocket with Kiev on its eastern edge. The Southwestern commanders – Marshal Budenny and his political commissar, Nikita Khruschev – begged Stalin to let them withdraw while time remained. Stalin sacked Budenny, replaced him with Timoshenko, and told him to hold fast.

A week later, the pocket closed. The Germans had encircled more troops than anyone before (or since). Too late, Stalin realized his folly and ordered retreat. Only a handful of men escaped. Kirponos and five armies' worth of lesser ranks, some 665,000 troops, either died or joined the millions of Soviet captives that the Germans were starving to death. The Red Army had conscripted every Kiev male between 16 and 50, and most fought to the death, but they yielded the city's ruins on Sept. 19.

A humbled Stalin finally realized that his will alone would not make things the way he wanted them. On Sept. 30, he allowed the Odessa defenders to evacuate to Sevastopol, as the Axis armies threatened to penetrate the Crimea, but that city remained a lesser concern. Once again awash in triumph and confidence, the Wehrmacht could now turn most of its attention back to Moscow, and a fearful STAVKA knew it.

BREAKWATER MOSCOW

Hitler had set for Barbarossa the goal of taking Moscow within three months. Eight days after that deadline expired, Guderian turned back north, leading the first of several panzer armies with the goal of seizing the capital in Operation Typhoon. The next day – Oct. 1, 1941 – the United States joined the British-Soviet aid agreement. Some doubt lingered over whether the Soviets would last until the shipments arrived.

STAVKA frantically organized a defense of the capital city. Too late to save the men at Kiev, it created a Bryansk front between the Western and Southwestern. The Bryansk and Western guarded Moscow, with a Reserve Front behind them . . . in all, some 800,000 men, 770 tanks, 364 planes, and 9,150 guns facing a reinforced Army Group North's 1 million troops, 1,700 tanks, and 19,000 guns.

The Germans cut right through them. On Oct. 3, the panzers took Orel so rapidly that they found the commuter trains still running on schedule. By Oct. 7, the Germans had snared *six* armies at Vyasma in a pocket nearly as ruinous as Kiev, and Guderian's tanks were cutting off two more armies at Bryansk, twin traps that would soon yield 673,000 more POWs. Hitler announced that the Reich had won its Russian campaign. Essentially, only a mopping-up phase remained.

Ill with influenza, Stalin initially reacted with sheer disbelief – his reconnaissance pilots *couldn't* be seeing panzer columns this close to his city. Then he sent for the feisty general upon whom he had come to reluctantly rely. With only some 90,000 troops remaining, Zhukov began reorganizing the shattered defenses. Stalin threw in the replacement units that the vast Soviet system was beginning to produce. He ordered Moscow's inhabitants, three-fourths of them women, into the countryside to dig a vast defense belt. On Oct. 12, he evacuated women and children who couldn't work.

The next day, as the first snow fell in the Moscow region, German panzers took Kalinin, 100 miles away. No one realized its importance at the time; they had eyes only for the battles raging all about the Moscow perimeter, and the large gaps between the few units that Zhukov could field. On Oct. 15, Molotov warned Allied diplomats that the government would be moving to Kuibyshev, though Stalin planned to stay in Moscow. A general panic resulted as the news spread, but the NKVD shortly restored order. On Oct. 17, STAVKA formed a Kalinin Front between the Northwestern and Western, so that Zhukov could concentrate on what had become the Germans' main thrust. On Oct. 19, with the Germans 65 miles away, Stalin ordered an all-out defense; the capital's remaining occupants began forming four divisions of militia. In a phrase first used to rally the populace at Leningrad, the enemy was at the gate.

Winter Reprieves

Then, invisibly at first, the German momentum collapsed. The rain and snow was turning Russia into a sea of mud, and the exhausted German troops were beginning to feel the lack of winter clothing that their leaders had overlooked. Zhukov pulled back, leaving rearguards to conduct ambushes and limited counterattacks. By Nov. 1, he could tell Stalin that the dictator need fear only the Luftwaffe if he held the traditional Nov. 7 celebration of the October Revolution's anniversary.

Stalin did – the troops marched through Red Square and then straight to the front – but the gesture remained mostly bravado. While the battle for Moscow had raged, Army Group South's panzers had advanced all the way to Rostov on the northern shore of the Sea of Azov, taking another 100,000 POWs. Odessa fell Oct. 16, and many of its evacuated defenders got little respite, as Axis troops pushed their way into the Crimea and reached Sevastopol on Oct. 30. The retreating Soviets had abandoned the important city of Kharkov, but at least Stalin had allowed them to do so, rather than fall into another German pocket.

Then the temperature at Moscow fell below freezing, and the panzers mired in October's mud began prowling again on November's frozen ground. Zhukov had hoarded as many forces as he could into a formidable reserve, but on Nov. 13 Stalin ordered him to use these to counterattack, hanging up the phone as his subordinate protested. The Red thrust failed as the Germans swept into their own attack at the same time, punching through the thin spots in Zhukov's lines that now had no reserves behind them. By the 27th, Muscovites could hear the artillery firing as the Germans muscled their way to within 15 miles of the city, spying out its spires with binoculars.

Zhukov did not share the Muscovites' anxiety. He had gathered yet more reserves, and threw these into successful counterattacks on Nov. 27 and 29, turning back both ends of the Wehrmacht's pincer attack. The city would escape encirclement.The Germans made a last, desperate bid Dec. 3-5, but the Soviet defenders destroyed their exhausted attackers. The temperature had dropped to 30˚ below zero, reducing the fearsome Germans to the frozen dead and the nearly so.

Things had gone even better in the south. Rostov's defenders dug in while awaiting the panzers churning through the still-muddy countryside. They let the Germans drive them into Rostov beginning Nov. 17, then two Red armies lurking on the German's left flank struck from ambush. The Germans realized that the hunted had learned the ways of the hunter, and pulled out in the face of a third Red Army pushing into Rostov. The Soviets finally had mounted a proper attack – and won.

Red Reach

An eager Zhukov had been waiting to *really* counterattack, so when Stalin called before dawn Nov. 30 to ask about an assault along the entire front threatening Moscow, his top general did not argue as usual. He altered his plans to accommodate the boss and pulled the trigger Dec. 6. After months of terror at Nazi hands, bundled up in thick snow suits, his 15 armies launched themselves almost gleefully from both sides of Moscow. The frostbitten Germans shuffled into orderly retreat as the attack continued through Dec. 25, but took dreadful losses and abandoned more than 1,000 panzers and 1,900 guns. In the south, 20,000 Soviet troops landed on the Crimean coast in a raging storm to relieve the pressure on Sevastopol.

As 1941 ended, Soviet fortunes had definitely improved. The United States had entered the war and begun shipping crucial supplies. The partisan movement had begun making itself felt in the German rear. Soviet workers had dismantled many factories – exactly how many is now debated (p. 101) – and relocated them east to the Urals and beyond, where they soon would resume pumping out tanks, guns, and planes. The Soviets had killed more than a million Germans, more than twice Hitler's casualties prior to Barbarossa, and though Stalin had lost *far* more people, he could afford them more easily.

Exceeded Grasp

As 1942 began, Stalin got too greedy, extending the Red counterattack along the entire 1,000-mile front. He ignored Zhukov, who argued that all resources should be concentrated on extending the December victories in front of Moscow. The Red troops enjoyed some initial success, attacking on skis in the north's vicious cold, but their advances soon bogged down for a lack of ammunition and armor. Cavalry units deployed in the place of tanks did not have the same impact. Trying to close a massive pocket of their own, the Soviets dropped paratroops behind a German bulge between Vyasma and Kirov.

By February, the Germans had figured out both the cold and how to fight defensively, even managing to snare a Red army at Vjasma that would lose most of its men and equipment before breaking out a month later. The fighting settled down elsewhere, as both sides brought up fresh men and ammo.

In March, the Reds resumed the attack around Leningrad and the Vyasma bulge, their paratroops still fighting in the German rear. The northern assault did bring some relief to beleaguered Leningrad (see sidebar), opening up supply and evacuation routes, but the Vyasma pocket resisted collapse. On March 19, German troops and SS units began attacking partisan bases and burning villages in Operations Munich and Bamberg. They only managed to convince more peasants to join the partisans, who by this time were forming bigger and more effective units under NKVD and Red Army officers.

With April's rains, the mud returned, bringing campaigning to a halt. Both sides drew their plans for the coming months. Though war had been spreading around the globe, this immense front remained its center of gravity. The Germans' *Schwerpunkt* doctrine favored just such a place as their point of attack. When the rain quit, they would once again throw themselves into the offensive.

Leningrad Suffering

In his short command, Zhukov had transformed an ill-disciplined defense into a grimly efficient city-fortress, sometimes by threatening subordinates with execution if they failed to meet his massive demands. He also used a mean wit, once quipping that if an engineer didn't frequently relocate his fake wooden tanks, the Luftwaffe would begin dropping wooden bombs on them.

Hitler had given up on taking Leningrad. He simply ordered the ranks around it to starve and shell the city to death. Some say he planned to build a lake on its ruins; others say that he fantasized this fate for Moscow.

The plan should have worked. An early bombing had burned up much of Leningrad's food supply. Those in ill health began dying of malnutrition in late September. By Oct. 1, workers were receiving 14 ounces of bread as their daily ration, children and office workers half that. The ration only declined from there (p. 98).

Through all this, the Germans kept up a steady fire. In 1941's last four months, they averaged 248 shells from their siege guns in six huge artillery parks, 27 explosive bombs, and 820 incendiary bombs *every day*. On some days, 30 fires would break out across the city.

Nor did the cold help. On Oct. 31, the snow reached a 4" depth, traditionally signaling the "ski day" holiday in a happier Leningrad. In this year, no one had any kerosene. Anything that could burn began to disappear as the malnourished residents fought to keep warm.

By November, Leningraders were dropping on the street in droves, mostly the young and the old. Few had the strength to bury them. The city filled with corpses through the winter, thousands every day.

Early 1942 offered a moment's relief. Courageous truck drivers had been shuttling supplies over the frozen lake and through an impassable swamp (p. 69). Then the German cordon weakened just long enough to move out people and bring in food. By that time, though, some 800,000 in Leningrad had starved to death. By April only 1.1 million people remained in the once-splendid capital of the tsars, but the worst days of the long, bitter siege lay behind them.

SEA CHANGE AT STALINGRAD

May 1942 saw attention shift to the Crimea. On May 8, the Germans launched an offensive, supported by small craft and submarines sinking Soviet cargo ships. As at Leningrad, the Germans emplaced huge siege guns with bores up to 31" wide. Under 1,800 Luftwaffe attacks each day, the defense crumpled. Starting May 16, Kerch was evacuated by sea. The Germans added the weapons abandoned at Kerch to those bombarding Sevastopol's web of trenches and bunkers.

On the main front, Stalin ordered a two-pronged southern offensive under Timoshenko to cut away the German bulge at Kharkov. On May 12, 640,000 troops with 1,200 tanks and 900 aircraft began the assault, but ammunition and fuel shortages soon slowed their momentum. The Soviets had built plenty of factories to produce tractors in peace or tanks in war, but they couldn't field enough lowly supply trucks to keep their mechanized elements stocked with fuel and ammunition.

On May 17, the Germans counterattacked with 636,000 men, 1,000 panzers, and 1,200 planes. They knifed through the rear of both Soviet spearheads with local superiority in all arms. Still political commissar in the south, Khruschev urged Stalin to let the troops retreat, but the dictator refused until it became far too late. Cut off from all supplies, higher command, and each other, the Soviet units simply disintegrated. The Wehrmacht war machine chewed them up piece by piece.

By month's end, Army Group South was regrouping for its own offensive (see p. W24) after proving once again that the Wehrmacht knew no master in a war of movement. In the Great War-style Crimean fighting, the Soviets clung only to Sevastopol. Even in the action behind the lines, the Reds could claim only bitter victories: After partisan attacks on railways behind the May fighting, Hungarian security troops had massacred several villages. The surviving peasants produced only a fraction of the Reich's grain quotas. On May 24, the Germans committed 45,000 troops with panzers to Operation Hanover, to clear out the roughly 20,000 partisans plaguing the railway between Bryansk and Vyazma. This tied up a lot of troops, but most of the partisans died. On June 5, Operation Birdsong sweeping between Bryansk and Roslavl killed 1,200 partisans for 58 German dead.

Realizing that Hitler had a good deal more fight left in him, on May 26 Stalin agreed to a 20-year treaty with the British forbidding negotiation of a separate peace. Once again, he and his nation had their backs against the wall.

The Last Straws

Throughout June, the bitter siege at Sevastopol raged, pitting fanatical Soviet defenders in excellent fortifications against masterfully led grenadiers and combat engineers backed by overwhelming firepower. On June 30, the last Soviet gun crews blew up themselves and their weapons, and within a week the Germans secured the city, and with it the entire Crimea.

The Sevastopol apocalypse delayed Hitler's grand plan in the south, led by his new Army Groups A and B, until June 28. STAVKA had been unable to reinforce the front much since the Kharkov disaster. As Army Group B sallied forth from each side of Kursk, it swept away the defenders and on through the waist-high grass of the Donets Corridor throughout July, its columns kicking up clouds of yellow dust that could be seen 40 miles away. STAVKA moved in fresh troops from the northwest, trying to hold Rostov, but by July 28 these overwhelmed soldiers were retreating in the face of Army Group A's panzers.

The ignoble fall of once-saved Rostov (p. 16) stunned the populace. They had formed an intense *Russian* (rather than Soviet) patriotism, and a fiery hatred of Germans, but they could not endure another summer like 1941, and they knew it. There was little food, and few men of fighting age, to be found in the villages. The defeats had to stop *now*.

Partially to fix things, partially to deflect blame, the party criticized the Red Army for fleeing Rostov and began reforms. Abandoned in the chaos of early defeat, the discipline initiative of 1940 returned with a vengeance. STAVKA reined in the political commissars, promoted capable young officers, and retired outdated "war horses." For Stalin, too, the time was now. He ordered "not one step back" – Red soldiers would stand their ground or their own officers would shoot them.

The Reds needed a victory, and 30 divisions of Germans, Romanians, and Italians in Army Group B threatened the city named after the great man himself, Stalingrad. Beyond that crude symbolism, the industrial metropolis commanded the rich grain belts surrounding it, the river and rail routes from the Caspian Sea by which Lend-Lease aid was beginning to arrive, and some routes from the Black Sea.

From Kremlin to village square, all the emotional calculus of misery and sacrifice distilled into a basic equation: The Soviet Union – Mother Russia and the millions willing to die for her – would make a stand at Stalingrad. It was now, or never.

Winner Take All

A prudent gambler would have avoided the Stalingrad wager. Recognizing the German plans, STAVKA had formed two new fronts to defend the city. (By this time, the Red Army was creating and renaming fronts frequently, to match a specific command to a specific threat; this interfered with Wehrmacht intelligence, as well.) The troops of the new commands, however, had been milling about in a dispirited confusion which reflected the worst accusations about Rostov.

The "not a step back" policy finally put some teeth into Soviet defenses as the German 6th Army pushed through the city's Don Bend approaches from July 17 to Aug. 4. Having crossed the Don, for the next two weeks the Germans pushed toward the Volga and extended their advance west of the Don.

From Aug. 16 to Sept. 3, the Soviets fought desperately to drive 6th Army from the lands between the two rivers. On Aug. 23, the Luftwaffe launched 600 bombers against Stalingrad itself, razing the wooden homes in the suburbs and killing 40,000. When the Germans established a bridgehead on the Volga north of Stalingrad, the Soviets grudgingly retreated to the smoldering city, to avoid encirclement.

For the next 10 days, the Red defenders reeled as the 6th Army slammed into the city's western suburbs and established another Volga bridgehead south of the city. The forces in neither bridgehead had crossed the Volga, however, and the lesser portion of Stalingrad on the river's eastern bank remained relatively secure from ground assault. The Soviets began to pack artillery into this haven, sometimes pushing the guns to the very waterline to reach as deeply into the German rear as possible. The Wehrmacht, in turn, took control of the skies and began a relentless assault on the west bank's defenders and the river traffic supplying them.

From Sept. 13 to Nov. 18, the battle moved to the city's urban core and reached its legendary intensity (see p. W26). Reduced to three puny bridgeheads, the Soviet defenders teetered with one foot in the Volga's icy waters. Still, they clung to their rubble-strewn outposts through attack after massive attack.

As the more wary German commanders had feared, concentrating at one site for so long had given the Soviets opportunity to spring a trap. Under Zhukov's shrewd command, the Red Army had quietly assembled three new fronts northwest and south of the city. On Nov. 19, these armored columns struck a blow that would reverberate all the way to the Kremlin – and Berlin.

While strengthening this Stalingrad ring, STAVKA had been preparing an offensive to sweep toward Rostov (p. 124). When the Germans launched a panzer column to help 6th Army break out Dec. 12, these Red forces were perfectly positioned to attempt an encirclement of the relief forces. After a three-day tank battle beginning Dec. 14, the would-be rescuers slipped out of the trap, but their withdrawal sealed 6th Army's fate. The Soviets would have their desperately needed victory.

Turning it Around

As 1943 began, the Soviets had halted Army Group A's Caucasus advance, though only after blowing up several oil wells to prevent their capture, and enjoyed stable lines across the front. Chewing up the Germans at Stalingrad was taking far more time, and men, than STAVKA had hoped, but a final push from Jan. 10 to Feb. 2 would cement that epic victory.

In late January, the Red Army began its winter offensives, launching two fronts to retake Kharkov and Kursk and two to separate Army Group A from its supply lines. Fog and heavy rain helped the Germans retreat from these traps, but the Soviets regained ground rapidly given the conditions.

On Feb. 8, the Red Army reclaimed Kursk and within a week Rostov itself. Kharkov followed on Feb. 16; within a fortnight scouts reached the banks of the Dnieper. Then, on Feb. 20, the Germans turned around in front of Kharkov and counterattacked in a virtual repeat of their May victory (p. 16). Within a week, the Soviets were stalled and General Nikolai Vatutin was trying to pull his men back at Kharkov.

As March began, Vatutin kept retreating from Kharkov, which the Germans took yet again on March 15. This created a long southern flank on Voronezh Front, to his immediate north, and formed a Soviet bulge centered on Kursk. In the meantime, the Soviets in front of Moscow advanced rapidly as the Germans retreated, not because of the Red pressure, but to straighten out their own lines. The Wehrmacht was beginning to make decisions based on its increasing shortage of men, while the Red Army continued to add more and more units to its fronts.

Earlier in the war, every time the Soviets had begun to think that things were beginning to go their way, the Germans would turn it around. Despite a few setbacks in Stalingrad's wake, this time everyone knew that the momentum had finally shifted – except that the hour of the Wehrmacht, the summer campaigning season, was fast approaching.

In April, most of the front idled in the dreary mud, while STAVKA pondered how to finally beat Hitler's legions in the time and place of the Germans' own choosing.

HIGH WATER AT KURSK

Early 1943 found Stalin managing a war rather than averting a catastrophe. With this change, the "comrades and brothers" popular leader disappeared and the totalitarian returned.

In part, this merely extended to the Soviet public the harsh discipline imposed on the Red Army (p. 18), which was rapidly maturing into a professional fighting force under the carrot of Stalingrad's afterglow and the stick of being shot for failure to perform one's duty. In January, Stalin had promoted Zhukov and three others – and then himself, too – as the war's first Soviet marshals. Setting aside the precedents of a classless society, Red officers regained their social distinction from the enlisted. Their uniforms regained the shoulderboards that had symbolized all that the Soviets hated when they ripped them off the coats of the tsar's officers. Most of all, Red generals gained the authority to worry about winning battles first, Communist doctrine second.

This empowered and emboldened Red Army also enjoyed a new wealth of arms. Before Stalingrad, the army had fielded obsolete armor reinforced by only a handful of panzer-killing T-34s (see p. W105) and KV-1s (pp. 76-77). In 1943, potent tanks were rushing off the production lines in quantity. The air force had made an even more spectacular turnaround. Having lost most of its obsolete planes in 1941, it fielded some sturdy models in 1942, then began flooding the skies with machines – if not pilots – often as good as the Luftwaffe's in 1943.

LENINGRAD STAND

Through 1942, Leningrad's defenders had continued to hold out. The supply situation had improved, and deaths from privation markedly decreased, but the siege continued. A Red offensive to relieve the city beginning Aug. 24 failed, even with Leningrad's own units trying to break out to them Sept. 3. The army fell back and began to train shock troops specifically for the mission of advancing across ice behind a massive artillery barrage.

On Jan. 12, 1943, in -23˚ weather, they tried again. After six days of hard fighting against well-fortified Germans in marsh and forest, they linked up with Leningrad troops breaking out. The Soviets established a rail link to Leningrad, lifting the blockade but not the siege. Trains supplying Leningrad's population – now reduced to 600,000 – endured a gauntlet of German artillery fire.

Almost exactly a year later, the Reds again mounted a huge offensive. Great guns and rockets battered German pillboxes and minefields, then 375,000 riflemen surged forward. A week of costly fighting followed, but the second-rate German troops broke and ran, leaving behind only debris where had stood some of Tsarist Russia's most beloved landmarks. In late January 1944, the siege of Leningrad ended after some 900 days of hunger and sacrifice. In Moscow, 324 guns saluted the feat, but the horrific – and perhaps avoidable – experience would leave lingering scars on the Soviet psyche.

About the same time as these domestic arms began to reach the front, Lend-Lease aid increased to a flood. A wealth of reliable U.S.-made trucks, radios, food, and more began filling critical Red Army shortfalls and bringing its logistics at least on par with those of the Wehrmacht.

For this reason and others, Stalin wanted to appease the western Allies, except when it came to the issue of Poland's future. Churchill first met Stalin during the despair of August 1942, traveling to Moscow to tell him that the western Allies would open no Second Front (p. 23) that year and that the British might have to quit shipping Lend-Lease goods to Murmansk because U-boats were ravaging the convoys. Needing both aid measures desperately, Stalin had made a show of his "newly open" state, even allowing a foreign newspaper to circulate on Moscow streets during the prime minister's visit.

In early 1943, that aid still loomed large in Stalin's priorities, so his iron fist flattened some targets and spared others, depending on how much his allies could see. The Orthodox church continued to thrive within the wartime freedoms that the ex-seminarian had bestowed, and pure Communists continued to look on with alarm as Stalin endorsed the (sometimes obnoxious) Russian nationalism that had propelled the war effort. Elsewhere, though, the Soviet colossus rapidly stripped its subjects of freedoms. Later many survivors would swear they were never happier than in the darkest hours of 1941-42.

Despite this caution, the Soviet Union's west-friendly facade was beginning to crumble. In mid-April, the Germans had found the mass graves of thousands of Polish officers at Katyn Forest and elsewhere. They announced that the Soviets had executed these prisoners. Most of the world chose to believe that the Nazis were lying about their own sins – it would not be the first time – but suspicion lingered.

Stalin – who *had* ordered the officers killed to sweep away opposition to a postwar Communist Poland – could only hope to avoid the inevitable falling out until he had what he wanted.

INITIATIVE SEIZED

If the Reds did have to take on the Wehrmacht at its own initiative, they didn't have to let the Germans surprise them yet again. The Soviets' own intelligence and western Allied sources were painting a thorough picture of the Germans' plans to attack the Kursk salient (see p. W27). Except in the air, the Eastern Front continued to enjoy a lull through mid-1943, as the Wehrmacht pooled its forces for the attack and the Soviets rapidly built a deathtrap to greet them.

On the morning of July 5, the Wehrmacht's finest stood ready to launch their offensive, when an immense Soviet artillery barrage unloaded more than 300 boxcars of shells and rockets onto their starting points. The Reds' intelligence was *that* good. The Germans lunged forward not to seize victory, as they had planned an hour earlier, but to escape death.

Still, the Red troops watched with mounting apprehension as the fearsome Tigers and Ferdinands drove toward them, until Soviet mines and artillery fire began to show that these monsters burned as readily as their smaller forefathers. Equipped

with improved guns and ammunition, the antitank crews waited until the last moment to open fire on the panzers. As the Germans continued to close, the Red infantry exhibited similar patience, opening fire only when the panzers' supporting grenadiers got close enough to attack the Soviet AT crews.

Through artillery, mines, antitank guns, and small arms, the Germans still crashed forward. The Red infantry resorted to armor-piercing grenades when the Tigers threatened to crumble their trenches, and regular grenades when the grenadiers swept them with SMG fire. In their turn, the Germans unleashed their rockets, even more potent than the Russian Katyusha. Each side tore dreadful holes in the other's ranks.

Kursk went on at that pace for days, but the powerful Soviet tank forces serenely waited out the early fighting in the rear, while the Reich's last panzers thinned their numbers hammering against the Reds' fixed defenses. On July 12, STAVKA released the armor. Its counteroffensive ran head-on into the surviving panzers. Muzzle to muzzle, the Soviets' red-hot morale decided the day over German skill. The Wehrmacht's initiative collapsed, Hitler withdrew the best of the remaining units to meet the invasion in Italy (see p. W27). The victorious Reds emerged from their trenches to survey a ruined landscape strewn with dead panzers and grenadiers.

They had broken the Wehrmacht's back.

No Rest for the Wicked

On July 15, the two fronts defending Kursk counterattacked directly along the path the Germans had taken, planning to cut off their own pockets to the north and south of Kursk, at Orel and Kharkov. On July 20, the partisans launched a carefully planned railroad war, in one night blowing up German tracks in 5,800 places, and adding another 11,000 breaks over the next two months. In Belorussia, the confident partisans often waited until a train was over their explosive charge.

In August, more fronts threw themselves into the offensive, first parking guns wheel to wheel for barrages 10 times greater than Verdun. This not only overwhelmed the German lines but thinned out the thick minefields that had begun to take a serious toll among Red troops. The Wehrmacht evacuated Orel, where on Aug. 4 the Reds found only 30,000 left of the 114,000 inhabitants the town had had two years earlier. The occupiers had executed some 12,000 and shipped 24,000 to Germany as slave labor. The rest were just gone. By the end of the month, the Soviets had taken the entire salient, pushing through unkempt fields strewn with high weeds and more mines, and past torched home after home. In the south, the Germans tried to hold Kharkov, but by Aug. 22 abandoned it, too, when attacked by three fronts displaying a coordination that would have been impossible just a year earlier.

In September 1943, the Soviets proved once and for all who was now winning this war. In an advance rivaling Barbarossa itself, eight fronts pushed the retreating Germans back as much as 200 miles along a 600-mile stretch to the river Dnieper, where Hitler thought his troops would make a stand. As the Soviets reached the river they waited until nightfall, then floated across on whatever came to hand, even park benches. Some tankers puttied up their vehicles and drove across on the bottom. Where the Germans concentrated to throw them back, artillery on the far shore hammered them into oblivion. One Soviet front alone created 18 small beachheads, lost seven, but merged the other 11 into a formidable holding by the end of the month. Further north, a second beachhead also solidified.

In October, the Reds planned a pincer attack from these positions, but the Germans still held a supply depot on the Dnieper's eastern shore. Taking care of this delayed the attack until Oct. 15, and nine days later the recuperating Germans blunted the assault with a panzer division. In the meantime, the last Axis troops fled the Caucasus for the Crimea.

Stalin demanded that Kiev be taken by Nov. 6 as a holiday symbol. After another monstrous barrage on Nov. 3, the attack began in a driving rain and just made its deadline. In the south, the Soviets cut off the Germans in the Crimea, while Caucasus troops landed near Kerch to begin reclaiming the peninsula.

The Soviets paused, but only to regroup, in December. The unseasonably warm – i.e., still muddy – weather kept some diversionary attacks in the north from accomplishing much, but STAVKA had concentrated most of its forces in its four southern fronts, by this time renamed 1st through 4th Ukrainian. On Christmas Eve, 1st Ukrainian under Vatutin launched a new assault. It illustrated that the increasingly desperate Germans could expect no respite in the coming year.

THE RED TIDE

As 1944 began, the Reds enjoyed a decisive advantage on the field of battle. The Soviet leadership had just concluded two important conferences with the British and Americans (p. 23), and the Allies were entering a short period of mutual interests and pleasant relations. Lend-Lease aid continued to arrive in huge quantities, supplementing what had become a formidable domestic output of weapons and tanks. STAVKA had formed 1943's conscripts into armies that could field some 6 million fighting troops against the Axis' increasingly weary 3 million men defending a front that had become 2,500 miles long.

In short, 1944 opened with a nearly unbridled optimism. Indeed, the Soviets were about to begin what would be called "The Year of the 10 Victories" – an unbroken string of successful campaigns all the more impressive because the Wehrmacht continued to resist the Red Army as fiercely as it could. The question of surviving the war had long since disappeared; even the question of winning had become largely foregone. The Soviet leadership began to think of rebuilding their country, with so many millions dead and a shattered economy, and of winning the peace that would follow the war.

TEN TO WIN

The 10 great victories began with the relief of Leningrad in January (p. 20), an emotional touchstone as well as an important strategic objective. Throughout the month, the Red Army continued to advance in temperatures often around -5˚, returning to prewar Poland as early as Jan. 6.

The second came as 1st and 2nd Ukrainian Fronts snared 12 German divisions in the Korsun Pocket on the Dnieper beginning Jan. 27 (see p. W29). In February, the Reds crushed their prey despite savage relief attacks by panzers – at one point, the Soviet ring was only 2 miles thick, enduring attack from both inside and out. Then the Red Army ignored the seasonal mud to advance in the south, with 2nd Ukrainian entering Romania on March 28. Meanwhile, on Feb. 2, Stalin had agreed to allow U.S. Army bombers to use Soviet bases to turn around from raids deep into the eastern Reich.

The third victory arrived with the liberation of the Crimea on May 12. The offensive to reclaim the peninsula had begun April 8, with the attack on the final Axis stronghold, Sevastopol, beginning May 5. The German and Romanian garrison received Hitler's permission to evacuate, but it came too late to save them. In addition, the Red Army had relieved Odessa on April 10. By this time, all of Hitler's allies were beginning to look for the least painful way out, and the Soviets entered negotiations with Finland. These ended April 22 after the Finns rejected the harsh Soviet terms.

The fourth victory was the June defeat of Finland. On June 9, the Reds had mounted an overwhelming attack north of Leningrad. Many Finn units simply broke under this onslaught, leaving even the good ones with little choice but to retreat. By the end of the month, the Reds had returned to their old lines, and within a couple of weeks would halt their advance, as Stalin decided to take a fairly lenient stance with Finland to keep Scandinavia quiet in the postwar turmoil.

The fifth victory was the retaking of Belorussia. Even as the Soviets were completing their Finnish campaign, they launched a much larger onslaught against Army Group Center in Operation Bagration (see p. W31). The 1.2 million men and 2,700 tanks of 1st through 3rd Belorussian Fronts in the Soviet center began the campaign June 22, the third anniversary of Barbarossa, and retook Belorussia's capital, Minsk, on July 3. They caught 30 German divisions, by this time representing only about 100,000 men, in a pocket to the east. Averaging about 17,000 German casualties daily in the first three weeks, the Belorussian troops kept moving west, ending the month with a firm foothold in the Baltic states in conjunction with a lesser advance by the 1st through 3rd Baltic Fronts to 3rd Belorussian's north. Meanwhile, 1st and 2nd Belorussian had advanced to just west of Warsaw.

The sixth victory developed in tandem with the fifth, as the Ukrainian fronts liberated the western Ukraine in their own offensive beginning July 13. Three days later, they began to form the Brody pocket with 40,000 Germans in it, though several Wehrmacht units managed to filter back to their lines in this most well-equipped sector of the German lines. Still, the Ukrainian forces poured forward to cross the Vistula on July 28, then reached the outskirts of southern Warsaw three days later. The Soviets had, at all points, regained their 1939 borders.

The seventh victory was the August sweep through the Balkans. Recognizing that the Germans were stacked up in Poland and eager to defend this direct route to Germany, the Soviets stood to in front of Warsaw. (The *Armija Krajowa*, meanwhile, had begun an uprising in Warsaw. This Polish resistance movement loved the Russians no more than the Germans, but expected Red Army support. They enjoyed some initial success, but the Germans poured in more occupation troops of a particularly nasty stripe while the Red Army idled within earshot of the developing massacre. Many observers argue that the Soviets intentionally tarried to give the Germans time to do their dirty work.) The Soviets instead shifted their attack to the south, launching 900,000 men and 1,400 tanks into Romania on Aug. 20. Snaring roughly 20 German and Romanian divisions in the Jassy-Kishenev pocket, the Reds swept through Romania

THE WORLD AS THE STAKES

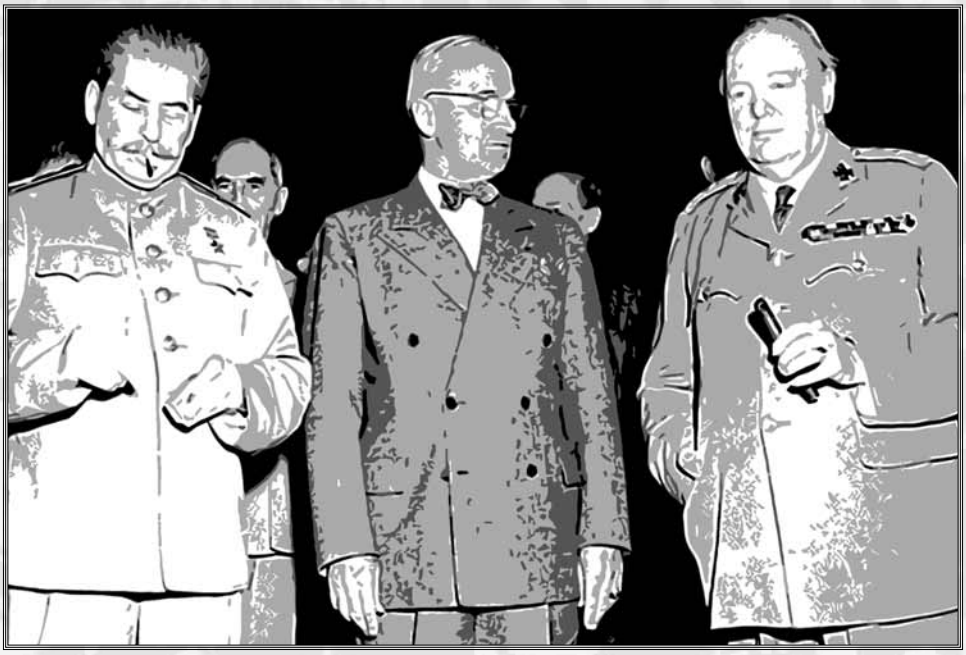
As the Soviets turned the fighting around – and the Anglo-Americans watched them do it – the Allies realized that they needed to begin coordinating their efforts and planning what sort of peace would follow the war.

Although some two-party visits had taken place earlier (see p. 20 for an example), the first formal three-way gathering occurred in October 1943, as British and American ministers traveled to Moscow to discuss preliminary issues, invite China into the discussions, and plan November's Big Three summit in which Stalin, Churchill, and Roosevelt would negotiate face to face at Teheran. Despite the considerable difficulties of reaching the USSR around the Wehrmacht's positions, the Soviets had made a point of having the British and Americans come to them in these gatherings. The Red leadership, after all, was managing far more actual fighting.

If this placed a burden on the diplomats, at least they did not have to fend off Stalin's demands as much as in the past. In 1941 and '42, the dictator had stridently urged that the Anglo-Americans open a "second front," with a major landing on continental Europe, to bleed German units away from the east and relieve a much-beleaguered Red Army. The British agreed that this seemed fair and reasonable, and the Americans were enthusiastic about getting this war finished, but neither was in any position to actually deliver. By Teheran, the western Allies had landed in Italy (see p. W27), but no one really thought that invading a country that reached an alpine dead-end constituted a true second front. Stalin, however, let his allies off the hook, acknowledging that knocking Italy from the war would make a positive impact. He had resigned himself that the Anglo-Americans would open their second front only after maximizing the Soviet cost in lives and minimizing their own. In addition, some of his officials wanted to be closer to Poland when the western Allies did begin their campaign, for fear that the Germans would not defend a western front and the Red Army would be too far away to seize the advantages that they felt it had earned.

The Allied leaders also began to discuss the Soviet Union joining the war against Japan once Germany was defeated, and the shape of their postwar cooperation. Notably, none of the sticky details on Poland – where the Anglo-Americans insisted on free elections – were seriously discussed. (Stalin heartily approved of elections, as long as they reached a Communist foregone conclusion.) Everyone left Teheran fairly happy with the status quo.

These good feelings crested in February 1945, when Stalin, Churchill, and a mortally ill Roosevelt met in Yalta (see p. W34). Bubbling with high spirits as victory lay within their grasp, west and east traded several concessions. Some analysts argue that Stalin gave up more, but for the most part he put on a show of ratcheting unreasonable demands down to tolerable, making promises that the Anglo-Americans couldn't force him him keep, and letting himself be bought into making a move that he would have considered anyway: attacking the Japanese in China.



The Soviets felt that they had gotten what they needed, while giving away enough to show good faith toward building peace. In dire need of U.S. credit for rebuilding, they had argued that capitalism and Communism could coexist. They also insisted that the United States should host the new United Nations, to make it more difficult for the host to slink back into a postwar isolationism.

This goodwill had largely evaporated by Potsdam in July 1945. The new President Truman had canceled Lend-Lease shipments without notice on VE Day; he considered the Reds more dangerous than the Japanese. Credit was out of the question. All the questions set aside in earlier meetings came to a head as Truman met with Stalin and Churchill (later Clement Attlee). The Soviets did not realize that the U.S. "superbomb" was actually an *atomic* bomb, so they had yet to show concern on that point, but the Potsdam delegates laid down the foundations of the upcoming Cold War.

and Moldavia, prompting the former to surrender Sept. 13, then plowed into Bulgaria. By Aug. 31, the Reds were entering Bucharest, stood at Hungary's border, and had linked up with Tito's partisans in Yugoslavia.

The eighth victory was the liberation of Estonia and almost all of Latvia beginning Sept. 14 in an offensive by 125 divisions in the Leningrad Front and three Baltic Fronts. Pushing back stubborn German defenders who had Hitler's rare permission to retreat, the Reds had established their lines in East Prussia and liberated all the Baltic capitals by October's end. They pinned 30 German divisions in the Kurland peninsula of Latvia, where they would remain a thorn in the Soviet flank until the German surrender. Meanwhile, Stalin had declared war against Bulgaria on Sept. 5 and reached an accord with Tito on Sept. 28 to enter Yugoslavia.

The ninth was the advance into Hungary and eastern Czechoslovakia in October, as well as the liberation of Belgrade. Some Hungarian authorities were already quietly negotiating peace as the month began, but on Oct. 6 a smallish Soviet offensive of only 64 divisions attacked the remnants of Army Group South in that country, beginning a particularly intense campaign. Along with the local partisans, Soviet troops entered Belgrade on Oct. 14, prompting the Germans to flee five days later. During this drive, 2nd Ukrainian bore the brunt of one last really potent Wehrmacht armored attack. On Oct. 23, a German panzer corps struck toward Debrecen in the perfect tank country of the Hungarian plains. Meanwhile, the mechanized elements of a trapped German army pushed out to meet them and open a corridor to effect their own escape. The resulting armor battles cost the Soviets hundreds of tanks and considerable momentum.

The 10th victory was the Arctic Circle conquests that threw the Germans out of northern Finland and Norway in October. The Finns had finally had signed a cease-fire Sept. 4, giving the Germans 11 days to leave their country. Hitler did not comply, and subsequent Finnish attacks on the German garrison did not force them out, so the Soviets attacked, pushing past Petsamo in Finland into Norway by Oct. 25.

An Ominous Pause

The Red Army was stretched to the very limit of its supply lines. By November, the northern two-thirds of the battle linie had fallen eerily silent, but Stalin had immediate goals in the south. The 2nd Ukrainian Front had barely recovered from its unexpectedly sharp bout at Debrecen when he demanded that it take Budapest, preferably within a day, certainly no more than three!

On Nov. 1, 2nd Ukrainian began this effort, but their ferocity had waned as rapidly as Stalin's confidence had climbed. The push faded away in the city's suburbs, as the front ran short of both ammunition and infantry to protect its tanks. Through the end of the month, the Soviets tried and failed to take Budapest, which Hitler prized more than any other Balkan city. To the immediate south, on Nov. 2 the Germans had formed a good defense line west of Belgrade with a panzer army, so by month's end 3rd Ukrainian crossed the Danube and veered north toward the Budapest firestorm.

On Dec. 5, 2nd Ukrainian launched another assault, pushing 60 miles closer to the northeast of Budapest in eight days. Slowly pushing north, 3rd Ukrainian linked up with 2nd's left flank Dec. 9. Eleven days later, the two fronts struck out on each of their open flanks and swept around the city, closing a ring Dec. 26. Still, the Germans and Hungarians holding Budapest's urban core continued to destroy the Soviet forces dispatched to drive them out. Stalin's deadline remained as ludicrous as it had been two months earlier.

The End Is Nigh

As 1945 began, STAVKA had reorganized and resupplied its massive armies, which now stretched along a line only half as long as a year earlier. It fielded 12 fronts; from north to south, Leningrad; Volkhov; 3rd, 2nd, and 1st Baltic; 3rd, 2nd, and 1st Belorussian; and 1st, 4th, 2nd, and 3rd Ukrainian. Both 1st Belorussian and 1st Ukrainian stood along the best path to Warsaw, then Berlin, the only two really vital stepping stones in the

coming campaign. Along this crucial sector, the Soviets packed in a 5.5-to-1 superiority in infantry and tanks, 8 to 1 in guns, 17 to 1 in aircraft.

On Jan. 12, the lull in the north abruptly ended as 1st Baltic and 3rd and 2nd Belorussian swiveled to the northwest, aiming to clear the Baltic coast all the way to Danzig and invade East Prussia. On Jan. 21, these troops made sure the Germans knew the war was coming to them by taking historic Tannenberg. The defenders evacuated the coffins of von Hindenburg and his wife before blowing up the memorial there. Stalin had assigned Zhukov to lead 1st Belorussian, which sprinted toward Berlin, leaving trailing units to deal with any pockets of resistance lingering in its rear. By Jan. 15, Zhukov had helped encircle Warsaw and his tanks were racing past the city, which would fall two days later. Well ahead of schedule, Zhukov decided to stretch farther west to the river Oder after prisoners told him that their high command had not yet moved troops to defend its crossings. To the immediate south, 1st Ukrainian under Marshal Ivan Koniev had reached the Oder on Jan. 23, after a rapid advance following an initial bombardment so intense that, two days later, the Red troops stormed a town in which everyone remained stone deaf and half blind. On Jan. 31, two of Zhukov's armies formed a bridgehead on the Oder's far banks, some 40 miles from Berlin, while 1st Ukrainian formed up on his flank. Those still huddling in the Third Reich's capital could hear the vengeful guns approaching.

By early February, the Soviets had advanced some 300 miles, yet again overextending their crude supply lines, and the Germans were gathering strength to Zhukov's north. He paused to keep the Wehrmacht from chopping off his leading units, despite the temptation of investing Berlin right then. Koniev – who disliked Zhukov and wanted the glory of Berlin for himself – launched an assault Feb. 8, moving 1st Ukrainian across the Oder to the banks of the Neisse three days later. Meanwhile, 2nd Ukrainian had continued to struggle against some 50,000 weary but stubborn Axis defenders lodged in 12 square miles of central Pest. Lacking food and ammunition, they attempted a breakout Feb. 10. Only a handful escaped before the city fell three days later. Other German units struggled desperately to stall the creeping Soviet advance around Berlin and Budapest, but despite some local setbacks the Red Army continued to position itself for its last campaigns.

The Final Blows

As March began, Zhukov turned his forces north to help 2nd Belorussian seize yet another stretch of Baltic coast, but the main action took place in front of Budapest at – for the last time – Hitler's initiative. Angered by Budapest's fall and the failure of his Ardennes Forest offensive (see p. W33), he ordered a similar assault against 2nd and 3rd Ukrainian. Operation *Frühlingserwachen* (see p. W:IC26) began March 6, but the Soviets had seen it coming; 2nd Ukrainian literally ignored the SS panzers – with crews more interested in surviving the war than fighting – while 3rd Ukrainian sliced right through them in their drive for Vienna. By month's end, they had approached within 40 miles of that historic city while seizing the last oilfield servicing the Reich.

In April, 2nd and 3rd Ukrainian continued their drive, reaching Vienna on April 6 and beginning a 12-day battle to take it. Zhukov and Koniev had planned to resupply their troops for a drive to Berlin in early May, but Stalin summoned them to Moscow on April 1, where they listened to a telegram describing Anglo-American plans to seize Berlin. (No such plans existed, though plenty of western generals had suggested them. It seems likely, though, that Stalin truly believed in this threat.) The marshals hastily moved forward their plans and launched their attacks on April 16 (see p. W34). Despite Zhukov's initial setbacks, both fronts slipped around Berlin and formed a thick encirclement by April 25. On the same day, Koniev's advanced patrols met up with U.S. troops pushing east, but by then the prized symbol of defeating Hitler stood well behind Red lines.

Rush to the Reichstag

Stalin's insistence that the Soviet Union would celebrate its greatest May Day ever in 1945 meant that Zhukov and Koniev had to rush their assault on Berlin proper. Red troops who had been fighting and marching since Stalingrad faced one last battle. Eight armies – three of them armored and three of them trained for close assault – drove into the rubble. Boys and old men stood against them, armed with one-shot rockets to kill tanks and whatever came to hand to kill men.

By nightfall April 27, the Soviets had driven the Germans into an arc of the city's core some 10 miles long by $3^1/_2$ wide, with the Reichstag at its center. To the Reds, this site represented the war's end, no matter how dubious its actual place in Nazi history. A day later, they crouched little more than 500 yards away, but the Germans held strong positions on the approaches. The Soviets moved in more guns, tanks, and flamethrower troops, then cleared out the adjacent buildings before dawn on April 30. They rushed the Reichstag itself at 1 p.m. Dust from the bombardment obscured the site as German machine guns mowed down the onrushing riflemen in waves. Still, the Reds forced the doors an hour later, and bloodily cleared the building room by room. At 10:50 p.m., they reached the roof and unfurled their huge hammer-and-sickle banner.

Berlin had fallen on the eve of May Day.

A DIFFERENT SORT OF WAR

Hitler was dead, but from the Soviets' perspective the German Reich still lived. Surviving German leaders tried to arrange for as many Germans as possible to surrender in the west, under Anglo-American authority, rather than in the east, under Soviet. The Anglo-Americans, however, were already holding lines a bit further east than agreed upon at Yalta (p. 23). They saw no reason to further alienate their eastern ally, and generally refused to aid the Germans in this scheme.

That still left a potent German army group dug in at Prague, with a commander who had no intention of giving up or of taking orders from anyone who would. In early May, the Red Army rapidly converged upon Prague from all sides, filling in the territory alloted to it by the agreements between the Allies. On May 8, these forces began hammering the German holdouts, who generally did not share their commander's enthusiasm for a lost cause. The Wehrmacht's last field unit rapidly disintegrated and the fighting in Europe was, finally, over.

New Dawn in the East

That left Japan. For most of the war, the Soviet Union and Japan had maintained a careful neutrality, each having plenty of trouble on its other front. At Yalta (p. 23), the western Allies finally had persuaded Stalin to pledge Soviet aid in the Pacific war within three months of Hitler's defeat.

The Soviets dropped their pact with Japan in April, even before Germany's surrender. The Red Army began assembling units for the long overland trek to Manchuria. Meanwhile, Japan began sending out peace feelers, suggesting that the Soviets could broker a conditional surrender. Given the Japanese were willing to concede on just about everything except the emperor, they may have been right. The Reds listened, but did nothing. At this point, Stalin *wanted* to join the Pacific fighting.

Ironically, by the same point, the Anglo-Americans did not want his aid. They had the atomic bomb, instead. In fact, the new President Truman and Churchill were spending more time worrying about postwar Soviet aggression than the foe at hand. During their discussions of whether to actually drop the bomb on Japan, it occurred to Truman and his advisers that using it would make a very convenient impression on the Reds.

On Aug. 6, the United States dropped the bomb on Hiroshima. Two days later – and precisely three months after the final German surrender – the Reds declared war. The next morning, they lashed out with three fronts in Manchuria, from the west the Trans-Baikal and the 2nd and 1st Far East. The Trans-Baikal drove its tanks up and over mountains that the Japanese thought impassible to armor, then swept the defenders into the central plains of Manchuria with 2nd Far East contributing to the northeast. The 1st Far East encountered heavy resistance initially, but it soon collapsed.

The Japanese surrendered on the first day of the Soviet attack, but various commanders of their Kwantung Army in Manchuria continued to fight in disbelief or defiance. The Soviets continued to inflict heavy losses until the Kwantung Army gave up on Aug. 17. The war was, finally, over.

From One to the Next

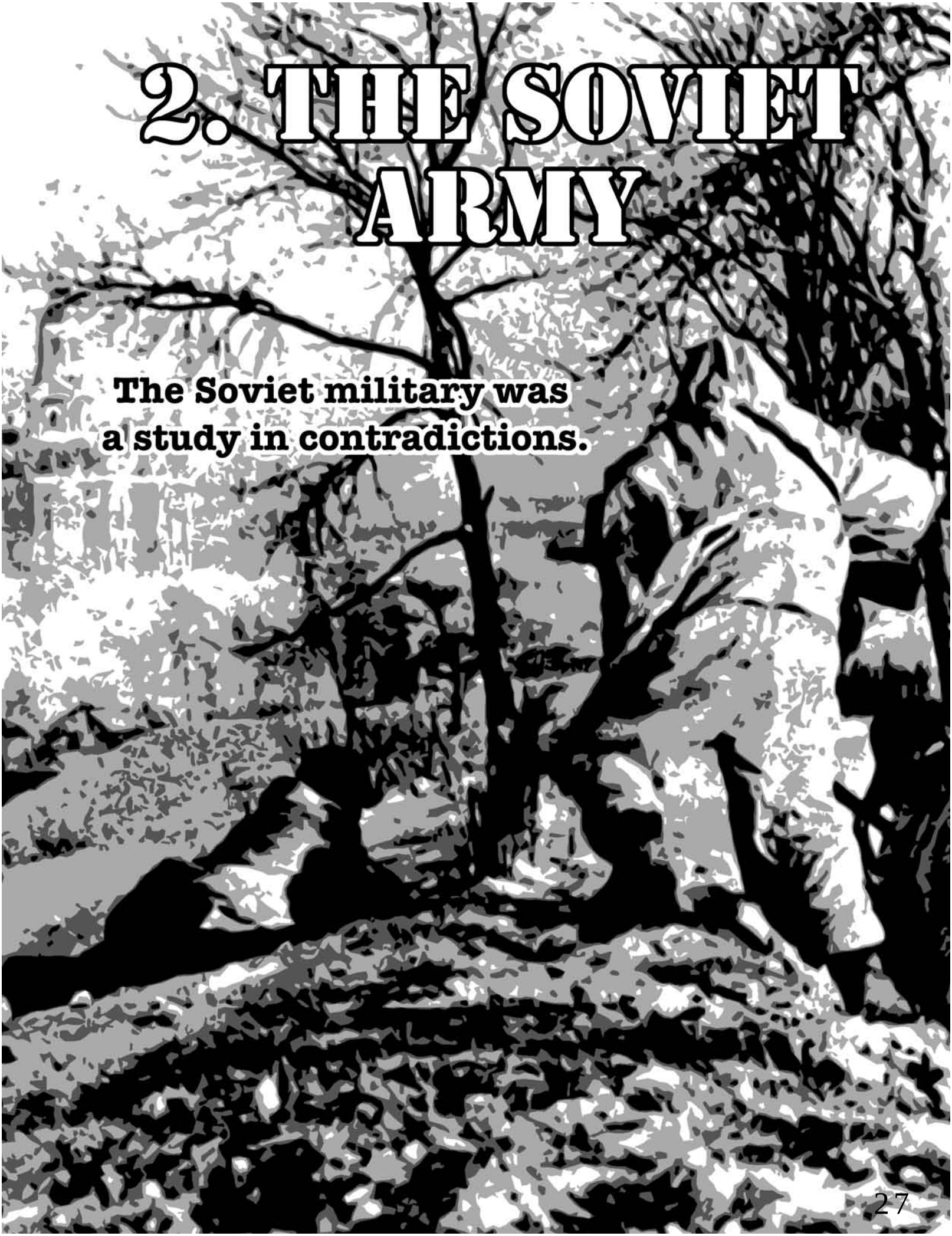
The Russian people celebrated their victory feverishly, although it was of the most bittersweet sort. The war had ravaged Soviet industry and agriculture. It cost the USSR some 29 million lives, dwarfing the casualties of any other country. More than 70 Soviets had died for every American lost – some 19,000 souls for each day of the Great Patriotic War.

Despite this, Stalin continued to run up the Soviet death toll. He found the outside world no less terrifying in 1945 than in 1941. He began an austerity program to rapidly rebuild his shattered nation, leading to yet more terror and famine. He kept the Baltic states and continued to demand right of approval for new governments in the Soviet occupation zone of Germany, as well as Poland and the Balkans. He shut off his state and its assorted Communist satellites behind a wall of armed borders and silence, the "Iron Curtain."

In the immediate postwar euphoria, Zhukov and U.S. General Eisenhower had embraced before ecstatic Red Square throngs, but the United States reacted to the Iron Curtain almost as poorly as Stalin had reacted in creating it. The Soviets unveiled their own atomic bomb in 1949, well before anyone thought that they could, and greatly intensified the western mistrust. East and West quickly slid into a Cold War of nuclear tension and proxy conflicts by puppet states. Ultimately, this defeated the Soviet Union where Hitler's armies had failed. After decades of trying to keep pace with U.S. arms, the Soviet Union still could not produce a washing machine or automobile worth buying. In 1991, Lenin's empire crumbled from within, overcome by a popular dissatisfaction that neither the Party nor the army could cow.

The Soviets came to call their Struggle the Great Patriotic War, apart from everything else that went on, which they called World War II the same as everyone else. Though it was their greatest crisis, it also turned out to be their greatest – possibly only – moment of glory. For as long as their nation lasted, the Soviets burnished the legend of their great patriotic struggle, even as its sense of common cause and urgency slowly faded away.

2. THE SOVIET ARMY



The Soviet military was a study in contradictions.

Stodgy and suicidally inflexible at times, in other ways the Red Army showed great flexibility. Though largely made up of poorly educated and indifferently equipped peasant riflemen, it eventually developed fairly sophisticated tactics that made the most of what its units could do best. And while its many weaknesses could be exploited by a canny foe, it knew its own strengths and eventually overcame the staunchest defenders of the Third Reich.

A NEW KIND OF MILITARY

After winning their the revolution (p. 7), the Soviets still desperately needed an actual army. On Jan. 28, 1918, Trotsky established a volunteer "Workers and Peasants Red Army" to continue fighting the Germans until peace talks came to a head in March, and to provide the new regime some pretense of negotiating from strength.

As described in Chapter 1, the treaty that ended the short Soviet participation in the Great War did little to let Lenin and his cronies sleep soundly at night. They still had to worry about evolving White factions, various Entente powers, and perhaps the Germans again. On April 22, the Reds introduced compulsory basic training, paving the way for the conscription model that filled the Red Army's ranks for the rest of its existence. Both training and enlistment focused exclusively on the lower classes of peasant and urban worker – Russians or the linguistically related Belorussians and even Ukrainians – people who formed the backbone of the Bolshevik faithful and whose loyalty Lenin could trust above all others.

Like it or not, Trotsky still needed men who could train and lead this very raw material – and only aristocrats had received that sort of officer training under the tsar. Expedience trumped esthetic. The Soviet war commissioner recruited and safeguarded thousands and thousands of *voenspets*, former Tsarist nobles with military backgrounds whose motives rarely included a conversion to Communism.

But Lenin and Stalin couldn't trust these officers in a civil war against their still-Tsarist brethren. Some way of keeping tabs on the officer corps was required.

THE COMMISSARS

The Soviets co-opted a 1917 Tsarist scheme in which every large military unit had a political officer, called a commissar, who shared command with the old-guard military officer in charge. During training, the military officer led the men in the traditional matters of marching in formation and firing a rifle, while the commissar indoctrinated them in Soviet beliefs. In action, both commissar and military commander received the same orders and both had to implement them. Backed by a cold-blooded and suspicious government, and with authority to shoot the commander if he acted treasonably, the commissars held the upper hand in the evolving Red Army.

The commissars' primary purpose was to keep officers from turning their troops against the Soviet regime, or at least to warn Moscow if a mutiny could not be prevented. This required that they be recruited from the most reliable political stock. Unfortunately, the qualities that made an excellent guardian of political doctrine did not always mesh well with the qualities needed by a military leader. This issue would hobble the Red Army through WWII.

THE OFFICERS

The Soviets still worried about the *voenspets* leading their troops. To degrade officers' importance in the military scheme of things, they created the Red Army without any true ranks in the traditional sense: "Commanders" were in one general group and "men" in another, but each sort held a title solely based upon the position they filled.

They also established their own officer-training academies as quickly as possible, so that by the end of their civil war, they were beginning to replace former aristocrats with their own specially picked and hurriedly trained men. The most prestigious of these Soviet schools was the staff college, named the Frunze Academy in 1925. Meanwhile, the Red Army was shrinking rapidly – from roughly 5.5 million men (despite massive draft avoidance and desertion rates) during the civil war to 10% of that number during the early 1920s. This combination of new men, fewer postings, and the loss of their patron Trotsky (p. 9) left little room for the old guard who had seen the fledgling army through its stormy birth, though a few former aristocrats managed to keep their posts.

By the late '20s, the Soviets began remodeling along more traditional lines, often in tandem with the Weimar Germans. Officers who had shared living quarters with their men gained their own finer messes, a privileged lifestyle, and in 1924 regained their badges of rank. It became a raging fashion to divorce a peasant wife and marry a socialite. The commissars – renamed *zampolits*, or deputy commanders – had their powers sharply limited to purely political matters, and no *zampolits* were not assigned to officers who maintained Communist Party membership. Still, Red officers had less authority than their western counterparts.

From Modernity

The 1930s saw the Red Army begin yet another transformation. As Stalin implemented both collectivization and the five-year plans (p. 10), the army benefited in both manpower and materials. The state's new factories began churning out thousands of tanks, artillery pieces, and airplanes, so that by 1932 the army fielded 5,000 armored vehicles and the Soviet Union led the world in arms production. By 1935, the Soviet tank park had doubled to 10,000 vehicles. Air force and other assets increased at similar speeds.

Colossal growth came at colossal cost. Some 20% of economic output went to armament, capacity that in other nations improved living standards or created additional capacity. The military budget grew from 1.4 billion rubles in 1933 to 23 billion in 1938. The Red Army had been created to serve the state, but the state now served the Red Army.

Hitler's 1933 rise had ended Soviet cooperation with Germany and increased Stalin's worries. He was providing the Red Army with the best tools possible, but he remained acutely aware that these weren't *his* men. Great War veterans and civil-war heroes still filled the upper ranks, including an enduring handful of *voenspets*, men who had shaped their own destinies in turbulent times and who had seen how easily the crown can topple from the throne. From 1934 the commissars had been further demoted to *politruks*, who simply advised on personnel policies, and in '35 the officers gained true personal ranks. Even the freebooting Cossacks (p. 48) had returned to the army in 1936. Circumstances did not make these hard men particularly beholden to Stalin.

To Madness

It did not take long for officers' names to come up in the show trials of the Great Purges (p. 10). In May 1937, the NKVD began purging the higher ranks of men accused of treason. Power was restored to the commissars. Marshal Tukhachevsky and seven generals received death sentences and were shot June 11-12. Every admiral, and most senior officers in every service, lost his post, and most lost their lives. Those who survived usually ended up in the gulags (p. 10). Things eventually quieted down after one-third of the army's top leadership had been removed, though the last execution took place just two weeks before Hitler invaded.

The officers who replaced the dead and demoted were advancing far more quickly than in their wildest dreams, and they knew that they owed it to the terrible Stalin. This double-edged loyalty – bestowing promotions on one hand, with dire retribution for stepping out of line – suited Stalin perfectly. Of course, showing initiative became terrifyingly risky. Many survivors simply froze, like hares sensing a lurking wolf, hoping that their lack of motion would render them invisible. It would take some officers a long while to unlearn this habit of self-preservation when the war began.

In the meantime, the army was left with its 1936 field manual, sprinkled with amateurish theory and ill-conceived tactics that had been in vogue at the time. No one possessed the combination of insight, authority, and sheer courage to see it improved before the Germans invaded.

A People Prepared

Paradoxically, though the Red Army teetered off-balance and ill-suited to meet a serious threat in 1941, the Soviet public stood as poised as any citizenry to fight for their lives. The Communist leadership had introduced paramilitary training in 1919, with a finely honed system in place since 1931. Many men – and more than a few women – who entered the Red Army would find themselves well-prepared for what awaited them.

The training had both mandatory and voluntary components. The mandatory portion took place in the Soviet high schools, in which attendance was itself mandatory (though in the hinterlands this could be difficult to enforce, as was true in most nations during this period). It mostly took the form of physical training in the GTO ("Ready to Work and Defend") program. A system of tests in running, jumping, swimming, and so forth awarded badges for individual prowess. A Soviet youth might earn a bronze badge on talent alone, but the silver and gold honors generally required dedication and training on one's own time.

The voluntary portion took place under the *Osoaviakhim*, or Society for Support of Defense, Aviation, and Chemical Manufacturing. This sprawling association included hobby clubs and other training outlets for various military skills, such as piloting, parachuting, electronics, Morse code, and mechanics. (Keep in mind that car engines were the personal computers of this era; all sorts of people had a keen interest in taking them apart and putting them back together "better.") With the notable exceptions of artillery and demolition, just about every military specialization was represented among these clubs. The "chemical manufacturing" subset of training actually taught the fundamentals of civil defense, including the basics of what to do in gas attacks (the NBC Warfare skill in ***GURPS*** terms).

More training programs were added later in the decade, including the GSO ("Ready for Sanitary Defense") in 1936, which primarily taught first aid and could lead to certification as a part-time nurse, and the VSO ("Voroshilov's Sharpshooters"), named after the noted marksman who as commissar of Defense lured many of his underlings to their doom in the purges. The VSO taught youths how to handle small arms. Although Soviet citizens could not *own* firearms, every major city had an amusement park which included – among the more usual fare – a shooting gallery as well as a parachute tower.

Though these training efforts were not paramilitary in the strictest sense, they did lay a firm, soldierly foundation during the education of millions of Soviet youths. Both the voluntary programs (which involved some 14 million youths before the war, 2.6 million of whom were studying skills with primarily military applications) and the GSO consulted with the Red Army on its needs and expectations, and peer pressure kept participation high. By the outbreak of war, at least a million Soviet teens had earned one of the coveted gold GTO badges. Although the enemy Nazi regime had prepared its own youths for total warfare (see pp. W:IC34, 47), the Wehrmacht would find an unexpected percentage of urban, educated, and proficient soldiers among the none-too-literate and uninformed peasantry that it had planned to overwhelm.

THE SOVIET ARMED FORCES

When the war began, the Soviet Union had a population of about 194 million people. This figure would rapidly shrink by 70-90 million as the Germans took over the populous western areas, many of which had not been under Soviet control for very long beforehand. Of those remaining, some 34.5 million would serve with the armed forces (86% as conscripts), representing about a third of the population – a titanic percentage by the standards of any era of warfare.

In spite of this record level of participation, the USSR became the only major combatant to suffer more civilian than military losses during the four years of its Great Patriotic War: 17 million civilians dead as compared to 12 million troops.

The Soviet military machine took in Leningrad university graduates, unwashed backwoodsmen, and exotic Asiatics, and made these wildly diverse Soviets fit its dire needs.

THE RED ARMY

See pp. W36-38 and W45-47 for a general discussion of unit composition and tactics. During the course of the war, the mammoth Soviet land forces increased from 3.6 million men in 1941 to 6.5 million combatants in 1945. They also underwent more than the usual amount of restructuring, with the composition of a typical infantry division changing eight times during the war. This section expands upon Soviet units and tactics.

The Infantry Squad

Most Soviet riflemen began the war organized into 11-man squads (with NCO often armed with a semiautomatic rifle, six bolt-action riflemen, two submachine-gun-equipped close-combat specialists, and a two-man light-machine-gun crew), per a prewar April 1941 reorganization, though some remained in 12-man squads in accordance with the previous June 1940 reorganization. Once the war began, the Red Army began forming divisions with seven-man squads (generally lacking the LMG that was the centerpiece of larger squads and uniformly carrying either rifles or SMGs) from July to November 1941. The nine-man squad as described on p. W46 became the standard from December onward, though exceptions remained.

Platoons Through Battalions

The Soviet infantry platoon, company, and battalion also went through numerous reorganizations, with the descriptions on p. 46 representing what they evolved into by the late fighting. As with most nations, the earlier units usually enjoyed more manpower. Even in the relatively populous USSR, each reorganization tried to stretch personnel further.

Throughout their evolutions, these units retained some distinctly Soviet traits. Headquarters units tended to be very small compared to their counterparts – a commander, staff officers from battalion level on up, a political officer, and perhaps some runners. Actual fighting units also tended to be "lean" – where a German lieutenant might be expected to lead

five elements of a particular nature, for instance, the Soviets tended to place only three under his Red counterpart. This tendency toward undersized units – to the point that some Red infantry companies were not much larger than a robust platoon in other armies – reflected both the uneven nature of Soviet leadership training and the poor communications tools that Red officers had at their disposal (see p. 38). Leading three units by blowing a whistle, shouting, and waving could prove far more challenging than leading five by simply picking up a radio microphone and speaking a few words. Furthermore, a German officer might at worst have to deal with subordinates whose high German or Swabian accents made them a little hard to understand; his Soviet counterpart might have subordinates who didn't speak the same *languages* that he did (p. 45)!

Antitank capability also was limited, particularly given the nature of their foe. For much of the war, an infantry battalion depended upon two none-too-robust 45mm guns for protection against armor, and these suffered from poorly manufactured ammunition in 1941. The Soviets expected antitank rifles (p. 47 and 62) to fill out the defensive needs of their riflemen. After these obsolete weapons proved unlikely to do more than annoy the crews of modern panzers, the high command never really readdressed their infantry's needs. STAVKA instead expected its own tanks, or dedicated antitank units, to counter German armor. This was small consolation to infantry units facing panzers without any support; however, ammunition and gun caliber gradually improved as the war continued.

Worse yet, the standard infantry units never received motorized transport. Throughout the war, trucks remained so precious that most units made do with horse-drawn wagons to carry their supplies and heavy weapons. Of course, infantry units at the forefront of a late-war attack often enjoyed the use of four-wheel-drive Lend-Lease trucks, which generally proved more nimble than the two-wheel-drive trucks deployed by the best-equipped German units facing them.

The lack of transport made itself especially felt because some Soviet heavy weapons emphasized the "heavy." The infantry of other major combatants carried sleek medium and heavy machine guns mounted on efficient tripods. Soviet MMGs and HMGs often had dated designs – many units began the fighting equipped with Great War relics – and were mounted on large, wheeled carriages. While these carriages could prove handy in certain circumstances, they were hard to conceal and made it very tough for their crews to negotiate obstacles such as stone walls.

Larger Infantry Units

Infantry regiments, brigades, and divisions also tended to be smaller than usual, with the 1941 division 2,400 men lighter than the German's 17,000-strong division. These units also kept shrinking. Like his rival Hitler, Stalin loathed the idea of losing units "on paper." Faced with 10 divisions whittled to half strength by combat, he could not bring himself to do the sensible thing and reorganize them into five full-strength divisions. Instead, the "standard" division would become smaller yet again so that depleted units could return to combat with a few replacements as merely "understrength" regulation divisions.

Armored Units

The Soviets believed in fielding lots of armor. In the 1930s, they had stockpiled the world's largest tank park – though most were outdated and/or light designs – and built massive tractor factories that would easily convert to tank production in a war. When the war did begin in 1941, the army fielded some old-style tank divisions, some understrength new-style corps (see p. W46), and independent armor regiments attached to cavalry divisions. These units generally did not have enough supporting infantry. Additionally, crew training had lapses; sometimes only the driver knew how to actually drive the tank.

These factors combined to make Soviet armor easy pickings for the panzers spearheading the German offensive.

During these crisis days, as with the infantry, the official tank formation went through rapid flux. New tank divisions (the corps concept was temporarily abandoned) took the field with what they could get, not what they should have. In September 1941 these theoretical unit formations stabilized somewhat, based on a 67-tank, three-battalion brigade, with one battalion of medium and heavy tanks and two equipped with light tanks. The light tanks might have fared well in scouting and skirmishing roles, but used as main battle tanks in Red service they usually proved inadequate. To support non-armor units, the Soviets also formed independent 29-tank battalions with the same 2:1 ratio of light and medium tanks among its three companies. A weightier 36-tank battalion with a company each of heavy, medium, and light armor followed in November. As earlier, units that matched their authorized strength were the exception, not the norm.

As 1942 began, the army began to think in terms of independent brigades supporting the infantry and cavalry, but could only scrape together enough armor for a few 27-tank units. The previous year, the Soviets had lost 20,500 AFVs – most of their existing arsenal – and until production ramped up, armor would become a precious commodity.

In the meantime, the Red Army further tweaked its large armor units. In March a 100-tank corps appeared, with 20 heavies, 40 mediums, and 40 lights. This 5,600-man formation later grew from two to three brigades, but had no supporting elements. The marshals would experiment quite painfully with fielding armor unsupported by infantry.

They soon learned better. Within months, mobile-rocket, reconnaissance, and other support units would be added to the corps. Additionally, the first tank armies formed in mid-1942 – with the 1st and 4th assigned to the front at Stalingrad, which would soon prove a pivotal theater in the history of Soviet armor. These armies had varying, but uniformly unwieldy, force structures.

In late 1942, the Red Army realized that tanks required infantry to protect them, going so far as to change the name of their "armored forces" to the "armored and mechanized forces." They unveiled three new corps types varying from 175 to 224 tanks in each, but with a better assortment of support units, including the crucial riflemen. They also quit putting mixed tank types in brigades and smaller units, began forming independent regiments to support infantry units, and started parceling their heavies into four-company, 21-tank "breakthrough" regiments. By this time, the KV heavy tanks and T-34 mediums were beginning to reach the front in formidable numbers, rapidly closing the quality gap with Germany's panzers even as production began to catch up with the Wehrmacht in quantity.

As 1943 began, the Red Army had two tank armies, 24 tank corps, eight mechanized corps, and a variety of independent armor formations. Soviet tanks would take a new prominence in army operations as they shifted to the offensive. Losses would remain heavy – the infantry escort usually walked *behind* the tanks, considerably limiting their effectiveness – but factory output had reached a point where these could be shrugged off.

Through the remainder of the war, tank formations stabilized even as support elements came and went, with three-platoon, 10-tank medium companies of T-34s doing most of the dirty work, and two-platoon, five-tank companies of heavy tanks reserved for assaults. After February 1944, the heavy regiments automatically gained the guards distinction (see below) upon formation.

Though these late-war units were handled much better than those in 1941, the Soviets opened up more offensives and pushed them more aggressively as they had the tanks to do so. The result was that losses remained high: In 1942 they lost 15,000 tanks, in 1943 23,400, in 1944 23,700, and in 1945 13,700. (It's very difficult to compare armor losses – because sources vary on treatment of irreparable breakdowns and salvaged vehicles – but by some accounts the Germans lost as few as 30,000 armored vehicles of all sorts, on all fronts, during the entire war.)

Artillery Units

As described on pp. W46-47, Soviet artillery practices were not sophisticated. Given their limited communications and reliance upon preplanned initial barrages, actual guns tended to be assigned to higher levels of command. Front-line commanders had to rely on mortars as the only immediate support that they could direct upon resilient enemy positions. An average infantry unit might have on call two 50mm tubes per company, eight 82mm tubes per battalion, and six 120mm tubes per regiment.

As the war went on, the infantry also began to enjoy support from self-propelled guns, consisting of a tank chassis with the turret removed and a howitzer placed in a superstructure.

A factor that somewhat counteracted the Red artillery limitations was the German doctrine of counterattacking and holding the two corners of a Soviet offensive. Though crucial for subsequent efforts to "pinch off" an attack's spearhead, these "shoulders" invariably fell within the original barrage guns' targeted coordinates and range. If they still had ammunition, these guns could resume their bombardments when appropriate with minimal delay.

Guards Units

To recognize valor, the Red Army began distinguishing units that had excelled in offensive operations as "guards" units; see p. W46. (No matter how courageously conducted, defensive actions rarely received laurels of any sort.) Befitting the strange partnership of Russian patriotism and Communist fervor that fueled the war effort, the term "guards" had links back to both elite Tsarist regiments and self-described "Red Guards" units that sprang up during the revolution. The distinction might be given to units of any size from regiment to army. By war's end, the guards unit designation was fairly common, with some specialized units receiving it upon formation.

Guards units received doubled pay (only 50% higher for officers) and improved equipment. Anyone in a guards unit became a "guardsman," with the title attached to his rank. Those expelled from guards units lost the guardsman benefits; newcomers gained them when they joined. Though guards units generally were organized like their rank-and-file counterparts, they got more and better weaponry. For instance, in a standard infantry battalion, one platoon of one company might receive the much-loved SMGs rather than the usual bolt-action rifles. In a guards battalion during the same period, SMGs would be distributed to one platoon from each of the three companies.

Guards units roughly equated to the Waffen-SS units in German service, although, unlike the SS, they remained in the regular chain of command. The closest U.S. comparison would be receiving the Presidential Unit Citation, though this American award carried a bit less prestige and considerably less materiel benefit than the Soviet version.

Officers and Commissars During the War Years

The evolutions of the Red Army officer corps and command structure (pp. 28-29) continued during the war years. On May 7, 1940, the Red Army yet again changed its rank structure to more closely resemble the European model; these are the ranks shown on p. 43.

In January 1943, the commissars – who had previously enjoyed their own exclusive rank system completely outside army channels – were given regular army ranks. For the most part, they also received regular commands; for some months already the Soviet leadership had been reducing their powers of political oversight (p. 18) and transforming them into regular officers (p. 37).

Special Forces

The Soviets lagged behind other major combatants in the formation of special forces, which would later come to be categorized as *spetsnaz* in the Red Army vernacular. Still, some embryonic units were formed, and often fared surprisingly well given the haphazard conditions of their development.

Sinister Security

The USSR's security apparatus was well ahead of the military in the formation and deployment of small, specially trained units. Their heritage stretched well back into the first days of the revolution, with special units from both the NKVD and military intelligence (known by its Russian initials as GRU) fielding units as early as the Civil War.

However, organizations that the Soviets considered as early "commandos" would qualify in western eyes as simply "death squads." A typical mission for such a unit would involve entering a region of suspect loyalty, identifying the ringleaders among the dissidents, and ensuring that they never fomented rebellion again. Anecdotal evidence suggests that members of these units were chosen primarily on the basis of their sociopathic potential.

Squads of this nature remained at least as busy during the Great Patriotic War as before it. Along with their "internal policing" functions, they kept an eye out for Nazi collaborators or agents. They did not often encounter either, but spurious or false accusations probably made them look busier than they were.

Engineers Extraordinaire

Soviet doctrine had long called for combat engineers to penetrate the enemy rear and sow havoc. Before the war, some of these units were trained to the highest standards in demolition, camouflage, parachuting, and radio operation. Called *miners*, many of these elite troops fell victim to the purges. Stalin may have sensed that his own state would be particularly vulnerable to such operations . . .

Still, those that survived until the beginning of the war created GRU's Operations Training Center of the Western Front, a primary instruction center for sabotage, and later established the 5th Separate Spetsnaz Engineer Brigade. Somehow, despite both their training and the general Soviet reliance on partisans, this unit ended up being used primarily as standard combat engineers. They did tackle the toughest jobs – setting up defenses around crucial strongpoints or clearing German defenses at the point of attacks – but it wasn't really commando fare. Meanwhile, other engineering units on every front were creating miner detachments of three to five men to penetrate the German rear and destroy bridges, sow mines, and so forth. In August 1942, special guards battalions of engineers were created to expand this mission and better coordinate with area partisans in the process.

In game terms, these miners might best be built on the Combat Engineer template (see p. W78), but at 70 points. Nine of the extra 10 points would be spent on increasing Camouflage, Demolition, and Soldier by 1 each, and adding Parachuting and Electronics Operation (Communications) at skill level 12 each. Guards units would spend the 10th point on Orienteering-11, while others would simply use it as a fourth optional point.

Naval Newcomers

The Soviets had long used sleight of hand in dealing with their northern neighbors (see p. W:FH27). As the Germans began attacking from Finland, targeting the crucial far northern port of Murmansk, the Arctic Fleet leadership decided that it needed its own ground intelligence, independent of the dubious data that the army was providing. The intelligence chief, Lieutenant Captain P.A. Vizgin, set about selecting 65-70 men to sneak onto hostile shores and scout Axis resources.

Given personnel shortages, he recruited among merchant sailors, civilian athletes, and exile Norwegian Communists as well as navy personnel. With a whole week of training and a motley assortment of equipment, this force set off on its first mission on July 13, 1941. It succeeded, and the unit's personnel and operations grew from there. By the end of the year, teams of two Norwegians and a Soviet radioman were being inserted on hostile shores to monitor naval traffic. Submarine insertions extended their range around the coast of Norway. Raids and scouting operations continued throughout the war.

This unit went through several names before becoming the 181st Special Reconnaissance Detachment. All members were picked for "political reliability" and athletic achievement. In game terms, just about any template could be used to build their background, as long as they had Fanaticism (Soviet or Communism). Every member would also excel in at least one athletic skill, such as Boxing, Karate, Skiing (Overland), Swimming, Wrestling, and so on.

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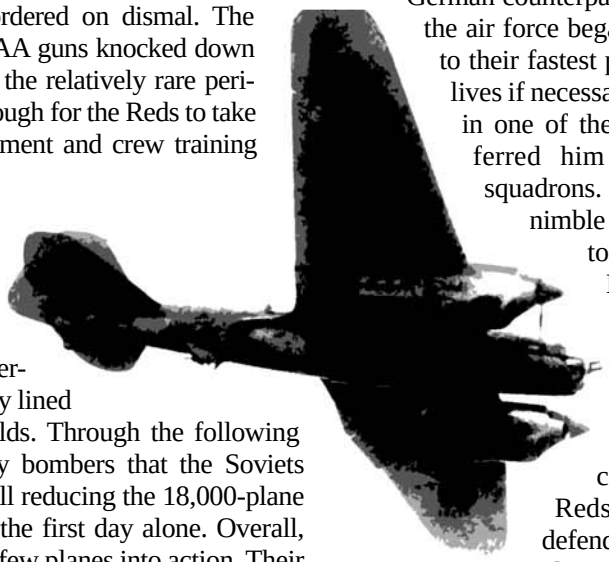
The Air Force

The tsar formed Russia's first air force in August 1912. Its most notable accomplishment may have been the first intentional ramming of one warplane into another on Sept. 8, 1914.

Though dramatic, such fare wasn't the sort of stuff on which service dynasties are built. Military aviation languished through the early Soviet years. In the 1930s, the service underwent the same rapid buildup seen throughout the military, but it remained a decidedly auxiliary arm. The main role foreseen for its fleet of conservatively designed (and aging) planes was to fly direct-support missions for the army. No plane exemplified this mission more than the Il-2 Shturmovik (see p. W115), an armored ground attack aircraft that made up a large portion of the fleet throughout the war.

The air force's learning curve paralleled the army's. Though it had gained some useful experience while using the Spanish Civil War (see p. W10) as an exercise, its performance in the Winter War bordered on dismal. The Finns had few fighters, but their AA guns knocked down Soviet bombers in droves during the relatively rare periods when the weather was fair enough for the Reds to take off in the first place. Both equipment and crew training urgently needed modernization.



This process remained under way as the Wehrmacht began marching east in Operation Barbarossa. That morning, carefully coordinated flights of Luftwaffe bombers streaked overhead to bomb the warplanes neatly lined up at the Soviets' forward airfields. Through the following hours, the Germans ravaged any bombers that the Soviets managed to get into the air, overall reducing the 18,000-plane fleet by nearly 1,500 aircraft on the first day alone. Overall, though, the Soviets got relatively few planes into action. Their ground-support mindset had led them to attach air squadrons to specific ground units. They rapidly discovered that, in a fight, the ground commanders simply didn't have the time to serve as their own air liaisons.

The Soviet fighters fared somewhat better; few of the pilots had enough skill to actually shoot down their German foes, but their planes were more agile on average, giving them a chance to survive. Given these circumstances, a desperate command began teaching pilots of the I-16 fighter (p. W:MP101) to *ram* the enemy when circumstances warranted. The Luftwaffe lost some 300 planes to this throwback to 1914, particularly in the desperate defense of the skies over 1941 Moscow. Though the pilots were trained to deliver slashing blows which they (and even their plane) might survive, the tactic inflicted a high mortality rate. Regardless, one Red pilot rammed four German planes in his career . . .

As with armor output, late 1941 and early 1942 saw a lull in aircraft production – partly while some factories relocated west under forced march – but by late 1942 the Soviets began to build warplanes far faster than the slowly declining Luftwaffe could hope to shoot them down. Meanwhile, the air force reorganized itself into air armies modeled on the lines of the Red Army's ground units. The size of a particular air army could vary radically, depending on the needs of the front that it supported, but each was divided into ground-attack, fighter, and bomber corps. (The bombers were all of the short-range variety. The wartime Soviets never emphasized long-range bombing like their western Allies, and generally diverted their few four-engine bombers to a separate chain of command.) Each corps was further subdivided into the familiar divisions, regiments, etc. These now had their own command that simply coordinated with the ground commanders. As usual in Soviet practice, these tended to be small; a squadron never deployed more than 15 airplanes, and more usually nine to 12.

In the meantime, pilot training began to improve. Tactics manuals dating from the 1920s were discarded, and the Reds even imported Royal Air Force instructors to pass along lessons learned in the Battle of Britain. Despite these measures, Soviet pilots never quite managed to measure up to their German counterparts as a group. To reduce their losses, the air force began assigning squadrons of new pilots to their fastest planes, the better to escape with their lives if necessary. When a promising talent appeared in one of these novice units, his superiors transferred him to one of the few all-veterans squadrons. These units generally flew the most nimble fighter available at the time, in order to win a fight rather than avoid it. The Luftwaffe learned to be quite careful about determining which sort of fighter squadron they were facing, given the dramatic difference in threat that they posed.

The turning point in the air war came, as on land, at Stalingrad. The Reds flew nearly 36,000 missions to defend the city and then to support the encirclement. By mid-1943, they had proved that they could sweep the Luftwaffe from Stalingrad's skies.

For the remainder of the war, the overextended Luftwaffe would appear more and more rarely, though it could still pack a punch when it did rise to challenge the Soviets. The pilots' main risk became the hordes of small-caliber AA guns that the German infantry tried to congregate at their positions. By the end, no one disputed who owned the air in the East.

Air-Defense Forces

Like most combatants, the Soviets maintained antiaircraft units for protection of civilian targets. The Soviets did not place these under a civil-defense unit or similar organization, but formed a military command, equal to but distinct from the army, air force, and naval commands.

This air-defense force even had fighter aircraft under its control, along with the obligatory AA guns (crewed almost exclusively by women, with their own special military subculture), searchlight units, and sound-ranging teams. Air defense maintained its own pilot-training programs as well, with a curriculum differing from that of the air force.

The Navy

Several factors combined to effectively beach the Soviet navy in WWII. Given the immense, open land mass that was the Soviet Union, the Wehrmacht attacked mostly by ground, and the Soviet defense answered in kind. The USSR had few harbors that did not ice over for much of the winter, and in the west most of those were bottlenecks that allowed land-based air crews to keep an eye out for naval traffic and attack at their leisure. Finally, for much of the war the Germans enjoyed a decided advantage in the air.

For these reasons, most major Soviet warships spent most of the war at anchorage, under the protective umbrella of their base's AA guns. As an early exception, many units in the Baltic had been moved forward into the Baltic States prior to the invasion in 1941. As the Wehrmacht overran those countries, the ships took on Soviet refugees and undertook a harrowing passage through mines and German threats back to their bases around Leningrad.

That besieged city would remain a focus of the navy's limited action for the remainder of the war. The anchored warships often supplemented the Red Army's artillery by attacking German units close to the coast with devastating barrages from their batteries of big guns. In return, the Germans routinely sent waves of Stukas to dive-bomb the Soviet ships.

Black Sea units also contributed to the fighting in the Crimea and southern theaters. Given the many deep rivers along that coastline, Soviet gunboats sometimes raided far inland – and often suffered steep casualties – in support of ground operations on and around the peninsula.

After Finland surrendered (p. 22) – opening up forward bases and greatly reducing the air threat to vessels entering and leaving port – the Baltic Fleet became more active for the last year of the war, with its submarines constantly roaming for German prey (see p. W:IC109). These victims rarely were warships, because the Kriegsmarine already had lost so many of its fighting vessels to the Royal Navy.

Unit Composition

Its few achievements were far out of proportion to the Soviet navy's size. It began the war roughly comparable to the Kriegsmarine, though substantially smaller than the British, U.S., and Japanese navies.

The navy parceled its vessels out to four fleets: the Arctic, Baltic, Black Sea, and Pacific. As the war began, the Arctic Fleet had 11 destroyers, 15 submarines, two torpedo boats, three minesweepers, and 120 small craft (escort and patrol boats, primarily). The Baltic Fleet had two battleships, four cruisers, 30 destroyers, 69 subs, 48 torpedo boats, 113 minesweepers, 50 armored gunboats, and 86 small craft. The Black Sea Fleet had one battleship, six cruisers, 18 destroyers, 44 subs, 84 torpedo boats, 18 minesweepers, and 56 small craft. The Pacific Fleet had 22 destroyers, 85 subs, 135 torpedo boats, 68 minesweepers, and three small craft. The navy also maintained a substantial air arm, with 2,800 planes as the war began.

Very little new shipbuilding took place during the war. Most projects were suspended after the invasion, as the labor and materials were more urgently needed elsewhere.

Ultimately, so were the sailors.

The Marines

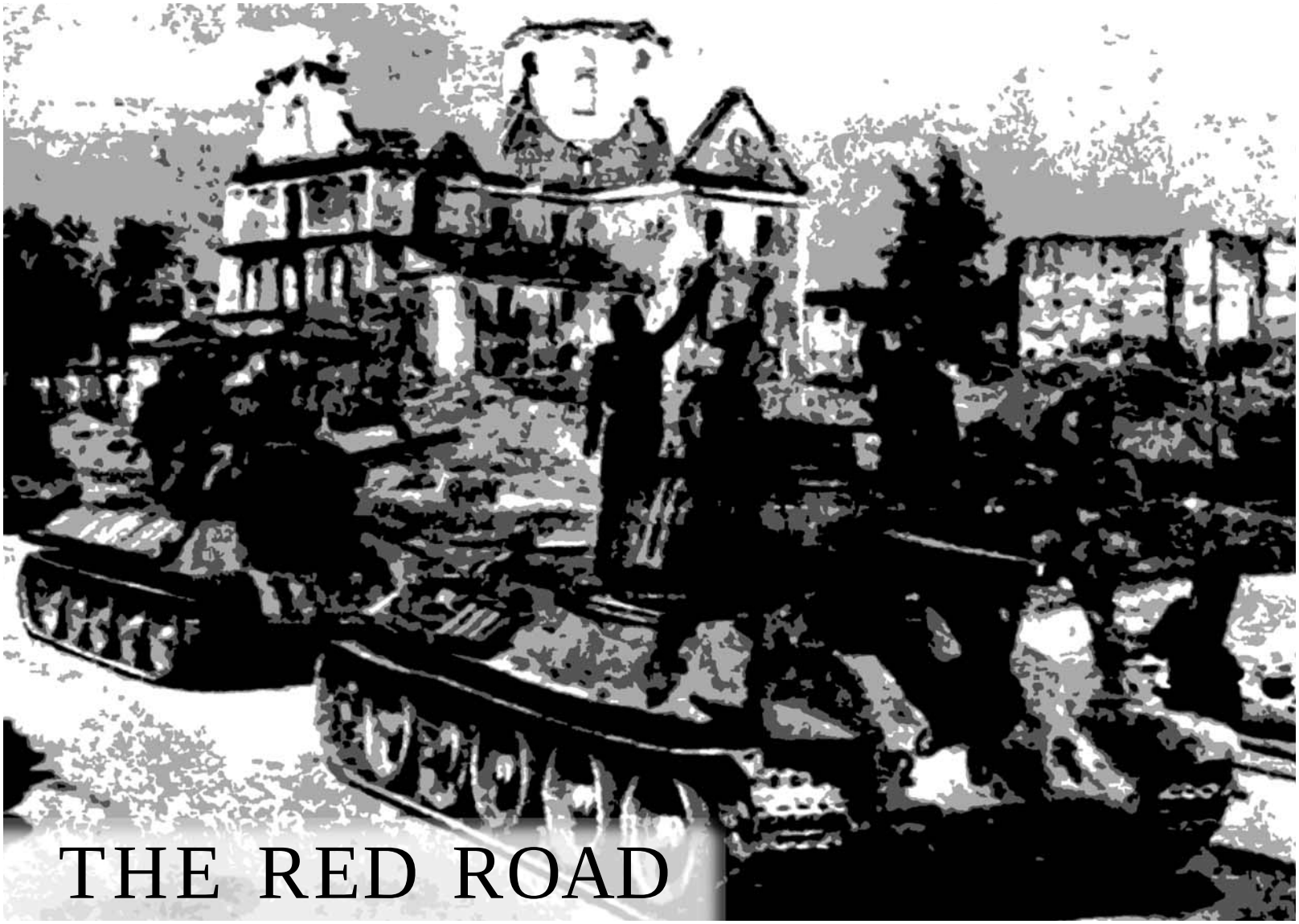
The Soviets did not maintain true marines trained in amphibious assault, except for a few special forces that sneaked rather than blazed their way onto the beach (p. 33). More commonly, sailors from the underutilized navy were cross-trained, initially to defend their docked ships from German infantry attacks. While purists distinguish cross-trained sailors as "naval infantry" as compared to proper "marines," these naval rifle units ended up serving far afield and distinguishing themselves in a number of battles, most notably at Stalingrad. This earned them a place in history as marines, regardless of technical definitions.

These units generally were organized along the lines of Red Army infantry, in units up to brigades. With pride, they wore the navy's horizontally striped undershirt under their battledress, even if this was otherwise standard Red Army fare.

Other Special Units

Though every navy of this period included among its ranks specialists in hard-hat diving, those in service with the Black Sea fleet merit special consideration. Given the nature of the Crimean fighting – with the Soviets shuttling people and supplies across the water in the face of determined air and naval attacks – much materiel sank into shallow coastal waters.

The desperate Reds dispatched their divers to reclaim the sunken goods. This work could test the most hardened man. A diver might be sent to forage through a floating forest of evacuated children, to salvage the medicines they no longer would need. Submerged munitions presented special risks, both to the diver and the unfortunate troops to whom they would eventually be issued despite their abysmal rates of misfire.



THE RED ROAD

His western counterparts would have found the life of a Soviet soldier to be in many ways familiar, but in other ways very strange. Few would have willingly traded places with him.

TRAINING

At times, the Germans could not decide who it was that they were facing. Often enough, "Ivan" displayed an almost unbelievable ignorance of the art of war. At other times, he would be as skilled as he was ferocious. Both Wehrmacht stereotypes could be true at the same time, because the quality of Soviet training was decidedly mixed.

Basic Training

Introductory training for a Red Army infantryman did not vary all that much from that of other modern armies, except that the Soviet trooper received a larger dose of "political education," in which the works of Marx, Lenin, and Stalin were studied in order to encourage a greater appreciation of all things Communist.

The 222 divisions of the pre-war army received proper basic training and, in some cases, considerable advanced training in field exercises and the like. Unfortunately, even more than in most armies of the era, these troops trained for the next war by learning the lessons of the last one. Wartime evolutions in tactics and practices would invalidate much of this experience, some of which dated to the Civil and Great wars.

Some 81 divisions were in the process of forming up when the Germans struck in 1941, and another 21 were cobbled together in the remainder of the year following Barbarossa. Training in these divisions was rushed or cut short, given the emergency. On the other hand, these units received a high proportion of reservists and young men who had received some paramilitary training (p. 29).

Also in 1941, the Soviet Union fielded many militia (or *opolchenie*; see p. 51) and workers' battalions (*rabochie bataliony*). Perhaps as many as 4 million Soviet citizens who were unfit or held civilian jobs crucial to the war effort volunteered for these units. (Some "volunteered" by being handed a rifle and told that their class or shift was leaving for the front.) Members of these units often had a lot of experience working together at factory or farm, but their military training might be measured in minutes. Most of the volunteer battalions ended up in non-combat functions – such as digging and building defensive works – but a few saw combat despite their inexperience.

These units generally fell outside the normal Red Army structure, and after the 1941 crisis most were disbanded and replaced by regular army units.

From 1942, army recruitment and education stabilized along more or less normal lines, with quick but comprehensive basic training followed by quick transit to the front, where a new unit was exposed to the real thing for a very short period before being pulled back out for a bit more training. The Soviets felt that this controlled "baptism by fire" helped them minimize the severe effects of combat shock on novice troops.

Advanced Training

As evidenced by their baptism-of-fire ritual, the Soviets were great believers in learning by doing. They reasoned that, no matter how ill-prepared, a military unit thrust into combat would eventually master its craft through the stark experience of staying alive. In fact, there is no substitute for thorough training, which (for instance) instilled habits such as taking the extra effort to dig a grenade sump next to one's foxhole every night. Experience is a poor teacher for this sort of thing, because the first lesson would be the last one that particular soldier ever received.

The Soviets, however, made a point of promoting advanced tactics as they emerged from the ranks. When a soldier came up with an innovative method of killing panzers, the propaganda personnel would distribute leaflets describing his exploits and innovations. This served both to reward the soldier in question for his initiative and to spread the trick to the rest of the troops.

The Soviets did establish advanced schools for the more technical military specialties. (Unlike the Germans, they failed to realize that no piece of equipment was any more "technical" than the ordinary rifleman's skills of cover, concealment, movement, and field living.) From December 1942, these specialists – artillerymen, drivers, and the like – along with new NCOs, were placed in special training battalions in each infantry division. There they received further formal training and an opportunity to get used to the conditions of front-line combat.

Officer Training

Soviet society lacked either a "military class" or the sort of social stratum that formed the backbone of the officer corps in nations such as Britain and Germany. The onset of the war in 1941, coupled with the aftermath of the purges of the previous years (pp. 29 and 121), left it severely short of men fit to lead.

STAVKA responded by greatly shortening the training cycle for new officers. An experienced and decorated NCO might be made an officer candidate and then given four months of training, or even less, before being commissioned as an officer. The commissars also received very little formal training before being turned into proper officers (p. 31), though they usually had the advantage of a good education, and as political officers often had been thrust into combat command when their unit's ranking officer had gone down.

Like the enlisted men, officers who had entered service before 1941 often labored under some outdated concepts. One of their favorites came to be called the "human wave" by its incredulous observers; it consisted of sending great hordes of troops into a charge in an attempt to overwhelm a defender by sheer weight of numbers. This Great War-style faith in a critical mass of men always resulted in terrible casualty rates and more often than not failed to obtain its goal. Its use gradually declined, and would have been quite rare after 1942.

Replacements

New Soviet units were built up as whole formations, on the European model, but due to the high casualties taken throughout the war many Red soldiers ended up as replacement personnel for existing units. Rather than train and insert replacements as whole units, as practiced by the Germans, the Soviets tended toward the highly criticized U.S. system of individual replacements (see p. W:D50).

New men slated as replacements received a travel pass and were left to make their way by train to a replacement depot somewhere behind the front. There they lived in barracks until officers from depleted units arrived with hopes of finding men there certified for the job skills that they needed. In Red Army slang, these officers were called "buyers," and the whole affair took on an atmosphere of marketplace bartering. A recruit with papers certifying his skill in driving, metalworking, and first aid might work his way among the buyers attempting to find the one offering the softest assignment requiring one of those skills. Those with skill but no documentation could try to convince a buyer to take them on in one of their certified specializations, then switch them over to the open slot for which they lacked papers. Meanwhile, buyers were attempting to find the best replacement among those with the proper certification, though in general this was a seller's market.

As for the certifications which took on great importance during this process (and just about nowhere else in a Red soldier's life), these could stem from a variety of sources. Some of them had been earned in prewar training clubs (p. 29). Soviet civilian jobs, particularly in factories, often pegged pay rates to skill, certifying the latter in the process. Of course, the army's own specialist training also documented what the trainee had been taught.

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Following Orders

Radios were rare in the early Red Army, and never common in later years. Infantry and even armor commanders routinely had to resort to hand signals to communicate with their men. Every soldier needed to know the following signals:

Attention – Raise arm.

Acknowledged – Raise both arms then drop them.

Repeat, Signal Not Understood – Raise both arms then cross them repeatedly.

Assemble on Me – Raise arm, circle it, then drop it sharply.

Form Skirmish Line – Lower arms sideways repeatedly.

Lie Down or Cease Fire – Raise arm for attention then drop it sharply at desired time.

Move Out – Raise arm then swing the other emphatically in the direction of travel.

Fire – Both arms extended at shoulder toward line of fire.

Bring Up Ammo – Swing raised arm from side to side.

Change Facing – Raise arm then swing it to shoulder height repeatedly in desired direction.

Enemy Sighted – Extend arms sideways and hold.

All Clear – Raise arms sideways repeatedly.

Gas Present – Raise helmet or cap.

Colored flags or other handheld items could be used to distinguish which unit should respond to a particular order. (For instance, a yellow flag might mean the second tank in a platoon, or a pistol held by the barrel might mean the second platoon in an infantry company.) The acknowledged signal was to be given after all orders.

In game terms, interpreting a hand signal requires a roll vs. Soldier skill, at +3 if the receiving party isn't under fire at the time. If the signal includes an extra component to distinguish receiving units, apply a -1 (distinctly colored flags) to -3 (a spade held with blade up meaning 1st platoon while blade down means 3rd platoon . . .). All vision penalties (p. 40) apply. The GM should keep in mind that signaling in this fashion requires the NCO or officer to be highly visible and likely exposed to any enemy fire.

Not Following Orders: The Penal System

Discipline was harsh in the Red Army, though perhaps not as draconian as many westerners believe. Certainly, in the darkest hours of 1941, some units were ordered to walk arm-in-arm into suicidal MG fire as "human waves," and some watched their own troops shoot down stragglers during 1942's do-or-die days leading up to Stalingrad. These extremes, however, were generally demanded only during periods of great crisis. In most places at most times on the Eastern Front, Soviet troops endured discipline no harsher than that expected of their Wehrmacht adversaries.

Most Soviet troops did not find the army's discipline all that surprising nor difficult to endure. They had been trained to serve the state, and their fathers had served a tsar whose sergeants and officers had been not just cold-blooded, but unabashedly brutal.

Additionally, the Red Army did not always ask for a lot of discipline outside of combat. Between battles, troops often got away with extremes of conduct. Upon entering eastern Europe from 1944 on, many units were allowed to pillage and rape without fear of punishment (p. 125). Depending on the sentiments of their commanding officer, others were subjected to the harshest punishment at their first transgression. It could be a fatal mistake to assume that "revenge" on the local *hausfrau* (see p. W:IC51) was safe before sounding out a superior's sensibilities.

Military punishment often consisted of assignment to penal battalions, called *strafbats*. Each army had such a battalion, which it generally kept in the rear until an attack or counterattack. The 360-man unit was then brought forward with its guard company and sent in right behind the artillery barrage, so that any shells falling short would kill only penal troops. If the penal troops turned back, their guard company's MGs would open up on them with the same lack of mercy that every unit had endured in 1942.

Other penal units were dedicated to mine-clearing, which probably was done hastily and with little equipment, given that the casualty rates could be high; p. 40 describes one reason why.

Air-force penal units sometimes served as the rear gunners in Il-2 (see p. W115) ground-attack formations; some sources say that only officers were offered this option. The vast majority of Red Army criminal sentences resulted in 10-year terms, but these gunners were told that, for every combat mission that they flew, one year would be knocked off their sentence. It's not known that anyone ever survived 10 flights under this bargain.

For lesser offenses of the sort that did not merit a court-martial, the Red Army could choose from a suite of punishments familiar to soldiers worldwide: up to a month without leave from barracks, up to five extra duty assignments not to include guard duty, up to 20 days of ordinary or 15 days of strict arrest, and demotion. The "strict" arrest consisted of 10 hours daily of hard labor, then restriction to a one-man cell featuring a bed of wooden planks, with a diet of bread, water, salt, and tea, and a single hot meal every two days. Drill sergeants could inflict up to four days of this treatment on recruits.

WHAT THEY CARRIED

This section describes, in general, the gear that a Red soldier would have. For more specific information on particular pieces of equipment or weaponry, see Chapter 4.

Papers and ID

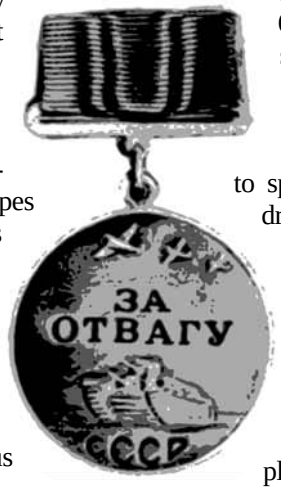
As part of their invasion, the Germans sent commandos into Russia, disguised as Red Army troops, to sow confusion. The Soviets inadvertently made this mission a great deal easier; when the fighting started, Red Army personnel carried no ID papers whatsoever. Their June 1940-issue peacetime paybooks had been confiscated on their way to the front.

Stalin himself is credited with designing the resulting efficient wartime "service and pay book" in October 1941, while neck-deep in national crises. The troops probably received them in December 1941, and they were expected to carry them at all times thereafter. Those missing their paybooks would be questioned, and usually detained.

The paybook succinctly described a good deal of the bearer's personal and military history, as well as the equipment issued to him. It included a photograph.

Other documents were far less uniform in nature. Passes were required for travel, but could take a variety of forms, as could certifications, medical vouchers, etc. Often enough these would be handwritten on scrap paper by a superior officer. It also wasn't uncommon for Red troops on legitimate business to lose their documents. This led security personnel to question suspicious persons as a matter of course, and they often made decisions based on the answers they got rather than the documentation that the subject did or did not possess.

Medals



See p. W46 for the most important decorations issued by the Soviets. Dozens of other types existed, and unlike other combatants the Soviets often issued individual medals to everyone involved in a particular action; for instance, a bit more than 1 million Defense of Moscow medals were issued, many to people who participated in the desperate 1941 proceedings unwillingly and minimally. This sort of medal really should not be worth any Reputation bonus at all; it just meant that you'd been there.

Infantry Kit

The equipment a Red soldier carried depended on what was available to supply him, of course. See p. 57 for more details on individual items.

Standard uniform began with a khaki tunic and long breeches. This was worn with any of the three standards of dress: field, guard, or walking-out. Officers had elaborate dress uniforms for formal occasions, though it's doubtful that many field commanders ever actually purchased or had occasion to wear this sort of finery. Winter uniforms were worn November through April, summer dress through the rest of the year. Footwear was either jackboots or low boot with puttees, depending on local issue. A cap would be worn if a helmet was not. A brown leather belt supported two ammunition pouches, canteen, and often an entrenching tool (usually a rather ordinary spade that did not fold). In cool weather, the soldier would wear a greatcoat or some other protection, carrying it rolled up over his shoulder in summer. Usually, a shelter half was rolled up with the greatcoat, but in wet weather this could be worn as a poncho.

Field equipment included a backpack holding extra ammunition, spare undergarments, perhaps an extra uniform, mess kit, and the personal kit (towel, soap if available, etc.). This kit sometimes included a straight razor; mustaches were very rare in 1941 (though more common as the war went on), and only older men got away with beards. For the most part, cleanshaven, with close-cropped hair, was the order of the day.

The field trooper would carry a gas mask in a bag slung over the shoulder, often with the strap crossing that of a similar bag that held grenades at the other hip. Sometimes a bandolier would be strapped across the chest, instead.

WHAT CARRIED THEM

As with the Germans (see p. W:IC36), trains were used to carry troops throughout the Soviet interior. Most of the time, the Red trains were free from any risk of partisan sabotage, so they could travel considerably faster than their German counterparts (perhaps averaging 25 to 30 mph, up to 60 mph if given priority as an "express"). Moscow served as the hub of the nation's vast railroad network, so getting from any one place to another often involved a stop at the capital.

The Soviets were not too reluctant to send troops to specialist schools under the Far East command, and drew upon eastern troops from December 1941. These movements would require week-long journeys on the Trans-Siberian Railway – from Moscow perhaps 4,200 miles to western elements of the Far Eastern Command, 5,350 miles to Khabarovsk, 5,900 to Vladivostok. The Siberian trains averaged 35 mph between their widely spaced stops.

Other combatants were amazed at how few supplies a Soviet infantry division required, but "few" was a far cry from none. A fighting division still required some 310 tons of ammunition, 20 tons of food, 15 tons of horse fodder, and 13 tons of fuel each day. Those in reserve required far less ammunition, but with some 150 divisions at the fronts by midwar, STAVKA had to reserve about 41,000 tons of daily rail transport just to keep them supplied. Buildup for a major offensive could demand two-thirds of the nation's freight cars and send more than 3,000 of them down a single line each day. A typical Soviet supply train might consist of 45 cars carrying 45 tons of goods each.

Not surprisingly, the few trains left over for civilian use tended to be cramped and often off schedule.

FIGHTING AT NIGHT

Though the Red Army had its share of urban tradesmen and professionals, it also enjoyed an abundance of troops who had grown up in the countryside and knew their way around it as hunters and trackers. This led it to emphasize certain military specialties – most notably that of the sniper (p. 114) – and certain modes of operation. Most notably, the Soviets began to emphasize maneuver, reconnaissance, and even combat by night, especially once they learned that their German opponents were not quite as efficient at night and rather uncomfortable with fighting once the sun went down.

Movement of large units at night was performed much as in other armies, but the Soviets could depend on finding a local who was familiar with the terrain, and thus could travel cross-country in places that would slow the Germans even by day. Soviet units maintained a rapid pace, usually at the cost of ruthlessly leaving behind anyone who could not keep up. In deep snow, Soviet tanks with their wide treads and good power-to-weight ratios often could serve as snow plows; it was best to let the lanes that they left in their wake freeze over before using them as ice roads.

Night missions into enemy lines usually had reconnaissance rather than combat as their goal. These scouting parties could be as few as two men or as large as a regiment. Cavalry and even tanks taking part, though they were usually kept toward the rear. Ski troops came into their own when snow was on the ground; they would pull their heavy equipment on sleds.

These recon missions relied upon the Germans to consistently make several mistakes. Wehrmacht sentries did not usually maintain good light discipline, shooting flares to investigate a suspicious sound, but thereby illuminating their positions as well as the surroundings. They also would light cigarettes and pipes during their watches, which generally were stood in the same spot night after night, and they conducted their business in the loud and clear voices normally encouraged by military professionals.

This gave the Soviet scouts a good opportunity to thoroughly map the enemy positions, even if no convenient flare was fired, by patiently logging trivial bits of light and sound data over the course of hours. In turn, the scouts had to have the discipline to lie quietly for a very long time. Some parties would spend all night just outside German lines, remain in concealment throughout the next day, then return to their observations the next night. This sort of long-term mission usually would not be attempted in the snow, however, because daylight would reveal the scouts' tracks coming in but not going back out. During the winter, scouting parties had to be well away from the Germans by dawn if they wanted to avoid a fight at bad odds.

A scouting party that penetrated particularly deeply behind German lines might expand upon its mission by cutting telephone wires, laying mines, or assaulting an isolated position. This was made a bit easier by the German "hedgehog" system of defense, in which a series of strongpoints supported one another with interlocking fields of fire. This required fewer troops than a continuous line, but at night the strongpoints' effective fields of fire shrank along with the troops' field of vision, and to a large extent each one was on its own.

At other times, night raiders set out specifically with a fight on their minds. Smaller units – anything from a squad to a regiment – would slip through the hedgehog zone and attack vulnerable supply columns and command posts in the immediate rear. They usually succeeded, but they often also suffered from orders that required them to loiter until annihilated. Hiding by day, some night raiders harassed the foe for weeks before finally being cornered and destroyed.

Larger Soviet units launched full-scale attacks by night, a tactic that may have first been intended to keep the excellent German antitank gunners from destroying their armor before any of the attackers could spot their guns. This often required the perilous task of clearing minefields by night; where the Soviets did not have the time that this normally required, penal battalions (p. 37) could be driven through the fields to clear antipersonnel mines in the most brutal fashion. These attacks generally had better odds of breaking through the German front lines than a similar effort by daylight, but they also moved more slowly than a daylight attack. Later in the war, the Soviets began to limit the scope of these night attacks and keep armor in reserve to exploit the breakthrough once the sun came up.

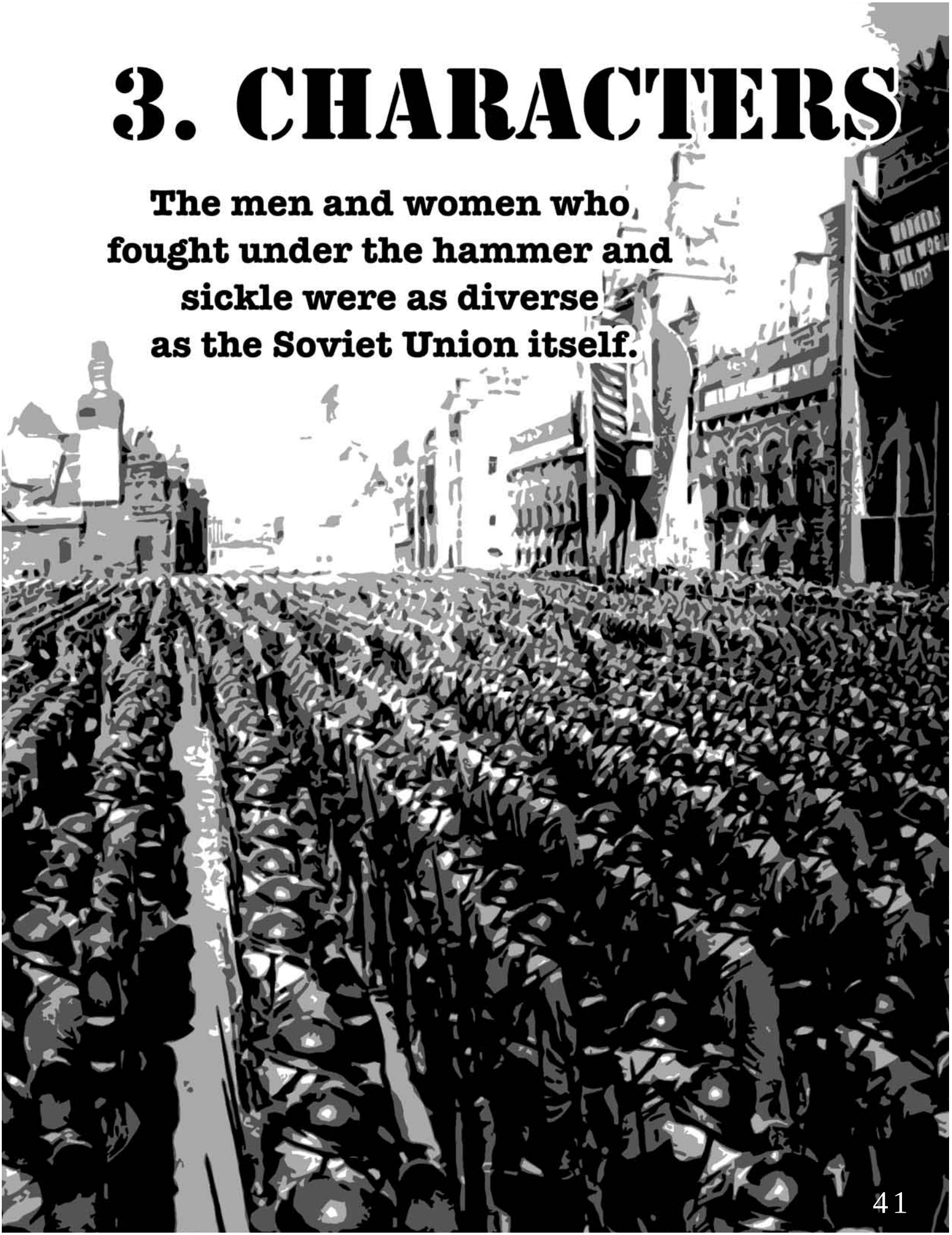
Of course, the Germans learned as the war went on, and their night operations improved, too. Maintaining radio silence and painting their headlamps blue helped them move columns by night. One or two searchlights pointing into the sky could give a reference point for German scouting parties to set out into the unknown with confidence that they could find their way back. The Germans avoided assaulting a fortified line by night, but in a lightly held area they would sometimes attack after dark to improve their chances of catching the Reds flat-footed.

In game terms, just about every combat-related skill takes the standard penalty for poor light at night, anywhere from -1 (twilight) to -9 (a moonless and overcast night). While giving a great number of Red soldiers the Night Vision advantage would give them a huge advantage over their opponents, this would not realistically model the situation. Less cinematically, a Soviet officer suited to lead night operations might have Orienteering-15 or so to reflect that he spent his entire childhood navigating his way home through the forests, while his German counterpart with far more book-learning but little practical experience would have Orienteering-12 or so. The Soviet might also have local Area Knowledge-15, or a guide with similarly high skill. Thus, on a typical night with -5 in vision or related penalties, the Soviet would be operating at a reasonable effective skill 10 in two applicable skills, while the German would be flailing about at effective skill 7.

Additionally, along with a high skill in Stealth, the former woodsmen who would make up a good night-scouting party would probably have some combination of Acute Vision, Acute Hearing, or Alertness, while the German sentries opposing them – drawn from a more average and urban pool of troops – would be less likely to have any of these advantages.

3. CHARACTERS

The men and women who fought under the hammer and sickle were as diverse as the Soviet Union itself.



CREATING A CHARACTER

The Germans had a distinct stereotype of "Ivan." They thought him ill-trained and semi-educated, but shrewd in his own way. He seemed tougher than nails, but maybe a bit too eager to die, charging tanks with unsupported infantry.

In reality, of course, the Soviets were as diverse as the size of their nation suggests. See pp. W61-85 for Soviet filters for general wartime roles. This chapter adds more background of a distinctly Soviet nature.

Use the table on p. W177 without modification to figure height and weight for native Soviets.

FEMALE ROLES

Far more than in any other country, women took an active part in the Soviet war effort. There were many reasons. To begin with, most of the Communist philosophers behind Soviet governance wanted to create a culture that treated both sexes equally, if only because they wanted to purge their society of romanticism. They certainly had not reached this goal by 1941 – or even by the USSR's eventual collapse – but they had made headway. As the war began, Soviet women had career opportunities that women of other nations could only dream about, and made up 40% of the technical-labor pool. They also had participated in the pre-military training of the '30s (p. 29); any girl could learn to aim a rifle, ride, and march with the best of the boys. (In fact, nearly a decade before the war, the special engineer formations described on p. 33 included many female soldiers, but it's not known how many of these *miners* survived the purges.) When the nation, en masse, turned to armed service, few Soviets would argue that a woman who wanted to join the men in uniform did not have the right to be there. The military even conscripted childless women. Initially it tried to keep them out of combat posts.

That began to change after the casualties of 1941. Suffering an acute manpower shortage, the Red Army began to loosen its stance on women in combat. Already, a handful of particularly insistent women had gone into combat, and state propaganda had eagerly made martyrs of those who had fallen. After 1942, it became far easier for a Soviet woman to convince the Red Army to give her a gun. In some dire circumstances, such as the siege of Leningrad, women even found themselves conscripted into hazardous combat duties.

Red Army men usually welcomed the distaff soldiers and watched their manners – too well, at times, by fighting in a chivalrous but foolish fashion when a female comrade was on the line. Soviet women had plenty of worries if the Germans caught them, just as German women had when the Reds arrived, but in their own lines decorum usually prevailed.

Despite this unprecedented military participation – which saw women become most of the army's medics and half of its doctors by 1944, and about 8% of the total personnel – most Soviet women stayed at home, as best they could. Many had children to look after; from the mid-1930s, the state had been encouraging motherhood, much as the Nazis were doing (see p. W:IC101). Those with seven or more children were honored as "Heroic Mothers of the Soviet Union" and received a government subsidy to defray their child-rearing costs. If mothers were needed for vital jobs in the war factories, the state provided child care.

ADVANTAGES, DISADVANTAGES, AND SKILLS

The following expands upon the options available to Soviet characters in the ***GURPS WWII*** core book.

ADVANTAGES

These descriptions cover existing advantages, providing specific detail for Soviet characters.

Patron see pp. W63, W181

The vast majority of Soviets during the war would possess no Patron in game terms. Arguably the state served as patron to all Soviets, but in these years of crisis it asked for huge sacrifices and offered limited support.

Many Soviets lacked even the low-key, occasional patrons or allies found in most cultures. The Soviet state severely weakened ties to church and family whenever it could, but failed to fully replace them as the social group to which a good Communist felt bonded. The nature of this relationship – every individual made dependent upon a neglectful state, with no human ties outside of that state – often led to a strong sense of uncertanty and isolation. When a Soviet needed help, he might easily feel that he had *no one* to turn to. Ironically, in a society intended to forge common cause, many learned the hard way that it was every good Communist for himself in a dog-eat-dog Soviet world.

Soviet Union Ranks

MR	*Army*	*Air Force*	*Navy*	*Political Officers*
8	Marshal Sovetskogo Soyuza*	Marshal**	–	–
8	General Armii†	General Armii	Admiral Flota	Armeisky Komissar
8	General-polkovnik	General-polkovnik	Admiral	Korpusnoy Komissar
7	General-leitenant	General-leitenant	Vitse-admiral	Divizionniy Komissar
7	General-major	General-major	Kontr-admiral	Brigadniy Komissar
6	Polkovnik	Polkovnik	Kapitan Pervogo Ranga	Polkovoy Komissar
5	Podpolkovnik	Podpolkovnik	Kapitan Tret'yego Ranga	–
4	Major	Major	Kapitan-leitenant	Batalionniy Komissar
4	Kapitan	Kapitan	Leitenant	Starshiy Politruk
3	Starshiy Leitenant	Starshiy Leitenant	Mladshiy-leitenant	Politruk
3	Leitenant	Leitenant	Michmann	Mladshiy Politruk
2	Starshina	Starshina	Glavnyy Starshina	–
2	Starshiy Serzhant	Starshiy Serzhant	Starshina Pervoy Stat'i	–
1	Serzhant	Serzhant	Starshina Vtoroy Stat'i	–
1	Mladshiy Serzhant	Mladshiy Serzhant	–	–
1	Efreitor	Efreitor	Starshiy Krasnoflotets	–
0	Krasnoarmeyets††	Krasnoarmeyets	Krasnoflotets	–

A "–" means there is no equivalent rank.

* Called Glavnyy Marshal in branches other than the infantry. Stalin held the ultimate rank of Generallisimus.

† Called Marshal in branches other than the infantry.

** Further air force ranks included Glavnyy Marshal and Marshal Sovetskogo Soyuza.

†† The term Ryadovoy on p. W63 means "ranker," and began replacing "red army man" as the formal grade in 1943.

As usual, Stalin was no perfect Communist on this issue. He had his favorites and flunkies, and a network of patronage filtered down through both the state and army networks. This was far less widespread than in other countries, however, and generally less reliable, as well. Stalin and most of the men serving him would abandon an underling far more casually than would their counterparts in other cultures. In game terms, this would be reflected by a lower frequency for the Patron's appearance than might otherwise seem appropriate.

Rank see pp. W62, W179

All members of the Soviet armed forces, including state security, have Military Rank as described in ***GURPS WWII***.

Party officials – including the political officers in the Red Army – have Administrative Rank rather than Military Rank. It works in exactly the same fashion, but it applies to the party apparatus rather than armed forces. (The entire point of the commissar exercise was that the party, through them, held authority over the military.) Technically, the two functions could overlap in one man, Stalin himself being the most notable example. Only the *highest* of these Ranks should cost points in these cases. A minor party official (Administrative Rank 2) who also was a colonel in the Red Army (Military Rank 6) would purchase only the latter 30-point Rank. The party office would add a bit of color, but very little depth, to his overall authority.

Partisans in the Red Army use their normal Military Rank. A civilian partisan held no formal Rank, even if he was regularly leading hundreds of fighters into battle. Any of those fighters might ignore his commands or even try to usurp his position. A civilian commander should have to work much harder to keep his men in line, to reflect the fact that no outside authority backs his own.

Wealth see p. W63

The Red Army never paid well. At the beginning of the war, the rank and file qualified for the Poverty (Poor) [-15] disadvantage. For the most part, a Red trooper didn't have much of anything on which to *spend* his rubles, even if they happened to be in his pocket. (Most soldiers signed away their pay to be sent home or invested in war bonds.) Non-rationed consumer goods almost ceased to officially exist during the war, although many items remained available on the city black markets at eye-popping prices.

The Soviet soldier's Poverty disadvantage also reflects the Red Army's material support, as described on p. W63. This was feeble through most of the early war. Bullets, grenades, bandages – even food – rarely arrived in abundance, and too often ran out altogether. In 1943, things began to improve. Increased war production and vast imports of Lend-Lease goods filled out the many deficiencies in equipment. A GM could rule that, from early 1943 or so, Soviet troops use the standard levels of Wealth on p. W63. More realistically, only guards units (p. 32) should be required to make this upgrade. Soviet non-combatants certainly did *not* see any similar improvement in their living standards.

This still doesn't mean there's anything on which to spend rubles. What trade there was took the form of barter – firewood for bacon for vodka for boots and so on – almost all of the time. After the Red Army enters eastern Europe, its troops can simply *take* just about anything that meets their fancy . . .

The official Soviet conversion rate to dollars bordered on pure fiction. To convert to economic values in the ***WWII*** core book, assume that $1 equates to 6 rubles. That will put salaries and costs roughly in line with real-world values.

DISADVANTAGES

Some character disadvantages were particularly common – or particularly crucial – among Soviet troops.

Enemies see p. W181

Some Soviets might have their own state as an enemy. Former purge victims released from the gulags to resume their military careers and members of suspect minority groups (see *Social Stigma*, below) are some of the more obvious candidates, as would be just about anyone who dealt extensively with the Germans before the invasion. Of course, those who vocally criticized the Communists before the fighting, even if they were now fully behind the war effort, would also be likely to qualify for this disadvantage.

This would almost always be a -40-point Enemy appearing on a 6 or less. The party isn't going to pull even moderately suspect people out of the fighting; they need warm bodies too much. Essentially, only the appearance of *current* treason will trigger the appearance of several NKVD goons, likely followed by a very rough interrogation and possibly further repercussions . . .

Fanaticism see p. W184

Stalin and his state maintained morale through a curious blend of Russian patriotism and Communist idealism. Many Soviets were ethnically Russian and ready to protect the motherland as their forefathers did in 1611 or 1812, even if they loathed Stalin and the party. Others weren't Russian, but saw the war as the great Marxist fight to preserve Communism from the evils of capitalism. Many combined the two ethics, despite the disparity between Russian pride and a Communist ideology that condemned nationalism. All of them saw Hitler as a mortal enemy, a fiend opposed to everything good that existed on this earth, who had to be defeated at any cost.

All of these perspectives can be defined as Fanaticism (Soviet), and the disadvantage would be common both among the ranks of the Red Army and in the factories back east.

One interesting aspect of this Fanaticism variant is that it usually includes a belief in the absolute inevitability of a Soviet victory. After all, no matter how grim circumstances looked, they had been at least as dire during previous invasions of Russia. In extreme cases, this manifests as a form of Overconfidence (see below). As implied in the Overconfidence description on p. W186, this can be an advantage in certain cases – helping to maintain morale where any sensible man would despair, for instance. More often, it will prove a further handicap . . . when prudence might save the day where faith will not.

The minority of Soviets who are unwilling to accept this blend of motivations – hot-blooded Russians who *still* hate Communists or purist Communists who simply *can't* tolerate the wartime Russian nationalism – would take Fanaticism (Patriotism) or (Communism), instead. The former would still have an irrational confidence in a Russian victory. Either perspective likely will lead to trouble when expressed, at least during the war years.

Stalin and his state maintained morale through a curious blend of Russian patriotism and Communist idealism.

Overconfidence see p. W186

Soviet social values cherished larger-than-life tasks and encouraged self-sacrifice for the sake of the greater good. Naturally, the state's wartime rhetoric emphasized these values, because they applied to soldiering even more than to building a huge dam or tractor factory.

Though these motivations aren't the same as Overconfidence, the end results are nearly identical. Enthusiastic Soviets might take this disadvantage to represent their "new man in a new age" idealism. Many with Fanaticism (Soviet) will embrace these ideas to an extent sufficient to warrant purchasing Overconfidence.

In either case, a Soviet with this version of Overconfidence does not assume that he will always escape harm. It simply assumes that some greater good, and glory, will be served by whatever cost he has to pay. This isn't quite selflessness. If there's no spotlight on the proceedings, those with this disadvantage may very well shrug and move along. If they're going to go out, they want to do it with a flourish.

Social Stigma see p. W180

Despite its Communist egalitarian rhetoric, the wartime Soviet Union considered ethnic Russians (who made up about half of the population) to be "first among equals" socially. Most other ethnic groups (such as Belorussians, Georgians, and Siberians) would suffer from a -1 (second-class citizen) level of this disadvantage for -5 points. Large ethnic groups of suspect loyalty (such as the Baltic peoples and the Ukrainians, who were abusively called *Khokli*) would increase this to -2 [-10]. Small ethnic groups of suspect loyalty (such as Crimean Tartars, Volga Germans, and Chechens) would increase this to -3 [-15].

Any individual from these ethnic groups can buy off one level of Social Stigma by adopting Russian mannerisms and the Russian language (see below) at skill 10 or higher. Taking a position with the party allows buying off one more level. Additional levels of Social Stigma based on ethnicity cannot be bought off except as part of a Secret (see p. W186).

SKILLS

Soviet campaigns should pay extra attention to the following issues with skills.

Languages see p. W191

Russian did not serve the Soviet Union as a common tongue nearly as well as English has served the United States. The various Soviet republics encompassed scores of peoples who had had their own cultures, values – and languages – for centuries prior to being folded into the Russian empire or USSR. This hodgepodge of tongues prompted the Communist founders to adopt a state emblem that proclaimed "Workers of the World, Unite" in 15 different official languages. Overall, the Soviet peoples possessed more than 200 native tongues.

Though the authorities spoke Russian – and Russian speakers generally could communicate anywhere within the nation except in remote areas – the state had not pushed "Russification" in language as much as is widely believed. In the '20s, the policy of *korenizatsiia* adopted local tongues for state education. Even with the rise of Russian nationalism in the mid-1930s, the massive task of enforcing a *lingua Soviet* did not become a top priority. This created the potential for a huge communications problem for the Red Army when the war against Germany began.

In the beginning, this challenge could be sidestepped easily enough by forming units of troops from the same region, which was the easiest method of turning conscripts into soldiers anyway. Later, though, as units evolved through several infusions of replacements, things could get quite mixed up. Soviet anecdote has it that a late-war captain could find himself leading a company in which the men spoke six different languages – none of them his own.

In rough order of their frequency in Soviet society, the languages that a Red Army trooper could encounter in his own ranks include: Russian, Uzbek, Kazakh, Azeri, Armenian, Tajiki, Georgian, Moldavian (Romanian), Lithuanian, Turkmen, Kirghiz, Latvian, Estonian, Tatar (Siberian), Karelian, Yiddish, Kurmanji (Kurdish), Chechen, and many more.

While Ukrainians and Belorussians (including both Belarusians and Byelorussians) are important ethnic groups within the Soviet system, their languages belong to the same Eastern Slavic family as Russian (-2 to default from any to another), so those peoples tend to speak Russian, or at least plod along in it at default well enough. The Orthodox church uses the Southern Slavic language of Slavonic, which defaults at -2 to Bulgarian or Serbo-Croatian (and any of these Southern Slavic languages defaults to another Slavic tongue at -4). The Western Slavic tongues of Slavic and Polish default to one another at -2 or any other Slavic tongue at -4.

Also, Yiddish and German default to one another at -3. Latvian and Lithuanian default to one another at -2.

Many native speakers of other languages will have Russian as a second tongue. This is more likely for those who grew up in a city rather than the countryside, for those who come from formerly Orthodox rather than Moslem backgrounds, and for those who traveled a lot while speaking a rare native tongue. Conversely, Baltic and Georgian peoples tended to resist using Russian.

A substantial minority of Soviets will speak German, particularly those with a good education. Those few individuals with aristocratic backgrounds who have survived until WWII will also, more often than not, know French.

Poetry see p. B47

Russians possess a passion for this art form probably unsurpassed anywhere else in the world. Wartime Soviet papers usually included poems, often written about the war. Recitals lasting hours were performed to packed houses. Any Soviet of any background would be justified in putting a few points into this skill. In some contexts, it can be substituted for the Bard skill when dealing with fellow Soviets.

STATUS

Communism had as its primary goal the eradication of status differences in society. That said, the Soviets' practical application of their political theory failed to completely eradicate status as a divisive social force. The standards changed greatly from those in western societies, and the effects went "underground" to the extent that few Soviets dared to suggest they remained in existence. Soviet practices also flattened the curve; most people had no particular status, and deviations either above or below "no particular status" became rarer. Still, the Soviet Union never engineered the truly classless society that it envisioned.

The following table gives examples of Status in Soviet society, and their monthly cost of living for civilians. See p. W66 for military adjustments. In the USSR, these bonuses also would apply to those who hold Administrative Rank in the party.

Status/Cost of Living Table

Level	*Example*	*Monthly Cost of Living*
8	Chairman Stalin	$2,500+
7	Politburo member	$1,000+
6	Secretariat or Orgburo member	$500
5	Central Committee member	$400
4	Party Congress member	$300
3	Famed intellectual, regional party leader	$200
2	Recognized intellectual, local party leader	$120
1	Academic, party functionary	$90
0	Ordinary citizen, party member or not	$60
-1	Extremely rural peasantry	$30
-2	Invalid, gulag prisoner	$5

In Soviet society, inability to afford the monthly cost of living for a given Status will not normally result in a temporary loss of Status. In the first place, the "money" isn't really there in most cases. Instead, the increased Status provides access to grander and finer state resources that effectively are counted in this cost of living. For instance, a machinist and a beloved intellectual might draw the same monthly wage, but at night the machinist returns to a grim concrete apartment while the intellectual lives in an exquisite flat once inhabited by a grand duke under Peter the Great. If he has to move into the machinist's quarters, however, it won't reflect poorly on him.

CHARACTER TEMPLATES

Most Soviet soldiers can be built using the templates on pp. W72-84. The following pages introduce new character templates that illustrate less conventional alternatives. See p. 33 for a discussion of modeling Soviet special forces.

FRONTOVIK 50 POINTS

Most Soviet troops were thrown into combat with relatively little training; they learned on the fly (p. 37). After surviving a few scrapes, they earned the slang honorific *frontovik*.

A frontovik has not necessarily learned how to be a good soldier by western standards; what he's learned is how to keep himself in one piece. His pack usually contains a few "requisitioned" extra rations, such as eggs (boiled so they'll keep longer) or a head of cabbage. He'll know every trick for staying warm within the limits of his meager resources; he and another frontovik will combine their greatcoats and shelter halves to form an efficient two-man sleeping bag.

On maneuvers, the frontovik isn't quite a match for the more standard rifleman described on p. W50, but if left stranded for several January weeks, the frontovik is much more likely to emerge in good health and ready to resume the march.

Attributes: ST 11 [10]; DX 11 [10]; IQ 11 [10]; HT 11 [10].

Advantages: Fit [5] and 20 points in *National Advantages* (see p. W68).

Disadvantages: Extremely Hazardous Duty [-20] and -30 points in *National Disadvantages* (see p. W69).

Basic Skills: Camouflage (M/E) IQ+1 [2]-12; Fast-Talk (M/A) IQ-1 [1]-10; Gunner (Machine Gun) (P/A) DX [1]-11*; Guns (Light Auto) (P/E) DX+1 [1]-12*; Guns (Rifle) (P/E) DX+2 [2]-13*; Hiking (P/A – HT) HT-1 [1]-10; Scrounging (M/E) IQ+2 [4]-13; Soldier (M/A) IQ+1 [4]-12; Stealth (P/A) DX+1 [2]-12; Survival (Arctic) (M/A) IQ+1 [4]-12; Throwing (P/H) DX-2 [1]-9; Traps (M/A) IQ-1 [1]-10.

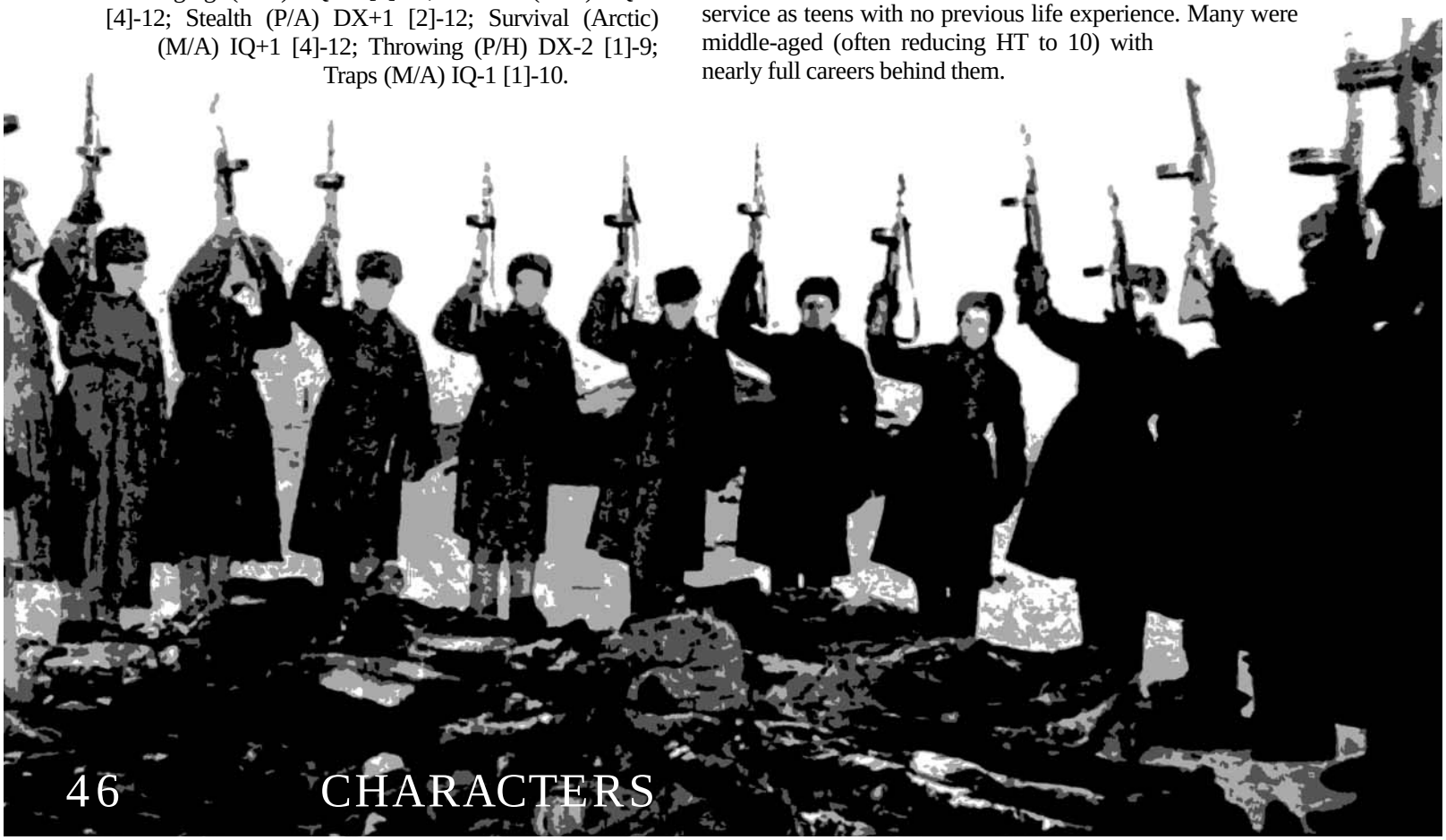
Secondary Skills: Brawling (P/E) DX [1]-11; Climbing (P/A) DX-1 [1]-10; First Aid (M/E) IQ-1 [1/2]-10; Knife (P/E) DX [1]-11; NBC Warfare (M/A) IQ-2 [1/2]-9; Spear (P/A) DX-1 [1]-10.

Optional Skills: Spend 6 points on any of Bicycling, Guns (Flamethrower or Pistol), Motorcycle, or Swimming (all P/E); Boating, Driving (Automobile or Construction Equipment), Gunner (Cannon or Mortar), or Riding (Horse) (all P/A); Carousing (P/A – HT); Skiing (P/H); Area Knowledge (any), Cooking, Savoir-Faire (Military), or Telegraphy (all M/E); Administration, Armoury (Small Arms), Demolition, Electronics Operation (Communications), Forward Observer, Freight Handling, Gambling, Intimidation, Mechanic (Gasoline Engine), Orienteering, or Teamster (all M/A); or Animal Handling, Engineer (Combat), or Explosive Ordnance Disposal (all M/H).

* Includes +1 for IQ.

Customization Notes: This template would never be used to portray new arrivals to the front; at least 10 points in it represent field experience. To represent guards or other Soviet infantry trained to average proficiency before entering combat, use the standard *Rifleman* template on p. W72.

The GM should also allow a frontovik to spend optional or extra points on civilian background skills (see pp. W70-71). A relatively small percentage of Red Army troopers entered service as teens with no previous life experience. Many were middle-aged (often reducing HT to 10) with nearly full careers behind them.



TANK HUNTER 60 POINTS

The Red Army fielded thousands upon thousands of anti-tank rifles (see pp. 31 and 62). For the most part, these were ineffectual. When the Germans invaded, they were already in the process of phasing out their own AT rifles. They stacked the countless captured Red rifles like so much scrap.

Still, the AT rifles were what the Soviets had, they tried to make the most of them, and used with skill they could become quite a distraction to armored forces. AT rifles generally ended up in the hands of aggressive soldiers who set out to do as much damage as they could, using shrewd tactics to make up for their obsolete weaponry. This template illustrates the shrewdest of the bunch, the only ones likely to survive more than one or two encounters with the enemy.

Though the rifles could be aimed to ranges exceeding 1,500 yards, the preferred tactics called for engaging within 350 yards at least, ideally 100 yards or closer. AT riflemen would carefully choose firing positions that would place them this close when the German armor advanced. In urban areas, they preferred the ruins of buildings, while in the country they tried to dig foxholes beneath natural concealment such as a bush. Being hidden from the air was almost as important as being hard to see from the enemy's approach.

This position had to provide cover from artillery fire, and ideally would offer a clear line of sight both to the target as it drew closer and back to the AT rifleman's commander and the rest of his unit. The tank hunters then would prepare alternate firing positions (usually some 15 to 30 yards away in each direction) and ideally even concealed passage between them, such as a trench just deep enough to crawl through unseen. The gunners wanted to be able to fire in as many directions as possible, as well.

When firing from a height, the gunners took care to keep the "military crest" in mind, preferring to fire from one side of the elevated cover rather than directly over its top. They also tried to avoid "first-guess" cover, such as the only tree on a field or the only house in sight, but this was easier said than done in the open steppe.

The German armor rumbling up might be panzers, but it also might be much more vulnerable scout cars or halftracks. These thin-skinned vehicles could be attacked frontally. The AT gunners would usually start by trying to neutralize their weapons. Against heavily built weapons, good marksmen might instead aim for the vision blocks or periscopes, hoping to disable the device and possibly injure the crewman behind it. The Germans could replace these from within most vehicles, but they didn't carry an infinite number of spares.

Against panzers, the AT gunners preferred to relocate as necessary to obtain a side shot, unless the tank had side skirts. (The Germans first developed the standoff armor described on pp. W140-141 to protect their armor from these rifles; it only later proved equally useful against HEAT rounds.) From the side, if their incendiary ammo had a good chance to penetrate the hull, the AT riflemen would immediately try to set it ablaze (see p. W156). Otherwise, they would aim for the relatively vulnerable treads, hoping to immobilize their target. Against skirted tanks, they fired as against frontal targets.

After firing five to 10 rounds, the savviest gunners would relocate even if the Germans had not yet begun to return fire. If spotted they would try to run in such a way as to get the armor to expose its sides to another AT team. If a target no longer could move or fire back, the tank hunters could fire repeated side shots until a lucky one finally set afire even the stoutest panzer. (In game terms, they would be waiting for a critical hit or success as described on p. W175.)

In offensives against German lines, AT riflemen often found themselves turned into support units, called up to dispatch MG nests, log bunkers, and the like.

Tank hunters might fall victim to their own rifles. Their powerful recoil could cause shoulder and even spinal injury.

Attributes: ST 11 [10]; DX 11 [10]; IQ 12 [20]; HT 11 [10].

Advantages: Fit [5] and 20 points in *National Advantages* (see p. W68). Tank hunters may also take Fearlessness [2/level] as part of their *National Advantages*.

Disadvantages: Extremely Hazardous Duty [-20] and -30 points in *National Disadvantages* (see p. W69).

Basic Skills: Camouflage (M/E) IQ+1 [2]-13; Guns (Light Auto) (P/E) DX+2 [1]-13*; Guns (Rifle) (P/E) DX+4 [4]-15*; Hiking (P/A – HT) HT-1 [1]-10; Jumping (P/E) DX-1 [1/2]-10; Scrounging (M/E) IQ [1]-12; Soldier (M/A) IQ+1 [4]-13; Stealth (P/A) DX+1 [4]-12; Survival (Arctic) (M/A) IQ [2]-12; Tactics (Infantry) (M/H) IQ [4]-12; Throwing (P/H) DX-1 [2]-10; Traps (M/A) IQ-1 [1]-11.

Secondary Skills: Brawling (P/E) DX [1]-11; Climbing (P/A) DX-2 [1/2]-9; Engineer (Combat) (M/H) IQ-2 [1]-10; First Aid (M/E) IQ-1 [1/2]-11; Knife (P/E) DX [1]-11; NBC Warfare (M/A) IQ-2 [1/2]-10; Spear (P/A) DX-1 [1]-10.

Optional Skills: Spend 3 points on any of Bicycling, Guns (Pistol), Motorcycle, or Swimming (all P/E); Driving (Automobile), Gunner (Cannon, Machine Gun, or Mortar), or Riding (Horse) (all P/A); Carousing (P/A – HT); Skiing (P/H); Area Knowledge (any), Savoir-Faire (Military), or Telegraphy (all M/E); or Armoury (Small Arms), Demolition, Electronics Operation (Communications), Forward Observer, Gambling, or Orienteering (all M/A).

* Includes +2 for IQ.

Customization Notes: Teams throwing Molotov cocktails (see p. W98) often backed up – or replaced – the AT riflemen in tank-hunting operations. These generally would be lower-quality troops with less skill in Guns (Rifle), a bit more in Throwing, and none in Tactics (Infantry). Their job was tougher but less complex. They had to hide well enough for the panzer to come within throwing range – or creep that close against a stationary target – but they didn't worry about the target's facing or multiple firing positions. They rarely would have time for more than two or three lobs before retreating with all haste or being shot down.

COSSACK 75 POINTS

The Cossack horsemen lived in the USSR's southern stretches. Their reputation was as colorful as their history. Descended from escaped criminals, frontiersmen, and others who simply yearned to live free, the Cossacks for centuries had mounted up and made a sporadic living as highwaymen or sabers for hire. At times, they greatly expanded Russia's borders, exploring eastward into Siberia in a retrograde version of the American cowboy experience. Before the revolution, the Cossack community had grown insular and angry. They gladly served the tsar as his bully boys, especially when pointed at Jews, Catholics, or anyone else who didn't fit into the Orthodox Russian mainstream – especially those subversives, the Bolsheviks. Many Cossacks fought in the White armies of the Civil War.

The victorious Soviets took their revenge and naturally remained wary, but times gradually changed. The latest Cossack generation began to forge a wary peace with the Red regime, putting a new value on education and the benefits of a sedentary life often centered on farming fruit. The Soviets in turn reintroduced Cossack units into the army (p. 29) and fielded them with a fairly high confidence in their loyalty. While the invading Germans frequently were greeted as liberators when they reached the Cossack lands (p. 107), many of the Cossack units – probably a considerable majority – remained true to the Red Army.

The Cossacks who filled the ranks as the war began were those of military age, men who had grown up in Soviet times and had lost much of the intolerant, prickly ways of their forefathers. As the war expanded, those forefathers – men who had swung swords at Communist heads a generation earlier – also came to join the cause. They often served as simple troopers under officers they had seen raised from diapers.

Romantics by the standards of the times, Cossacks usually fought as cavalry. They preferred their sabers to rifles; no samurai ever held more reverence for naked steel. An opponent who held up his arms in surrender could just about be assured that his amputated hands would come tumbling down in front of his face, but usually these savage horsemen found simple amputation of an extended extremity somewhat pedestrian. They preferred to parse an enemy into as many pieces in as few passes as possible, aiming to cleave through torso and various limbs all in one masterful stroke.

Beyond their saber lust, Cossacks tended to fight shrewdly. They'd ride hard for nights on end to surprise the Germans, and stay intermingled with heavy or armored opponents to reduce their advantages. They often took heavy losses – cavalry always did in this war – but generally shrugged them off as the cost of waging war in the time-honored Cossack fashion.

Attributes: ST 12 [20]; DX 12 [20]; IQ 11 [10]; HT 11 [10].

Advantages: Fit [5]; Reputation (Cossack) +2 [10]; and 20 points in *National Advantages* (see p. W68).

Disadvantages: Extremely Hazardous Duty [-20]; Social Stigma (Small suspect but Russianized group) [-10]; and -25 points in *National Disadvantages* (see p. W69).

Basic Skills: Animal Handling (Horses) (M/H) IQ-2 [1]-8/14; Broadsword (P/A) DX+2 [8]-14; Gunner (Machine Gun) (P/A) DX [1]-12*; Guns (Light Auto) (P/E) DX+1 [1]-13*; Guns (Rifle) (P/E) DX+2 [2]-14*; Knife (P/E) DX [1]-12; Scrounging (M/E) IQ [1]-11; Soldier (M/A) IQ+2 [6]-13; Stealth (P/A) DX-1 [1]-11; Survival (Arctic) (M/A) IQ [2]-11; Traps (M/A) IQ-2 [1/2]-9.

Secondary Skills: Armoury (Small Arms) (M/A) IQ-1 [1]-10; Brawling (P/E) DX [1]-12; Camouflage (M/E) IQ [1]-11; First Aid (M/E) IQ-1 [1/2]-10; Orienteering (M/A) IQ-1 [1]-10; Swimming (P/E) DX [1]-12.

Optional Skills: Spend 5 points on any of: Guns (Pistol) (P/E); Driving (Automobile or Tracked), Gunner (Cannon or Mortar), or Lance (all P/A); Carousing (P/A – HT); Area Knowledge (any), Cooking, Leatherworking, Savoir-Faire (Military), or Telegraphy (all M/E); Administration, Agronomy, Demolition, Electronics Operation (Communications), Forward Observer, Gambling, Intimidation, NBC Warfare, or Teamster (all M/A); or Engineer (Combat), Literature, or Packing (all M/H).

* Includes +1 for IQ.

Customization Notes: The Cossacks' fierce Reputation is effectively beneficial at all times; even those who hate them hesitate before confronting them. Still, they suffer a Social Stigma to reflect their reputation among Soviets.

Older Cossacks would likely have Intolerance, and the Social Stigma at -15 for lack of Russian manners (p. 44). Younger Cossacks might be well-educated, something like gentleman farmers with extensive libraries and a wide range of academic interests – all set aside while they mount up for war.

Night Witch — 60 points

Thousands of girls learned to fly in the prewar "club" programs (p. 29). When the war began, many of them volunteered to join the air force. Military officials initially hesitated to send women into aerial combat, but the Luftwaffe's successes soon convinced them that any help would be welcome in this hour of need.

On Oct. 8, 1941, the air force formed three regiments to be staffed entirely by volunteer female pilots, air crews, and support personnel: the 586th Fighter flying the YAK-1 (p. 84), the 587th flying the SU-2, and the 588th flying the U-2 (also called the Po-2; p. 87). The eager new 588th pilots were assigned to an aged biplane trainer with two seats, roughly converted to carry up to 800 lbs. of ordnance. The plane had no armor, no closed cockpit, no modern improvements of any sort.

The female aviators made do. Bundled up against the frostbitten conditions of open flying in a Russian winter, the 588th took off in their "sewing machines" in all sorts of weather and flew toward the lines at only about 2,800' – an altitude that left little margin of error in night flying and only barely put them out of danger from their own explosives.

Once over German lines, they usually ended up dancing through AA fire and probing spotlight beams. They learned to attack in trios: Two planes diverted the lights and fire while the third dived to deliver its load, then they traded roles for the next two bomb runs before puttering their way home. At times, the navigators would have to get out and pry the iced-over bombs off their racks, especially if captured German ordnance had been converted to fit their mounts by hand and hammer.

With these nuisance attacks ruining their sleep (p. 99), the Germans took to calling their pesky opponents "the Night Witches." Rumor in their camps had it that the women took special injections that gave them the nocturnal eyesight of a cat.

Though they lacked magic, the pilots did come to realize that their cheap little biplane was well suited for the job. It almost took work to crash the novice-friendly Po-2, despite its nimble handling. A Night Witch with a fighter on her tail could often shake it – and even trick the Luftwaffe pilot into crashing – by diving dangerously low, then pulling into a steep climb. Her plane would not stall in this attitude; it simply nosed down to pick up what speed it needed. Bf 109s and the like were not so forgiving. Additionally, the Po-2 could take off from or land at the most primitive facilities, allowing the regiment to operate from tiny and almost invisible airfields a few miles behind the lines. It also could be "turned around" – made ready for its next combat flight after returning from the last one – in 5-7 minutes. This proved crucial during periods of busy ground fighting, when the women often were called to fly a dozen or more support missions each and every night.

The Night Witches served throughout the war, with those who survived racking up 1,000 or more combat missions apiece and taking part in the final assault on Berlin.

Attributes: ST 10 [0]; DX 12 [20]; IQ 12 [20]; HT 11 [10].

Advantages: Fit [5]; Military Rank 2 [10]; and 20 points in *National Advantages* (see p. W68). Night Witches may take Acute Vision [2/level] in their *National Advantages*.

Disadvantages: Extremely Hazardous Duty [-20] and -30 points in *National Disadvantages* (see p. W69).

Basic Skills: Aviation (M/A) IQ+2 [6]-14; Gunner (Bombs) (P/A) DX [1/2]-12*; Gunner (Machine Gun) (P/A) DX [1/2]-12*; Navigation (M/H) IQ-1 [2]-11; Piloting (Single-Engine Prop) (P/A) DX+2 [8]-14.

Secondary Skills: First Aid (M/E) IQ-1 [1/2]-11; Mechanic (Propeller Plane Engine) (M/A) IQ-1 [1]-11; Guns (Pistol) (P/E) DX+1 [1/2]-13*; Scrounging (M/E) IQ [1]-12; Survival (Arctic) (M/A) IQ [2]-12.

Optional Skills: Spend 3 points on any of Bicycling, Guns (Rifle), Knife, Swimming, or Parachuting (all P/E); Driving (Automobile) (P/A); Area Knowledge (any) or Telegraphy (both M/E); Administration, Armoury (Vehicular), Electronics Operation (Communications), Meteorology, or Photography (all M/A); or Explosive Ordnance Disposal (M/H).
* Includes +2 for IQ.

Customization Notes: Needless to say, Night Vision would be very useful, if somewhat cinematic. The 1,000-mission veterans in 1945 would be built on *many* more points!

Women in the 586th Fighter Air Regiment would have skills more like those of the *Fighter Pilot* template on p. W83. Those in the 587th Air Regiment would be based upon the *Bomber Crewman* template on p. W82, with skills dependent on crew position. Both of these regiments earned their own honors, but had a large percentage of male leadership and support, and did not generate the German reputation or Soviet press coverage bestowed upon the Night Witches.

COMMISSAR 60 POINTS

The political officers who monitored the Red Army for the Communist Party suffered a reputation as pig-headed ideologues – but, as was usual in the USSR, *dangerous* pig-headed ideologues – who often understood little about military realities. While some of them lived down to this stereotype, others were far more rounded individuals.

On paper, a commissar's primary job was to develop Communist ideology among his subordinates, but he also had responsibilities in quartermastering and counterintelligence, and was expected to serve as a sort of counselor in this army without chaplains. In practice, some commissars interpreted the "selfless devotion to the Party of Lenin and Stalin and socialist motherland" that they were supposed to instill to mean that they could simply tell the men what they were going to do, and the most basic elements of why, and expect them to perform like automatons. This sort of political officer also felt that their counterintelligence responsibilities gave them the right to ask anyone in their unit accusatory questions about anything. The worst of them drank heavily and envisioned anti-Bolshevik conspiracies around every corner.

Of course, most commissars handled their role a bit more delicately. The best of them genuinely cared about the men in their unit, could ask about the health of their family members by name, and generally built morale with sugar rather than salt, while developing their own skills as military officers in case they should be called upon to command.

In either case, the commissars' powers slowly declined during the war years. From Barbarossa to 1942, the political officer had to sign any orders along with a unit's commanding officer. In 1942, they lost their powers of oversight of their commander, though they could of course report any suspected treason. In early 1943, they were converted into regular Red Army officers; most of them took command of newly formed units after this point.

Attributes: ST 10 [0]; DX 11 [10]; IQ 12 [20]; HT 11 [10].

Advantages: Administrative Rank 3 [15] and 20 points in *National Advantages* (see p. W68).

Disadvantages: Extremely Hazardous Duty [-20]; Fanaticism (Soviet or Communism) [-15]; and -15 points in *National Disadvantages* (see p. W69).

Basic Skills: Administration (M/A) IQ [2]-12; Intelligence Analysis (M/H) IQ [4]-12; Interrogation (M/A) IQ+1 [4]-13; Intimidation (M/A) IQ+1 [4]-13; Philosophy (Communist) (M/H) IQ [4]-12; Soldier (M/A) IQ-2 [1/2]-10; Stealth (P/A) DX [2]-11.

Secondary Skills: Acting (M/A) IQ-1 [1]-11; Criminology (M/A) IQ-1 [1]-11; Guns (Light Auto) (P/E) DX+1 [1/2]-12*; Guns (Pistol) (P/E) DX+3 [2]-14*; Guns (Rifle) (P/E) DX+2 [1]-13*; Holdout (M/A) IQ-1 [1]-11; Survival (Arctic) (M/A) IQ [2]-12.

Optional Skills: Spend 6 points on any of Knife, Swimming, or Motorcycle (all P/E); Boating, Boxing, or Driving (Automobile) (all P/A); Hiking (P/A – HT); Area Knowledge (any), First Aid, Savoir-Faire (Military), or Telegraphy (all M/E); Armoury (Small Arms), Electronics Operation (Communications), Lockpicking, Shadowing, or Traps (all M/A); Forgery, Law, or Tactics (per assignment) (all M/H); or additional languages.

* Includes +2 for IQ.

Customization Notes: Commissars must convert their Political Rank into Military Rank in January 1943. Generally, they will lose a level of real-world rank (p. 43) in this process. (For instance, a batalionniy komissar would become a Red Army kapitan.) If this loss in real rank causes the character to drop a level in ***GURPS*** Rank, the GM might consider allowing the player to invest those 5 lost points into officer skills (see p. W70), provided the commissar is sent off to receive some additional schooling before returning to the field as a Red Army officer. (For the most part, they did receive this training, although it may have been galling to some individuals. Former political officers advanced in years and experience sometimes sat alongside young, raw officer candidates in basic courses . . .) If the converted commissar does not receive this training, and has not taken the opportunity to invest in officer skills using points earned from experience, he may very well be incompetent at his new role.

When regular Red Army soldiers encounter a new commissar, they generally treat him warily but with respect. Once they get to know him, they will tend to loathe him as one of "those" political officers or overreact to the good ones and appreciate them to the same degree. Thus, political officers usually have a Reputation within their own unit, often an extreme one, but it can be either good or bad.

Most commissars handled their role a bit more delicately. The best of them genuinely cared about the men in their unit . . . and generally built morale with sugar rather than salt . . .

OPOLCHENIE 25 POINTS

In the darkest days of 1941, great stretches of the front saw the Red Army's troops break under the German pressure. Gaps appeared where the Wehrmacht encircled whole armies at once, and in other places where unseasoned defenders simply threw down their weapons and fled. Time and again, at points along the entire line, units of volunteer workers took up arms with no training or support, filled the soldiers' places in the defense works, and held back the Wehrmacht long enough for the troops to regroup and return to the fight (see p. 36).

These worker-fighters were all volunteers, though the nature of volunteering could be a bit different in the Soviet Union of this day.

No one confused the heroism of these *opolchenie* with real military effectiveness. It's doubtful that any of them ever were asked to do anything more than provide a static defense, and even that only at an extreme. (Most volunteer formations of this sort were used only to *build* defenses, not man them. In a sense, the famous women of Moscow were doing opolchenie duty when they built the antitank rings around their city in the winter of 1941.) Regardless, when they did fight, they slowed the advancing Germans just when a bit more time would make all the difference in the world, allowing the Red Army to regroup and call in reserves.

These worker-fighters were all volunteers, though the nature of volunteering could be a bit different in the Soviet Union of this day. Any Communist Party member was expected to offer his services, for instance. Enlisting was as simple as visiting the nearest Party Committee in town or at a major factory. The volunteer allowed his name to be put on a list. He had a few hours to put whatever affairs he had in order; then someone handed him a rifle and pointed him to the front, perhaps with a group of his fellow factory workers, perhaps alone.

Obviously, this provided no time for training, and the quality of arms available in such circumstances tended toward the bleak. On the other hand, most of the older male workers would have some half-remembered military experience from the Great War or Civil War to rely upon, and few volunteers were allowed to enter battle *completely* ignorant of how to handle a weapon. The older veterans looked after their comrades and taught them at least the rudimentary lessons. In addition, some of the political officers who formed opolchenie units might have experience dating back to the revolution. In that conflict, the Communists fielded similar worker battalions, called the Red Guards (p. 32). In game terms, a political officer would have to have very high skills in Leadership and Tactics (Infantry), and probably Teaching, as well, to turn a crowd of civilians into any approximation of a military unit in, at best, a few days.

No matter how well any particular opolchenie unit might have done in the actual fighting, once the crisis was over they were asked to stand down and resume their civilian lives. After all, these were citizens whom the Red Army had already determined were unfit – or too valuable – to serve in the ranks.

Attributes: ST 11 [10]; DX 11 [10]; IQ 10 [0]; HT 10 [0].

Advantages: A total of 25 points in *National Advantages* (see p. W68) or appropriate civilian advantages.

Disadvantages: Duty [-15] and -25 points in *National Disadvantages* (see p. W69) plus see *Customization Notes*.

Basic Skills: Agronomy (or other civilian job skill) (M/A) IQ+2 [6]-12; Area Knowledge (Home Region) (M/E) IQ+1 [2]-11; Guns (Rifle) (P/E) DX [1/2]-11*; Scrounging (M/E) IQ [1]-10.

Secondary Skills: First Aid (M/E) IQ-1 [1/2]-9; Knife (P/E) DX [1]-11; Survival (Arctic) (M/A) IQ [2]-10.

Optional Skills: Spend 7 points on any of Bicycling, Brawling, Motorcycle, or Swimming (all P/E); Boating, Climbing, Driving (Automobile or Tracked), or Riding (Horse) (all P/A); Hiking (P/A – HT); Throwing (P/H); Cooking (M/E); Administration, Armoury (Small Arms), Freight Handling, Intimidation, NBC Warfare, Soldier, Streetwise, or Teamster (all M/A); or Engineer (any) (M/H).
* Includes +1 for IQ.

Customization Notes: This is essentially a civilian template, assuming a male in his late 30s or early 40s, once rather athletic but beginning to decline with age. If not a farmer, he might be a metalworker (treat this as a M/A professional skill per p. B58), a factory foreman (add Administration, possibly a professional skill, and possibly an Engineer specialty), a truck driver (Driving and Freight Handling, possibly with more points in Area Knowledge), etc. In all cases, the points in Agronomy may be traded in and used, along with the optional skill points, to flesh out a daily trade.

All such civilians should have grounds for being bypassed by the army. They might simply be old enough to make conscription unlikely; at this point, that would be about 33 or older. Others might have a crucial wartime job; such positions could include farming (where no women or youths are readily available to take over the assigned plot), skilled technicians in crucial war industries (such as those assembling gun-sighting mechanisms, where female replacement workers will take months to train), and others. Or they could simply have one of the forbidden disadvantages described on p. W70.

MAJOR PERSONALITIES

The following pages describe a few of the most important figures in the Soviet Union, in enough detail for the GM to use them as NPCs, either in play or offscreen.

Where applicable, a brief description of the person's defining traits is provided. These descriptions will be calibrated toward a realistic campaign, in which 100-point PCs represent elite enlisted personnel or very competent officers. In more cinematic campaigns, attributes should increase 1-3 points and skill levels 1-8 points, so that these personalities remain above the crowd.

Lavrenti Beria

NKVD chief and USSR deputy prime minister, 1899-1953, a short, plumpish, and pale man with moist palms and clerkish looks.

Perhaps more feared than Stalin himself, Beria headed the Soviet Union's formidable array of internal-security organizations. A Georgian like Stalin, though he didn't look it, Beria had joined the Bolsheviks in 1917 as an informer in his native land. Though widely credited with leading the late-'30s purges, many of the excesses took place under his two predecessors. The most recent, Nicolai Yezhov, had raged so far out of Stalin's control that he brought in Beria – who had already killed many times for his patron – as a replacement. Legend has it Beria strangled Yezhov himself.

During the war, Beria's NKVD troops kept a grim stranglehold on any dissension either at the front or in the Soviet rear. They are also responsible for massacring countless political prisoners to keep them from ending up in German hands. Beria himself might take part in beating an important political prisoner, but he'll insist that all present take part as well.

After Stalin's death, Beria tried to take his place. A coalition of other officials, including Nikita Khrushchev, had him arrested and executed. They revealed enough sordidly non-Soviet behavior, including the rape of young girls, to justify Beria's removal after the fact.

Beria's appearance might merit a -1 reaction [-5] while his habitual expression of smug irony generated enough attention to qualify as an Odious Personal Habit for an additional -1 [-5]. These modifiers would pale in comparison to his Military Rank 8 [40] as NKVD chief and Status 6 [15, given the free 3 levels from Rank]; then again, in most circles, Beria has a Reputation -4 ("Beria the Butcher"). Before rising to become a direct report to Stalin, he favored using his high Politics (perhaps skill 15) and supporting skills to trap his superiors in compromising situations, often with married women. In Stalin's case, it's likely that Beria had personally placed so many skeletons in the dictator's closet that no special measures were required.

Ilya Ehrenburg

Top propagandist, 1891-1667, a civilian with unkempt hair and clothes, sad and magnetic eyes, and a sarcastic manner.

Fleeing Russia in 1908 to avoid trial as a revolutionary, Ehrenburg landed in Left Bank cafe society in Paris, where he provided a fellow expatriate named Lenin the latest news from home. He led a roaming, cosmopolitan lifestyle as a novelist who savaged just about all politics and religion before settling back in the Soviet Union in 1941.

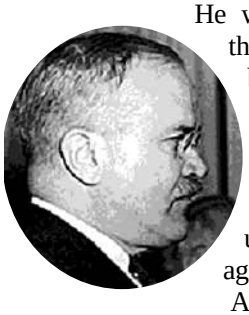
During the war, his critical pen focused on the Germans, about whom he wrote blistering propaganda. In his pamphlet "Kill," he proclaimed, "If you have not killed at least one German a day, you have wasted that day." With millions of Red soldiers reading his unrestrained exhortations, he generally is credited with contributing a great deal to the army's conduct in Germany (p. 125).

Ehrenburg would have skills of about Writing-16 and Philosophy (Communist)-12, with extensive Area Knowledge of western Europe for a Soviet citizen and some points in the French and Yiddish languages. His Reputation would vary immensely; many famous artists considered him one of their own – and his best work was very good – but for others his nearsighted war work obscured everything else that he did.

Viacheslav Molotov

Commissar for Foreign Affairs, 1890-1986, a stocky man with a no-nonsense demeanor.

Viacheslav Skriabin changed his name to Molotov ("the hammer") when he became involved in Bolshevism as a teen. He worked his way up the party ladder through the years leading to WWII, becoming the Soviet Union's chief diplomat in 1939.



Though widely regarded as a toady, Molotov was not afraid to confront Stalin, who seemed to trust his underling's loyalty even when they disagreed.

After Stalin's death, Molotov's influence ebbed. He gradually lost his positions and party membership.

Molotov's distaste for dancing around issues, and often acid tongue, made him an imperfect emissary. He may simply not have known how western diplomacy was conducted, or he may not have cared. He would have at best Diplomacy-12, but any attempts to deceive him would have to overcome an IQ 13 [30], Strong Will +2 [8], and Detect Lies-14. He also would possess at least Politics-14 and Strategy-12, because he usually had a very clear picture of the situation. Molotov generally knew what he needed to accomplish, even if he did not always know how to accomplish it.

Marina Raskova

Aviation pioneer, 1912-43, an engaging woman with a plain manner and dress.

Before the war, Raskova's exploits had made her the most celebrated of the Soviet Union's female aviation pioneers. In 1934, she became the nation's first female navigator. Four years later, she and two companions had set off on a world-record 3,700-mile flight across their vast nation. When their plane iced up over Siberia, the crew threw out everything they could, but this failed to lighten the plane enough to keep it aloft. Raskova volunteered to bail out. The other two women finished the flight and a hunter guided Raskova back to civilization.

Once the fighting started, Raskova led the petitions to let women fight in the air force, and was instrumental in the formation of the "Night Witches" and other regiments (p. 49). She herself commanded the 587th, but died on Jan. 4, 1943, crashing a bomber into the high bank of the Volga while trying to deliver the plane to Stalingrad in a snowstorm.

Raskova held Military Rank 4 [20] as a major and enjoyed a Reputation +4 [20] for the Hero of the Soviet Union medal awarded to her in 1938. She also had Appearance (Attractive) +1 [5] and Charisma +1 [5]. Her flying achievements merit at least Navigation-15 and Pilot-14 on both single- and twin-engine planes, while her track record in forming the air regiments suggests at least Administration-12, Leadership-15, and Bard-13. Just about anybody is going to have a hard time saying "no" to her, Stalin included.

Josef Stalin

Secretary general of Central Committee and effective dictator, 1879-1953, short and stocky with pockmarked skin and a heavy Georgian accent to his Russian.

Stalin may have had a deep and inhumanly cold revolutionary spirit, or he may have been an extraordinary opportunist. Regardless, he ruthlessly accumulated power, whether he thought he was working in the interests of the party or just of Josef Stalin.

In a bit of racist profiling, his Soviet contemporaries called him "asiatic" in temperament, meaning he exhibited the tough-minded and often cruel cunning that they expected from their southern neighbors. Certainly, he was unafraid to spill blood, enough to fill a Siberian river. Still, many of those closest to him argued to their deaths that he only did what the dire times demanded, and some still take that stand in the new Russia.

GURPS Who's Who 2 provides a full portrait of Stalin on pp. 104-105. He has IQ 12 [20], Status 8 [25, given that he would also have Military Rank 8 during the war], Strong Will +4 [16], Bully [-10], Paranoia [-10], and a host of Secrets relating to dark and underhanded dealings on his way to the top of the Soviet system . . .

Semën Timoshenko

Red Army marshal, 1895-1970, a bald but powerfully built man often in ornate uniform weighed down with countless decorations.

Timoshenko fought throughout the Great War and the civil strife to follow, battling Cossacks in the Crimea and Poles before Warsaw while enduring four wounds. Afterward, he studied to become a career officer at the Frunze Academy (p. 28) before returning to service.

During the war with Finland, he enhanced his reputation considerably by salvaging what had become a costly and embarrassing debacle. Made the Red Army's top commander, he began some questionable reforms, which were still under way when the Germans invaded, and supported the concept of defending the nation solely by vigorous counterattack. When this did not work out as planned, Stalin took over his role as commissar of Defense, but Timoshenko remained among the highest authorities while commanding various fronts through the rest of the war.

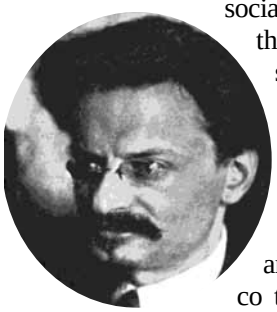
Timoshenko has Military Rank 8 [40], Status 5 [10, given 3 free levels from Rank] as a Central Committee member, and probably a Reputation of +3 [15]. Normally, his many medals would qualify for a +4, but as a Soviet political insider he would suffer from the effect described for U.S. officers on p. W42, where their medals mean less because they are perceived to have done less to earn them.

Leon Trotsky

Soviet dissident, 1879-1940, a man of mildly eccentric appearance and highly polished manners – until he takes exception to some point of political philosophy . . .

Though Trotsky did not play a role in WWII, the *threat* that he would might have led to his assassination. The enigmatic former war commissar may have been the one man that Stalin feared more than Hitler himself.

Trotsky joined the revolution while studying mathematics, forming political groups with a zeal that landed him among the early Siberian exiles. Meeting fellow refugee Lenin in London, they worked together but formed distinct perspectives on socialism, with Trotsky more moderate than his hard-nosed colleague. He soon toughened his outlook to make an accommodation with Bolshevism; his later career is described in Chapter 1.



After his fall, Trotsky found no country eager to take him, until the artist Diego Rivera persuaded Mexico to offer asylum in 1937. There he lived until his murder (p. 10).

To his critics, Trotsky's own estimate of his intellect consumed him. He could not force himself to listen to alternate perspectives with patience, and he fatally underestimated Stalin as "the gray blur" or "outstanding mediocrity of our party."

In game terms, Trotsky could exhibit a streak of Megalomania [-10], which also requires Fanaticism (Self) [-15], though this was usually fairly well hidden. He also had an Odious Personal Habit -2 (Sharp Tongue) [-10], which was more frequently exhibited. He might have an IQ 14, a Charisma +2 [10] stemming from the same passion that drove his faults, plus Politics-16, Strategy-15, Bard-15, Writing-14, and a host of supporting skills. By WWII, a GM would be justified in reducing both his disadvantages and Charisma, given that his fires cooled and his manner became more moderated.

His Reputation would vary immensely. Like Lenin and Stalin, he had a lot of blood on his hands from his days as a top Soviet official, but with Trotsky it was much harder to argue that his decisions stemmed from personality flaws rather than crisis. In person, he usually was warm and sensitive, and those who knew him only as a colleague or neighbor would have a hard time believing in the legacy of the war commissar.

Georgy Zhukov

Red Army's most renowned marshal, 1896-1974, a stocky and straightforward man with a dry sense of humor.

A conscript whose talents made him a decorated cavalry sergeant during the Great War, Zhukov became a Red cavalry commander during the 1917 revolution and made the military his career in the interwar years.

As described in Chapter 1 and ***GURPS WWII***, Zhukov played a leading role throughout the war, from the early skirmishes in the far east with the Japanese to the final hours in Berlin. The defense of Moscow probably rated as his greatest hour among these many campaigns. Throughout these years, Zhukov often forced his strategic views on Stalin, even though his commander in chief had a long history of permanently removing people who irritated him and never gained any great fondness for his talented subordinate.

After the war, Zhukov faced a great deal of jealousy and suspicion on the part of Stalin. He was banished to a minor post until the dictator died, then rose to become one of the nation's most important officials before again being shoved aside for fear of his popularity.

Zhukov would have IQ 13 [30] and Strategy-17 as his defining skill. He bullied and threatened his subordinates, but it can be argued whether this was a character flaw or a tactic to wring the maximum performance from them. Even without any decorations, Zhukov would have a Reputation +4 [20] as the Red Army official who finally gave the frontovik a chance to kill Fritz rather than the other way around. This credit wasn't entirely deserved – some other Soviet generals were at least his equal as leaders of men – so he would have a counteracting Reputation -3 [-5] among the small group of his Red Army peers, even those not normally prone to jealousy. Zhukov enjoyed Less Sleep 2 [6] then pushed himself for days on end without *any* sleep while a campaign was in progress. When the fighting died down, he would fall into a deep slumber from which *nothing* would wake him.

The Generals

With one admiral thrown in for good measure, these Red Army officials stood out among their many comrades during the Great Patriotic War:

Gen. Armii Ivan Khristoforovich Bagramyan, 1897-1982. In 1941, when Soviet forces were surrounded near Kiev, only the 20,000 troops led by then-Colonel Bagramyan managed to break the encirclement and escape. During the war years, he quickly rose through the ranks to become commander of 1st Baltic Front, which took part in many operations, including Bagration (see p. W31).

Gen. Armii Ivan Danilovich Chernyakhovsky, 1906-1944. One of the Red Army's commanders who was not only respected, but also really liked by his forces, while also remaining a favorite subordinate of Marshal Rokossovsky. His aptitude as a leader and personal bravery particularly stood out, and in 1944, at 39 years old, he became the Reds' youngest *general armii* and front commander. Forces under his command were the first to enter German territory. A piece of shrapnel killed Chernyakhovsky during combat in East Prussia.

Gen.-polkovnik Vassily Ivanovich Chuikov, hero of Stalingrad, 1900-1982. As rough as he was talented, Chuikov first became a unit commander during the Civil War, at age 20. He also witnessed the beginnings of the war in China, where he served as military attache and adviser to Chiang Kai-Shek. Upon his return in 1942, he was put in command of 62nd Army, and distinguished himself while commanding the forces that defended Stalingrad. Following this epic battle, he played a significant part in many others, from the liberation of Odessa to the capture of Berlin. The commander of Berlin's garrison, General Weidling, signed the order of cessation of resistance in Chuikov's headquarters.

Gen. Armii Andrey Ivanovich Eremenko, 1892-1970. The confidence of this man greatly impressed Stalin, even after Eremenko failed in 1941 to perform a flanking attack against Guderian's forces and thus lost the chance to relieve the surrounded armies near Kiev. Remaining in Stalin's good graces, he went on to become commander of the Stalingrad Front in 1942. Eremenko would prove himself very capable in defensive operations and masterful at skillfully juggling his available resources.

Marshal Sovietskogo Soyuza Ivan Stepanovich Koniev, 1897-1973. Koniev began his career during the Civil War as a political officer. Despite this, he showed a gift for strategy and was re-qualified as a Red Army commander. He proved that his talents were at least on par with those of his great rival – Zhukov – in numerous battles from Moscow and Kursk to Berlin and Prague.

Gen.-major Sidor Artem'evich Kovpak, partisan commander, 1887-1967. Kovpak appeared for all the world like a typical peasant of advancing years, which he would have been in more peaceful times. Before the war, he was the "headman" of a small town in the Ukraine. As the fighting began, he formed a partisan band (pp. 106-107), which grew to company size, then that of a battalion, before enlarging enough to be proclaimed the 1st Ukrainian Partisan Division. After this last reorganization of his force, Kovpak could field up to 5,000 men for guerrilla or resistance operations. His outstanding

leadership of what was undoubtedly one of the most successful partisan efforts in history earned him a promotion to general-major in 1943.

Adm. Flota Nikolay Gerasimovich Kuznetsov, commander in chief of the Soviet Navy, 1902-1974. Even more than generals, admirals in all navies tend to act on behalf of their fleet or the service at large, not always in the best interpretation of their orders. Kuznetsov was no exception. Despite Stalin issuing explicit directives to the contrary, Kuznetsov ordered the navy to full alert on June 21, 1941. Thanks to his judgment, the navy suffered minimal losses in the first days of war, and retreated in good order when the Germans advanced to capture its Baltic bases. Given the constraints under which the navy fought the rest of the war (p. 35), however, that was about all that Kuznetsov could really accomplish . . .

Marshal Sovetskogo Soyuza Rodion Yakovlevich Malinovsky, 1898-1967. With Great War experience including service in the Russian Expeditionary Corps in France – and a short but eventful career in the French Foreign Legion under his belt – Malinovsky began WWII leading units against Operation Barbarossa. In 1942, he thwarted Manstein's drive to relieve the 6th Army at Stalingrad, and later as a front commander took part in the liberations of the Ukraine, Moldavia, Hungary, and Austria. Well traveled to the last, he led during the lightning-strike assault into Manchuria in 1945.

Gen.-polkovnik Lev Zakharovich Mekhlis, Stalin's confidante, 1889-1953. A harsh workaholic, Mekhlis showed absolutely no tolerance for ineptitude or negligence, no matter how trivial. He also maintained an extreme personal loyalty to Stalin, and for some time commanded Stalin's absolute trust. His personal qualities made him excellent at administration in the Soviet style, but an abysmal strategist: when he was sent to supervise a planned offensive on the Crimean Front in 1942, he misjudged the situation and de facto seized command. He soon engineered a catastrophic debacle, after which Stalin did not trust him with anything more important than supervising the rear services of a single front. Invariably, when he took one of these posts, the frontoviks soon found that their food and supplies rapidly improved, but he rarely remained in a position for more than a few months, thanks to his bad reputation and insatiable nosiness.

Gen. Armii Dmitriy Grigoryevich Pavlov, commander of the Western Front, 1897-1941. While the purges claimed many of the men who had led expeditionary troops in the Spanish Civil War (where Pavlov earned citation as a Hero of the Soviet Union while leading a tank corps), Pavlov survived them and took part in the Winter War with Finland. Despite this considerable experience, the Germans caught him by surprise in 1941. He rapidly lost control of the situation and began issuing confusing orders. He was arrested on a charge of betrayal, quickly convicted, and executed on July 22, 1941. As was the intent, his surviving contemporaries took notice . . .

Marshal Sovetskogo Soyuza Konstantin Konstantinovich Rokossovsky, commander of the Victory Parade, 1896-1968. Calm, steady, and always polite (to the point of insult, if necessary), Rokossovsky arguably was the best tactician in the Red Army. Though arrested in 1937, he was released and returned to duty in 1940 when the charges were dropped. He led the army that covered Moscow from the direction of Smolensk, then in 1942 became a front commander, with his troops always in the heat of the action. He later took charge of the Red forces that surrounded the Germans at Stalingrad, commanded the Central Front during the battle of Kursk, and advanced through Byelorussia and Poland to Germany.

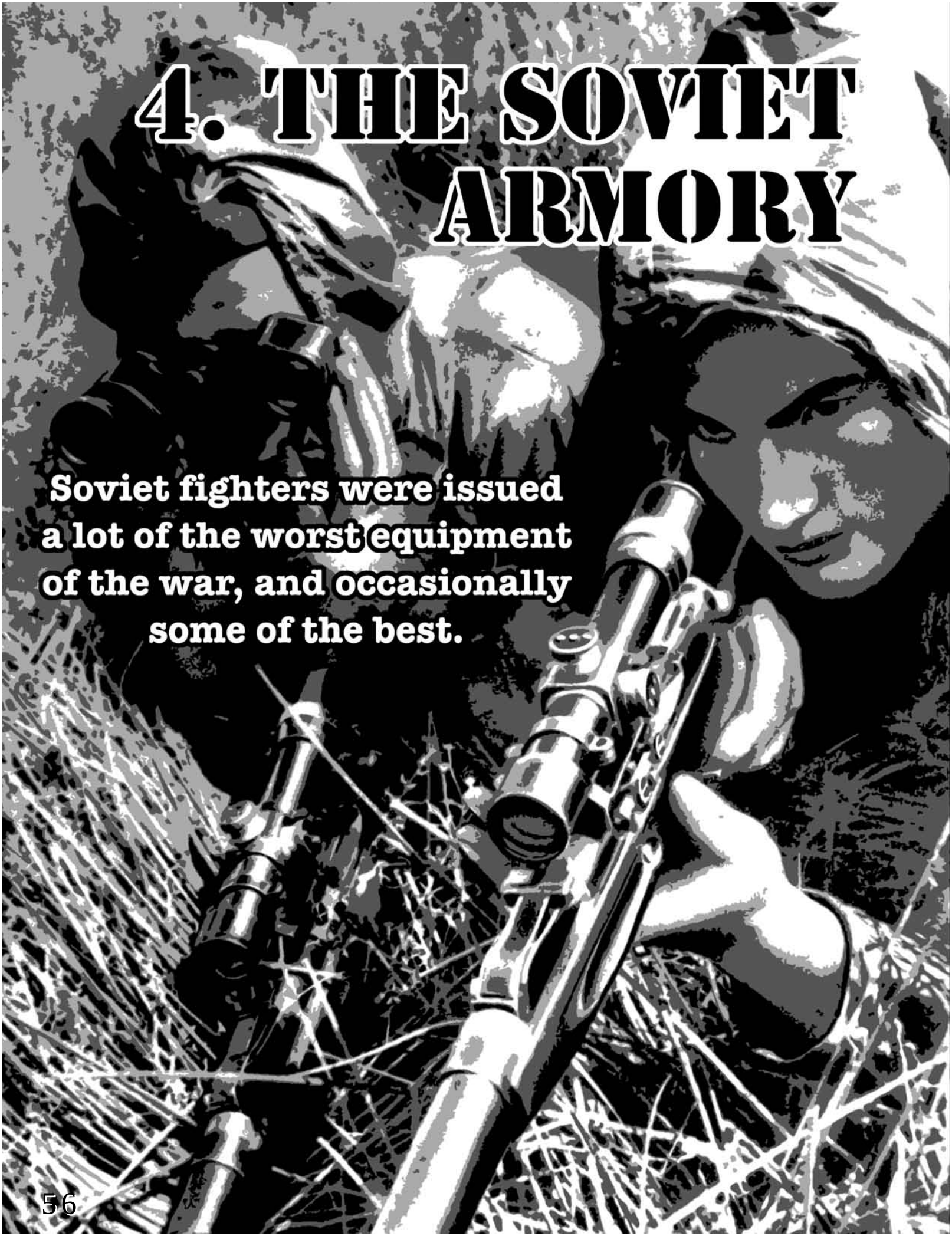
Gen. Armii Pavel Semenovich Rybalko, 1894-1948. Stuck at the Military Academy, Rybalko kept requesting transfer to the front from the very beginning of the war. His requests weren't granted until mid-1942, because he lacked command experience; however, when Rybalko finally became commander of a tank army, he displayed a capacity to learn very quickly. Under his command, 3rd Guards Tank Army frequently forced river crossings (p. 95) with almost no preparations and thus broke through heavy German defenses.

Marshal Sovetskogo Souyza Boris Mikhailovich Shaposhnikov, military theorist, 1882-1945. This mild-mannered former colonel of the tsar's army was one of the greatest minds in the Soviet military. His weak health confined him mostly to staff work and theoretical research, but even for these he earned the respect of Stalin, who promoted Shaposhnikov to marshal in 1940. During the war, he replaced Zhukov as chief of the general staff until May 1942. Later, he supervised the revision of Red Army field regulations and led the Military Academy. He died 45 days before the war ended.

Marshal Sovetskogo Soyuza Fyodor Ivanovich Tolbukhin, 1894-1949. One of the old guard, Tolbukhin fell afoul of Mekhlis in 1942, leading Stalin's man to sack him from his position as chief of staff for the Crimean Front for speaking out. He did not lack work for long. Distinguishing himself during the Stalingrad battle as an army commander, he was put in charge of a front and led his forces first to the Ukraine and Crimea and later to Romania, Bulgaria, Yugoslavia, Hungary, and Austria.

Marshal Sovetskogo Soyuza Aleksandr Mikhailovich Vasilevskiy, chief of the general staff, 1895-1977. Another "old guard" officer and the successor of Shaposhnikov as chief of the general staff, Vasilevskiy was the architect behind many victories. He took part in the design of Operation Uranus (p. 123) and supervised its execution; coordinated the fronts at Kursk as the STAVKA representative; and planned and controlled the liberation of the southern Ukraine, Crimea, and Byelorussia. In February 1945, he was assigned as a front commander; his forces captured Koenigsberg and eliminated any flanking threats to the armies advancing to Berlin. Finally, he became commander of the Soviet forces in the Far East, and in this position led the shortest campaign of WWII, the Manchurian offensive.

Gen. Armii Nikolay Fedorovich Vatutin, 1901-1944. Taciturn, pensive, and a gravely serious man; Vatutin seemed destined by fate to regularly face one of the Wehrmacht's top generals, Manstein (see p. W:IC55). They clashed in 1941 near Leningrad, in the steppes around Stalingrad in 1942, and in 1943 on the southern face of the Kursk salient and on the banks of the Dnieper. At the end of 1943, Vatutin outmaneuvered Manstein and took Kiev and the majority of the Ukraine. It may have been his greatest, but certainly was his last, triumph. In February 1944, Ukrainian nationalists (p. 107) ambushed his column. Vatutin was mortally wounded and died within a few weeks.


4. THE SOVIET ARMORY
Soviet fighters were issued a lot of the worst equipment of the war, and occasionally some of the best.

This chapter describes the equipment, weapons, and vehicles that Red soldiers took into the battles of their Great Patriotic War. Even more than most troops, Soviet soldiers were not afraid to express either great love or deep loathing for he gear the Motherland gave them to work with.

PERSONAL GEAR

For equipment not listed below, see pp. W87-90. Chapter 2 discusses standard field gear for riflemen (p. 39).

Clothing

Boots, Early (15-16) – These low, laced boots were worn with leggings called puttees. The wise frontovik kept these canvas wraps away from his horse if the beast was starving, or they'd get eaten. Combined PD 1, DR 1. $8, 3 lbs.

Boots, Late (kirozoviy sapogi) (15-16) – For most of the war, Red troops wore these jackboots. They had rubber soles and leather lowers, with enlisted-issue uppers made of waterproofed canvas; officer versions were all leather. Quality tended to be very low, leaving the wearer to shamble along as his footwear fell apart. PD 2, DR 2. $10 (enlisted) or $15 (officers), 4 lbs.

Boots, Felt (valenki) (15-16) – These were frequently issued in cold weather; the Germans prized any pair that they could capture. They provide a +1 to HT to resist cold unless clothing with a +5 or higher bonus already is worn. A winter uniform (see below) worn without them takes a -1 to its HT bonus. PD 1, DR 2. $20, 8 lbs.

Cap, Service (pilotka) – This jaunty sidecap was worn behind the lines when a helmet was not. $4, 0.5 lbs.

Greatcoat (6, 8-14, when buttoned up 17-18) – The enlisted-issue version was made of coarse brown wool and worn over the uniform by day, used as a sleeping bag by night. Officers often had finer versions. Provides a +4 to Holdout. PD 0, DR 1, +2 to HT vs. cold. $25+, 8 lbs.

Hat, Fur (shapka-ushanka) – During the war, this popular Russian headgear was generally made of artificial materials, leading the troops to call it "fish fur." A real one will cause the head to sweat in the most frigid conditions. Even the fake-fur version will add +1 to any HT bonus to resist cold unless other cold-weather clothing provides a +5 or higher bonus. Usually made in a khaki color. $6 (fish fur) to much, much more, 1.5 lbs.

Socks – The Red Army generally issued *portyanki* foot wrappings rather than socks. Troops from urban areas might have difficulty using these squares, the size of a large handkerchief. However, real socks can usually be obtained without too much difficulty, as women back home knitted and donated millions of pairs to the troops. Six pairs $1, 1 lb.

Uniform, Early (gymnastiorka tunic and sharovari long breeches) – This was made of khaki wool for winter wear or heavy cotton for summer use. The actual shade of the material could vary considerably, depending on manufacturer and wear. The enlisted breeches included diamond-shaped knee patches to reduce wear. The tunic employed hook-and-eye fasteners. $5, 2 lbs. for tunic and 1.5 lbs. for pants.

Uniform, Late – In 1943, a new tunic was issued. It was cut much like the tsar's Great War uniform, with a standing collar and – more symbolically – shoulderboards to indicate the wearer's rank. Melodramatic officials instantly took to the practice of ripping the shoulderboards off anyone who had made a serious mistake. Enlisted versions had no pockets, while officers had two pockets at the breast. $7, 2 lbs. for tunic and 1.5 lbs. for pants.

Uniform, Winter Field (telogreika jacket and vatnie sharovari pants) (6, 8-14, 17-18) – Troops sent into the field from November through February usually were issued these puffy, jackets and pants of quilted cotton. They usually were not pure white, but a tan or gray shade. PD 0, DR 2, +5 to HT to resist cold with *valenki* (see above), only +4 without the felt boots. $50, 15 lbs.

Armor and Related

Gas Mask (5) – See p. W87. Many Red Army troops, lacking experienced trainers to warn them otherwise, discarded their gas mask and used the case to carry personal items and rations. A troop who had kept his mask might still have one or more salvaged cases used for other things.

Helmet (3-4) – The 1940 model generally was olive or forest green, with liner. It resembled the U.S.-issue helmet. Frontoviks found excuses to do without their helmets more often than their contemporaries in other armies. PD 3, DR 4; $3, 4 lbs.

Field Gear

Ammo Pouch – These varied widely, but generally had two pouches that each held two rifle clips. Most soldiers wore two, made of leather or canvas. $0.6, 0.3 lbs. each.

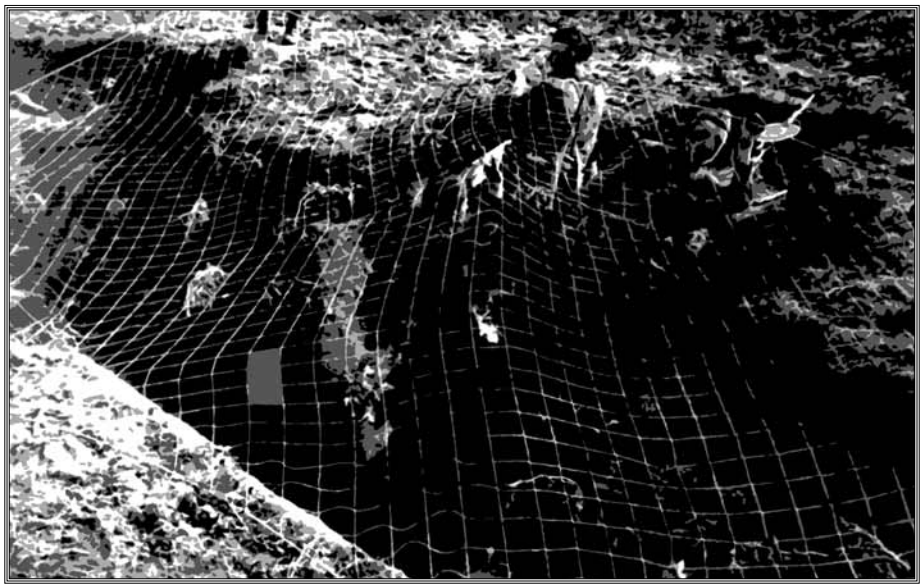
Ammo Pouch, SMG – Given the bulky drums that were standard issue for Red Army SMGs, an ammo pouch generally looked like another shoulder-slung gas-mask case. The contents usually would rattle loudly when the wearer was on the move. A bag large enough for two drums might be $1, 1 lb.

Backpack (veshchevoi myeshok) – The army issued these in at least three varying styles, of canvas or light leather. Holds up to 2 cf or 100 lbs. $10, 3 lbs.

Blanket, Wool – The Red Army issued coarse brown blankets in barracks, but for some reason these were never carried into the field. $2, 4 lbs.

Mess Kit, Personal – The Soviets issued at least two styles, one much like a small pot and a kidney-shaped version that resembled the German kit. It was a small point of honor among the frontoviks to carry a *real* Wehrmacht kit, as if dining from the dead German's table . . . $1, 2 lbs.

Mosquito Netting – As the Germans rapidly discovered, across much of



the Soviet Union the insects made up for lost time during the brief summers. Vast clouds of gnats and mosquitoes could fill the air over the steppes. Southerners thought nothing of going about their daily business in a wide-brimmed hat draped in netting, much like a beekeeper. $2, 3 lbs. for netting large enough to sleep under; $0.5, 0.5 lbs. for enough to keep the head covered.

Shelter Half – Though this was supposed to be half of a two-man tent, per p. W88, the Red troops rarely carried poles and stakes to actually erect the thing. Generally, they used the waterproofed canvas as a ground cover on which to sleep. Their version incorporated a drawstring, so that a tight-fitting hood could be formed when it was worn as a poncho in wet weather. $5, 2.5 lbs.

Food

Victuals played an *immense* role in Soviet campaigning. Other combatants might complain bitterly about the taste of their rations, but they could depend on getting enough. For Soviet troops, just getting fed was a victory.

The Soviets used a numbered ration system, with Ration 1 (the most ample version) reserved for front-line troops, Ration 2 for those in immediate support, Ration 3 for rear-area personnel, and so on in decreasing portions through the much more austere civilian diets. (An exception was Ration 9, for military cadets, which recognized that they were still growing and approached Ration 1's portions.) This ration could be modified locally – each ration down the numbered line was *much* smaller at starving and besieged Leningrad than on other fronts, for instance.

The front-line Ration 1 – measured per day, not per meal – changed throughout the course of the war, but was never generous.

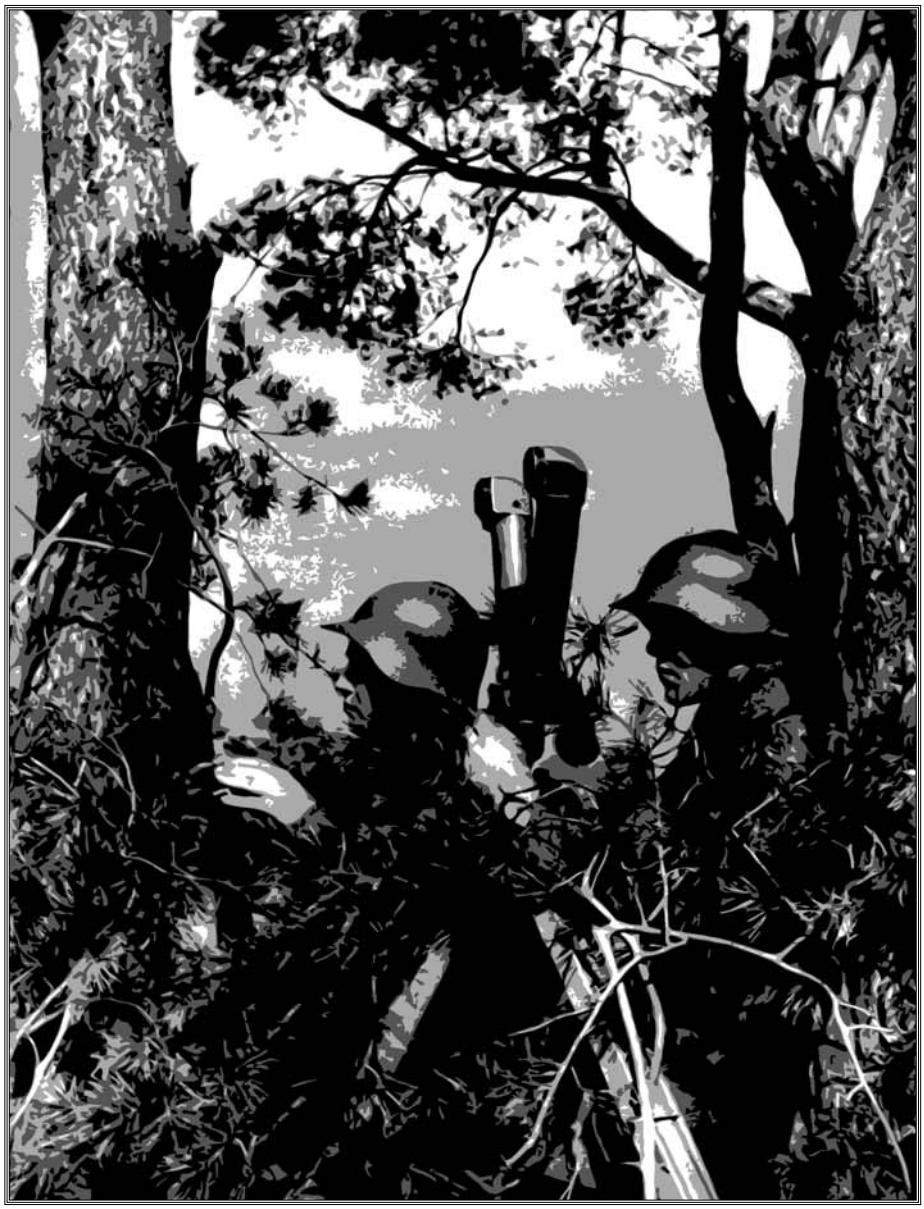
Ration, 1941 Battalion Mess – The prospect of receiving anything like the official ration at the beginning of the war was dubious at best, particularly during the 1941 retreats and breakdowns, but in theory each troop got 1.75 lbs. (summer) to 2 lbs. (winter) of rye bread, 13 ounces of mixed vegetables (leaning heavily toward cabbage, potatoes, and beets), 5 ounces of grits, 5 ounces of meat, 4 ounces of fish, 1.2 ounces of sugar, 1 ounce of salt, 1 ounce of elbow macaroni (a favorite among most of the men), 1 ounce of fats, 0.7 ounces of vegetable oil, 0.7 ounces of wheat flour, 0.5 ounces of soy flour, 0.2 ounces of tomato paste, 0.04 ounces of (low-quality) tea, 0.01 ounces of various spices, and 0.7 ounces of tobacco. These are not the sorts of rations that would be carried by individuals into combat,; transport and kitchen units behind the front lines would receive them in bulk at $0.90, 4 lbs. per man-day, or $0.30, 1.4 lbs. per meal.

Ration, 1941 Combat – When the battalion mess ration could not make it to the front, Soviet troops were often expected to forage for themselves until mid-1942. This led them to covet the Wehrmacht's rations (see p. W:IC58), and even plan attacks specifically to raid German supply dumps. When this wasn't possible, Red troops cut off from their supplies would have to depend on their Scrounging skill (see p. 99), or possibly their Agronomy skill if somehow a nearby field of ripened wheat has been left standing . . .

Ration, Emergency – These compact foodstuffs were carried to be eaten only if other rations fell through. (The troops mockingly called it the "untouchable" ration.) Again, during the early years, their availability would have been limited. An emergency ration included 1 lb. of biscuits, 2.6 ounces of enriched instant soup or biscuits, 7 more ounces of the enriched food until late 1942 (after which tinned Lend-Lease foods were substituted when available), 3.5 ounces of sausage or some substitute high in fat, 1.2 ounces of sugar, 0.35 ounces of salt, and 0.07 ounces of loose tobacco. $2.40, 2.1 lbs., or $0.80, 0.7 lbs. per meal.

Ration, Combat 1942-43 – By late in 1942, the British had begun supplying the Soviets with Lend-Lease foodstuffs, mostly bully beef or lunch meat, biscuits, or soup stock in tins. They also sent over some rather dated U.S. goods (such as chocolate), bouillon cubes, and cellophane-wrapped portions of tea. Though combat rations were still very irregular, the average Red soldier could expect to be issued *something* to take into the field, and probably some would be from this British aid. Initially, the Lend-Lease tins had no label, or an English label at best, making it anyone's guess what each one contained. The Soviets then began marking each tin with a small, plain label with a succinct Russian description of the contents. The troops *highly* prized the British tea when they could obtain it. An average combat ration might be $1.20, 3 lbs. or $0.40, 1 lb. per meal.

Ration, Combat 1943-45 – After U.S. Lend-Lease foodstuffs begin arriving, this foreign aid began to make



up a very large portion of the Red Army's combat rations. (Though they still made up only a small percentage of the USSR's overall food supply, the Lend-Lease stores already were packaged for travel, which made them highly suitable for front-line needs.) Occasionally, Red units would receive complete U.S. Army rations (see p. W88). More often, U.S. goods supplemented a basically Soviet ration. Frontoviks bitingly referred to "spam" as "second front" – they got processed meat rather than real fighting aid. Red troops never completely gave up the habit of local foraging in this period.

Medical Aid Kits

First-Aid Kit, Basic – The Red Army's medical supplies lagged behind the times. A typical soldier might carry only some waste cloth and cotton for bandaging, perhaps with a bottle of iodine. Gangrene was a constant issue in Soviet post-combat recoveries because these field dressings rarely did enough to prevent infection. $1, 1 lb. assuming the iodine is carried.

First-Aid Kit, Medic's – The (often female) medics did not enjoy much better tools than the line troops. In the early war, they would bolster the basic kit with some proper dressings and powdered streptocide (treat as sulfa powder, per p. W90), and perhaps some plaster for making casts. Undoubtedly, plasma kits appeared in their gear by mid-war. (The Institute for Blood Transfusion set up 1,500 donation centers around the USSR) Late in the war, penicillin (also p. W90) became available. Early in the war, their kit might be $5, 8 lbs.; mid-war $8, 10 lbs.; in 1945 with penicillin $35, 10 lbs.

Tools & Heavy Gear

Scissors Telescope – Called "donkey ears" by the troops, these bulky binocular devices usually were mounted on a tripod. They allowed the user to closely estimate the range to distant targets. They also could be used to peer over the top of a trench or wall without directly exposing the observer. Essentially, they performed like the Germans' stereoscopic rangefinders (see p. W:IC58), but their swiveling-arm design made them less precise (-2 to skill if attempting to use the rangefinder rules to obtain aiming bonuses). Unlike the Wehrmacht equipment, probably no Soviet versions were small enough to be routinely carried as field gear. A typical set with tripod might be $300, 35 lbs.

The Big Spoon Order

During conscription, new recruits usually were told to bring a large spoon with them from home. Most did, often one made of wood, which they carried tucked into one jackboot.

It was not that the army couldn't issue utensils with its mess kits. In the east, the spoon was a symbol of a soldier's worth. The Ottoman janissaries ornamented their turbans with their spoons to boast that they were worth feeding, in an age when not all could make that claim.

The spoon also was an individual and intimate thing – perhaps the *one* personal thing – that the state would not touch. In *One Day in the Life of Ivan Denisovich*, the WWII-veteran title character still jealousy guards his spoon while in the gulag years later.

SMALL ARMS

See pp. W91-99 for more information and standard Soviet arms.

Ammo Table

Also see p. W91 for the most commonly used ammunition.

Common Name	*Modern Name*
.25 ACP	6.35×16mmSR
7.62mm M-43	7.62×39mm
.42 Berdan	10.67×58mmR
.44 S&W Russian	11×25mmR

. . . military planners had intended to arm all infantry units with the SVT-40 semiautomatic rifle . . . which would have made the USSR the only nation other than the United States to equip its troops so well . . .

SOVIET SMALL ARMS TABLE

Semiautomatic Pistols and Revolvers – Use Guns (Pistol) Skill

Weapon	*Malf*	*Dam*	*SS*	*Acc*	*1/2D*	*Max*	*Wt.*	*AWt.*	*RoF*	*Shots*	*ST*	*Rcl*	*Hold*	*Cost*
Mauser C96 M1920, 7.63mm M	Crit.	2d+2-	11	3	140	1,800	2.6	0.25	3~	10	10	-1	-1	$40
TK, .25 ACP	Crit.	1d-	10	2	50	1,000	1.2	0.2	3~	8	7	-1	+1	$10
Nagant R-1895 NKVD, 7.62mm N	Crit.	2d-1-	10	1	150	1,900	1.7	0.25	3~	7	8	-1	0	$20
Nagant *Besshumyi*, 7.62mm N	Crit.	1d+1-	10	0	100	1,200	2.4	0.25	1	7	8	-1	-1	$50
S&W R-1871, .44 S&W Russian	Crit.	2d+	10	3	150	1,700	2.5	0.3	1	6	10	-2	-1	$15

Rifles – Use Guns (Rifle) or (Light Auto) Skill

Weapon	*Malf*	*Dam*	*SS*	*Acc*	*1/2D*	*Max*	*Wt.*	*AWt.*	*RoF*	*Shots*	*ST*	*Rcl*	*Hold*	*Cost*
AS-44, 7.62mm M-43	Crit.	5d+1	14	9	500	3,200	12	1.8	10*	30+1	10B	-2	-6	$100
AVF, 6.5mm Arisaka	16	5d+2	14	10	600	3,000	11.5	1.8	10*	25+1	10	-2	-6	$90
AVS-36, 7.62mm Russian	16	7d	15	10	800	3,900	10.2	1.1	8*	15+1	11	-3	-7	$100
Mosin-Nagant M-1891, 7.62mm R	Crit.	7d	15	11	900	3,900	9.9	0.3	1/2	4+1	11	-3	-7	$25
M-N M-1891/30 Sniper, 7.62mm R	Crit.	7d	15	11+2	900	3,900	11.8	0.3	1/2	4+1	11	-3	-7	$50
Mosin-Nagant K-38, 7.62mm R	Crit.	7d	14	10	800	3,900	8.2	0.3	1/2	4+1	11	-3	-6	$25
Mosin-Nagant K-44, 7.62mm R	Crit.	7d	14	10	800	3,900	8.9	0.3	1/2	4+1	11	-3	-6	$25
PTRD-41, 14.5mm Russian	Crit.	15+1(2)	20	10	1,400	6,000	38.5	0.5	1/4	1	16B	-2	–	$150
SKS-45, 7.62mm M-43	Crit.	5d+1	14	9	500	3,200	8.6	0.35	3~	10+1	10	-2	-6	$90

Submachine Guns – Use Guns (Light Auto) or (Rifle) Skill

Weapon	*Malf*	*Dam*	*SS*	*Acc*	*1/2D*	*Max*	*Wt.*	*AWt.*	*RoF*	*Shots*	*ST*	*Rcl*	*Hold*	*Cost*
PPD-34, 7.62mm Tokarev	Crit.	3d-1-	10	6	160	1,900	8.6	1	15*	25	10	-1	-5	$70
PPD-34/38, 7.62mm Tokarev	Crit.	3d-1-	10	6	160	1,900	12.5	4.4	16*	71	10	-1	-5	$70
PPD-40, 7.62mm Tokarev	Crit.	3d-1-	10	6	160	1,900	12	4	16*	71	10	-1	-5	$70
PPS-42, 7.62mm Tokarev	Crit.	3d-1-	10	6	160	1,900	8.1	1.5	10	35	10	-1	-4	$60

Machine Guns – Use Guns (Light Auto) on Bipod or Gunner (Machine Gun) on Tripod

Weapon	*Malf*	*Dam*	*SS*	*Acc*	*1/2D*	*Max*	*Wt.*	*AWt.*	*RoF*	*Shots*	*ST*	*Rcl*	*Hold*	*Cost*
DK-30, 12.7mm Russian	Crit.	13d+1+	20	15	1,500	7,400	90/140	15	6	30	41T	-1	-	$800
DS-39, 7.62mm Russian	Crit.	7d	20	10	800	3,900	47.6/89.9	17.8	10/20	250	25T	-1	-	$425
DT, 7.62mm Russian	Crit.	7d	17	10	800	3,900	33	5	10*	60	13B	-1	-6	$90
PM-1910, 7.62mm Russian	Crit.	7d	20	10	800	3,900	70.2/169.6	17.8	10	250	34T	-1	-	$300

Light Antitank Weapons – Use Guns (LAW) Skill

Weapon	*Malf*	*Damage*	*SS*	*Acc*	*Min*	*1/2D*	*Max*	*Wt.*	*AWt.*	*RoF*	*Shots*	*Cost*
RPG-1,70mm	15	5d×3(10)	14	3	10	55	500	7.9	3.5	1/5	1	$50

Rifle Grenades – Use Guns (Grenade Launcher) Skill

Weapon	*Malf*	*Damage*	*SS*	*Acc*	*1/2D*	*Max*	*Wt.*	*Fuse*	*Hold*	*Cost*
VDG-30	Crit.	1d+1 [2d]	16	0	-	900	0.8	Time	-2	$20
VPGS-41	Crit.	3d(10)	16	0	75	200	1.5	Impact	-4	$20

Mortars – Use Gunner (Mortar) Skill

Weapon	Malf	Damage	SS	Acc	Ind.	Wt	AWt	RoF	Cost
37-LM-41, 37mm	Crit.	3d [2d]	16	3	300	5.3	1.1	1/3	$75

Hand Grenades

Weapon	Damage	Wt.	Fuse	Hold
M-1914/30	2d+2	1.3	4	-3
RGD-33	2d+1	1.1	4	-3
RPG-40	2d(10)	1.7	0	-4

Mines

Weapon	Damage	Wt.	Cost
PMD-6	5d+1	0.9	$2
PMK-40	1d+2	0.2	$1
PMZ-40	6d×16	20	$20
POMZ-2	2d [2d]	4.4	$2
TM-38	6d×16	11.4	$20
TMD-B	6d×26	17	$15

Thanks to the unique gas seal action of the Nagant, it allowed decent sound suppression despite being a revolver.

Weapon Descriptions

The Red Army had much of its weaponry stored in western arsenals in 1941. Either the Germans captured these arms or the retreating Soviets had to destroy them. The opening days of Barbarossa cost the military some 5.5 million rifles (60% of those in the entire Red Army inventory), 440,000 pistols (32%), 135,000 LMGs (62%), 100,000 SMGs (50%), 55,000 MMGs (65%), 9,000 AT rifles (50%), and 1,400 HMGs (39%). This resulted in some second-rate weaponry enjoying a longer service life than it would have otherwise. In fact, military planners had intended to arm all infantry units with the SVT-40 semiautomatic rifle (see p. W95) – which would have made the USSR the only nation other than the United States to equip its troops so well – but 1941 forced them to accept a much humbler standard of armament.

See pp. W94-99 for the most commonly used weapons for Soviet and other forces.

Semiautomatic Pistols

Mauser C96 M1920 "Bolo" (1920): Prior to and after the 1917 revolution, large numbers of Mauser C96 pistols (see pp. HT108, W94) were imported to Russia. After WWI, Germany was no longer allowed to produce military firearms in any quantity, the definition of such a weapon being a caliber above 8mm and a barrel of 4" or longer. Consequently, Mauser produced the short-barreled C96 M1920, which complied with these requirements. Such huge numbers were exported to the Soviet Union that it acquired the semiofficial nickname of "Bolo" (from *Bolshiviki*), and the cartridge it fired, the 7.63mm Mauser, was accepted almost unmodified as the 7.62mm Tokarev. Many of these pistols served with Soviet soldiers, militiamen, and partisans until after WWII. The optional shoulder stock weighed 0.9 lbs.

Pistolet Tulski-Korovina (1926): A small pocket pistol made at the Tula arsenal, this was used by Soviet staff officers and the like during WWII, although the TK was never officially adopted and only made in very limited numbers.

Revolvers

Nagant Revolver obr. 1895g NKVD (1925): This smaller variant of the Nagant revolver (see pp. HT108, W94) featured a shorter barrel and cut-down grip. The NKVD used it.

Adding a silencer created the *Besshumyi*, or suppressed version. Thanks to the unique gas-seal action of the Nagant, it allowed decent sound suppression despite being a revolver. The *Besshumyi* was built on the single-action Nagant pattern, and fitted with a combined baffle/wiper suppressor (-5 Hearing, Acoustic Signature +20, for a net +15 to hear; see p. W:HS19). It lacked front sights, which didn't matter as it was intended for very close-range work, and an ejector rod, which mattered little as quick reloads were seldom necessary.

S&W Revolver obr. 1871g (1871): Better known in the west as the Smith & Wesson Russian (see p. HT109), this obsolete gun, made in Russia since 1880 at the Tula arsenal, had officially been superseded by the Nagant R-1895 from 1898. It remained available in some numbers with third-line units, police officers, and civilians. The last of them were sold off to Cuba in the 1960s.

Rifles

Lend-Lease supplied huge numbers of rifles to the Soviets, including 32,000 Boys Mk I antitank rifles (see p. W95).

Avtomat Sudajeva obr. 1944g (1944): This was the first full-automatic rifle to use the 7.62mm M-43 cartridge, which was to become famous after the war as the round fired by the AK-47 (see p. HT114-115). The AS-44 actually resembled the AK-47 externally, down to the crescent-shaped 30-round magazine. It had a longer barrel than that weapon, and also featured a folding bipod. In real life, it never matured past weapons trials, but in an alternate history, it might take the role of Kalashnikov's famous rifle.

Avtomaticheskaya Vintovka Simonova obr. 1936g (1937): This selective-fire weapon was a forerunner to the AVS-38 and AVT-40 (see p. W95). The AVS-36 was used in the Spanish Civil War and the Winter War, but since it proved unreliable, production ceased in 1940.

Avtomaticheskaya Vintovka Fedorova (1920): Some argue the Fedorov was the world's first assault rifle, since it was a full-automatic weapon firing a light rifle round (the Japanese 6.5mm Arisaka). It featured a full rifle stock and a wooden foregrip in front of the magazine. Designed in 1916 and on trial issue during WWI, the AVF was adopted by the Soviet military after the revolution. Although production already had been halted in 1925, and it was removed from service in 1928, some found their way to the Spanish Civil War, and it was also used during the Great Patriotic War. Ammunition supply was a problem.

Berdan Vintovka obr. 1870g (1870): This single-shot bolt-action weapon chambered a long-obsolete black-powder cartridge. It had been replaced in Russian service in the 1890s, but some remained in the hands of partisans in Russia. Many had been sold off to Bulgaria, Montenegro, and Serbia, where they continued to see service throughout WWII.

Hundreds of thousands of these had also been re-worked to accept the 7.62mm Russian round; use stats for the Mosin-Nagant M-1891.

Mosin-Nagant Vintovka obr. 1891g (1891): Also known as the "three-lines rifle," a "line" being the old Russian measurement for a tenth of an inch, this was the standard Russian rifle until superseded by the M-1891/30 (see p. W96). It was still in use in large numbers during the Great Patriotic War.

Mosin-Nagant Snaiperskaya Vintovka obr. 1891/30g (1932): Although many Soviet snipers used a scoped SVT-40 (see p. W95), the majority favored this weapon, a variant of the standard service rifle; the bolt-action design was more accurate, more reliable, and didn't disclose the sniper's position with an ejected case. The initial production was fitted with a heavy German-designed 4× scope, but in 1942 a simpler and lighter 3.5× scope was introduced (Wt 10.8). From late 1941, the 1.1-lb. S-41 sound suppressor (-4 Hearing; see p. W:HS19) was available for this weapon; it required the use of special subsonic ammunition, which reduced Damage to 4d, Acc to 9+2, 1/2D to 320, Max to 1,600, and Acoustic Signature to +18. Its wipes had to be replaced every 70-100 shots.

Mosin-Nagant Karabin obr. 1938g (1938): Initially intended for cavalry, artillerymen, and combat engineers, this eventually replaced the M-1891/30 as the main infantry rifle.

Mosin-Nagant Karabin obr. 1944g (1944): Essentially this was the K-38 with an integral folding bayonet, which made it a bit muzzle-heavy.

Protibotankovyi Ruzhyi Degtyareva obr. 1941g (1941): This bolt-action antitank rifle was similar to the PTRS-41 (see p. W95), but single-shot only. In combat, it required a two-man team for operation: a shooter and a loader. It was cheaper than the self-loading rifle, and thus made in huge numbers throughout the war. Propped up on a tree trunk or suitable wall, it could also be used against aircraft in an emergency.

Samozaryadinyi Karabina Simonova obr. 1945g (1945): The SKS-45 self-loader chambered the 7.62mm M-43 intermediate cartridge. It had an integral, clip-loaded, 10-round magazine and an integral folding bayonet. A small trial lot was used successfully in combat in early 1944 on the 1st Byelorussian Front, and some were used in the Battle of Berlin in 1945, but full-scale production did not start before 1949. The rifle played a large role in many post-WWII conflicts.

Submachine Guns

In addition to native designs, the Soviet Union also used 137,729 M-1A1 Tommy guns (see pp. HT115-116, W96), many of them received as part of the armament of vehicles.

Pistolet-Pulemet Degtyareva obr. 1934/38g (1938): The first submachine gun adopted by the Soviet Union was the PPD-34, a weapon heavily influenced by the German Schmeisser-designed MP28/II (see p. W:IC63). Only very small numbers were made before it was replaced in production by the PPD-34/38. The PPD-34/38 introduced a 71-round drum magazine copied from the Finnish KP/31 (see p. W96), but could also employ the 1.1-lb., 25-round magazine initially produced for the PPD-34. A few drums holding 73 rounds had been made for early production runs. Although it was further improved to the PPD-40 configuration, Degtyarev's design never became as common as the PPSh-41 or PPS-43 (see p. W96), mainly because it was too expensive to make.

Pistolet-Pulemet Sudayeva obr. 1942g (1942): This submachine gun was developed in Leningrad during the desperate siege days of 1942. Its folding stock made it ideal for armor crews, parachutists, ski troops, and marines. In mid-1943 it was superseded by the improved PPS-43 (see p. W96).

Machine Guns

Pulemet Degtyareva Tankovyi (1929): The DT was the tank variant of the DP LMG (see pp. HT118, W97), installed in most Soviet armored vehicles (see p. W130). It featured a retractable stock, heavy barrel, and 63-round pan magazine, and could be fitted with a bipod, thus allowing its use away from the vehicle. Many were also directly issued to infantry and partisans in place of the DP. It was not able to use the 47-round magazine of the DP. From 1944, it was superseded by the DTM, which had been slightly improved.

Pulemet Degtyareva Krupnokalibernyi obr. 1930g (1931): The DK-30 was the forerunner of the DShK-38 (see pp. HT120, W97). It differed mainly in the feed system, which used a 30-round drum magazine that proved both unwieldy and unreliable. In addition, the rate of fire was unsatisfactory, leading to Shpagin's modifications to the DShK-38 configuration. Fewer than 1,000 DK-30s were made up to the mid-1930s. They were employed in Finland and Spain.

Pulemet Degtyareva Stankovyi obr. 1939g (1940): An air-cooled MMG designed by Degtyarev, this was not very successful, only some 10,000 having been made and soon replaced by the SG-43 (see p. W97). It did see service in the Winter War. The DS-39 had two selectable rates of fire, a low one (RoF 10) for ground fire and a high one (RoF 20) for anti-aircraft fire. It was mounted on a 42.2-lb. tripod with integral gunshield (PD 4, DR 25).

Pulemet Maksima obr. 1910g (1910): In 1905, the Russian military adopted a variant of the Maxim machine gun (see pp. HT117-118, W96) as the PM-1905. This was quickly modified to the slightly lightened PM-1910 configuration, which was made until 1943 for service with the Soviets. It was a heavy, water-cooled MMG using fabric belts (13.4 lbs. for a belt, 17.8 lbs. in ammo box). The water can and hose weighed 7.7 lbs. Instead of a tripod, it was usually mounted on a small 99.4-lb. two-wheeled carriage (the Sokolov mount) which

could be drawn by two men or a draft animal. This was also fitted with a small gunshield (PD 4, DR 25); without the shield, it weighed 79.2 lbs. It could be stood up on its front end (resting on the gunshield) to allow anti-aircraft fire; the gun was then mounted on the end of the towing bar. A quadruple antiaircraft mount was fitted with four guns side by side and weighed 1,012 lbs.

Light Antitank Weapons

Reaktivniy Protivotankoviy Granatomet obr. 1 (1944): In contrast to the Germans, Americans, and British, the Soviets didn't see a need for ranged light antitank weapons apart from their antitank rifles. They did use some Lend-Lease Bazookas (see p. W98) and captured German weapons, and eventually started development of a rocket launcher based on the Panzerfaust 60 (see p. W98). This was the RPG-1, which entered trials in 1944. It fired a rocket-propelled 70mm HEAT grenade from a 30mm tube, but proved to be unreliable and very inaccurate due to poor sights and the rocket's propellant. It was not introduced into active service. The first Soviet weapon of this type that entered service was the RPG-2 (see p. HT122) of 1949.

Hand Grenades

M-1914/30 (1930): A bottle hand grenade with TNT filler and an optional 0.5-lb. fragmentation sleeve (adds [2d] fragmentation damage), this saw service in the Spanish Civil War, Winter War, and Great Patriotic War.

Ruchnaya Granata Djakonova obr. 1933g (1933): The RGD-33 stick hand grenade was similar to the M-1914/30, but had a new design to simplify production. Its optional fragmentation sleeve (0.6 lbs.) added [2d] fragmentation damage.

Ruchnaya Protibotankovyi Granata obr. 1940g (1940): The first of the Soviet antitank hand grenades, forerunner to the RPG-41, RPG-43, and RPG-6 (see p. W98), it had a very limited penetration.

Rifle Grenades

The Soviets used the RM rifle-grenade launcher (see p. W99), which attached to the muzzle of the Mosin-Nagant M-1891/30 rifle (see p. W95). The launcher itself was 1.3 lbs.; additionally, a 2.2-lb. bipod was added to rifles slated to fire these weapons to help deal with the stiff recoil (-5).

Unlike most contemporary designs, the launcher didn't require that blank cartridges be loaded to propel the grenades; normal ammo could be used, with the bullet traveling through a tube in the grenade's body.

Vintovka Djakanova Granata obr. 1930g (1932): The 40.6mm Djakonov rifle grenade was of the HE type. It had a selectable time fuse (3-12 seconds), which detonated it at a distance between 150 and 900 yards. While invented in 1916, it didn't enter service until 1930. The VDG-30 was withdrawn in 1940, but issued grenades were used up until 1943.

Vintovka Protibotankovyi Granata Simonova obr. 1941g (1941): A heavy, fin-stabilized 61mm antitank grenade that was inserted into the muzzle of a normal rifle using its tail spigot, it needed a special blank cartridge for propulsion. The VBGS-41 was not used much and removed from service in about 1944.

Mines

See pp. W93 and W98-99 for generic mines. The Soviets were particularly prone to improvise bouncing mines (see p. W99), all of which carried the OMZ designation. These jury-rigged traps typically employed 122mm artillery shells or 120mm mortar bombs as warheads.

PMD-6 (1939): A wooden antipersonnel mine first used in the Winter War, it was triggered by a pressure of 5 lbs.

PMK-40 (1940): A small antipersonnel "toe popper" made of waxed cardboard, it triggered on a pressure of 20 lbs.

PMZ-40 (1940): This heavy mine could be employed against either personnel or vehicles by selecting the pressure fuze to go off at either 50 or 500 lbs.

POMZ-2 (1939): An antipersonnel stake mine consisting of a cast-iron fragmentation body on top of a sharp stick that was driven into the ground; it was triggered by a trip wire.

TM-38 (1938): A metallic vehicular mine first used in the Winter War, triggered by a pressure of 440 lbs. The TM-39 and TM-41 were very similar.

TMD-B (1943): Various wooden vehicular mines were employed. The TMD-B is typical; it looks like a wooden ammo chest with rope handles, built without nails using tongue-and-groove joints. A pressure of 440 lbs. triggers it.

Mortars

37mm Lopata Minomyet obr. 1941g (1941): This unique weapon, literally called the "spade mortar," resembled a conventional short-handled spade as used for entrenching. Its handle was a bit thick, but it could fully function as the basic tool, and be carried on the belt. Pulling a monopod stabilizing leg out of the handle unlocked the rectangular blade of the spade to form a base plate, giving the soldier a small mortar. This oddity entered service in 1941, but was little used – the bomb lacked size and accuracy, and the concept was badly flawed. It faded into obscurity shortly after introduction.

VEHICLE DESIGN

The vehicle writeups here are based on the design system from ***GURPS WWII***. Components not described there include:

New Weapons

These weapons add to those described for vehicles in the ***GURPS WWII*** core book.

Tank Guns

128mm Medium Tank Gun: This represents the Soviet D-25 or M-43 122mm tank gun. It also represents the German 128mm PzJgK 80, PaK 80, or PaK 44. Almost all versions used two-piece ammunition with separate projectile and charge.

15cm Very Short Infantry Gun: This represents the 152.4mm M-10 and related Soviet weapons. It can also represent the British 152mm (6" 26 cwt) Mk I, German 149mm Skoda StH 43, Italian 149mm Modello 14 howitzer, or the Soviet 152.4mm Gaubitsa obr. 1910/30g.

Naval Guns

180mm Naval Gun: This represents the Soviet 180mm (7.1"/L60) M-1905 and B-1-K Model 1931, 180mm (7.1"/L57) B-1-P Model 1932, and 180mm (7.1"/L56) Model 1933. In addition to service on warships, these weapons often formed the main batteries of coastal-defense installations.

Torpedoes

553mm Torpedo: These use the standard component statistics (see pp. W133, 135). The Red's early-war mainstay was the 53-38 (6d×1,300, Spd 20, End 440), which was being upgraded to the 53-38U (6d×1,800, Spd 20, End 440) as the war began. The latter had magnetic detonators available from 1942 (see p. W132). From 1941, the 53-39 (6d×1,400, Spd 22, End 400) might be found in limited service. These steam-driven weapons left a wake, but from 1943, Soviet subs might use the wakeless ET-80 (6d×1,800, Spd 17, End 257).

Weapon Modules Table

Weapon Type	*VSPs*	*Weight*	*Cost*
Tank and Antitank Guns			
128mm Medium Tank Gun	29	7.2K	$15.2K
2 rounds of APEX	1	[240]	[$240]
2 rounds of HE	1	[240]	[$100]
15cm Very Short Infantry Gun	11.2	2.8K	$8.5K
2 rounds of HE	1	[220]	[$90]
Naval Guns			
180mm Naval Gun	47	12K	$59K
3 rounds of APEX	4	[900]	[$900]

Fuelish Behavior

Ignoring the threat of an engine's air intake sucking in burning fuel, Soviet armor routinely supplemented its fuel tankage by carrying extra gas or diesel in barrels stowed along the edges of the rear deck.

The most common of these barrels costs $2 and weighs 25 lbs. It holds 24 gallons of gas (add 144 lbs., $3.60) or diesel (add 144 lbs., $2.88). In a pinch, it also could serve as a 1-VSP pontoon (see p. W138).

Typically, a late-war Soviet tank carried four of these barrels, three loaded with fuel and the fourth with oil (add 180 lbs., $2.40); tanks of this period burned oil almost as ravenously as fuel.

Remarkably, though infantry often went to great pains to burst a Molotov cocktail over a tank's rear deck, Soviet war memoirs are not filled with tales of this storage habit costing them dearly . . .

Vehicular Weapons Table

Tank and Antitank Guns – Use Gunner (Cannon) Skill

Weapon Type	*Malf*	*Type*	*Damage*	*SS*	*Acc*	*1/2D*	*Max*	*Ind.*	*RoF*	*Ldrs*
128mm Medium Tank Gun	Crit.	APEX	6d×17 (2) + 4d×4 [10d]	30	15	1,900	7,100	13,500	1/6	1
		HE	5d×20 [10d]							
15cm Very Short Inf. Gun	Crit.	HE	6d×22 [10d]	30	14	1,100	5,100	10,000	1/8	2

Naval Guns – Use Gunner (Cannon) Skill

Weapon Type	*Malf*	*Type*	*Damage*	*SS*	*Acc*	*1/2D*	*Max*	*Ind.*	*RoF*	*Ldrs*
180mm Naval Gun	Crit.	APEX	6d×23 (2)+6d×9 [12d]	30	16	2,300	8,000	40,600	1/9	2
		HE	6d×31 [12d]							

New Components

Other ***WWII*** books have introduced new components to those presented in the core book's vehicle-design system. Those used here include:

Navigation Instruments, Precision: This navigation table adds a further +1 to Navigation, for a total of +4 to skill. The module requires a crew station, located next to its map table, chartbooks, and other instruments. Naval vessels and aircraft often use this for long-range navigation.

Electric Motors: Like engines (see p. W128), these provide motive power, but they use no fuel. Batteries or an engine provide their power. Either 3,600 kWs of battery power per hour or 1 kW of engine output provides 1 kW of motor output (a simplification for game purposes). ***WWII*** vehicles *cannot* use batteries for motive power without motors. Diesel-engined subs use electric motors when underwater. These motors can use the engine's transmission, up to its top kW rating, when the engine isn't running. Transmissions used *solely* for electric motors have *half* normal weight, volume, and cost. Any engine dedicated to run an electric motor cuts fuel usage by 25%.

Bilge: Ships take on water, especially in combat. Bilges store this excess water, so that it is not flooding engines, spoiling powder in ammo rooms, etc., while the bilge pumps work to evacuate it. Each VSP holds 280 lbs. of water. A ship never needs more than 7.15 VSPs of bilge per ton of difference between *empty* weight and flotation rating. Most have far less bilge, but subs often have a large capacity. Bilge space also can store fuel, at 33 gallons per VSP. *All* taken-on water spoils three tons of this fuel per ton of water. This fuel has a +3 fire rating (p. W144) and makes that bilge space worthless for its usual function. Bilges do *not* change a ship's flotation rating; a ship still sinks if loaded weight exceeds flotation rating.

Limited Access: The powertrain rules already provide more access space for long-occupancy vessels, but items on p. W143 also require access space if they are to be repaired from *inside* the vehicle. This rule can be ignored for smaller items, which can be moved to a common work space. Larger equipment can take this volume modifier to allow minor repairs at -2. These take extra time, because the gear is hard to reach.

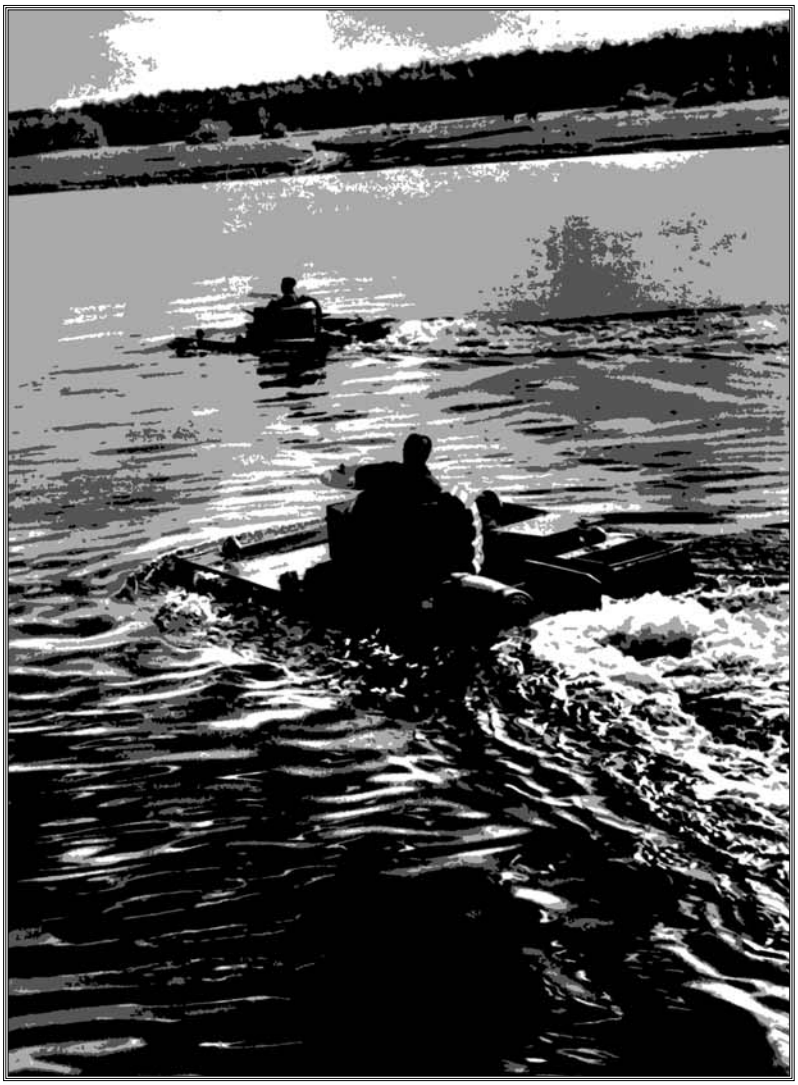
Full Access: As above, but with no penalties.

Component Modules Table

Module Type	***VSPs***	***Weight***	***Cost***	***Power***
Electric Motor*	*	8	$8	1 kW
Bilge	1	280†	–	–
Precision Nav. Instruments	0.1	20	$20	neg.
Module Modifier	***VSPs***	***Weight***	***Cost***	***Power***
Limited Access	×2	–	–	–
Full Access	×3	–	–	–

* Weight, cost, and power are per kW of output. Motors take up 1 VSP per 250 lbs., but often add access space.

† Only when filled with seawater.



New Chassis Options

Some early Soviet tanks designed for amphibious or airborne operations were extremely light, in order to stay afloat or get aloft. Some efficient late-war models also managed great weight savings, though rarely on the same scale. Designing these might require this *Light Option* for the tank chassis on p. W118. Simply change the chassis statistics as indicated.

Midget: Weight becomes 1,600 lbs., cost $120, and HPs 52 for the body and 19 for the tracks.

Very Small: Weight becomes 3,200 lbs., cost $250, and HPs 100 for the body and 35 for the tracks.

Small: Weight becomes 4,700 lbs., cost $370, and HPs 125 for the body and 45 for the tracks.

Medium: Weight becomes 7,700 lbs., cost $615, and HPs 190 for the body and 70 for the tracks.

Large: Weight becomes 9,700 lbs., cost $800, and HPs 225 for the body and 80 for the tracks.

Very Large: Weight becomes 13,000 lbs., cost $1,000, and HPs 275 for the body and 100 for the tracks.

Immense: Weight becomes 16,000 lbs., cost $1,300, and HPs 320 for the body and 110 for the tracks.

Colossal: Weight becomes 21,000 lbs., cost $1,800, and HPs 390 for the body and 140 for the tracks.

THE MOTOR POOL

The following pages describe the most important vehicles encountered in Soviet forces; see also pp. W105, 115.

VEHICLES KEY

The military vehicles in this section are presented in the following format:

Descriptive Text

Each vehicle writeup begins with general descriptive text, which usually includes some of the details of using the vehicle, such as fuel consumption, turret rotation speeds, etc.

Subassemblies

This lists the chassis and each subassembly, with any options applied to each, followed by the size modifier to see or target that particular structure. The remainder of the writeup will use this structure name or an abbreviation in brackets to indicate the placement of other items. For instance, [OM 1] means the item in question is housed in the subassembly designated Open Mount 1. If no placement is described, the item is assumed to be in the body of the vehicle.

Powertrain

This describes the vehicle's engines, transmission, and electric motors (if any), fuel tankage, and batteries carried.

Occupancy (Occ)

This describes where and how the vehicle seats its occupants. (Again, unless otherwise designated, all crew stations are assumed to be in the body.) A "CS" is a crew station while a "PS" is a passenger station. An "SR" would indicate standing room used as makeshift passenger space. An "X" prefix means the station is exposed, while an "M" prefix means the station is a motorcycle seat. Long-term accommodations such as bunks will be covered in the descriptive text. Note that many vehicles in this chapter assign crew stations to their gun loaders, even though they don't have to (see p. W141), to give them a place to sit when not actually performing their job.

Cargo

This heading includes *all* empty space except access space and bilges within the vehicle, which almost always will be design "waste" space rather than a true cargo hold of some sort. Unless specific cargo space is assigned under *Equipment* (see below), assume that the largest single item that this space could hold would be just 10% as big as it is. For instance, a vehicle with 27 VSPs of empty space not truly dedicated to a cargo hold could not fit another crew station, because its single largest "nook" would be only 2.7 VSPs in size. The remainder of the space is scattered about the vehicle in other "crannies" of similar size. Unless they are specifically designed for cargo, the GM should feel free to place these restrictions on any empty space.

Armor

This lists the armor values on each face of each structure as PD value followed by DR value. Though motive subassemblies will always have the same value on all facings in this system, that value is repeated for each facing as a convenience. A "W" following the armor value denotes that it is wooden. An "S" indicates it includes DR 15 of standoff armor (pp. W140-141). "C" indicates cloth armor. Any special notes follow the values.

The DR value of armor per inch of real-world thickness can vary considerably depending on the quality of metal; see pp. W142, 145 for more detail. Real armored vehicles often had more armor on the forward portions of their top and underside facings than on the rearward; usually, an average is used in these cases. Also, period tank guns usually had their own armor plate, called a mantlet. Some mantlets protected only the gun, some extended across part of the turret front facing, and a few covered the entire turret face. Whether or not a design calculates turret front DR with or without this mantlet is a judgment call.

Weaponry

This lists each weapon (or set of identical weapons), its placement, and its ammunition stores. Any special notes are below the listings. See pp. W133-135 and p. 64 for statistics.

Equipment

This lists each structure with general equipment installed, followed by the equipment within it. See pp. W136-140 and p. 65 for descriptions of general equipment.

Statistics

Size gives the length, width, and height of the vehicle. *Payload* is the weight of a standard load of fuel, personnel, ammunition, and cargo. *Lwt.* is loaded weight. *Volume* is the amount of space the vehicle would take up if stored within another (presumably larger) vehicle. *Maint.* or *MH* describes either the maintenance interval in hours (p. W144) or the number of men required to keep up maintenance working eight-hour shifts on a long-occupancy vehicle. *Cost* is the vehicle cost, rounded; note that a "retail" price for the vehicle might be much higher; this figure does not include a profit margin, if any.

HT measures how robust the vehicle is; see p. W144. *HPs* measures the hit points of each structure; see p. W156.

gSpeed, etc. provide the vehicle's performance characteristics in each of its routine modes of travel; see pp. W145-149. Special characteristics for each mode are described under the general statistics line.

Design Notes

To facilitate usage of these vehicles as examples for the ***GURPS WWII*** design process, these notes indicate where components were purchased and then modified to historical values, or where any particularly notable "fudging" of calculated data to historical values had to take place.

Variants

While the description covers the general vehicle type, the statistics are for one particular variant. This section describes some or all of the other subtypes of the vehicle, with appropriate supporting statistics if the variant is much more complex than swapping one component for another.

ARTILLERY

The following describes some of the more common or colorful towed weapons that the Red Army deployed.

Tachanka

In the Great War, Russian troops learned to mount their machine guns on the backs of various carts, in order to enter or leave combat with the weapon ready to fire.

In the early days of WWII, Soviet cavalry troops took this a step further, mounting the MG, gunner, and teamster on a very light cart behind two to four horses. These *tachankas* could swoop into combat very quickly, but they also made large, vulnerable targets.

They didn't remain in use for long.

Subassemblies: Motorcycle chassis +0; two off-road wheels -1.

Occ: 1 XCS, 1 MCS Cargo: 0

Armor	F	RL	B	T	U
Body:	2/3	2/3	2/3	2/3	0/0
Wheels:	3/5	3/5	3/5	3/5	3/5

Weaponry

7.62mm Ground MG/DT [Body:B] (1,020 rounds).

Equipment

Body: Horse harness.

Statistics

Size: 5'×4'×3' *Payload:* 570 lbs. *Lwt:* 920 lbs.
Volume: 2.4 *Maint:* 331 hours *Cost:* $365

HT: 9. HPs: 20 Body, 8 each Wheel.

gSpeed: 24 *gAccel:* 3 *gDecel:* 10 *gMR:* 1.5 *gSR:* 2
Ground Pressure Moderate. 1/4 Off-Road Speed.

Design Notes

Technically, there's not quite room to squeeze in the MG, but an exception can be made for this 0.1-VSP case.

Variants

These are endless: larger carts, fewer or more than four horses, and more or larger MGs. None of these variations will stand up to a panzer with *its* MGs blazing . . .

45mm M-1942 AT Gun

The standard antitank gun in Red Army infantry units, this performed adequately at the beginning of the war, but rapidly became obsolete as the Germans improved their panzers.

A crew of two to five would serve the gun.

Subassemblies: Very Small Wheeled chassis +2; two heavy wheels +1.

Armor	F	RL	B	T	U
Body:	4/20	0/0	0/0	0/0	0/0
Wheels:	3/5	3/5	3/5	3/5	3/5

Weaponry

47mm Medium TG/47mm M-37 [Body:F] (0 rounds).

Statistics

Size: 15'×4'×4' *Payload:* – *Lwt:* 0.6 tons
Volume: 18 *Maint:* 184 hours *Cost:* $1,200

HT: 12. HPs: 85 Body, 28 each Wheel.

gSpeed: * *gAccel:* * *gDecel:* * *gMR:* 1.25 *gSR:* 2
Ground Pressure Low. 1/3 Off-Road Speed.
* Use towing vehicle's statistics after adding towed weight.

Design Notes

Though the design buys no armor except a gunshield, assume the gun itself has an intrinsic DR 5 on every facing.

76.2mm ZiZ-3 M-1942 AT Gun

Early models of this gun debuted in 1939. By 1942, Soviet factories were churning out thousands of these popular weapons, which performed far better than the usual 45mm piece. They also could fill a light-artillery role when needed.

The Germans captured and gladly used hundreds of them.

A crew of four to eight would serve the gun.

Subassemblies: Very Small Wheeled chassis +2; two heavy wheels +1.

Armor	F	RL	B	T	U
Body:	4/25	3/5	3/5	3/5	3/5
Wheels:	3/5	3/5	3/5	3/5	3/5

Weaponry

75mm Long Tank Gun/76.2mm ZiZ-3 [Body:F] (0 rounds).

Statistics

Size: 22'×5'×5' *Payload:* – *Lwt:* 1.9 tons
Volume: 18 *Maint:* 84 hours *Cost:* $5,700

HT: 10. HPs: 85 Body, 28 each Wheel.

gSpeed: * *gAccel:* * *gDecel:* * *gMR:* 1.25 *gSR:* 2
Ground Pressure High. 1/6 Off-Road Speed.
* Use towing vehicle's statistics after adding towed weight.

Design Notes

The chassis DR represents the ruggedness of this design. It endured rough handling well.

GAZ-67 4x4 Light Cars

The Soviets had known since the Winter War that they needed a light car or truck capable of off-road travel, but during 1941-42 every chassis had gone to meet quotas for armored cars, instead. In the meantime, they became impressed with the various U.S. models of jeep (see p. W106). While they received some 20,000 of the Lend-Lease vehicles through 1945, they also decided to build their own version at the *Gorkiy Avtomobil Zavod*, or Gorky Auto Factory, beginning in 1943.

The resulting vehicle was a knockoff of the American Bantam Car Co.'s jeep. An Anglo-American soldier would need to make a Soldier skill roll to notice the differences at a distance, if he had never seen a GAZ-67 before. Neither sophisticated nor spectacular, itserved well in the same tough, all-purpose roles that made the jeep famous. In January 1944, it was upgraded to the GAZ-67B model, which continued in production until 1953, with some 90,000 produced.

The GAZ-67B burns 1.8 gallons of gas per hour at routine usage. A full load of fuel costs $2.70.

GAZ-67B 4x4 Light Car

Subassemblies: Very Small Wheeled chassis +2; four off-road wheels +1.

Powertrain: 40-kW standard gas engine with 40-kW all-wheeled transmission and 18-gallon standard tanks; 4,000-kWs batteries.

Occ: 1 XCS, 3 XPS Cargo: 2.5 (exposed)

Armor	F	RL	B	T	U
All:	3/5	3/5	3/5	3/5	3/5

Equipment

Body: 2.5-VSP exposed cargo hold.

Statistics

Size: 11'×6'×6' *Payload:* 0.5 tons *Lwt:* 1.8 tons
Volume: 18 *Maint:* 308 hours *Cost:* $420

HT: 10. HPs: 85 Body, 14 each Wheel.

gSpeed: 75 *gAccel:* 3 *gDecel:* 10 *gMR:* 0.75 *gSR:* 4
Ground Pressure High. 1/4 Off-Road Speed.

Design Notes

The historical GAZ-67 series was known for poor acceleration, so the design gAccel 4 was reduced to 3. Historical gSpeed was 56 mph, but the design figure has been retained for the reasons given for the jeep on p. W106.

Whenever the GM wants mechanical failure to play a role with these vehicles, the brakes would be a good candidate. They had a reputation for failing quite often.

Variants

The original GAZ-67 had a substantially smaller wheelbase, which probably made it a marginally better off-road vehicle, but gave a terribly jolting ride.

GAZ-60 Caterpillar Truck

Early on, the Soviets did not deploy many halftrack vehicles, for the simple reason that they already had quite a few tractor plants making *full*-tracked vehicles. Where a halftrack might come in handy, they used a small tractor, instead.

Still, the Red Army realized that the hybrid vehicle had its advantages, and after capturing a few German halftracks (such as those on p. W:IC74), the Soviets became passionate about acquiring their own. They began to eagerly salvage even the most battle-damaged German halftracks, pulling out the various powertrain and caterpillar components and shipping them to the GAZ plant in the Urals.

There, the transmission and treads of the SdKfz 251 (see p. W:IC 75) armored personnel carrier were mated with the GAZ-63 truck to form the GAZ-60 unarmored halftrack, or caterpillar truck. Later, the Soviets built their own tread components for these vehicles, which served in a variety of roles towing artillery and transporting supplies to remote locales.

The GAZ-60 burns 1.7 gallons of gas per hour at routine usage. Fuel costs $4 for a full load.

GAZ-60 Caterpillar Truck

Subassemblies: Small Halftrack chassis +3; tracks +2.

Powertrain: 37-kW standard gas engine with 37-kW tracked transmission and 27-gallon standard tanks; 4,000-kWs batteries.

Occ: 2 CS Cargo: 24 (exposed)

Armor	F	RL	B	T	U
Body:	2/3	2/3W	2/3W	2/3	2/3
Tracks:	4/20	4/20	4/20	4/20	4/20

Equipment

Body: 24-VSP exposed cargo hold.

Statistics

Size: 17'×8'×7' *Payload:* 1.5 tons *Lwt:* 5 tons
Volume: 56 *Maint:* 219 hours *Cost:* $830

HT: 11. HPs: 300 Body, 85 each Track.

gSpeed: 33 *gAccel:* 2 *gDecel:* 20 *gMR:* 0.25 *gSR:* 4
Ground Pressure Moderate. 1/3 Off-Road Speed.

Design Notes

The truck was much lighter than the halftrack with which it was mated, so a smaller halftrack chassis than the German original is used, and the tread DR increased 5 to reflect that it originally came from a larger, more rugged vehicle.

Variants

Naturally, early examples of this vehicle would vary from truck to truck, as each was built with salvaged components. The GM should apply a -1 to Mechanic skills for even the most experienced GAZ-60 maintenance personnel, as they deal with one-of-a-kind problems with each repair.

Zis Trucks

Beginning production in the early 1930s, the Zis line of trucks held the distinction of being the first automotive exports in Soviet history (with Turkey purchasing 100 Zis-5s in 1934). By WWII, the rather conservatively modeled Zis could be found throughout eastern Europe, China, and Spain.

Despite beginning the war with more than 270,000 trucks (including more than 100,000 Zis-5s) in service, the Red Army found itself woefully short of transport, given its vast needs. Lend-Lease trucks such as the GMC $2^1/_2$ ton described on p. W107 would become highly valued additions to the Red truck park, but they never came to replace the Soviets' own models as is often believed. Foreign aid made up only 5% of 1943's starting fleet, 19% of 1944's, and 30% of 1945's.

Soviet truck-transport units often went where no truck drivers had gone before. Given the shortage of halftracks in the Red Army (p. 68), trucks were called upon to haul light artillery and troops. Given the shortage of good roads, these vehicles also routinely crossed ground that a jeep would not easily traverse. Average travel times could be *much* lower than would be expected for motor transport, as the drivers carefully nudged their way over massive tree roots and wormed around vast potholes or shell craters. Some routes through forests or swamp only had room for one vehicle; meeting oncoming traffic could present a serious problem.

The most famous, and perhaps most vicious, route that these trucks endured was Military Motor Highway #101 – the roughly 20-mile course across iced-over Lake Ladoga in the winter of 1941-42. From Nov. 19, first horse-drawn sleds then (from Nov. 22) a modest fleet of older trucks routinely crossed the waters to take food and other crucial supplies to Leningrad and to bring out the weakest of the famine victims. In this particularly hazardous duty, the drivers needed a considerable Survival (Arctic) skill. Though the Soviets were experts at ice roads, they had never before built one on Ladoga because its ice fractured and flowed, forming deep trenches and open channels of water. Trucks needed a sturdy 8" of ice beneath them to avoid crashing through. Snow greatly increased the hazards for the drivers. When the weather cleared, German artillery and strafing planes took their own toll. In addition, a shortage of trucks and qualified drivers kept both men and machines enduring this highly wearing work around the clock. (See pp. 96-99 for the killer combination of fatigue, hunger, sleep deprivation, and cold that this involved.)

Early losses were so severe that the Soviets thought about abandoning the supply route, but Leningrad's needs were too pressing. Any risk had to be taken. The drivers knew that every missed shipment meant that thousands of starving children and other civilians would not get their daily ration.

In December, Zis-5 trucks were introduced on the route, and greatly improved the drivers' odds. Able to make the trip in under an hour (assuming clear weather and good ice), they avoided the worst of the German fire and could make two or three circuits a day with a robust driver. Still, though highly celebrated, this "Road of Life" never delivered more than a fraction of Leningrad's needs as its weary drivers struggled with weather, breakdowns, and the ever-shifting ice.

The Zis-5 burns 2.4 gallons of gas per hour at routine usage. Fuel costs $2.70 for a full load.

Zis-5 3-ton 4x2 "Tryohtonka"

Subassemblies: Medium Wheeled chassis +6; four heavy wheels +3.

Powertrain: 54-kW standard gas engine with 54-kW wheeled transmission and 18-gallon standard tanks; 4,000-kWs batteries.

Occ: 2 CS Cargo: 110 (100 exposed)

Armor	F	RL	B	T	U
All:	3/5	3/5	3/5	3/5	3/5

Equipment

Body: 100-VSP exposed cargo hold.

Statistics

Size: 20'×7'×7' *Payload:* 3.3 lbs. *Lwt:* 6.7 tons
Volume: 150 *Maint:* 257 hours *Cost:* $600

HT: 10 HPs: 330 Body, 55 each Wheel.
gSpeed: 46 *gAccel:* 2 *gDecel:* 10 *gMR:* 0.5 *gSR:* 4
Ground Pressure High. 1/6 Off-Road Speed.

Design Notes

Historical gSpeed was 38, but design value is retained for reasons given on p. W106. The cargo bed normally had a wooden half-wall around it, but could be easily converted to a flatbed on most versions.

Variants

The Zis-5 went through many variations. Those produced after May 1942 had minor design changes to simplify production and conserve materials, and were called the Zis-5V. Ambulance and fuel-tanker versions also were fielded. A caterpillar hybrid much like the GAZ-60 also was created and called the Zis-33.

The Zis-6 truck was very similar but offered minor improvements, with many of the same variants.

These trucks, along with some Lend-Lease vehicles, served as the basis for the BM-13 Katyusha rocket launcher. This consisted of a flatbed truck with a large superstructure mounting 16 82mm HEAT rockets (see p. W132). Most of the superstructure served as a sort of launch rail. Any extra rockets for additional salvoes were carried on support vehicles.

BA-10 6x4 Armored Car

Like the British, the Russian Army had been very keen on the *bronieavtomobil*, or armored car, during the Great War. Even as tanks debuted late in that war – and quickly captured the imaginations of theorists in mechanized warfare – the interwar Red Army maintained an appreciation for the considerably cheaper and less troublesome wheeled armor.

In the meantime, the Germans also developed quite an interest in armored cars during the 1920s and early 1930s, when they worked closely (and secretly) with the Soviets on developing military technology and tactics. Unlike some areas of research – notably, in tanks – the future antagonists closely shared their experience and know-how in this field.

Thus, the BA-10 came to merge the latest German design elements with Russian design traditions dating back to the previous war. Built by the Izhorsk Motor Factory on a heavily reinforced and modified truck chassis, the armored car was big and heavy, but regarded as rugged and reliable by the troops that used it. Though the Red Army would have preferred all-wheel drive, it was considerably less expensive to drive just the two rear axles. A German innovation consisted of slinging the two spare tires low and free-spinning on each side, so that they could help the car cross over obstacles that might otherwise foul the chassis. Of course, this being a Soviet car, its standard equipment included tire chains for the rear wheels, to improve handling in the snow.

Some 1,200 of the cars had entered service when the war began – making it the most common armored car in Red service during the early years – and it performed well enough in the Khalkin Gol battles (see p. W11) against the Japanese and their own light vehicles. The Wehrmacht, however, destroyed a good portion of the BA-10s that they encountered and captured many others. These they assigned to antipartisan units in the USSR and Balkans as the Panzerspähwagen BAF 203(r).

The remaining BA-10s soldiered on, though by late 1942 the Soviets had become quite disenchanted with the armored-car concept. They increasingly turned to light tanks for their armored-reconnaissance needs, and converted the BA-10 to other uses, but individual cars remained in their original mission at least through 1943.

The BA-10 has a crew of four, with a driver and MG gunner in the chassis and a commander and main gunner in the turret. It burns 2.8 gallons of gas per hour at routine usage. Fuel and ammo cost $205. The turret is manually cranked by the main gunner at roughly 5˚ per turn.

BA-10 6x4 Armored Car

Subassemblies: Standard Wheeled chassis with Heavy option +3; full-rotation Medium Weapon turret with mild slope [Body:T] +1; six off-road wheels +2.

Powertrain: 63-kW standard gas engine with 63-kW all-wheel transmission and 25-gallon standard fuel tank; 8,000-kWs batteries.

Occ: 2 CS Body, 2 CS Both Cargo: 18.3 Body

Armor	F	RL	B	T	U
Body:	4/45	4/45	4/45	4/35	4/35
Wheels:	3/5	3/5	3/5	3/5	3/5
Turret:	5/70	4/45	4/45	4/35	–

Weaponry

37mm Tank Gun/M-1930 [Tur:F] (96 rounds).
7.62mm Ground MG/DT [Body:F] (2,394 rounds).

Equipment

Body: Medium radio receiver and transmitter (probably not actually installed in a high percentage of vehicles).

Statistics

Size: 15'×7'×8' *Payload:* 0.7 tons *Lwt:* 7.5 tons
Volume: 59 *Maint:* 117 hours *Cost:* $3K

HT: 12. HPs: 660 Body, 75 each Wheel, 75 Turret.

gSpeed: 46 *gAccel:* 2 *gDecel:* 10 *gMR:* 0.75 *gSR:* 4
Ground Pressure High. 1/4 Off-Road Speed.

Design Notes

The design purchases 90 rounds of 37mm ammo and 2,500 rounds of MG ammo, but the historical loads are listed. Historical gSpeed is 35, but design speed is listed per p. W106. It's a judgment call whether a 6×4 vehicle should be ruled as standard wheeled or all-wheel drive; a lot depends on the details of the suspension, tires, etc. The decision in this case was to consider it all-wheeled. (Still, though it certainly performed better than vehicles not designed to leave the road, the BA-10 had a reputation for underperforming in cross-country travel.)

Variants

Some of the original BA-10s carried a DShK heavy machine gun (Very Long Ground HMG) as their main armament in place of the 37mm weapon.

The BA-10M replaced the turret with that from a T-26B light tank, upgrading to a 45mm 20K M-1932/38 (47mm Short Tank) gun with DR 50 except DR 75 F and DR 35 T. This variant also was identified as the BA-32.

Before the war, the Red Army experimented with amphibious BA-10s, called the BAZ, but only a handful were made and the concept never resurfaced. In game terms, these would have pontoons (see p. W138) added in the form of a boatlike hull tacked to the exterior of the armored car.

From 1943, the cars increasingly had their turrets and arms removed, leaving only the driver and room to carry troops as a makeshift armored personnel carrier.

BA-64 4x4 Armored Car

While the BA-10 formed the mainstay of the Soviet armored-car fleet, the Red Army fielded a variety of other models, many of them with suspensions and/or powertrains supplied by GAZ (p. 68). None of these offered anything like the protection of the larger BA-10.

As fighting began in 1941, GAZ design personnel resolved to build a small armored car that would be both light and tough. Basing their design on the GAZ-64 light-truck chassis, the engineers incorporated the latest hard-learned lessons from their army liaisons. They needed a car that could serve as a reconnaissance element for units of heavier armored cars, as a commander's or staff vehicle, as a messenger vehicle shuttling between various units in a mechanized formation, and even as an AA auxiliary for tank columns. As usual, German elements crept into the design. Chassis elements and particularly the small turret much resembled that on the SdKfz 221 (see p. W:IC75). The designers had a captured example on hand.

Built by GAZ and the Vykunskiy Factory, the tiny cars entered service in June 1942. Four months later, the BA-64B debuted, incorporating several design improvements. The cars served across the Eastern Front, and even were called upon to support infantry by using their universal-mounted machine gun in urban combat to suppress fire from upper-story windows. Their crews took to calling them *Bobiks*, which basically meant "baby BAs."

By the end of the war, more than 8,000 of these armored cars had been fielded, making them the most common vehicle of their sort in the late Red Army.

The BA-64B had a crew of two, driver and commander. The latter really does not stick more than his head and shoulders into the miniscule turret. The BA-64B burns 1.8 gallons of gas per hour at routine usage. Fuel and ammo cost $20. The gunner manually cranks the turret at roughly 9˚ per turn.

BA-64B 4x4 Armored Car

Subassemblies: Very Small Wheeled chassis +2; full-rotation Medium Weapon turret with advanced slope [Body:T] +1; four off-road wheels +1.

Powertrain: 40-kW standard gas engine with 40-kW all-wheel transmission and 24-gallon standard fuel tanks; 4,000-kWs batteries.

Occ: 1 CS Body, 1 CS Both Cargo: 1.9 Tur

Armor	F	RL	B	T	U
Body:	5/45	4/30	5/45	4/20	4/20
Wheels:	3/5	3/5	3/5	3/5	3/5
Turret:	5/55	5/45	5/45	0/0	–

Weaponry

7.62mm Ground MG/DT [Tur:F] (1,260 rounds).*

Equipment

Turret: Medium radio receiver and transmitter in 42% of those BA-64s built during the war; universal mount for MG.

Statistics

Size: 12'×6'×6' *Payload:* 0.3 tons *Lwt:* 2.7 tons
Volume: 41 *Maint:* 200 hours *Cost:* $990

HT: 8 HPs: 85 Body, 14 each Wheel, 75 Turret.

gSpeed: 62 *gAccel:* 3 *gDecel:* 10 *gMR:* 0.75 *gSR:* 4
Ground Pressure High. 1/4 Off-Road Speed.

Design Notes

The design purchases 1,500 rounds of MG ammo, but the historical value is listed. Historical gSpeed was 50, but the design value is given per p. W106.

The turret employs an option that provides a 60˚ frontal slope, but splits that protection up as 30˚ each to front and back. This is a perfectly valid option. The chassis, meanwhile, is one of the rare wheeled sorts that could use the sloping options that the design system omits for brevity's sake. To emulate sloping, chassis armor is purchased up to effective thickness and the bonus PD added as a free benefit.

The turret has no top armor, but often featured a fold-down wire grid to prevent the enemy from throwing hand grenades down its opening.

Variants

The original BA-64 had a fairly serious defect, in that it did not take much of a sideways incline to tip it over on one side. In game terms, a design flaw lowered gSR to 3. It also had an open mount instead of the turret.

The BASh-64 was a rare command version of the car, with provisions for extra radios and a small map table.

The BA-64ZhD replaced the off-road wheels with railroad wheels, for patrolling crucial rail lines.

The BA-64DShK upgraded to a DShK heavy machine gun (Very Long Ground HMG) in place of the DT MG.

The designers experimented with a BA-64 troop carrier, the BA-64D, but never developed it. It carried six passengers. They also designed a BA-64SKh skitrack, which also never entered service.

In the field, BA-64 crews sometimes upgraded the armament on their own initiative. The PTRS-41 antitank rifle (normally an infantry weapon; see p. W92) and salvaged German 20mm cannons were favorite replacements.

T-60 Light Tank

Before the war, the Soviets were very interested in armor that could float across rivers. They designed and produced a good light tank for what turned out to be a bad idea.

Recognizing that their amphibious concept made the tank too thin-skinned to fight effectively, they discarded the flotation gear and increased the armor to produce the T-60. This was entering service just after the Great Patriotic War began.

By fall of 1941, T-60 units were deeply engaged in the war, often fighting out of their weight class. The tank made up a good portion of the armor scraped together to defend Moscow. (This largely followed from the fact that T-60s were being built in Moscow at the time. In the capital's darkest hours, new units might emerge from the factory with combat crews waiting for them.) In the following winter campaign, the light tank showed off its best trait, being able to navigate deep snow that no other vehicles could cross. Its crews also appreciated that the T-60 was relatively reliable – its design had incorporated as many established automotive components as possible – but this did not overcome the harsh reality of its thin armor and small gun. As they often did with vehicles they disliked, Soviet armor crews dubbed the T-60 a "coffin for two brothers." (With the same black humor, crews of specific T-60s often gave their tiny mounts grandiose nicknames, such as "The Terrible.")

In 1942, the tanks served across the southern front, leading the Germans to come up with their own despairing nickname, "the ineradicable locust." By this time, the Soviets almost exclusively used the T-60 against infantry, because the Wehrmacht no longer fielded very many armored vehicles with which it could compete. Upgraded armor improved the tank's survivability, but not by a large factor.

By this time, the Red Army largely had given up on keeping the T-60 alive on the battlefield, and began introducing the T-70 to replace it. Increasingly, those T-60s still in service were reassigned to guard transport or signal units, or to haul light artillery. After 1943, only a few remained in front-line units, often as command vehicles.

By war's end, the Soviets had fielded more than 6,000 T-60s. As was usual, the Germans captured many of these vehicles. They used them as artillery tractors, sometimes with the turret removed, or as tracked supply vehicles.

The T-60 has a crew of two: driver and commander. The latter also served as gunner. It burns 2.3 gallons of gas per hour at routine usage. The turret is manually operated by the commander and rotates at roughly 6º per second. Fuel and ammo cost $195.

T-60 Light Tank

Subassemblies: Very Small Tank chassis +2; full-rotation Medium Weapon turret [Body:T] +1; tracks +2.

Powertrain: 52-kW standard gasoline engine with 52-kW tracked transmission and 84-gallon standard fuel tanks; 8,000-kWs batteries.

Occ: 1 CS Body, 1 CS Both Cargo: 2 Body

Armor	F	RL	B	T	U
Body:	4/80	4/60	4/60	4/40	4/40
Tracks:	4/30	4/30	4/30	4/30	4/30
Turret:	4/80	4/60	4/60	4/40	–

Weaponry

Ground Light MG/DT [Tur:F] (945 rounds).*
20mm Long Ground AC/TNSh [Tur:F] (780 rounds).*
* Linked.

Equipment

Turret: A few T-60s will have a medium radio receiver and transmitter, but the cost of these is not included here.

Statistics

Size: 13'×8'×6' *Payload:* 0.7 tons *Lwt:* 6.4 tons
Volume: 37 *Maint:* 85 hours *Cost:* $5,550

HT: 12. HPs: 800 Body, 270 each Track, 75 Turret.

gSpeed: 29 *gAccel:* 2 *gDecel:* 20 *gMR:* 0.25 *gSR:* 4
Ground Pressure Very Low. 4/5 Off-Road Speed.

Design Notes

The design purchased 1,000 rounds of MG ammo and 765 rounds of 20mm ammo, but the historical figures have been used, instead.

Variants

From 1942, the T-60A upgraded hull frontal armor to DR 140 and rear armor to DR 100, with the turret receiving the same plus DR 100 side armor. These also introduced a 63-kW engine, but road performance remained the same given the increase in weight to 7 tons. These also had solid rather than spoked road wheels. Western sources sometimes call the original T-60 the M-1941 and the T-60A the M-1942.

Some late-war T-60s had rocket launchers added to them, by adding a topside superstructure representing the launch assembly. Others serving as artillery tractors may have had various handholds welded to them (a cosmetic detail that doesn't factor into the design process), because the gun crews usually rode atop the tank during towing operations.

BT-Series Fast Tanks

For more than a decade before the war, Soviet tank designers had been experimenting with the Christie suspension, an American innovation that allowed very high road speeds and the option for the vehicle to move even faster by removing its treads and traveling directly on its road wheels. By combining light armor with oversized powerplants based on aircraft engines, the Reds had their *bystrochodya tank* ("fast tank") performing feats of speed and agility that a period motorcycle might be hard-pressed to replicate.

By mid-decade, a Kharkov tank factory was churning out these nimble vehicles by the thousands. They performed well enough in China and Spain, but Soviet commanders rarely used them to the best of their abilities, deploying them as front-line armor rather than as quick flanking forces. In a conventional breakthrough role, the BTs' thin armor became a serious liability, and even antitank rifles knocked out considerable numbers of them.

Though protection was improved by the time that the Winter War and Great Patriotic War began, the tanks still could not do what Red Army commanders wanted tanks to do – breach strongpoints and break lines. They also suffered reliability issues, because their high-output, high-performance engines required competent maintenance that many of the crews could not provide. Though many a BT crew appreciated their mount – nothing else could get them into and back out of trouble more quickly – overall the tanks' reputation became rather bleak. The BT design concepts would endure in the T-34 (see p. W105), but the BTs themselves largely left the battlefield by the end of 1941. (In an alternate history, an innovative Soviet commander might deploy them in a role suiting their strengths, rapidly working around German thrusts to strike at rear units while avoiding contact with any panzers or AT guns. Proper handling might have extended the BTs' usefulness well past 1941.)

The BT-7 has a crew of three: driver, gunner, and commander (who also reloads the main gun as needed). It burns 15 gallons of gas per hour at routine usage. The turret is manually operated by the gunner and rotates at roughly 3º per second. Fuel and ammo cost $950.

BT-7-2 Fast Tank

Subassemblies: Medium Tank chassis +3; full-rotation Large Weapon turret [Body:T] +2; tracks +3.

Powertrain: 336-kW turbosupercharged gas engine with 336-kW tracked transmission and 210-gallon standard fuel tanks; 8,000-kWs batteries.

Occ: 1 CS Body, 2 CS Both Cargo: 1 Body, 3.8 Tur

Armor	F	RL	B	T	U
Body:	4/85	4/50	4/50	4/40	4/30
Tracks:	4/40	4/40	4/40	4/40	4/40
Turret:	4/115	4/60	4/60	4/60	–

Weaponry

Ground LMG/DT [Tur:F] (2,394 rounds).*
47mm Short TG/45mm M-1934 [Tur:F] (188 rounds).*
* Linked.

Equipment

Turret: As usual for early Soviet tanks, some command vehicles will have a medium radio receiver and transmitter, but the cost is not included here.

Statistics

Size: 19'×8'×8'	*Payload:* 1.6 tons	*Lwt:* 15.2 tons
Volume: 98	*Maint:* 60 hours	*Cost:* $11,300

HT: 12. HPs: 1,500 Body, 540 each Track, 120 Turret.

gSpeed: 47 *gAccel:* 4 *gDecel:* 20 *gMR:* 0.25 *gSR:* 5
Ground Pressure Very Low. 4/5 Off-Road Speed.

Design Notes

The design purchased 2,500 rounds of MG ammo and 200 rounds of 45mm ammunition, but the historical figures have been used. Though the design system's radios don't require this space, in real life installing the radios reduced 45mm ammunition capacity to 172 rounds.

Historical values for the BT-7's top speed vary widely, to as high as 54 mph. The design gSpeed is given. Some sources give two top speeds, with and without tracks, while others state that the BT-7 no longer had this ability of earlier BTs.

Variants

The BT-1 was a 1930 prototype directly copied from a Christie prototype that the Soviets procured. The BT-2 entered production in 1932, but never saw real combat. The BT-3 and BT-4 were further prototypes, while the BT-5 entered large-scale production in 1935. This 12.7-ton version – with DR 50 anywhere that it's higher on the BT-7 – fought in the early battles against the Japanese and in Spain.

The BT-7 incorporated lessons learned in the BT-5's service, primarily upgrading the armor, and already had a number of variants when the war began.

The BT-7-1 had possessed a straight-sided turret, where the BT-7-2's turret had sloped sides (not enough for any effect in game terms, but with enough real-life effect to heavily influence the T-34's shape).

The BT-7A replaced the 45mm gun with a 76.2mm howitzer (treat as a 75mm Short Tank Gun) for close support.

The BT-7-1U was a command version, which would almost always have the radios installed.

The BT-7M (alternately called the BT-8) used a diesel engine and had a distinctly modified front plate (DR 100).

Other experiments replaced the 45mm gun with a vehicular flamethrower, added flotation bodies (treat as pontoons per p. W138) to create an amphibious tank, or installed vehicular bridges on the deck to create an engineer tank.

T-28 Medium Tank

Before WWII, no one really knew what features the successful tank would incorporate. All sorts of theories were put forth about speed, protection, firepower. The Germans took a sensible view and built vehicles that would hold up in field use while performing adequately in all respects. The Soviets, meanwhile, experimented with extremes, the more colorful the better.

Thus, the three-turret T-28. Partially inspired by warship design, some prewar British theorists argued that infantry tanks would need multiple turrets, to suppress MG nests while leading a breakthrough or for close defense. The Soviets put this concept into production in two models, the T-28 and T-35, of which only the T-28 saw much combat.

Far more dramatic than effective, the tank performed well enough against Japanese infantry – who lacked effective antitank measures – but proved too slow and thin-skinned in the Winter War. Protection was increased before the Germans invaded, but it remained insufficient. Panzers shot up the T-28s that they encountered, then many of the Germans trailing after them shot keepsake photographs of the unusual Soviet design. By the end of 1941, the Red Army removed those few that had survived from front-line service. (Only a few more than 500 had ever been produced.)

The T-28 has a crew of six. The driver sits between the two MG gunners, each partially stationed in a small turret with a single MG, while the gunner, loader, and commander are partially stationed in the main turret. The loader or commander fires the *rear-facing* main-turret MG for close defense.

The tank burns 15 gallons of gas per hour at routine usage. The main turret electrically rotates 25˚ per turn or one man cranks it at 1.5˚ per turn. The MG turrets are manually rotated at 5˚ per turn. Fuel and ammo cost $1,025.

T-28A Medium Tank

Subassemblies: Large Tank chassis +4; full-rotation Medium AFV turret 1 [Body:T] +2; two limited-rotation Medium Weapon turrets 2-3 [Body:T] +1; tracks +3.

Powertrain: 336-kW turbosupercharged gas engine with 336-kW tracked transmission and 171-gallon standard fuel tanks; 8,000-kWs batteries.

Occ: See above. Cargo: 4 Body, 12.2 Tur 1, 3.8 Turs 2-3

Armor	F	RL	B	T	U
Body:	4/115	4/80	4/80	4/60	4/50
Tracks:	4/45	4/45	4/45	4/45	4/45
Tur 1:	4/155	4/80	4/80	4/60	–
Tur 2-3:	4/85	4/80	4/80	4/40	–

Weaponry

2×Ground LMGs/DTs [Tur 2-3:F] (2,646 rounds each).
Ground LMG/DT [Tur:B] (2,646 rounds).
75mm Short TG/76.2mm KT-28 [Tur:F] (70 rounds).

Equipment

Body: 3-kW traversing gear for turret 1. *Turret 1:* Medium radio receiver and transmitter. (*All* T-28s have radios.).

Statistics

Size: 24'×10'×9' *Payload:* 1.9 tons *Lwt:* 30.8 tons
Volume: 142 *Maint:* 44 hours *Cost:* $22,200

HT: 11. HPs: 1,800 Body, 600 each Track, 200 Turret 1, 75 Turrets 2-3.

gSpeed: 23 *gAccel:* 3 *gDecel:* 20 *gMR:* 0.25 *gSR:* 6
Ground Pressure Low. 2/3 Off-Road Speed.

Design Notes

The design purchased 8,000 rounds of MG ammunition and 80 rounds of main-gun ammo, but the historical figures have been used, instead.

Design gSpeed is 33; the historical figure (given above) strongly suggests either a carburetor-limiting device or inadequate transmission. The robust powerplant is a variant of that used in the BT-7, and realistically could be expected to perform much better despite the substantially increased weight. Another factor suggesting an artificial limit is that weight increases in the variants described below did not reduce top speed.

Variants

The original T-28 was manufactured at the Kirov Works in Leningrad from 1934 until 1938. The prototype had a 45mm main gun (treat as a 47mm Short Tank Gun). The production T-28 had less armor than on the T-28A.

The T-28V had a frame antenna around the main turret for an upgraded command radio set.

The T-28B from 1938 upgraded the armor in what the Soviets also called the *ekanirovki* ("screened") version, or T-28E. It had DR 115 added to the main turret and hull fronts, with sides and back of both improved to a total DR 155 and the hull top and underside DR raised to 90. It also upgraded to the 76.2mm L-26 (treat as a 75mm Medium TG).

The T-28C (also called the T-26M) of 1940 had T-26B statistics and further improved frontal DR to 310. This version *did* perform well in breaking through defensive lines in Finland, as should have the T-28B. Both probably suffered unfairly from the reputation of the T-28A.

The OT-28 deployed a vehicular flamethrower in place of the main gun. The IT-28 placed vehicular-bridge equipment (104 modules per p. W137 for a 13-yard, 50-ton-limit bridge) on the hull of a T-28B with main turret removed.

The SU-8 was going to mount 76.2mm and 152mm guns on the chassis, but never entered production.

The T-29 prototype mated the tracked-wheeled Christie suspension (p. 73) to the T-28 chassis. It never entered production, but further influenced design of the T-34 (see p. W105).

T-44 Medium Tank

Even the legendary T-34 (see p. W105) would need a next-generation replacement. This tank was it, though it arrived too late to make any significant impact on the war. Only three saw combat in WWII, crewed by a live-testing unit called Special Tank Company 100 in 1945 Germany. (A high-powered tanker campaign could not ask for a better setting.)

Development began in 1943. The T-44's design incorporated countless improvements from the T-34 and other influences, reflecting the Soviets' hard-won experience in armored combat by that point. It also made the radical move of turning its engines sideways in a transverse mount. This innovation allowed the hull to be substantially smaller. (This is the reason modern cars use the same mounting.)

By 1944, only serious issues with finding the right gun further delayed development. The first three prototypes mounted a 85mm gun and two variants of a 122mm gun. During trials in early 1944, the large guns quickly proved to be far too much for a medium tank. These prototypes also experimented with one-piece ammunition. Almost all big-bore guns previously had used two-part ammunition, with the shell and a bagged charge of propellant loaded separately. The Soviets thought that one-piece ordnance would improve ease of handling and rate of fire, but the loaders found it to be too long and heavy in the cramped turret. Ultimately, the WWII-era tank would stick with the 85mm gun while awaiting a 100mm piece designed for its needs.

By the end of 1945, the Soviets had nearly 1,000 T-44s held in reserve. By this time, the U.S. and Red armies had been rubbing elbows – and fraying each other's nerves – in occupied Germany for eight months. Historically, though matters became tense, they never disintegrated into renewed combat. In an alternate history, the T-44 might have been a nasty shock the Americans, in the same way that the T-34 had been for the Germans a few years earlier.

Ultimately, tank design throughout the remainder of the Soviet Union's history would reflect many of the innovations found in the T-44.

The T-44 has a crew of four: driver, gunner, loader, and commander. It burns 17.5 gallons of diesel per hour at routine usage. The turret electrically rotates at 13˚ per turn or one member of the turret crew manually rotates it at 0.5˚ per turn. Fuel and ammo cost $1,850.

T-44-85 Medium Tank

Subassemblies: Large Tank chassis with medium slope +4; full-rotation Large AFV turret [Body:T] +3; tracks +3.

Powertrain: 388-kW HP diesel engine with 388-kW tracked transmission (both with their volume calculated as for aircraft; see *Design Notes*, below) and 132-gallon standard fuel tanks; 16,000-kWs batteries.

Occ: 2 CS Body, 2 CS Both Cargo: 3 Body, 6.2 Tur

Armor	F	RL	B	T	U
Body:	6/700	4/290	4/175	4/60	4/80
Tracks:	4/45	4/45	4/45	4/45	4/45
Turret:	4/350	4/290	4/230	4/60	–

Weaponry

Ground LMG/DT [Body:F] (945 rounds).
Ground LMG/DT [Tur:F] (945 rounds).*
85mm Medium TG/85mm ZIS-S-53 [Tur:F] (58).*
* Linked.

Equipment

Body: Fire extinguisher. *Turret:* Medium radio receiver and transmitter; 5-kW traversing gear.

Statistics

Size: 25'×10'×8' *Payload:* 2 tons *Lwt:* 34.8 tons
Volume: 137 *Maint:* 30 hours *Cost:* $45,800

HT: 10. HPs: 1,800 Body, 600 each Track, 225 Turret.

gSpeed: 33 *gAccel:* 3 *gDecel:* 20 *gMR:* 0.25 *gSR:* 6
Ground Pressure Low. 2/3 Off-Road Speed.

Design Notes

The design purchased 2,000 rounds of MG and 63 rounds of main-gun ammo, but the historical figures have been used.

Sources vary widely on the T-44's armor protection. This writeup attempts to couple the most common chassis values with the early transplanted T-34/85 turret.

To represent the transverse-mounted powertrain's effect on size, it uses the volume formulas for aircraft on p. W128. This makes maintenance considerably more complex than with a traditional mount (as any older mechanic today will confirm). Many western sources state that the T-44's rushed development resulted in a number of mechanical flaws, but the primary issues were those with the gun, settled prior to mass production. In 1945-46, these sources may have been confusing the realities of maintaining a transverse powerpack with teething problems. Regardless, by the time of a U.S.-vs.-USSR scenario, most "bugs" in the T-44 would have been squashed. In many ways, the T-44 was much easier to manage than previous Soviet tanks. For instance, adjusting tension on the treads took one man and a wrench, where on the T-34 it took a sledgehammer and three men working up a good sweat.

Variants

Later T-44s received a new turret with no coaxial MG and a 100mm gun in place of the 85mm gun before production ended in 1946. By that time, the new T-54 design had tackled the T-44's issues with gun size. Existing T-44s remained in service, however, until the end of the 1970s.

Some T-44s (possibly only those with the updated turret) had a DShK HMG (Very Long Ground HMG) on an open mount beside the commander's hatch.

KV-Series Heavy Tanks

Engineers at Leningrad's Kirov Works also had the responsibility of designing the Soviet Union's latest heavy tank. They tested a couple of multiturreted prototypes during the early campaigns of the Winter War, but neither impressed anyone. One story has it that Stalin took a look at one of those candidates and suggested that, just maybe, one turret would do. Another has it that one design group cobbled together a single-turret concept as a backup, just in case their two-turret main entry failed. Either way, once the engineers settled on a single-turret design, it became immensely simpler to develop what the Red Army really wanted: a tank far tougher than any the world had yet seen.

Named after the commissar of Defense, Klementi Voroshilov (p. 29), the first KV-1 heavy tanks entered mass production nearly a year before Operation Barbarossa. The Red Army had stockpiled nearly 650 when the invasion began, but they were extremely rare in front-line units. Critics suggest that the Soviets had a policy of holding back their best armor, in case it was needed *against* rebellious front-line troops. Whatever the reason, across most of the front during 1941, the KV-1s only made sporadic appearances backing up far less formidable armor, often in units of only one or two.

When they did show up, however, the Wehrmacht shuddered. The KV-1s could not outrun panzers like the T-34 could, but the standard German tactic against T-34s – flanking them – did no good vs. KV-1s. They were almost as tough in back as they were in front. More than once, a single KV-1 held up entire advances for days, as the Germans tried desperate measures to knock it out of combat. A lucky hit with 105mm artillery could blow off a tread, but odds were the KV-1 already was sitting right where the crew wanted it. The only German gun capable of flat-out destroying it in 1941 was the 88mm AA gun (see p. W:IC71) converted to an AT role – but those weren't always available and could not always set up far enough away to avoid being destroyed by the KV-1 before being ready to fire. That left close assault – brave riflemen thrusting antitank mines beneath the turret's rear overhang or shoving grenades down the main gun's barrel. Fortunately for the Germans, the Soviet crews sometimes panicked or did something foolish before these costly measures had to be tried.

Though formidable, the original KV-1s were far from perfect. They had a ridiculously difficult clutch (-2 to Driving skill unless ST 14 or higher) and suffered from frequent transmission breakdowns. The powertrain's designers had not envisioned their equipment being asked to push so much weight around. (Early T-34s suffered the same problem, to the point that some crews strapped a spare transmission to the rear deck. That wouldn't be an untoward precaution on a KV-1, either.)

During the Soviets' production crisis of late 1941 and early 1942, the Germans enjoyed a period of relief from facing this armor in any real numbers, except at Leningrad. There, the encircled factories kept churning out the heavy tanks and driving them directly to their own front. (They could hardly ship them anywhere else.) Eventually, the KV assembly line was relocated to Chelyabinsk (p. 101).

From mid-1942, the Soviets fielded increasing numbers of this tank, mostly in specialized "breakthrough" units (p. 32). In this role, the KVs rarely faced panzers – none of which could really stand toe to toe with them until the Tiger (see p. W104). As they spearheaded penetrations of the German lines, their chief threat was antitank guns and ground-attack aircraft.

As 1944 began and the IS-series tanks began to take the field, the Soviets ended production of the KV series, possibly making it the first tank model to retire from the battlefield essentially undefeated.

The KV-1B has a crew of five: driver, hull MG gunner and radio operator, main gunner, loader, and commander. As needed for close defense, the loader or commander fires the rear-facing turret MG, which had become a staple on Soviet heavy tanks by this time.

The tank burns 20 gallons of diesel per hour at routine usage. The turret electrically rotates at 9° per turn or one member of the turret crew manually rotates it at 0.6° per turn. Fuel and ammo cost $2,030.

KV-1B M-1941

Subassemblies: Very Large Tank chassis +4; full-rotation Medium AFV turret [Body:T] +2; tracks +3.

Powertrain: 448-kW HP diesel engine with 448-kW tracked transmission and 159-gallon standard fuel tanks; 12,000-kWs batteries.

Occ: 2 CS Body, 3 CS Both **Cargo:** 11.3 Body, 8.3 Tur

Armor	F	RL	B	T	U
Body:	4/290	4/290	4/270	4/175	4/135
Tracks:	4/50	4/50	4/50	4/50	4/50
Turret:	4/290	4/290	4/290	4/235	–

Weaponry

Ground LMG/DT [Body:F] (1,008 rounds).
Ground LMG/DT [Tur:F] (1,008 rounds).
Ground LMG/DT [Tur:B] (1,008 rounds).
75mm Medium TG/76.2mm F-34 or ZiS-5 [Tur:F] (114).

Equipment

Body: Fire extinguisher. *Turret:* Medium radio receiver and transmitter; 3-kW traversing gear.

Statistics

Size: 23'×11'×9' *Payload:* 2.3 tons *Lwt:* 49.5 tons
Volume: 172 *Maint:* 28 hours *Cost:* $50,200

HT: 10. HPs: 2,300 Body, 800 each Track, 200 Turret.

gSpeed: 22 *gAccel:* 2 *gDecel:* 20 *gMR:* 0.25 *gSR:* 6
Ground Pressure Moderate. 1/2 Off-Road Speed.

Design Notes

The design purchased 3,000 rounds of MG ammunition and 120 rounds of main-gun ammo, but the historical figures have been used, instead.

Design gSpeed is 30; it seems highly reasonable that the historical figure given above stems from the transmission difficulties described for the early KV-1s, which never entirely disappeared.

Variants

The original KV-1, or M-1939, had a less powerful main gun (identical in game terms) and likely lacked the hull MG.

The KV-1A, or M-1940, introduced a bit more robust 76.2mm gun and minor modifications to the armor.

The KV-1E was a KV-1B that had an extra DR 135 screwed onto the turret sides and welded to the hull front and sides. These conversions were made in 1941.

In 1942, the M-1941 began receiving a cast rather than welded turret. This remains known as the 1941 model but not as the KV-1B.

In the KV-1C, some of those cast-turret models got more armor, for a frontal turret DR 465 and hull frontal DR 345.

The KV-1S was a common variant produced in 1942-43 after the Red Army got frustrated with the lumbering KV-1 falling behind the T-34 formations in a standard armor unit. It managed to reach gSpeed 27 by combining an improved powertrain with reduced armor (hull DR 235 except top DR 120 and bottom DR 135; turret frontal DR became 315 and top DR 155 while the sides and rear remained DR 290).

The KV-8 was based on the KV-1C but replaced the main gun with a 45mm TG (treat as 47mm Short TG) with 116 rounds and a coaxial Vehicular Flamethrower (the ATO-41). It carried 6 VSPs of fuel for the latter, giving it 90 shots in game terms. (It "officially" gets about 55 shots from that fuel; history does not record how long the average real-life burst was.)

The KV-8S was a KV-8 conversion of the KV-1S.

The KV-85 was a KV-1S (in a few cases, KV-1C) with a new turret mounting an 85mm D-5T85 (85mm Medium TG) and the crew cut to four. The Large AFV turret had DR 385 except top DR 155. These conversions began in late 1943, so few were finished by the time that KV production ended.

KV-2 Heavy Tank

Beginning in 1940, some KV hulls were fitted with a huge and unwieldy turret large enough for a 152mm howitzer. These were intended to demolish strongpoints in the Finns' defensive lines, but the vehicle proved ill-conceived. The turret rotated slowly – or not at all if the vehicle was parked on much of a slope – and its tall profile made it a tempting target. Still, the KV-2 packed a tremendous punch and on flat ground could hold its own.

The KV-2 has a crew of six: driver, hull MG gunner and radio operator, main gunner, two loaders, and commander. As needed for close defense, the loader or commander fires the rear-facing turret MG. (If installed. Some sources suggest that this heavy-tank feature was omitted on the KV-2.)

The tank burns 20 gallons of diesel per hour at routine usage. The turret electrically rotates at 6˚ per turn or one member of the turret crew manually rotates it at 0.4˚ per turn. (Reduce speed 10% for each 2˚ of slope.) Fuel and ammo cost $1,850.

KV-2B M-1941

Subassemblies: Very Large Tank chassis +4; full-rotation Small TD turret [Body:T] +3; tracks +3.

Powertrain: 448-kW HP diesel engine with 448-kW tracked transmission and 159-gallon standard fuel tanks; 12,000-kWs batteries.

Occ: 2 CS Body, 4 CS Both **Cargo:** 6.4 Body, 5 Tur

Armor	F	RL	B	T	U
Body:	4/290	4/290	4/270	4/175	4/135
Tracks:	4/50	4/50	4/50	4/50	4/50
Turret:	4/290	4/290	4/290	4/115	–

Weaponry

Ground LMG/DT [Body:F] (1,008 rounds).
Ground LMG/DT [Tur:F] (1,008 rounds).
Ground LMG/DT [Tur:B] (1,008 rounds).
15cm Very Short Infantry Gun/152.4mm M-10 [Tur:F] (36).

Equipment

Body: Fire extinguisher. *Turret:* Medium radio receiver and transmitter; 3-kW traversing gear.

Statistics

Size: 23'×11'×11' *Payload:* 3.1 tons *Lwt:* 57.3 tons
Volume: 187 *Maint:* 28 hours *Cost:* $50,200

HT: 9. HPs: 2,300 Body, 800 each Track, 285 Turret.

gSpeed: 16 *gAccel:* 2 *gDecel:* 20 *gMR:* 0.25 *gSR:* 6
Ground Pressure Moderate. 1/2 Off-Road Speed.

Design Notes

As for the KV-1B, p. 76.

Variants

The KV-2A, or M-1940, probably lacked the hull MG, but sources vary on this detail.

IS-Series Heavy Tanks

Despite its worthy combat record, the KV-1 obviously lacked the ability to carry the really big gun that the next generation of Soviet heavy tank would need. By late 1942 – with the formidable Tiger tank (see p. W104) taking the field for the Wehrmacht – Soviet tank designers based in the Urals began planning their next big thing.

The resulting prototypes built heavily on the KV's design elements. Named the Iosef Stalin, or IS, series after the Soviet leader, these were rushed through the testing cycle and early stopgap IS-1s entered production in late 1943. These took over the breakthrough role previously held by the KV-1 in the Ukraine of early 1944, but the Red Army fielded only about 100 before the much more promising IS-2 became available. From mid-1944 to the final battles in Berlin's rubble, these heavies led Red Army assaults with an almost unparalleled combination of firepower and toughness.

Despite being able to fight any Tiger or Panther on at least even terms, the IS-2 had its faults. The Soviets had wanted to install a 100mm gun with excellent armor-piercing qualities, but this weapon was no more ready for the heavy tank than it would be for the T-44 (p. 75). Instead, they settled on a 122mm gun with bulky, two-piece ammunition. This limited the tank's ammunition-carrying capacity, and thus its limited combat endurance probably represented its greatest weakness.

By the end of the war, the IS-series tanks may have been the most powerful on the battlefield. They certainly would have presented a serious challenge in the sort of postwar skirmish with the Americans described on p. 75.

The IS-2 has a crew of four: driver, gunner, loader, and commander. The loader or commander fires the rear-facing turret MG whenever needed for close defense.

The tank burns 20 gallons of diesel per hour at routine usage. The turret electrically rotates at 8˚ per turn or one member of the turret crew manually rotates it at 0.2˚ per turn. Fuel and ammo cost $2,850.

IS-2 Heavy Tank

Subassemblies: Very Large Tank chassis with mild slope +4; full-rotation Medium TD turret with mild slope [Body:T] +3; tracks +3.

Powertrain: 448-kW HP diesel engine with 448-kW tracked transmission and 138-gallon standard fuel tanks; 12,000-kWs batteries.

Occ: 1 CS Body, 3 CS Both Cargo: 5.8 Turret

Armor	F	RL	B	T	U
Body:	5/700	4/350	4/235	4/115	4/100
Tracks:	4/50	4/50	4/50	4/50	4/50
Turret:	4/730	4/350	5/525	4/115	–

Weaponry

Ground LMG/DT [Tur:F] (1,165 rounds).*
Ground LMG/DT [Tur:B] (1,165 rounds).
128mm Medium TG/122mm D-25T [Tur:F] (28 rounds).*
* Linked.

Equipment

Body: Fire extinguisher. *Turret:* Medium radio receiver and transmitter; 7-kW traversing gear.

Statistics

Size: 32'×10'×9' *Payload:* 2.6 tons *Lwt:* 51 tons
Volume: 202 *Maint:* 22 hours *Cost:* $134K

HT: 10. HPs: 2,300 Body, 800 each Track, 360 Turret.

gSpeed: 23 *gAccel:* 2 *gDecel:* 20 *gMR:* 0.25 *gSR:* 6
Ground Pressure Moderate. 1/2 Off-Road Speed.

Design Notes

The design purchased 2,500 rounds of MG ammunition, but the historical figure is used, instead. Design gSpeed is 30; again, the historical value is given. It's likely that this tank inherited some of the powertrain issues described for the KV series, limiting its top speed.

This was an *extremely* compact and light design for the times, requiring some inventiveness to design. The hull armor is purchased as expensive, but only to the DR that standard tank armor would provide. (This makes it lighter, if costlier, while not changing its in-game statistics.) Also, though the chassis had 30˚ slope on the back, this is ignored because it simply uses up too much volume. (This can be rationalized a bit, because in real life the tank's rear facing had several hatches and other features that would have acted as "shot traps," nullifying much of the sloping benefit.) Despite these measures, the design is 29% heavier than the real-world value given above.

Variants

The IS-1 used the turret from the KV-85, complete with 85mm main gun. Surviving examples were converted to the IS-2 turret when it became available.

The IS-3 greatly redesigned both turret and chassis, improving armor and slope on most facings. (Notably, it had only DR 80 on all top and underside facings, and would have been drastically vulnerable to mines and air attack in comparison to its tank-vs.-tank protection.) Reports vary, but a few of these might have entered combat in the very last days of the war. Regardless, this was almost a modern (TL7) design, and would be difficult to emulate in the WWII design system.

SU-76 Self-Propelled Gun

Alongside their panzers, the Germans also fielded self-propelled guns, or tanks with the turret replaced by a larger superstructure often holding a larger gun. The Soviets became quite impressed by these. By late 1942, they decided to install the 76.2mm antitank gun (p. 67) in a fixed superstructure atop a modified light-tank chassis then in production.

This *samokhodnaya ustanovka* ("self-propelled mount") became the SU-76. Looking every bit as makeshift and utilitarian as it was, it took the field as a tank destroyer in mid-1943. Unfortunately, the Soviet evaluation had failed to distinguish the success of the Wehrmacht's assault guns from the mixed results of its tank destroyers. The assault guns did not increase their gun size from that of a standard panzer, in order to afford lots of frontal armor and keep a low profile. The tank destroyers – with a higher superstructure and thinner armor to offset the demands of carrying a big gun – found it far harder to survive. All else being equal, they were worth shooting at first.

The SU-76 suffered the same problems as its German counterparts. Panzer units made a point of knocking out the thin-skinned vehicle before it could start creating trouble for them. Adding to its woes, by the time that the SU-76 took the field, its gun no longer guaranteed a one-shot kill against the heaviest German armor.

Given this unfortunate track record, the Red Army shifted the SU-76 to fill the role of an assault gun, assisting the infantry during offensives by knocking out strongpoints. While it did fare a little better at this job, the crews still tended to hate their mount. It still drew enemy fire – and it became a deathtrap if German infantry tossed a grenade into the fighting compartment. Also, the SU-76 offered no creature comforts. The open top let in the weather, and the driver had to sit right next to the twin engines with nothing to muffle their noise. Its suffering crews frequently referred to the SU-76 as *Sukami* or *Suka* ("bitch"), or mockingly as *Golozhopij Ferdinant* ("bare-ass Ferdinand," referring to a much heavier and fully enclosed German tank destroyer).

Despite its crews' complaints, the SU-76 became one of the most common types of Soviet fighting vehicle. By the end of the war, almost 15,000 had been produced at various plants. The Red Army would end up giving them away for years after the war.

The SU-76 has a crew of four: driver, gunner, loader, and commander. It burns 4.7 gallons of gas per hour at routine usage. Fuel and ammo cost $1,175.

SU-76

Subassemblies: Small Tank chassis with medium slope +3; Large AFV superstructure [Body:T] +3; tracks +2.

Powertrain: two 52-kW standard gasoline engines with 104-kW tracked transmission and 111-gallon standard fuel tanks; 8,000-kWs batteries.

Occ: 1 CS Body, 3 CS Sup Cargo: 0.2 Sup

Armor	F	RL	B	T	U
Body:	6/195	4/60	4/60	4/30	4/30
Tracks:	4/35	4/35	4/35	4/35	4/35
Super:	4/100	4/40	4/60	0/0	–

Weaponry

75mm Long Tank Gun/76.2mm ZiZ-3 [Sup:F] (60 rounds).

Equipment

Body: Fire extinguisher. *Super:* Medium radio receiver and transmitter.

Statistics

Size: 16'×9'×7' *Payload:* 1.5 tons *Lwt:* 11.9 tons
Volume: 73 *Maint:* 55 hours *Cost:* $13,100

HT: 12. HPs: 1,000 Body, 400 each Track, 225 Superstructure.

gSpeed: 28 *gAccel:* 2 *gDecel:* 20 *gMR:* 0.25 *gSR:* 5
Ground Pressure Low. 2/3 Off-Road Speed.

Design Notes

Design gSpeed is 30.

Variants

A lot of adjustments were made to this vehicle during its production run. The first SU-76s had their 76mm gun placed along the centerline, but the Soviets soon shifted it toward the left to allow mounting the engines in line rather than on each side of the gun. This change had the dual advantages of increasing room for the reloading process and requiring only one transmission (rather than one for each pairing of track and engine).

The shaping of the armor was slightly changed as time went on. Many of the mid-run vehicles had a low rear superstructure plate, leaving the gun crew exposed from that facing. A few SU-76s even received a thinly armored roof.

A few late SU-76s had alternative engines that were air-cooled (no appreciable change in game terms).

The SU-76I designation applied to more than one sort of vehicle. Technically, the name SU-76 applied to *any* sort of vehicle converted into a self-propelled 76.2mm gun. Thus, when the Soviets captured German StuGs (see p. W:IC80), they sometimes switched their 75mm cannon for a 76.2mm Soviet weapon and called the resulting vehicle by this designation.

The SU-76M, or M-1943, mounted improved (63 kW) engines side by side.

SU-122 Self-Propelled Gun

The next step up from self-propelled guns of the SU-76's caliber required a larger hull. Eyeing their reliable T-34 chassis, the Soviets tested a variety of assault-gun configurations on it. Once they settled on a 122mm gun package, the most promising prototype entered production in December 1942 and entered combat the next month outside Leningrad as the SU-122.

Even with its massive gun, the SU-122 turned out to be a less than outstanding tank killer, if far better than the SU-76. The primary problem was that the crews did not always receive the best ammunition mix for the job. Instead of the armor-piercing rounds that would make the 122mm weapon truly potent, they often received an undeveloped HEAT round that lost effectiveness at any sort of range.

Ultimately, they had to rely on the massive effect of their HE rounds to destroy most panzers. A Tiger or Panther could shrug off these explosives from the front. From the side or rear was a different story: The ISU-22's HE rounds could break open welded seams and spray armor flakes through the crew compartment of even these first-rate vehicles.

Like the SU-76, the SU-122 was shifted toward infantry support as better tank-killing vehicles came into service, even though it finally received a good HEAT round for use against armor in May 1943.

By late 1943, the Soviets quit making the SU-122 to concentrate on the even more powerful SU-152. By that time, however, more than 1,000 SU-122s had entered service.

As usual, the Germans captured some of these assault guns, and eagerly returned them to the field. They used a 122mm field howitzer with interchangeable ammunition, so had no problem keeping their converted SU-122s firing. Additionally, given all the T-34s that they had captured over the years, they found it relatively easy to keep the SU-122s running. Since Wehrmacht veterans were eager to kill Soviet SU-122s before they began firing, the German crews of captured vehicles invariably painted crosses and swastikas all over them . . .

The assault gun carried a crew of five: the driver sat toward the left front of the fighting compartment with the gunner behind him, the commander stood at the right front on the other side of the gun and the two loaders worked toward the rear and right. The gun used two-piece ammunition. Only small arms were carried for close defense.

The SU-122 burns 34 gallons of diesel per hour at routine usage. Fuel and ammo cost $2,200.

SU-122 Assault Gun

Subassemblies: Very Large Tank chassis with medium slope +4; Large TD superstructure with medium slope [Body:T] +4; tracks +3.

Powertrain: 373-kW HP diesel engine with 373-kW tracked transmission and 111-gallon standard fuel tanks; 12,000-kWs batteries.

Occ: 5 CS Both Cargo: 1 Body, 0.9 Sup

Armor	F	RL	B	T	U
Body:	5/255	4/170	5/255	4/80	4/80
Tracks:	4/50	4/50	4/50	4/50	4/50
Sup:	5/255	4/170	5/255	4/80	–

Weaponry

128mm Medium TG/122mm M-30S [Sup:F] (40 rounds).

Equipment

Body: Fire extinguisher. *Superstructure:* Medium radio receiver and transmitter.

Statistics

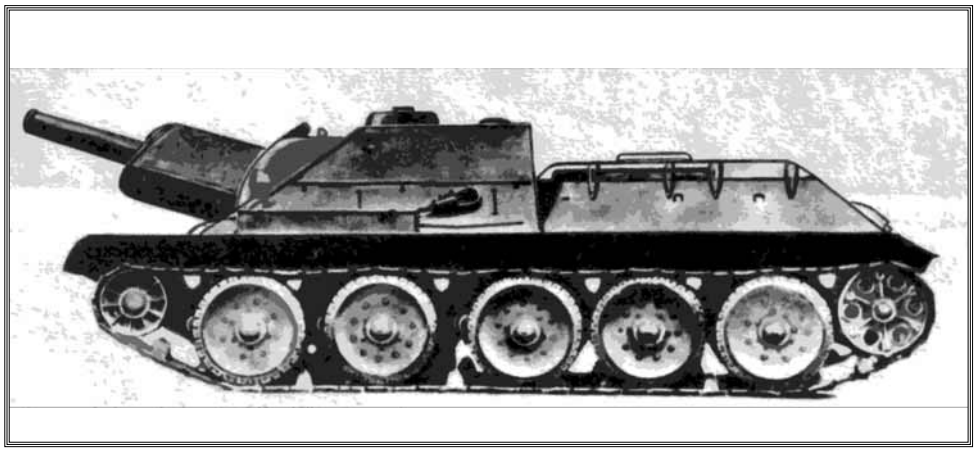
Size: 23'×10'×8' *Payload:* 3.2 tons *Lwt:* 38 tons
Volume: 227 *Maint:* 28 hours *Cost:* $52,200

HT: 11. HPs: 2,300 Body, 800 each Track, 450 Sup.

gSpeed: 34 *gAccel:* 3 *gDecel:* 20 *gMR:* 0.25 *gSR:* 6
Ground Pressure Low. 2/3 Off-Road Speed.

Design Notes

Design gSpeed is 31. The payload cost assumes that the crew has mostly HE rounds. When available, the official loadout would include a considerably large proportion of HEAT – and possibly some AP rounds – but these only came into regular supply later in the fighting.



Variants

The SU-152 was a considerably different vehicle, built on the KV-1 chassis and mounting a mammoth 152mm howitzer (treat as a 150mm Medium DP Gun). Some crews called it *Zvierboy* ("animal killer"). Debuting at Kursk, it usually annihilated whatever it hit, but its slow rate of fire ensured that survivors on the other side would get in their shots, too. It was much like the ISU-152 on p. 81 except that it had DR 230 around the front, side, and rear facings.

ISU-152 Self-Propelled Gun

With the SU-122 and SU-152 bringing real success to the concept of self-propelled guns, the Soviets were not about to give up on a good thing. As the IS-series tanks (p. 78) went into production, armor designers immediately began using the new chassis to build a bigger, badder assault gun.

Badder, anyway. The vehicle that emerged from this process – the ISU-152 – externally was almost a twin of its ancestor, the SU-152 (p. 80). It carried a great deal more armor, however, and this protection coupled with its outlandish firepower made it a favorite weapon to place at the point of the Soviet spear.

Most ISU formations automatically were named guards units (p. 32), and from their very first action in mid-1944 they generally earned this money and prestige. The assault guns came into their own during Operation Bagration that summer, facing off against the Wehrmacht's heavy tanks with high-explosive shells and coming off the best for it. ISU-152s trundled on through the final campaigns to lead the way into Berlin, obliterating buildings from which gunfire erupted as the Reich's last defenders made their stand.

As usual with Soviet late-war designs, if these guns had a weakness it was their critically low storage space for shells. Few battles involving ISUs did not see a stream of support vehicles transferring ammunition up to the fighting – and a shrewd German commander could make these supply vehicles into the weak link that the ISU itself was not. Even with steady supply, loading fresh ammunition into the ISU-152 took about two minutes per round, which consisted of a shell and separate canvas-bagged charge of propellant. Needless to say, this slowed down the assault guns' rate of fire considerably after the initial barrage.

The ISU-152 was supposed to have an antiaircraft HMG, but for close defense the crew relied upon nothing more than SMGs and grenades. Recognizing that the armor personnel would have better things to do than use their vehicle as a miniature Alamo, the designers installed handrails around the large, flat roof. The ISUs typically went into battle with (at least) a squad of infantry riding atop each one as close support.

The ISU-152 carried a crew of five: driver, commander, gunner, and two loaders. It burns 40 gallons of diesel per hour at routine usage. Fuel and ammo cost $1,525.

ISU-152 Assault Gun

Subassemblies: Very Large Tank chassis with mild slope +4; Large TD superstructure with mild slope [Body:T] +4; tracks +3.

Powertrain: 448-kW HP diesel engine with 448-kW tracked transmission and 138-gallon standard fuel tanks; 12,000-kWs batteries.

Occ: 5 CS Both Cargo: 1 Body, 1.2 Sup

Armor	F	RL	B	T	U
Body:	5/520	4/350	5/345	4/115	4/80
Tracks:	4/50	4/50	4/50	4/50	4/50
Sup:	5/520	4/290	4/230	4/115	–

Few battles involving ISUs did not see a stream of support vehicles transferring ammunition up to the fighting . . .

Weaponry

150mm Medium DP Gun/152mm ML-20S [Sup:F] (20).

Equipment

Body: Fire extinguisher. *Superstructure:* Medium radio receiver and transmitter.

Statistics

Size: 30'×10'×8' *Payload:* 2.8 tons *Lwt:* 50.7 tons
Volume: 227 *Maint:* 18 hours *Cost:* $131K

HT: 10. HPs: 2,300 Body, 800 each Track, 450 Sup.

gSpeed: 23 *gAccel:* 2 *gDecel:* 20 *gMR:* 0.25 *gSR:* 6
Ground Pressure Moderate. 1/2 Off-Road Speed.

Design Notes

Design gSpeed is 30. The ISU-52 was supposed to have a DShK HMG (treat as a Very Long Ground HMG) on a pintle mount next to the commander's hatch, but in wartime photos this antiaircraft gun isn't visible.

Like the IS-series tanks (p. 78), this is a very compact and light piece of engineering, displaying a level of skill and technology that the WWII design system is hard-pressed to represent. This design uses the same armor trick described for the IS writeup, and does not technically give the chassis the extra bit of slope that it needs for the rear facing. To save space, the armor there is purchased up to its real-life effective DR, and the extra point of PD awarded as a design bonus feature. Despite these measures, the design is 27% heavier than the real-world value given above.

Variants

The 152mm gun came into short supply during production, so some ISUs were fitted with the 122mm gun and dubbed the ISU-122. These actually did a bit better job of killing armor; they had the proper ammunition for the work by this late period of the war.

The Soviets routinely experimented with minor variations on the guns in these vehicles, but few of these tests amounted to anything historically, nor would any of them have any real effect in game terms.

LAVOCHKIN-GORBUNOV-GUDKOV FIGHTERS

In 1938, the Soviets allowed some of their top aircraft engineers to form their own design studio: Lavochkin-Gorbunov-Gudkov, or LaGG. Their first job was to design the replacement for the nation's prewar fighter, the Polikarpov I-16 (see p. W:MP101).

They came up with a plane made largely of sandwiched plastic and wood (basically, plywood). The prototype's performance was quite poor, but the war lurked on the horizon. The design team hastily corrected the worst and most obvious of its faults, and the resulting plane entered production as the LaGG-3.

This became the most common fighter in Red service during the early days of the Great Patriotic War, if far from the most loved. Though maneuverable, the plane had a dangerous tendency to spin out of a turn, and was sluggish in getting up to speed. Its airframe did not hold up well during the stresses of flight – the Reds discovered that a LaGG-3 had a service life of about 80 hours. This would have been a real issue had the Luftwaffe not made the plane's life expectancy considerably shorter. The LaGG-3's pilots said that the initials actually stood for *Lakirovannii Garantirovannii Grob*, or "varnished guaranteed coffin."

With all that against it, the LaGG-3 did have its good points. Its wooden hide and spars absorbed damage well, and could be quickly patched in the field. Other than the nasty quirks in a turn, it handled easily for novice pilots, and could be modified to take a variety of loadouts. Ultimately, it would lead to some far more competent fighters in the years to come.

The LaGG-3 burns 42 gallons of gas per hour at routine usage. A full load of fuel and ammo costs $180.

LaGG-3

Subassemblies: Medium Fighter chassis +3; Medium Fighter wings +2; three retractable wheels +0.

Powertrain: 924-kW aerial turbosupercharged gas engine with 924-kW prop and 123-gallon standard tanks [Body and Wings]; 2,000-kWs batteries.

Occ: 1 CS Cargo: 0

Armor	F	RL	B	T	U
Body, Wings:	3/5W	3/5W	3/5W	3/5W	3/5W
Wheels:	2/3	2/3	2/3	2/3	2/3

Weaponry

2×Long Aircraft HMGs/UBSs [Body:F] (220 rounds each).*
20mm Long Aircraft AC/ShVAK [Body:F] (650 rounds).*
* HMG pair linked, plus second link can fire all at once.

Equipment

Body: Autopilot; navigation instruments; medium radio receiver and transmitter. *Wings:* 220-lb. hardpoint each.

Statistics

Size: 29'×32'×9' *Payload:* 0.7 tons *Lwt:* 3.6 tons
Volume: 200 *Maint:* 51 hours *Cost:* $15,500

HT: 8. HPs: 120 Body, 80 each Wing, 12 each Wheel.

aSpeed: 350 *aAccel:* 8 *aDecel:* 16 *aMR:* 4 *aSR:* 2
Stall Speed 83. -5 aSpeed per loaded hardpoint.
gSpeed: 234 *gAccel:* 11 *gDecel:* 10 *gMR:* 0.5 *gSR:* 2
Ground Pressure Very High. 1/8 Off-Road Speed.

Design Notes

The design buys 400 rounds of 12.7mm HMG ammunition and 630 rounds of 20mm ammunition, but the historical amounts are given. The historical wing area, at 189 sf, was used in calculating performance.

The components don't quite want to fit into this package of air chassis and wings. A bit more than the historical fuel tankage has been shifted to the wings, and the access space from the pilot's crew station has been diverted to other purposes.

Various sources give different historical aSpeeds for the LaGG-3, all of them close to the design value, which is listed. They also vary on the plane's ability to carry slung ordnance, with some stating it was as high as 550 lbs. per wing.

Though later versions of this plane mounted larger engines (see below), these would be converting to HP models, which actually decrease in overall size even with a moderate increase in power output. Still, all designs based on this airframe are going to be very tight-fitting.

Variants

The LaGG-1 had entered service in small numbers by early 1941. It had a smaller (783-kW) powerplant but weighed a bit more than its lightened descendant. It only carried 75 gallons of fuel with no wing tankage.

The LaGG-3 was produced from mid-1941 to mid-1942. Units in the field sometimes upgraded its cannon to a 23mm VYa-23 (23mm Long Aircraft AC). Others added another pair of 12.7mm HMGs in small pods beneath the wings. (These undoubtedly would take up at least some of the space usually used to carry bombs on hardpoints.) Some 6,400 were built.

The La-5 evolved when the original designers eventually decided to refit the LaGG-3 with a 1,231-kW radial engine. It debuted as the LaGG-5 in January 1942 before eventually taking on the shortened name. It underwent a rolling series of minor upgrades – starting with the engine switch, the engineers implemented assembly-line changes little by little, to avoid slowing production – including cockpit armor and some metal structural parts (ignored in game terms). Self-sealing fuel tanks probably appeared early in this process, and possibly even on later LaGG-3s. Typical armament consisted of two 20mm Long Aircraft ACs.

The final version of this airframe was the La-5N. Debuting at Kursk, it reached aSpeed 403 with its 1,268-kW powerplant and competed on even terms with the Germans.

Finally given a bit of breathing space, the designers gave their chassis a thorough overhaul to squeeze a bit more aerodynamics out of it. The resulting La-7 could boast aSpeed 423, and those from the Yaroslavl plant fitted three cannons. (Moscow-built La-7s still had only two.) Along with the later La-5s, this became one of the best Soviet fighters of the war, and the preferred mount of many leading Red pilots.

MIKOYAN-GUREVICH INTERCEPTORS

When the sleek MiG fighter took to the skies in 1941, its speed made quite an impression on the Luftwaffe's pilots. In the minds of the Soviet pilots who had to fly it, that was its one and only saving grace.

Designed during the same period as the LaGG fighter, the Mikoyan-Gurevich Experimental Construction Bureau's plane shared some of its design features, including wood-and-plastic construction. Their task, however, was not to build a pure fighter, but rather an interceptor, with the blazing speed necessary to end all the German reconnaissance overflights of the day whenever Stalin gave the order.

For obvious reasons, the military wanted this plane in a hurry, so the engineers rushed from concept to flying prototype in just over three months. This first MiG set speed records in mid-1940, so the air force ordered production to begin even though they realized that the plane handled very poorly. The engineers were sent back to redesign before the first assembly line got up to speed.

Their revised version entered production in December 1940, with an aluminum fuselage and several other refinements. It reached combat units four months later, just in time for the beginning of the Great Patriotic War.

Unfortunately, the part it played mostly was that of victim. The MiG's poor handling at altitude only got worse in low-level fighting, and just about all aerial combat on the Eastern Front took place at low levels. Still, it could outrun most of its opponents, assuming that the pilot saw them coming, so the Soviets kept putting new pilots in it to give them a chance to get away. They also moved the MiG out of fighter roles and into reconnaissance and ground-attack missions, which somewhat reduced the odds of getting into a dogfight. A lot of Soviet aces scored their first kills in a MiG, but few of them stayed with it very long afterward.

Production of the MiG ended in December 1941, with some 3,100 built, but it continued in service throughout most of the war. MiG units often had to resort to cannibalizing machines to keep a dwindling number operational.

The MiG-3 burns 50 gallons of aviation gas per hour at routine usage. A full load of fuel and ammo costs $60.

MiG-3

Subassemblies: Medium Fighter chassis +3; Light Fighter wings +2; three retractable wheels +0.

Powertrain: 1,007-kW aerial high-performance gas engine with 1,007-kW prop and 174-gallon self-sealing tanks; 4,000-kWs batteries.

Occ: 1 CS Cargo: 3.5 Wings

Armor	F	RL	B	T	U
Body, Wheels:	2/3	2/3	2/3	2/3	2/3
Wings:	2/3W	2/3W	2/3W	2/3W	2/3W
Cockpit:	0/+10	0/+10	0/+20	0/+10	0/+0

Weaponry

2×Aircraft MGs/ShKAS [Body:F] (375 rounds each).*
Long Aircraft HMG/UBS [Body:F] (300 rounds).*
* Light MG pair linked, plus second link can fire all at once.

Equipment

Body: Autopilot; navigation instruments; medium radio receiver and transmitter. *Wings:* 220-lb. hardpoint each.

Statistics

Size: 27'×34'×9' *Payload:* 0.7 tons *Lwt:* 3.7 tons
Volume: 200 *Maint:* 46 hours *Cost:* $18,900

HT: 8. HPs: 120 Body, 70 each Wing, 12 each Wheel.

aSpeed: 398 *aAccel:* 8 *aDecel:* 14 *aMR:* 3.5 *aSR:* 2
Stall Speed 84. -5 aSpeed per loaded hardpoint.
gSpeed: 240 *gAccel:* 11 *gDecel:* 10 *gMR:* 0.5 *gSR:* 2
Ground Pressure Very High. 1/8 Off-Road Speed.

Design Notes

The design purchases 1,000 rounds of 7.62mm MG ammunition, but the historical amounts are given. The historical wing area, at 188 sf, was used in calculating performance. Design aSpeed is 361.

Like the LaGG-3, this design is a bit tight. A small portion of the access space in the crew station has been reallocated to make everything else fit.

Usual wing payload was six 82mm rockets (see p. W132).

Variants

Only 100 of the original MiG-1s were manufactured and put into service. They had a reduced fuel tankage with no self-sealing tanks, but had provisions for carrying drop tanks. They also lacked the cockpit armor and varied in a number of other minor points.

In the field, many MiG-3s had their firepower improved by mounting two 12.7mm HMGs in small pods under each wing. Some even mounted these guns in the wing, a common arrangement in the fighters of other nations, but apparently a technical challenge for the Soviets with their wooden wings.

The Soviets experimented with a variety of other engines in the MiG-3, but no variant entered production.

YAKOVLEV FIGHTERS

Like his contemporaries, Soviet engineer Aleksandr Yakovlev had enjoyed several opportunities to inspect the latest British and German warplanes before the war, even meet their designers and compare notes. Though a novice at military design, Yakovlev came away from these experiences with a superior concept of what a top-notch fighter would be.

From the first, he captured this vision in his Yak-series fighters. Clean in both design and shape, light and nimble, his first prototype flew in January 1940, but its powerplant's poor reliability and some airframe flaws kept it from impressing decision-makers. Even if they looked past those immediate issues, its aerodynamics were just too *different* from the planes they knew. Production was delayed. Though a few Yaks were in service when the German war began, it would be another year before they reached the front in quantity.

By that time, the plane's superior qualities had overcome the reservations of even older Soviet pilots, who had balked at its unfamiliar handling. The air force came to rely upon the Yak as its main fighter. A great many aces flying with the Soviets – including a French volunteer squadron formed after the fall of their country – preferred the Yak to any alternative.

More than 37,000 Yaks fought in the war. Many German pilots considered them the most formidable planes they faced.

The Yak-3 burns 46 gallons of aviation gas per hour at routine usage. A full load of fuel and ammo costs $67.

Yak-3

Subassemblies: Medium Fighter with good streamlining +3; Medium Fighter wings +2; three retractable wheels +0.

Powertrain: 914-kW aerial turbosupercharged HP gas engine with 914-kW prop and 108-gallon self-sealing tanks; 4,000-kWs batteries.

Occ: 1 CS Cargo: 2.6 Body, 4 Wings

Armor	F	RL	B	T	U
Body:	3/5	3/5	3/5	3/5	3/5
Wings:	3/5W	3/5W	3/5W	3/5W	3/5W
Wheels:	2/3	2/3	2/3	2/3	2/3
Cockpit:	0/+10	0/+10	0/+20	0/+10	0/+0

Weaponry

2×Long Aircraft HMGs/UBSs [Body:F] (180 rounds each).*
20mm Long Aircraft AC/ShVAK [Body:F] (120 rounds).*
* HMG pair linked, plus second link can fire all at once.

Equipment

Body: Autopilot; navigation instruments; medium radio receiver and transmitter. *Wings:* 220-lb. hardpoint each.

Statistics

Size: 30'×28'×8' *Payload:* 0.5 tons *Lwt:* 3 tons
Volume: 200 *Maint:* 35 hours *Cost:* $32,000

HT: 9. HPs: 120 Body, 80 each Wing, 12 each Wheel.

aSpeed: 404 *aAccel:* 9 *aDecel:* 19 *aMR:* 4.75 *aSR:* 2
Stall Speed 80. -8 aSpeed per loaded hardpoint.

gSpeed: 266 *gAccel:* 12 *gDecel:* 10 *gMR:* 0.5 *gSR:* 2
Ground Pressure Very High. 1/8 Off-Road Speed.

Design Notes

The design purchases 300 rounds of 12.7mm HMG ammunition and 135 rounds of 20mm ammunition, but the historical amounts are given. The historical wing area, at 186 sf, was used in calculating performance. Design aSpeed is 423.

Variants

The initial Yak-1 entered service in spring 1941. It and all other variants were slightly larger than the Yak-3. Some initial prototypes had ski landing gears. It had 7.62mm Aircraft MGs in place of the HMGs. Disgusted with the lack of rear visibility, combat squadrons modified the cockpit's aft fairing in the field, and this change (which has no effect in game terms) was made official at the assembly line, resulting in the Yak-1B.

The Yak-1M improved the engine and replaced the LMGs with (initially) a single HMG. It increased the fuel tankage while introducing self-sealing tanks, and effectively introduced the cockpit armor (which had been trivial in game terms previously). Some -1Ms fitted both HMGs.

The Yak-1M106 used a different engine and metal spars for the otherwise still wooden wings (no effect in game terms). Wing fuel tanks were added. Only a few dozen were made.

1942's Yak-7 was based on a two-seat trainer (which would require squeezing components into the chassis as drastically as in the other Soviet fighters). In combat, the second crew space was fitted with fuel tanks, but these could be removed to allow a passenger. Since the Yak had been designed to fight from primitive, forward airfields – and was filling this role – this often came in handy for shuttling ground crew along the front. The wing had to be moved to adjust the center of gravity, and this in turn caused serious problems with the landing gear folding up on landings. Later Yak-7s corrected this, and introduced the wing hardpoints for carrying bombs and rockets.

The Yak-9 debuted in the skies over Stalingrad. It was a Yak-7 with minor changes to tweak its low-level performance.

The Yak-9B fighter-bomber had a unique method of carrying bombs hanging halfway from its fuselage (as exposed cargo in game terms). This reduced drag.

From May 1943, the Yak-9D and -9DD gradually increased fuel tankage. The Luftwaffe had taken to lurking far overhead, with intent to swoop down on any prey. Among Soviet fighters, only the MiG-3 could go up to meet them without suffering a serious decline in performance – and by this time it was hopelessly outgunned. Instead, the Reds routinely flew at close to top speed, to minimize the Germans' window of opportunity and maximize their own time to react. Thus, their fighter squadrons burned huge amounts of fuel.

The Yak-3 – with a redesign to trim its dimensions and ruthlessly reduce weight – began reaching combat units in early 1944. Though it was officially phased out late the same year, many top pilots kept theirs, preferring it to even the -9U.

The Yak-9U improved aSpeed to 435 with its 1,231-kW engine and upgraded to the 23mm cannon.

Petlyakov Pe-2 Dive Bomber

Originally designed as a twin-engined interceptor, the Pe-2 avoided the dismal fate of other such planes when the Soviets decided to convert it into a *pikiruyushchii bombardirovshchik*, or dive bomber. In this role, the aircraft exceeded itself, not least because it could often outrun the fighters that the Germans sent up to kill it.

Along with blazing speed, the Pe-2 had a durable airframe capable of filling a variety of needs. Though a handful were around from the beginning of the German war, the plane did not truly enter service until about December 1941. From that point, the PE-2 took on more to roles . . . as a conventional light bomber (albeit one with a fairly limited ordnance load), a fighter-bomber, and a reconnaissance plane. From the Battle of Moscow to the Battle of Berlin, the PE-2 took part in every major Soviet campaign, and by the end of the war more than 11,400 of them had joined the fighting.

While the Il-2 Shturmovik (see p. W115) may have gotten more attention in Soviet propaganda, the Pe-2 got it from experienced pilots. Not only did it excel at getting out of harm's way, but it took naturally to dive-bombing. Most planes felt – and often were – a hair's breadth from spinning out of control when undertaking this demanding combat role.

The Pe-2FT has a crew of four: pilot, bombardier/gunner, radio operator/gunner, and gunner. It burns 94 gallons of aviation gas per hour at routine usage. A full load of fuel and ammo (with the typical bombload portrayed) costs $2,800.

Pe-2FT

Subassemblies: Light Fighter-Bomber chassis with good streamlining +3; Medium Fighter-Bomber wings +3; two Small AFV pods [Wings:F] +2; three retractable wheels +1.

Powertrain: two 939-kW aerial turbosupercharged HP gas engines with two 939-kW props [Pods] and 392-gallon self-sealing tanks [Body and Wings]; 12,000-kWs batteries.

Occ: 4 CS Cargo: 1.4 Body, 3 Wings, 8.1 Pods

Armor	F	RL	B	T	U
Body:	3/5	3/5	3/5	3/5	3/5
Wings:	3/5W	3/5W	3/5W	3/5W	3/5W
Wheels:	2/3	2/3	2/3	2/3	2/3
Crew:	0/+10	0/+10	0/+20	0/+10	0/+0

Weaponry

2×Aircraft MGs/ShKAS [Body:F, T] (1,000 rounds each).*
2×Long Aircraft HMGs/UBSs [Body:F, U] (500 rounds each).*
Long Aircraft HMG/UBS [Body:R *or* L] (500 rounds).
6×220-lb. bombs [Wings and Pods:U].*
* Forward-firing guns linked. All bombs linked.

Equipment

Body: Autopilot; 1,000-lb. bomb bay; bombsight; navigation instruments; medium radio receiver and transmitter. *Wings:* 1,100-lb. hardpoint each. *Pods:* 250-lb. bomb bay each.

Statistics

Size: 42'×56'×13' *Payload:* 2.6 tons *Lwt:* 9.1 tons
Volume: 312 *Maint:* 24 hours *Cost:* $72,000
HT: 7. HPs: 165 Body, 330 each Wing, 150 each Pod, 15 each Wheel.

aSpeed: 360 *aAccel:* 6 *aDecel:* 26 *aMR:* 6.5 *aSR:* 2
Stall Speed 93. -4 aSpeed per loaded hardpoint.
gSpeed: 219 *gAccel:* 10 *gDecel:* 10 *gMR:* 0.5 *gSR:* 2
Ground Pressure Extremely High. No Off-Road Speed.

Design Notes

As designed, aSpeed is 385, but the historical value was used for this and wing area (436 sf). The two engine Pods split a single Bomb Bay component between them.

There's some confusion as to whether this version of the Pe-2 actually had wooden wings, and it's likely that both metal paneling and wood were found on various late-war Pe-2s depending on which plant made them.

The above bombload represents a typical loadout, more suited for dive-bombing than would be ordnance loaded in the fuselage bomb bay. Larger bombs usually were carried in the central bomb bay, however. A Pe-2 with all bays and hardpoints loaded would not carry a full fuel load, to avoid exceeding its real-life maximum takeoff weight.

Some Pe-2 pilots loaded rockets on the wing hardpoints aimed *backward* to fire at pursuing fighters. These rarely hit, but invariably caused the attacker to veer off for a moment. More usually, rockets were carried facing forward for use during ground attack.

Variants

The Pe-2, called the PB-100 during development, first flew in December 1940. This initial model had all-metal wings with only DR 3 and 820-kW engines. It also had serious issues with takeoff and landing (-3 to Piloting rolls) due to poorly designed shock absorbers. The crew was only three, and it was armed only with two light MGs fixed in the nose plus dorsal and ventral light MGs that could cover arcs toward the rear. Even at this early period, crews began replacing the inadequate light MGs with 12.7mm HMGs as available.

The Pe-2F introduced more powerful engines. It also corrected some internal bracing that prevented the Pe-2 from carrying bombs larger than 220 lbs. in its internal bomb bay.

The late-1942 Pe-2FT made the dorsal HMG standard, though early mounts required the navigator to endure the open air during flight. The plane as shown assumes field upgrades account for the other two HMGs. The fourth crew member may have been a field upgrade, rather than standard practice.

The Pe-2MV fighter-bomber upgraded to two fixed 20mm ShVAK cannons (20mm Long Aircraft ACs) in the nose, two fixed 12.7mm HMGS also firing forward (essentially from a pod mounted in the bomb bay), and a dorsal turret with limited rotation firing an LMG to the rear.

The Pe-2R was actually several varieties of reconnaissance configuration, usually with several cameras installed in the bomb bay. Drop tanks were carried on the hardpoints.

The Pe-2UT had duplicate controls for use as a trainer.

The Pe-3 was a very similar plane that evolved from the same prototype for use as a fighter-bomber. Its typical armament resembled that of the Pe-2MV.

TUPOLEV SB-2 FAST BOMBER

The SB-2 was the Soviet Union's foremost conventional bomber when WWII began. Known simply as the "SB" in Soviet service, it had been state of the art in the early 1930s, and had performed well enough in Spain, but by the Winter War its age was beginning to show. The Finns knocked down several of them (and captured enough others to field their own small force). Regardless, with so many other things to worry about after that campaign, the Soviets did not get around to considering an upgrade to their bombing capability.

Then the Germans struck. One of the first countermeasures that Moscow ordered on the first day was large bombing raids on the advancing Wehrmacht columns. Those SB-2 squadrons that had survived the Luftwaffe's dawn raid took off laden with bombs – and the German fighters butchered them. The SB-2 possessed a little speed, and a little defensive firepower, but not nearly enough of either.

The law of averages allowed some SB-2 squadrons to reach their targets, but even then they had relatively little impact, given their small payloads, rudimentary aiming aids, and poorly trained crews. With losses continuing – the plane may have been shot down more than any other aircraft in WWII – the Soviets shifted the SB-2 to flying only night missions within a few months after the fighting began.

Nearly 7,000 SB-2s were built before the Soviets ended production in 1942. Those few that survived that long were shifted to transport and towing duties.

The SB-2A has a crew of three, including the pilot, bombardier/gunner, and radio operator/gunner. It burns 64 gallons of aviation gas per hour at routine usage. A full load of fuel and ammo (with the typical bombload portrayed) costs $2,800.

SB-2A

Subassemblies: Light Fighter-Bomber chassis +3; Heavy Fighter-Bomber wings +3; two Large Weapon pods [Wings:F] +2; full-rotation Medium Weapon turret [Body:T] +1; three retractable wheels +1.

Powertrain: two 641-kW aerial turbosupercharged HP gas engines with two 641-kW props [Pods] and 441-gallon standard tanks [Body and Wings]; 12,000-kWs batteries.

Occ: 3 CS Cargo: 7.5 Body, 11.3 Wings, 4.4 Pods

Armor	F	RL	B	T	U
Turret:	4/10	4/10	4/10	4/10	–
All Else:	2/3	2/3	2/3	2/3	2/3
Cockpit:*	0/+0	0/+10	0/+20	0/+10	0/+10

* Protects pilot and navigator only.

Weaponry

2×Aircraft MGs/ShKASs [Body:F] (1,000 rounds each).*
Aircraft MG/ShKAS [Tur:F] (1,000 rounds).
Aircraft MG/ShKAS [Body:U] (500 rounds).
6×220-lb. bombs [Body:U].
* Linked.

Equipment

Body: Autopilot; 1,500-lb. bomb bay; bombsight; navigation instruments; medium radio receiver and transmitter.

Statistics

Size: 40'×67'×11' *Payload:* 2.5 tons *Lwt:* 6.8 tons
Volume: 312 *Maint:* 32 hours *Cost:* $31K

HT: 7. HPs: 165 Body, 225 each Wing, 120 each Pod, 75 Turret, 15 each Wheel.

aSpeed: 244 *aAccel:* 6 *aDecel:* 23 *aMR:* 5.75 *aSR:* 2
Stall Speed 68.
gSpeed: 199 *gAccel:* 9 *gDecel:* 10 *gMR:* 0.5 *gSR:* 2
Ground Pressure Extremely High. No Off-Road Speed.

Design Notes

As designed, aSpeed is 241, but the historical value was used for this and wing area (559 sf). To further refine the weight and flight characteristics of this plane, the wings' HPs, cost, and weight were all halved. This is a perfectly valid option as long as all three characteristics are reduced in unison.

Variants

The original SB-2, called the Tupolev ANT-40 during development, first flew in 1934. It entered service in 1936 with 559-kW engines. These were flown as part of the forces involved in the Spanish civil war (see p. W10).

The SB-2A was a simplified design for ease of war production; this had the side effect of making it heavier. It introduced the cockpit armor and other improvements prompted by experience in Spain.

The 1937 SB-2bis mounted more powerful engines that eventually rated at 821 kW each and could drive the airplane at up to aSpeed 280. It also introduced duplicate controls for the navigator's crew station. Later modifications included expansion of the bomb bay to a 3,306-lb. capacity (rounded to 3,500 lbs. or 7 VSPs in game terms), installation of wing hardpoints of up to 1,100-lbs. capacity each, and hardpoints to carry up to 200 gallons of fuel in drop tanks.

The PS-40 was the SB-2 converted to a transport, while the PS-41 was the SB-2bis as a transport.

A few of the bombers were made into the Ar-2 (for Arkhangelskii-2) dive-bomber. It had smaller wings, the duplicate controls, 194 gallons of external fuel, and aSpeed 303.

The USB trainer version was handled in a unique fashion. The Soviets built an instructor's crew station that could be swapped out for the navigator's station of an existing SB-2 in the field, thus allowing any plane to serve an instructional or operational role as needed.

Polikarpov U-2 (Po-2) Light Bomber

The "Night Witches" (p. 49) may have been the most celebrated fliers of their little biplane bomber, but it was already famous. The U-2 had been performing many different chores in Soviet aviation for years before the war, and was probably the most common plane in the world then and for many years afterward.

It started out as a failure. Debuting in 1927 as a low-cost biplane trainer, the four panels making up the upper and lower halves of each wing could be swapped out for one another. This sort of economy translated to dreadful handling characteristics, and Polikarpov went back to the drawing board.

A year later, his revised effort flew like day to the original's night. Small even for a biplane of the period, the U-2 retained its rough and homely looks but answered the stick nimbly and avoided throwing itself into a spin or stall. The military put the plane into production as a trainer and scout later in 1928, and by the time that WWII began more than 13,000 had been manufactured.

During the fighting, the U-2's role expanded to that of courier, flying ambulance, propaganda machine (with microphone and loudspeaker installed), light transport – and of course, night bomber. When flying by day – and even the Night Witches often were called upon to carry a message by daylight hours – U-2 pilots tried to stay low and slow, hoping that their little cloth-skinned mount would blend into the scenery if a prowling Luftwaffe fighter streaked overhead. They weren't entirely helpless if a German did pull them into a dogfight (p. 49), but no one confused the obsolete little plane with an actual fighter.

After Polikarpov died in 1944, the Soviets renamed his design as the Po-2 in his honor. By that time, more than 100 regiments were each flying 42 Po-2s in various functions. The crews often called it the *Kuburuznile*, or "corn cutter." Ultimately, the antiquated little biplane would outlive all of the Luftwaffe models that it had putteringly avoided for the years of the war.

The Po-2 carries a crew of one or two in open cockpits: a pilot and possibly a specialist such as a navigator/bombardier. The pilot sits in front; the specialist sits in back and fires the LMG, which covers the rear arc for defense. The plane burns 3.4 gallons of fuel per hour at routine usage. A full load of fuel and ammo (excluding bombs) costs $9.

Po-2

Subassemblies: Recon Plane chassis +2; biplane Light Fighter wings +2; two fixed wheels and skid plate +0.

Powertrain: 75-kW gasoline engine with 75-kW prop and 24-gallon standard tank.

Occ: 2 XCS Cargo: 5.3 Body and see below.

Armor	F	RL	B	T	U
Wheels:	2/3	2/3	2/3	2/3	2/3
All Else:	2/2C	2/2C	2/2C	2/2C	2/2C

Weaponry

Aircraft MG/ShKAS [Body:T] (500 rounds).

Equipment

Body: Bombsight; navigation instruments. *Wings:* 400-lb. hardpoint each.

Statistics

Size: 27'×37'×10' *Payload:* 562 lbs. *Lwt.:* 1,962 lbs.
Volume: 96 *Maint.:* 87 hours *Price:* $3,150

HT: 7. HPs: 15 Body, 68 each Wing, 2 each Wheel.

aSpeed: 97 *aAccel:* 2 *aDecel*: 50 *aMR:* 12.25 *aSR:* 1
Stall speed 32 mph. -1 aSpeed per loaded hardpoint.
gSpeed: 127 *gAccel:* 6 *gDecel*: 10 *gMR:* 0.5 *gSR:* 2
Ground Pressure High. 1/6 Off-Road Speed.

Design Notes

Design aSpeed is 81. The historical value was used, as well as the actual 357-sf wing area.

Though this Po-2 configured as a night bomber can carry up to 800 lbs. in ordnance, anything over the 562-lb. payload given – and this includes pilot, fuel, any other personnel, and ammunition – will put the plane over its usual weight limit for takeoff. The GM may want to impose a penalty for particularly overburdened night bombers, perhaps -1 to take off or land for every 100 lbs. or fraction thereof over the listed payload.

To keep the plane from being ridiculously agile, the wings' HPs, cost, and weight were all halved. This is a valid option as long as all three characteristics are reduced in unison.

Technically, equipment could be installed in the wings, just as in monoplane designs. In reality, this probably would not work out and might impair flight performance.

Variants

Some late Po-2s received a 108-kW engine. Field modifications were countless, with agricultural spraying equipment, stretchers, loudspeakers, and whatnot else added to the aircraft as required.

KAMOV A-7 AUTOGYRO

Displaying their usual fascination with the novel and untested, the prewar Soviets had a keen interest in rotored flight. Their designers first flew a rotary-wing vehicle in 1929. In the 1930s, the Central Aero-Hydrodynamic Institute, called TsAGI by its Russian initials, brought together the top engineers in the field and invested a great deal of effort in research. A true helicopter remained out of technological reach, but autogyros – basically light planes with an unpowered free-spinning rotor to improve low-speed flight characteristics – teetered on the edge of practical.

By the end of the war, Kamov and his engineering peers had advanced their science enough to make the helicopter into a military reality . . .

TsAGI began producing autogyros, and the military began procuring them for testing. In 1934, the design bureau unveiled the A-7, far larger and more sophisticated than anything it had yet designed. The military eventually ordered a handful of the machines, and production was set up in early 1940 at Aircraft Factory #290, at the Podosinki Airfield, under the supervision of the A-7's designer, N.I. Kamov.

Once the autogyros were delivered, the military set them up as a squadron supervised by 24th Army, based near Yelnya, 50 miles southeast of Smolensk. They underwent tests as reconnaissance and artillery-observation platforms, but were equipped for a ground-attack role, as well.

In July 1941, this autogyro squadron went into battle for the first and only time. It's unclear as to how well they performed in their artillery-spotting duties, but after intense fighting the 10th Panzer Division took Yelnya and their home field on July 19. (It's almost surely coincidence, but as the Germans took over the Soviet positions at Yelnya, the Red Army counterattacked ferociously and forced the Wehrmacht and Waffen-SS to defend a static line for the first time in WWII. The defenders took a severe beating from Soviet artillery and rockets for the first time, too. Perhaps the quality of fire adjustment played a role in affairs . . .)

In the great Smolensk encirclement that was to shortly follow, the Soviets had to abandon the autogyros' base. For whatever reason – perhaps after rational evaluation of a failed concept, or perhaps because the battle simply consumed everyone's attention – they decided to disband the experimental unit, as well. Some research continued, but no serious resources were allocated to it, as they were sorely needed in more proven fields. (Needless to say, in a mildly alternate history, a high-ranking general might be in position to see the autogyros do their job spectacularly, and order the development program to continue apace.)

As things turned out, the autogyro's day already had passed. By the end of the war, Kamov and his engineering peers had advanced their science enough to make the helicopter into a military reality, and the postwar Soviet Union would be a leading innovator in this technology.

The A-7bis carries a crew of two in open cockpits: pilot and observer/gunner. The autogyro burns 16 gallons of fuel per hour at routine usage. A full load of fuel and ammo (excluding bombs and rockets) costs $22.

A-7bis

Subassemblies: Medium Helicopter chassis +2; Light Fighter wings with STOL option +2; rotor -1; three fixed wheels +0.

Powertrain: 358-kW turbosupercharged gas engine with 358-kW prop and 48-gallon standard tanks.

Occ: 2 XCS Cargo: 2.2 Body, 3.5 Wings

Armor	F	RL	B	T	U
Rotor:	4/10	4/10	4/10	4/10	4/10
All Else:	3/5	3/5	3/5	3/5	3/5

Weaponry

2×7.62mm Aircraft MGs/PV-1 [Body:F] (500 rounds each).*
7.62mm Aircraft MG/PV-1 [Body:B] (500 rounds).
6×82mm HE Rocket/RS-82 [Wings:U].*
4×220-lb. Bombs/FAB-100 [Wings:U].*
* Each type of weapon linked to others of same type.

Equipment

Body: Medium radio receiver and transmitter. *Wings:* 1,000-lb. hardpoint each.

Statistics

Size: 28'×34'×13' *Payload:* 0.4 tons *Lwt.:* 2.1 tons
Volume: 90 *Maint.:* 69 hours *Price:* $8,500

HT: 9. HPs: 82 Body, 22 Rotor, 90 each Wing, 3 each Wheel.

aSpeed: 136 *aAccel:* 5 *aDecel*: 34 *aMR:* 8.5 *aSR:* 1
Stall speed 45 mph. -1 aSpeed per loaded hardpoint.
gSpeed: 182 *gAccel:* 9 *gDecel*: 10 *gMR:* 1 *gSR:* 2
Ground Pressure Very High. 1/8 Off-Road Speed.

Design Notes

Design aSpeed is 139. The historical value was used.

The bombs and rockets probably were not routinely carried, so are not included in the default payload weight and cost. They are listed under *Weaponry*, however, in order to illustrate the standard loadout.

Variants

The original A-7 lacked the weapon features and had a slightly less elaborate tail assembly than that found on the A-7bis, which was alternately called the A-7-3A.

G5 Fast Patrol Boat

On the night of Aug. 17-18, 1919, a squadron of eight British patrol boats slipped into the waters of the Kronstadt naval base, outside of Leningrad. Bringing their engines to full throttle, the crews pointed their 55' crafts at the formerly Tsarist fleet, by then filled with Bolshevik crews.

Torpedo explosions punctuated the swirling melee that ensued. One patrol boat torpedoed an outdated cruiser and sunk it. The Soviet defenders then sank one of the attackers in return. The other patrol boats gutted a dreadnought and pre-dreadnought before an alerted destroyer sank two more of their numbers. The surviving five boats made their escape.

The attack probably remains the single most successful operation in the history of patrol boats. The British crews returned home to a hero's welcome and Victoria Crosses, and the Soviets were no less impressed. They resolved to add a formidable small-craft arm to their navy.

At first, this required a great deal more technological know-how than they had at hand. Importing engines, hulls, or entire boats from the United States, Italy, Germany, and France, the Soviets inspected what they purchased between the wars. After several years, they felt that they could build their own.

The G-5 was one fruit of these copycat labors. Showing a strong influence from the British boats of 1919, it boasted very robust (if not entirely reliable) engines for its size. It could not stand up in a fight as well as some of the heavily armored gunboats that the navy came to favor, but it could flee more quickly than just about anything else afloat.

During WWII, small craft in general became the most active arm of the Red navy. Crews on boats like the G-5 might be called upon to make torpedo attacks against German shore installations in the Crimea, to open the way for an amphibious assault. When time was of the essence, antishipping nets were dealt with in the same fashion.

The same Black Sea operations often required the rapid transit of Red Army reinforcements or raiding parties on whatever small craft could be found. On the way back, refugees might be crowded onto the deck. Constant harassment by patrol boats also was crucial in keeping the Germans from trying to supply their southern troops by sea.

During the later years, boats in the Danube flotilla advanced 1,200 miles up that waterway in support of ground operations, entering six nations in the process. In all theaters at all times, patrol craft would be needed to keep a close eye out for the dreaded U-boats and other German naval activity. When they came across a mine, the crew might be called upon to slide up to it and disarm it by (very carefully) unscrewing the many "horns" or contact triggers.

The G-5 has a crew of seven: commander, pilot, navigator, two engineers, and two gunners. The gunners would perform routine crew duties when not actually in combat. They manually rotate their open mounts at 43˚ per turn.

The boat burns 67 gallons of gasoline per hour in standard usage. A full normal fuel load costs $126. Ammo and provisions cost another $92 minus the two torpedoes.

G5 Fast Patrol Boat

Subassemblies: Large Boat chassis with mediocre lines +4; waterproofed Large AFV superstructure [Body:T] +3; two full-rotation Mini open mounts [Body:T and Sup:T] +0.

Powertrain: two 745-kW turbosupercharged gas engines with two 745-kW screws (using ground-access formulas; see *Design Notes*, below) and 840-gallon standard fuel tanks; 24,000-kWs batteries.

Occ: 3 CS Sup **Cargo:** 0

Armor	F	RL	B	T	U
Body, Sup:	3/5	3/5	3/5	3/5	3/5
OMs:	0/0	–	–	–	–

Weaponry

2×Very Long Ground HMGs/DShK [OMs:F] (800 each).
2×533mm Torpedoes [Body:B] (53-38s or 53-38Us).*
* Linked.

Equipment

Body: Bilge pump; fire extinguisher; two 3,500-lb. hardpoints for torpedoes; 20 man-days of provisions. *Sup:* Autopilot; navigation instruments; medium radio transmitter and large receiver; searchlight. *OMs:* Universal mounts for HMGs.

Statistics

Size: 63'×11'×12' *Payload:* 7 tons *Lwt:* 17.9 tons
Volume: 183 *Maint:* 28 hours *Cost:* $13,400

HT: 9. HPs: 750 Body, 225 Sup, 30 each OM.

wSpeed: 56 *wAccel:* 12 *wDecel:* 2 (8) *wMR:* 0.4 *wSR:* 4
Draft 3. Flotation Rating 20 tons.

Design Notes

The boat's outstanding performance depends largely on hydroplaning (see p. W147). The GM would be well-advised to disallow this effect (thereby halving wSpeed) in rough water. In this case, the small boat has such a high power-to-weight ratio that it probably could maintain speed in just about any seas that did not threaten to swamp it . . .

To cram everything into the hull, the engines and screws have only the amount of access space normally seen in ground vehicles (see p. W128). This means that only the most minor repairs can be attempted from inside the boat. Since a craft this small would not be used for long patrols, and the crew would expect to perform all maintenance at dock, this isn't an unrealistic design choice.

This boat had one serious defect – its all-aluminum-alloy construction led to massive issues with corrosion. The maintenance interval has been *halved* to reflect this. The crew will find themselves spending hours scraping and painting, scraping and painting . . .

Variants

A later D3 class followed very similar lines, but was built of wood to avoid the G5's constant battle with corrosion.

K-Class Submarine

The Soviet navy had developed a variety of small submarines, with a few just large enough to venture into open water, but none had a very good service record during the interwar years.

Regardless, they gave Soviet designers a chance to see what worked and what didn't – and during the 1930s the Soviets also got peeks at the latest in German U-boat design. These improvements manifested in the design of what would become their workhorse S-class submarine, which itself did not diverge in too many details from the Typ VII U-boat described on p. W:IC91.

The prewar Soviets had grander plans, however, and set about building a true "cruiser" submarine capable of extended tours in Arctic waters. This large design became the K-class boat, the most advanced submarine in the Soviet fleet. It incorporated improvements that were far ahead of its time – such as vastly expanded crew quarters that made Soviet submariners absolutely adore this vessel. Other experimental features would quietly disappear, such as mounting two of its torpedo tubes in assemblies resembling turrets.

Like all Soviet subs, the K-class rarely accomplshed much. The K-21 did attack the KMS *Tirpitz* on July 5, 1942, missing with its entire spread, but mines and Kriegsmarine sub hunters claimed at least two boats apiece without a comparable tally on the Soviet side.

The K-class usually had a crew of 65. The engines burn 250 gallons of diesel per hour, or the electrical motors use 6.44 million kWs of battery power per hour at full output. The open mounts with a torpedo tube each rotate at 18˚, or 2.4˚ if manually turned by two crew members. The deck guns are manually rotated by two crew members at 4.4˚ per turn while the AA guns are manually rotated by a single assistant gunner at 7˚ per second. Food, fuel, and ammo (except for the 20 mines carried in the dry docks) cost $175,300.

K-23 "Katyusha"

Subassemblies: Medium Destroyer chassis with sub option +9; sealed Small Secondary superstructure [Body:T] +4; two Small TD open mounts 1-2 [Body:T] +3; two Medium AFV open mounts 3-4 [Body:T] +2; two Medium Weapon open mounts 5-6 [Sup:T] +1.

Powertrain: two 3,133-kW marine diesels or two 895-kW electric motors† with two 3,133-kW screws; 104,100-gallon standard fuel tanks; 68.4 million-kWs batteries.†

Occ: See above. Cargo: 250 Body, 74 Tower

Armor	F	RL	B	T	U
Hull, Tower:	4/70	4/70	4/70	4/70	4/70

Weaponry

6×533mm Torpedo Tubes [Body:F].*
2×533mm Torpedo Tubes [Body:B].*
2×533mm Torpedo Tubes [OM 1-2:F].
2×105mm Medium DP Guns/B-34 M-1940 [OM 3-4:F] (200).
2×40mm Medium Gr. ACs/21-K [OM 5-6:F] (1,040).
Total of 22 torpedoes (usually 53-38s or 53-38Us) carried.
* Linked to all other tubes in same facing.

Equipment

Body: Autopilot; three backup driver controls; 7,200 bilge; 18 bilge pumps†; 60 bunks and six cabins; 250-VSP cargo hold; 22 crew stations; 12 fire extinguishers†; two 40-VSP dry docks†; fire direction center; 130 man-days of life support†; 4,560 man-days of provisions; precision navigation instruments; very large radio receiver, transmitter, and direction finder; 2-mile active/passive sonar; mechanical workshop. *Tower:* 74-VSP cargo hold; five crew stations; precision navigation instruments; two 15× 50' periscopes; two searchlights. *OMs 1-2:* 3-kW traversing gears. *OMs 5-6:* Universal mounts for AA guns.
† Includes limited access space.

Statistics

Size: 320'×24'×39' *Payload:* 428 tons *Lwt.:* 2,912 tons
Volume: 26,220 *Maint.:* 5.3 hours *Price:* $1.4M

HT: 9. HPs: 108,000 Body, 560 Superstructure, 285 each OM 1-2, 200 each OM 3-4, 75 each OM 5-6.

wSpeed: 26 *wAccel:* 0.3 *wDecel:* 0.3 (0.5) *wMR:* 0.05 *wSR:* 4
Draft 15. Flotation Rating 3,140 tons.
uSpeed: 11 *uAccel:* 0.1 *uDecel:* 0.3 (0.5) *uMR:* 0.05 *uSR:* 4
uDraft 39. Crush Depth 213 yards.

Design Notes

The design has wSpeed 21, uSpeed 9, and uDraft 56. Historical values were used, instead.

The submarine carried two tubes, each loaded with 10 naval mines for laying minefields. These are purchased as two Dry Dock base modules, each holding 10 1-ton mine assemblies. (A naval mine usually also has a heavy iron counterweight attached by chain to keep it anchored at the proper location and depth.) These "tubes" each have 40 VSPs of stowage available; while 10 tons of munitions normally would take up about 84 VSPs, most of the mines' weight is in the anchors, which are considerably more compact. The weight of these mines is included in the payload, above.

The payload weight and cost also include a full load of diesel fuel, giving the boat a patrol-speed range of roughly 17,250 miles, but on most missions only a fraction of this fuel would have been taken aboard. Though envisioned as a long-patrol submarine, the K-class rarely ventured far from its home waters, at least until after the war.

Variants

The first seven prewar boats had a different bow than the war-produced K-51 through -56. The prewar boats all had taken station with the Arctic Fleet when the Germans invaded, and stayed busy trying to protect the crucial Anglo-American Lend-Lease convoys to Murmansk. The late boats did not risk the passage from their shipyards to the Arctic theater, but were too large for effective coastal operations, so they largely remained idle with Baltic Fleet. The Arctic squadron was mostly destroyed by 1945; the Baltic squadron took no losses.

The K-class may have been the first postwar Soviet sub fitted with cruise-missile tubes.

KIROV-CLASS CRUISER

Compared to their rivals, the Soviets were grossly behind in modernizing their navy. In the early 1930s, all of their capital ships dated back to the tsar. The navy began work on a state-of-the-art cruiser, but discovered they no longer had the naval architects to do the job. Reluctantly, they hired the Ansaldo firm to design a derivative of an existing Italian cruiser.

The navy repeatedly altered the plans after construction began in 1934, causing some less-than-ideal modifications. The biggest of these crammed three main guns into turrets designed for two smaller guns, at a steep cost in work space.

On its 1938 completion, the *Kirov* became the pride of the Soviet navy. The *Voroshilov* had been started with *Kirov* but underwent even more modifications (see below), delaying its debut to 1940. The *Maxim Gorki*, *Molotov*, *Kaganovich*, and *Kalinin* were laid down by pairs in 1936 and '39, as well.

The *Kirov* led a busy and perilous service life from the first days of the Great Patriotic War (p. 117) while the *Voroshilov* performed similar missions (primarily targeting ground forces ashore) in the Black Sea. This theater posed no less risk than the *Kirov*'s Leningrad front, and on Oct. 31, 1941, the *Voroshilov* suffered major damage from bombs. It returned to service four months later; then in April 1942 *Kirov* was crippled in the same fashion, returning to duty in about 10 months. The *Voroshilov* suffered another major injury upon striking a mine in November 1942. The *Maxim Gorki*, serving with *Kirov*, and *Molotov*, serving with *Voroshilov*, suffered similarly in their careers. Only partially completed, *Kaganovich* and *Kalinin* had to be towed to Vladivostok to finish fitting out, and never played any real role in the fighting. Ultimately, all of the ships survived the war.

The three main turrets mount three 7.1" guns each; they traverse at 8° per second, 0.5° per second with five men cranking by hand. The six secondary turrets rotate at 15° per second, or three men rotate each at 2.2° per second. The AA gun mounts are manually traversed by a two-man team at 15° per second.

The *Kirov* burns 5,060 gallons of fuel oil per hour at routine usage. A full load of ammo and provisions and a typical load of fuel oil costs $435,000. Crew size averages 734.

Kirov

Subassemblies: Medium Cruiser chassis +10; waterproofed Large Ship superstructure +7; three waterproofed limited-rotation Medium Conning turrets 1-3 +5; six waterproofed limited-rotation Medium TD turrets 4-9 +3; six full-rotation Large Weapon open mounts 1-6 +2; four full-rotation Small Weapon open mounts 7-10 +0..

Powertrain: two 42,149-kW steam turbines with two 42,149-kW screws and 363,750-gallon standard fuel tanks. Also 3,000 gallons of aviation gas for seaplanes.

Occ: See below. **Cargo:** See below.

Armor	F	RL	B	T	U
Body:*	4/160	4/160	4/160	4/160	4/160
Sup:	4/480	4/480	4/480	4/320	–
Tur 1-3:	5/375	4/160	4/160	4/160	–
Tur 4-9:	4/80	4/60	4/60	4/60	–

* See *Design Notes* for additional protection installed.

Weaponry

9×180mm Naval Guns/MK-3-180 [Tur 1-3:F] (100).*
6×105mm Medium DP Guns/B-34 M-1940 [Tur 4-9:F] (250).
6×40mm Med. Gr. ACs/21-K [OM 1-6:F] (500).
4×Very Long Ground HMG/DShK [OM 7-10:F] (2,000).
6×533mm Torpedo Tubes [Body:F, B] (2 53-38s or 53-38Us).*
Ammunition listed per weapon.
* Each main turret or triple torpedo mount has triple links.

Equipment

Body: 17,500-VSP bilge; 3,000-VSP cargo hold; 40 bilge pumps; 20 fire extinguishers; two 15-ton cranes; two 5-ton external cradles; five searchlights; 720 bunks; 30 cabins; 30 environmental control; two halls; two surgeries; two workshops; 14,680 man-days of provisions; 50 CSs, two equipped with backup driver controls. *Sup:* Autopilot; launch catapult; 300-VSP hangar bay (for two KOR-1 seaplanes); five fire extinguishers; very large radio transmitter; very large radio receiver; large radio direction finder; two navigation instruments; sound detector; three fire-direction centers; 20 CSs, with five grouped as bridge; two cabins; luxury cabin; two environmental control. *Tur 1-3:* 33-kw traversing gears; 3 CS for gun crews each. *Tur 4-9:* 12-kW traversing gears; universal mounts; CS for gunner each. *All OMs:* Universal mounts.

Statistics

Size: 627'×58'×46' *Payload:* 1,525 tons *Lwt:* 10.5K tons
Volume: 167K *Maint:* 3.4 hours *Cost:* $3.4M

HT: 8. HPs: 312K Body, 8,700 Sup, 1,200 each Tur 1-3, 360 each Tur 4-9, 120 each OM 1-6, 45 each OM 7-10.

wSpeed: 41 *wAccel:* 1.2 *wDecel:* 0.1 (0.7) *wMR:* 0.02 *wSR:* 5
Draft 20'. Flotation Rating: 14,760 tons.

Design Notes

Design wSpeed 38 was raised and Draft 24' lowered to historical values. Payload weight but not cost includes 100 naval mines (at 1 ton each including sinkers), seaplanes, life rafts, etc.

The hull was *heavily* reinforced in construction. This is modeled as another DR 60 that only applies after secondary areas (crew quarters, fuel tanks, bilges, etc.) have taken damage. This cost and weight have been added for all six facings.

Leftover volume is used to improve crew and access space.

Variants

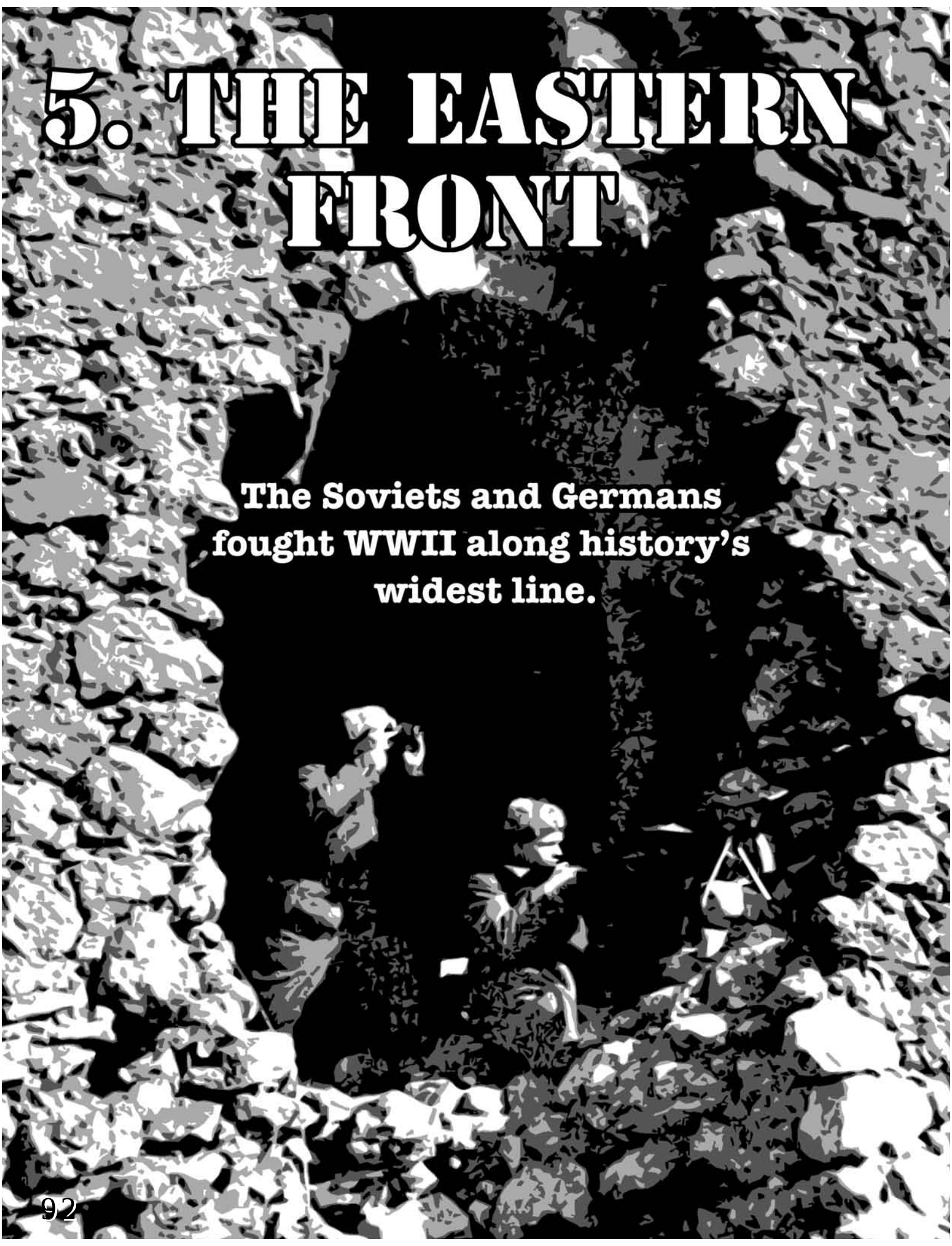
During the war, 120-mile air-search and 8-mile air-targeting radar were installed on most of the *Kirovs*.

Voroshilov had 10 37mm AA guns in place of the 45mm guns. It carried 164 mines. (This modification spread to the other ships, usually by converting the hangars.) Its engines were modified to increase power, providing wSpeed 43.

Maxim Gorki and *Molotov* had DR 230 on the hull F, R, L, and B, and an extra pair of DP guns.

Kaganovich and *Kalinin* mounted eight smaller DP guns (treat as 85mm Medium Tank Guns) in place of the usual DP guns, and had the same improved armor as the 1936 pair.

5. THE EASTERN FRONT



The Soviets and Germans fought WWII along history's widest line.

Other ***GURPS WWII*** nation books have described major campaigns in which that nation's army defined itself – for instance, the Western Front for the United States, and Africa for the British – or, for Nazi Germany, the nation itself. This chapter does both. It briefly describes the Soviet Union, a huge and diverse state that encompassed everything from Arctic nomads trudging behind reindeer-driven sleds to cutting-edge technologists in modern laboratories. It also attempts to show what it meant to take part in the greatest conflict that humanity has mounted in its long history of warfare.

This material can be used to more fully develop Soviet characters (see Chapter 2) and the campaigns they take part in (see Chapter 6). Of course, it will also be of use in a German-based campaign in conjunction with ***GURPS WWII: Iron Cross***, or even an Italian campaign based on ***GURPS WWII: Grim Legions***.

HISTORY'S WIDEST LINE

For most of the war, the Eastern Front stretched for 1,000 or more miles (see map, p. 103) – at a minimum the distance from Kansas City, Mo., to New York or Salt Lake City. In the German summer offensives of 1942, it more than doubled that length. Naturally, this vast theater took in a variety of landscapes.

THE TERRAIN

Five great geographic belts crossed the Soviet Union, with the Eastern Front at least touching upon all of them. Within each of these belts, the terrain often had a startling uniformity, largely untouched by human development. As massive as the Soviet population and industrial development looked in comparison to Germany's own, the Reds' housing and plants were scattered over a much greater area.

The Tundra

In the far north of the Arctic Circle campaigns, the tundra prevailed. This often was rough, broken terrain, particularly along the rocky coasts, with trees only beginning to appear along the southern border. Soil and life were generally both sparse and migratory, with reindeer serving as both food and transport for the very small scattering of natives. These peoples lived a low-tech (depending on the tribe, perhaps TL4 or TL5 in game terms, per p. W205) nomadic lifestyle. Though technically Soviet, they were largely removed from the war; the party had not yet found it worth the investment to fully bring the state apparatus so far north. For the most part, combatants on both sides of the arctic fighting were transplants from the south.

Other than freezing cold for much of the year, they had to contend with perpetual daylight for part of the summer and perpetual night in stretches of winter. In the summer, tricky bogs could form in the poorly drained terrain. In the summer, Survival (Arctic) rolls would be made at no penalty, with failures representing turned ankles, some minor damage from being attacked by a swarm of insects, or even a slip into a bog requiring a Swimming roll to escape. Winter blizzards will often call for a very steep penalty to Survival rolls to keep warm (p. 97). Other dangers will include various aches and sprains from negotiating the rocky terrain, but frostbite – and in some circumstances, perhaps even snow blindness (p. 97) – will replace the other hazards of the warmer months. The hungry (pp. 98-99) may have to subsist on moss and lichens.

GURPS WWII: Frozen Hell provides more information on Soviet combat in this region.

The Taiga

In the northern reaches – including Leningrad, Moscow, the advance of the Wehrmacht's Army Group North, and most of the front formed by Army Group Center – the taiga dominated. This was "old Russia," a thickly forested expanse of fir and larch, spruce and cedar, with vast stands of silvery birch glowing in the moonlight.

This region was well-developed in comparison to the rest of the Soviet Union. The mostly Russian locals enjoyed the beginnings of a road network carved through the forests, even if most of these tracks were paved in dirt that rapidly turned to gluelike mud in the rain.

Winter in the taiga was as bitter as in the tundra, with the northern lights and short sunlight hours still making themselves felt in Leningrad and other points along the northern extreme. This interface with the tundra also featured vast peat bogs, essentially a thick layer of compacted mulch that served as topsoil. Easily mined, this peat served fairly well as fuel for heating and cooking. The holes left behind, however, posed a considerable hazard to anyone wandering in the dark; they often filled with water. Even when dry, some were so acidic as to mildly burn the skin (perhaps 1d-4 damage to the hands, presuming that long sleeves and pants are worn). The bogs presented a handy place in which to dispose of a corpse.

Despite these hazards, reflected in summer Survival (Woodlands) or winter Survival (Arctic) rolls, the taiga posed an even greater challenge to Orienteering skill. Tall trees and a sun hanging low in the sky for much of the year made it difficult to gain one's bearings. Depending on local conditions, Orienteering skill could take a -1 to -5 penalty. Absolute Direction would, of course, negate this. So would a *good* compass; most simply reduce the penalty.

The Steppe

Toward the south, stretching toward Stalingrad in Army Group South's domain, the steppeland began. Though it was largely populated by Ukrainians, this had been the new face of Tsarist Russia, and remained that of the Soviet Union. In its last days, the Russian empire had put a great deal of time and attention into securing the staggering economic potential of a region that amounted to a wheat field the size of Australia. The always hungry Communists had followed the tsar's priorities in this regard. By this time, the steppe was the most densely populated Soviet region, though again only by the Soviets' own standards.

The steppe also came to represent Russia in German eyes, though plenty of soldiers in Army Groups North and Center never saw anything resembling it. Troops in the south, however, discovered that open space on such a limitless scale sometimes played serious psychological tricks on the newcomer. The GM should consider awarding Agoraphobia to Germans (and possibly some Soviet troops from northern homes) who fail a Fright Check in appropriate circumstances.

The steppe had fertile soil capable of supporting year-round agriculture and – subject to a considerable risk of deluge or drought – enough rainfall for agriculture. Finding enough water to support vast armies could be a different matter, as described in *Climate*, below. Temperatures were fairly moderate, with Survival (Plains) applying except in the dead of winter, when Survival (Arctic) would become more appropriate. Unless the traveler finds himself in a cultivated stretch of the steppe, food can be surprisingly hard to come by; humans generally burn more energy digesting grass than it yields. Most Survival (Plains) rolls will deal with simply finding food and water in the sea of grass.

This region also presents its own challenges to Orienteering skill; while the sun usually stands high in clear skies, the steppe can roll for hundreds of featureless miles without yielding a single landmark upon which to orient. A -2 to skill rolls would be appropriate, reduced to -1 for someone carrying an average compass, or negated by a good compass or modern TL7 aids.

The High Desert

Farther south, in the regions toward which the German's Army Group A pushed in 1942, lies an arid semidesert, home to a variety of Soviet minorities who generally grew rice and cotton rather than wheat. Temperatures generally are mild, so Survival (Plains) usually would be more appropriate than Survival (Desert).

The Mountains

At the extreme of that 1942 drive toward the Baku oil fields, the front touched upon the Soviet Union's formidable southern belt, the craggy and towering Caucasus range. Survival (Mountains) and Climbing skill would be in demand. This earthquake-prone region was inhabited by an often bewildering assortment of local cultures. As in the north, some of these peoples would qualify for a level of the Primitive disadvantage (see p. W186), and occasionally two.

Much more famous were the Ural Mountains, traditionally considered the divide between Europe and Asia. These ran north to south a bit farther east from Moscow than Moscow was from the border. Hitler planned to push his Reich's border to this landmark. Aged and eroded, the Urals resembled a less heavily forested version of North America's Appalachians. Though they would have presented a military challenge to any rump Soviet resistance based in the far east, they would not have been the alpine show-stopper that the Führer may have envisioned. Of course, the Wehrmacht never actually got near the Urals – at least in history as we know it.

The Climate

Competing with "empty" as the Germans' first expectation of their Eastern Front was "cold." While the famous Generals January and February deserved their reputations – much of the Soviet Union averages below-freezing temperatures for more than six months of the year – there's considerably more variety to the climate. The following primarily describes the taiga and steppe belts, but portions will apply to the Soviet Union's extreme regions, as well.

In the USSR, the campaigning season could begin as early as March, though the early spring presented many problems. By March, river ice was too thin to support marching troops or trucks, but still too thick to be navigated by ice-breaking boats. Water was hard to find away from the rivers (which required that ice be chipped), because rainfall tended to be low. April ushered in rain – and more mud than could be imagined. The whole countryside became muck, in which an advancing tank dug a furrow, building a hillock of mud in front of it until it became too large for the vehicle to push. Vehicles constantly apply the *Getting Stuck* rules from p. W153, while foot movement is halved (see p. W194). Those with Area Knowledge for the region might know a trick or two to ease – but certainly not erase – these difficulties.

Spring weather as the western world generally perceives it did not arrive until May, with thick grass springing up everywhere and winter wheat ready for harvest. The ground became firm enough for tanks, but not too dry, making this the ideal campaigning season for armor. (Usually. As described on p. W:IC15, the wet season extended well into May in 1941 Poland, helping to fatefully delay the German invasion.)

By July, the summer heat began to set in, often reaching 100˚ F on the southern steppes and in the interior. Water again became scarce, and dust plumes began to betray the movement of marching columns or motorized vehicles. The dry grasslands could be set afire and used as a weapon in their own right. Summer storms swept across the landscape, instantly resurrecting the mud and halting armored columns in their tracks until the ground dried out again.

With autumn, campaigning improved for a short spell, until the rains returned with a vengeance in September and October. Once again, the countryside became a quagmire. In addition, the skies remained perpetually overcast and the gloom became palpable.

Then, finally, came the dreaded winter. The cold weather centered in Siberia, where mighty rivers froze solid when January average temperatures reached -60˚ F, routinely plunging to -90˚ or worse. (These sorts of conditions simply can't be survived in the open. See p. 97 for details on enduring them and other winter hazards.) In the western reaches that saw most of the fighting, intense cold often began, intermittently, in November; settled down to stay in December; then waxed and waned again until March. During those months, troops could expect to deal with 12" of snow on average; regular troops divide Move by 2 or more in deep snow, while ski troops can ignore this restriction. Winds were usually light or non-existent and the skies clear and crisp. The difference between day and night temperatures was surprisingly high.

The Great Rivers

Mighty rivers coursed through the contested portions of the USSR. These included Europe's longest, the Volga, which Stalingrad straddled. The Dnieper, Don, and Dniester also witnessed extensive combat, as did countless smaller waterways.

These natural barriers to land movement often tempted defenders to integrate them into their line, which usually did not work out too well if the water was expected to substitute for proper entrenchments. When on the attack, the Wehrmacht found a good crossing spot, overwhelmed the local defenders, and crisply built themselves a textbook bridgehead. When the Red Army took the offensive, it simply scattered its infantry across a wide expanse to cross in small units by hook or by crook; the defenders usually could not spread themselves thinly enough to effectively block these countless probes.

Even when uncontested, however, rivers presented an obstacle to mechanized units. Most of the bridges would not support a tank weighing several tons. In an advance by either army, engineers with bridging equipment stayed busier than anyone else, racing ahead to erect sturdy causeways. Armored units usually tried to cross smaller streams at natural crossings, and often got seriously stuck in the process. These bridges or crossings often became critical bottlenecks when the armies were on the move.

In the 1930s, Stalin had a multitude of canals built (often by forced labor in dreadful conditions) to link the rivers into a navigable network of waterways. Despite this, neither side ever relied much upon river travel for its military supply lines, even though this might have offered the Wehrmacht a route fairly safe from partisan attacks (pp. 104-105).

People and Places

Accurate population figures are elusive. Stalin ordered a 1937 census using figures that he made up, in order to ensure that the impact of his purges would remain concealed. Regardless, the census-takers did their jobs with some measure of honesty, so the great man had them shot, then ordered a 1939 poll. The new officials more carefully followed directions, injecting considerable fiction into the state's official demographics.

Of the perhaps 194 million Soviets when Operation Barbarossa began in 1941, probably some 32 million were Poles, Baltic citizens, and others recently pulled into the tent. Of the remainder, some 78 million would have been Russians, about 32 million Ukrainians, and 6 million Belorussians. Siberians and various trans-Caucasian cultures (Uzbeks, Tajiks, etc.) would make up 35 million while the Caucasus cultures (Georgians, Armenians, Azerbaijanis, etc.) would constitute another 11 million. About 5 million Jews also called the Soviet Union home, many living in the former Pale of Settlement. A bit fewer than half survived the Germans, though many of the dead were soldiers killed in combat rather than victims of genocide.

Despite the massive urbanization of the 1930s, the Soviet Union remained largely rural, with widely separated great cities surrounded by sparsely populated countryside. Moscow was the largest city, with some 4 million residents, with Leningrad second at roughly 3 million. Other important cities in the west included Riga (the Latvian capital, only recently brought into the USSR's sphere; p. 12), Kiev, Odessa, Kharkov, Stalingrad, Rostov, Stalino, Dnepropetrovsk, and Gorki (the easternmost, and the only one to remain free of the war zone). Each of these had between 400,000 and 1 million residents.

HAZARDS OF A TOTAL WAR

Privation should be an enduring theme in any realistic Eastern Front campaign. When it came right down to it, both sides had to worry about surviving the elements and getting enough supplies before they even considered the dangers posed by opposing forces.

Problems like these – scrounging one's next meal, or seeking shelter in a storm – are sometimes seen as too mundane for adventure gaming, but conflict and drama are where the GM finds them. More character conflict can emerge from stealing a starving peasant's last chicken than from a furious firefight.

For GMs interested in adding a dose of this harsh reality into their Eastern Front campaign, this section collates (and where necessary expands) a number of optional ***GURPS*** rules. It also inserts specific references to the Soviet war, but these rules may be used in any setting. The following descriptions completely replace any references to the ***Basic Set***, ***GURPS WWII***, or ***Compendium II*** on these topics, unless noted.

FATIGUE

While the average frontovik usually had more pressing concerns than being tired, most other privations have at least a portion of their effects described as Fatigue loss.

Standard Fatigue loss represents the effects of short-term exertion; the subject is "winded." Longer-term abuses of mind and body also inflict special Fatigue loss. The effects of every sort of Fatigue loss are added together and marked off of ST, just like physical damage is marked off as hit points against HT.

Any use of ST will be made at the Fatigue-reduced score; even levels in ST-based skills decline by the amount of Fatigue. ST-based combat damage is *not* reduced. This is a convenience, but can be rationalized: even bone-tired people can summon a burst of energy for the moment it takes to throw a punch or lunge with a bayonet. Also, when adjusted ST reaches 3, the subject's Move is cut in half (round down) and he doubles any shock penalty for wounds. (Those with High Pain Threshold instead lose their immunity to stunning or DX penalty from wounds.) If ST reaches 0, the subject passes out until a point of Fatigue is recovered (p. 97). Fatigue cannot drop ST below 0.

Intensity and Rate of Loss

The intensity of an activity determines how frequently its Fatigue loss is imposed. The subject's skill at the activity also plays a substantial role; a trained runner, or swimmer, or even a carpenter swinging a hammer, is far more efficient at his chosen skill. Finally, encumbrance and environment will factor into how much Fatigue is lost at each increment.

Activity levels are broken into four categories:

Burst: This includes unarmed or melee combat, full-speed running or swimming, or very difficult labors done at top speed such as digging a foxhole while bullets are flying overhead.

Intense: This includes tactical movement in a firefight, crewing a tank during combat, *tournament* unarmed or melee combat such as a boxing match, running at Move×0.8, just staying afloat in rough water, or formidable labors at a routine pace such as pushing an AT gun through deep snow.

Heavy: This includes stationary roles in a firefight (such as on a defensive line or mortar crew), riding armored vehicles while off-road, running at Move×0.6, staying afloat in choppy water, many sports, and most things thought of as short-term labor, such as pumping water.

Moderate: This includes simply observing in a battle (mental stress still costs Fatigue), riding armor on roads or wheeled vehicles off-road, marching at a top walking pace of Move×0.4, heavy but "routine" physical labor (such as that often imposed on POWs), and even jobs that require intense mental concentration, such as being a lookout on a submarine.

Burst activity incurs Fatigue loss every 10 seconds, intense activity every minute, heavy every 3 minutes, and moderate every hour. If intensity changes, do not roll for each level until its full time period is spanned. For instance, if a soldier engages in an assault for 47 turns (or seconds), then an enemy trooper lunges at him with a bayonet causing 14 turns of melee combat, before the victorious soldier returns to advancing with his rifle readied, the soldier would incur his first Fatigue loss after the 57th turn (for the first 10 seconds of burst activity), and his second after the 74th turn (for the first full minute of intense activity). Another 6 seconds of burst activity in the same battle would trigger another Fatigue loss.

The Fatigue lost at each increment is equal to the subject's encumbrance penalty to Move (see p. W194) +1. This usually amounts to 2 Fatigue for soldiers with the common habit of dropping their packs before battle, or 3 Fatigue for troops under marching load. With the exception of swimming, add an additional +1 if the effective temperature is 80˚ or higher.

At each increment, the subject can roll vs. an appropriate skill (generally Soldier for ground combat, Hiking for moderate ground movement, Running for other ground movement, Swimming for water movement, Tournament Law for a boxer, etc.) to cancel the Fatigue loss, but each subsequent roll without a rest break is at a cumulative -1 (i.e., -1 for the second roll, -2 for the third, etc.). A 30-second rest will negate any accumulated skill penalties for burst through heavy activity; a 5-minute break negates the penalty for moderate activity.

Recovering Standard Fatigue

Doing nothing more strenuous than chatting or *light* thinking will recover 1 point of standard Fatigue per 10 minutes. Each cause of special Fatigue loss explains how it is recovered.

Fatigue and Will

Fatigue reduces the ability to resist stress. Apply half of *standard* Fatigue loss (round up) as a penalty to Will rolls.

Special Fatigue loss usually does not contribute to this Will penalty, with the exception of hunger-based Fatigue (p. 98).

People avoid truly tiring themselves. When someone takes standard Fatigue, roll vs. Will with the penalty for existing Fatigue. On a failure, he will try to rest until 1 point is recovered, then another Will roll can be tried. A supervisor can add a bonus to the rolls equal to the amount by which a Leadership or Intimidation roll is made. If inaction will endanger the subject, add +1 to +4, depending on how obvious and intense the threat.

Cold

Surviving the winter consumed the attention of everyone on the Eastern Front. No matter what Survival specialty would normally apply in the terrain, the better of HT or Survival (Arctic) would apply once temperatures dipped below 32˚.

Keeping warm requires a roll every 30 minutes, at -1 for every 5˚ effective temperature is below 0˚. This frequently results in -4 to -10 penalties in the north, -2 to -8 in the south, *before* wind chill. Wind was infrequent, but in a cold snap could pose a night penalty of -20. (For the completist, where t is temperature of 50˚ or less and v is wind speed of 3 mph or more, wind chill is $35.74 + 0.6215t - 35.75(v^{0.16}) + 0.4275t(v^{0.16})$.)

Winter clothing (p. 57) could give a +5 bonus, standard field wear +0, and lighter clothing a penalty up to -5 for nudity.

A failed roll inflicts 1 point of special Fatigue loss until ST reaches 3; then hit points are lost, instead. The Fatigue is recovered normally once the sufferer finds above-freezing conditions. Those with injuries who find a warm haven heal normally, except they make a HT roll at +4 but minus the cold damage taken. A missed roll indicates some minor but permanent cosmetic damage; a failure by 3 indicates a minor amputation, with worse failures resulting in worse permanent loss to frostbite. For instance, some unwary Germans suffered grossly frostbitten noses, which would reduce Appearance drastically.

Obviously, the more bitter conditions required shelter to survive. Some of the fiercest firefights were waged by small units over a single hut both needed for the night. Any windproof shelter will negate wind chill, thus ensuring effective temperature rarely drops below -45˚ or so, at least in the war zones.

The simplest shelter would be a trench, ideally an existing one because digging was very hard in winter. (Explosives could still crater the frozen ground.) A snow cave *might* work, requiring 1 hour (or 2 with bare hands, at 700 calories per hour; see p. 98) per occupant and a Survival (Arctic)-2 roll, with 1 point of wetness (see below) per point by which a missed roll fails.

Igloos or other ice houses were rarely used (ice that thick was rare away from rivers), but the native homes did their best to keep out the cold. Generally made of wood and/or mud with various rags and scrap crammed into every crack, they kept out the wind and usually featured an iron stove with a tabletop on which about four people could sleep. In June 1941, the Germans mocked these. By December, they coveted them . . . With the stove lit, those resting atop it never have to make Survival rolls, though finding enough wood to keep it going night after night could become a tremendous chore. Even without the stove burning, keeping the door closed to trap body heat might raise the internal temperature to as high as 40˚.

Precious as they were, these structures had drawbacks. They burned easily, and enemy artillery routinely targeted them at night, knowing troops were within, rather than outside facing a more certain death.

In all cases, huddling with a comrade will raise effective temperature another 10˚.

Wet and Worried

Wet clothing subtracts -1 (the wearer's worked up a heavy sweat) to -5 (it's saturated) from its usual modifier vs. cold. A drenched and nude person would take a -10.

Entering icy water is even rougher. Roll vs. HT, with a failure reducing DX by 3 due to shock. While immersed, roll vs. HT each *minute*, with success still costing 1 Fatigue or hit point as for cold and failure costing as many points as the roll failed by (minimum 2). Drowning (see p. W196) becomes an issue. Getting out requires a roll with the air-temperature penalties; a failure by 10 triggers a heart attack. Ice-fishing Siberians who fell into rivers knew that they were dead.

Other Hazards

A whiteout, where sky and horizon seamlessly blend, cuts travel rates by 25% and imposes -3 on missile fire. Reflective snow or ice can inflict sunburn in strange places, up to 1d-1 after a day's travel; it also threaten snow blindness in 3d+3 hours for those not wearing eye protection such as sunglasses. A Survival (Arctic) roll will recognize either risk.

Heat

Though nowhere near as deadly as the winter cold, heat could become a real concern in the southern summers. From 80˚ to 100˚, every 30 minutes roll vs. the better of the Survival specialty for the terrain or HT; anything hotter uses Survival (Desert) or HT. Apply a -1 for every 5˚ over 90˚.

On a failed roll, Fatigue loss increases by 1 for every 10˚ over 100˚, as well. When Fatigue reaches 3, hit points are lost instead. Clothing bonuses are reversed from those for cold; nudity gives a +5 while a snowsuit would be -5. However, very light clothing can pose a severe risk from sunburn. Shade can reduce effective temperature as much as 20˚ while high humidity can bring it back up by the same amount.

Even a summer heat wave rarely exceeded 100º in the southern regions that historically saw fighting.

Starvation

Food often became the overwhelming concern of both soldiers and (far more frequently) civilians. Though the famine in Leningrad overshadowed other incidents, pockets of Red faithful everywhere suffered growling bellies during the war.

The Red Army followed the standard military practice of thinking in terms of "rations" (enough food to feed one soldier for one day). ***GURPS*** usually describes it in "meals" (at three to a ration). Regardless, campaigns in which food plays a vital role may want to address it in the real-world terms of calories. A scrounging survivor in Stalingrad's rubble is more likely to eat the odd mouthful of this or that as discovered, rather than collate it all into some sort of sit-down meal . . .

Body weight and activity level determine daily needs. A man needs 12 to 20 daily calories per pound he weighs. The lower value would be for a very idle lifestyle, the upper for very active. Soldiers, war-factory workers, forced labor, farmhands, and the like fall in the most-active category. Women need only 90% of these rates. Children 17 and under *double* these needs. Cold weather adds up to 15%; shivering burns fuel.

If less food is eaten during the course of a day, the next day that hungry person takes 1 point of hunger-based Fatigue for every 1,000 calories (or fraction thereof) that they missed. This Fatigue loss is recalculated each day; it does not accumulate. For example, a 160-lb. frontovik needing 3,200 calories who eats only 1,400 calories on Monday will be at -2 Fatigue on Tuesday, during which he gets only 800 calories making him -3 Fatigue (*not* a cumulative -5) on Wednesday, and so on.

To replace these missing calories, the body burns fat, at 3,500 calories per pound of body fat. This lowers body weight, starting with any excess weight from Fat-related disadvantages. This lowered weight, in turn, will reduce the daily caloric needs.

As those without a Fat-related disadvantage lose body weight, they also lose starvation-related Fatigue and HT. Assess -1 Fatigue (up to no more than -5, though other Fatigue will add to it normally) and -1 HT for every 3% that body weight drops below the ideal. When this loss reaches 12% for men or 15% for women, body fat is all used up. Further caloric needs come from burning muscle, at 500 calories to the pound. Obviously, further weight loss will accelerate alarmingly.

If HT reaches 0, the starvation victim simply drops dead in his tracks. Starving to death, though, takes *time*. Usually, disease or injury speed things along considerably.

Hunger and Will

Unlike most special Fatigue, that from hunger, but not from starvation, adds to the Will penalties described on p. 97.

Even if nothing else triggers a roll, the hungry person must make a daily roll to avoid eating, if food is available, or to avoid dropping his duties and seeking out more food. On a failed roll, the subject eats his daily caloric needs plus 10% for every point by which the roll failed (if enough food is available).

The hungry person will resist expending energy, so must also make a Will roll to undertake, on his own initiative, any physically active task not related to eating more.

Recovering From Starvation

Eating a full daily ration of food will restore all hunger-based Fatigue within 10 minutes of eating. The starvation-based Fatigue and HT loss will only return as body weight returns to normal via eating more than daily needs. Force-feeding to speed this is risky. Painful cramps and other unpleasantness result from eating more than 200% of daily needs.

Note that, in this interim, the recovering starvation victim will appear to have the Skinny disadvantage (see p. B29), but won't really. The Skinny disadvantage is for people whose ideal body weight still leaves them thin as a rail; they're treated normally under these rules, and will have the same percentage of body fat as a more normally proportioned person.

The Fundamentals of Food

Minus the bread, the mess ration on p. 58 yields 1,600 calories. Thus, the winter ration with 2 lbs. of bread at 1,120 calories per pound has 3,840 calories and keeps a 167-lb. man healthy at 115% of normal needs. Lend-Lease C- and K-rations (see p. W88) contained 1,200 and 900 calories per meal, respectively. German and Soviet combat rations tended toward 2,400 calories daily. German POWs rarely got more than 800 calories daily; Soviets usually received far less to eat, if anything.

In Leningrad, by Oct. 1, 1941, the civilian ration for non-war workers was about 750 calories per day. From that point, the ration kept shrinking and the authorities increasingly failed to provide even this much. Bread on the black market (the gray market described on p. 109 had been outlawed in the crisis) was $10 per pound as October began. In three months, it was $100.

In the city, a Scrounging roll (at a considerable penalty in areas previously picked over) might find supplies that someone else secreted away. Those in dire straits might eat the glue off wallpaper, shoe polish, or similar fare, worth only about 50 calories to the pound and likely to cause internal distress (increase hunger Fatigue by 1 over what it normally would be).

In the countryside, a taiga starvation staple is the pine tree. Pine nuts can yield 3,000 calories per pound of nutmeat. (Getting to that meat before the nuts shed their cones in late summer might expend a good portion of the energy gained.) The needles can be eaten or brewed into tea; chewing them both relieves hunger-related pain (restores 1 point of hunger Fatigue above the usual benefit as food, at 80 calories per pound) and helps conceal a Russian hunter's usually pungent aroma of tobacco. Even the thin layer of wood just beneath the springtime bark is nutritious (usually dried and ground into flour for winter consumption as bread at 750 calories per pound), but it tastes like the household cleanser. All of these have the added benefit of being nutrient-rich. Survival (Arctic) or (Woodlands) will lead to this food source, but no one will live off of it if any alternatives can be found.

Other staples were nettles and dandelion leaves, but they have the same problem as pine needles: At roughly 80 calories per pound, it's exhausting to eat enough. They are better to add to sparse rations than as complete substitutes for real food. Also, Survival rolls for foraging (at up to -10 in dead of winter) result in eating a look-alike poisonous plant on critical failures.

Most game dresses out at 800 calories per pound of meat, 1,000 calories for fatty sorts such as beaver. Insects are 225 (earthworms) to 950 (mealworms) calories per pound.

To *resist* eating it (pp. 97-98) when hungry, human flesh is +5 to Will rolls, manure with undigested seeds +4, grossly rotten fare +3, really moldy stuff +2, the simply nasty +1.

Dehydration

A *resting* adult needs a quart of water every day. Add 1 quart per 10˚ over 80˚ if in the shade, 2 quarts per 10˚ over 80˚ if out in the sun. Active people need twice this. Add 1 quart to digest hard rations; fruits, soups, etc. contain their own water.

Anything less causes dehydration. Per missing quart, the subject takes -1 Fatigue and -1 HT. When Fatigue reaches 0, delirium sets in; the victim will be raving and barely consious. When HT reaches 0, the victim dies. If water is found before then, victims must drink no more than 1 quart per hour, or become ill. This restores 2 thirst-related Fatigue and 1 HT per 2 quarts. The remaining HT loss must be recovered normally.

Since thirst kills far more rapidly than hunger, those with dry food but no water should not eat. In the winter, melting snow or ice in the mouth actually loses a bit more water than it yields. In this period, people believed that water would "stretch" further if it was rationed over the course of several days. All this does is hasten the onset of dehydration damage, *but* people will drink 1 quart more than needed each day to feel satisfied. It would take a Will roll to avoid this tendency, knowing that water might be scarce later.

Thirst-related Fatigue does not penalize normal Will rolls (p. 97), but requires rolls (minus half of thirst Fatigue only) to avoid drinking seawater, running after obvious mirages, etc.

Bad water could be strained, then treated with 5 (for clear water) or 10 (for cloudy) drops of iodine (common in Red first-aid kits) per quart. It should sit 30 minutes before being drunk.

Daily grooming takes 3 quarts of water, cooking 4 quarts, laundry 10 quarts, a bath 160 quarts. These are important, too.

Sleep Deprivation

Children under 6 need 10 hours of daily sleep, those 7-14 9 hours, 15-34 8 hours, 35-50 7 hours, and older people 6 hours. Individuals with Less Sleep (see p. W183) need less.

Missing an hour of sleep is harmless. Missing 2 hours costs -1 Fatigue; 3-4 hours -2 Fatigue and -1 DX, 5-6 hours -2 Fatigue, -2 DX, and -1 IQ, and 7 or more is -2 each to Fatigue, DX, and IQ. Anyone with sleep-related Fatigue loss must make a Will roll every two hours to stay awake during routine duties, with the leadership and danger modifiers described for other Will rolls on p. 97. This roll takes an accruing -1 for each after the first (-1 in 4 hours, -2 in 6 hours, etc.). On a normal success, the character stays awake but suffers another -1 in Fatigue, DX, and IQ loss. A success by 3 or more stays awake and avoids the further penalties. If any attribute reaches 0, a deep sleep results.

Uninterrupted sleep for the daily need will erase all effects; half that will still reset the staying-awake penalty to 0.

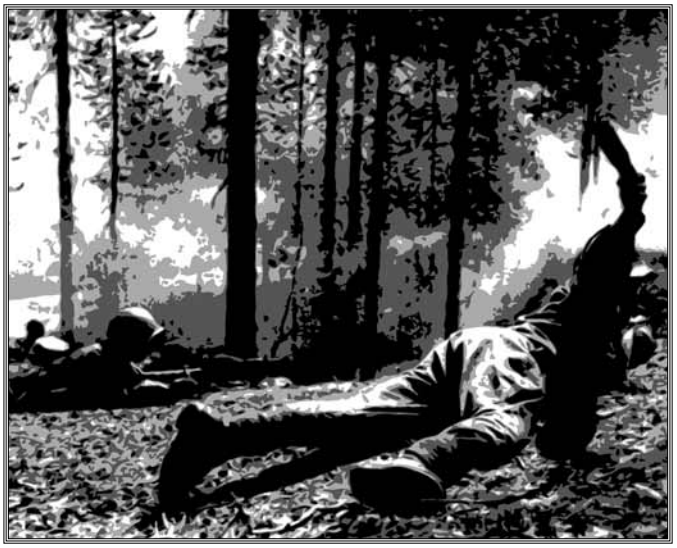
Combat and Stress

In mortal combat, stress reactions will temporarily suspend standard Fatigue and sleep-based penalties *only*. For the first 2×HT seconds, the subject ignores these penalties. After each 2×HT seconds, the soldier rolls vs. HT+Will modifiers to keep ignoring these penalties, at a cumulative -1 penalty for each successive roll; for instance, a soldier with HT 12 and Strong Will +1 would roll vs. modified HT 13 after 24 seconds, 12 after 48 seconds, 11 after 72, etc. A failed roll restores all standard Fatigue and lost-sleep penalties, plus 1 additional Fatigue for every roll that succeeded prior to that.

Pp. W:D121-122 describe combat fatigue. Red troops also suffered psychological breakdowns, perhaps at a reduced rate knowing their options. Medics closely inspected all gunshot wounds for the possibility that they were self-inflicted. In one experiment, army psychologists "treated" fatigue by inducing severe claustrophobia and asphyxiation with a leather hood. As grim as the front was, there were worse things behind it.

LIFE ON THE FRONT

The Soviets who joined the Red Army's fight against the Wehrmacht – and the people who simply lived on the ground that became their battlefields – would soon find themselves in situations unlike anything they had previously endured. This section briefly describes the living conditions and other realities of being a raw recruit, a frontovik (p. 46), or simply a civilian resident of the western Soviet Union. For the life that all of them left behind, see pp. 108-109.



WELCOME TO THE WAR

Whether uniformed Red Army recruits or worker militia, some reinforcements did not march to the front with their battalion. They were sent up in small units, or even as individuals. Likewise, those returning from medical convalescence and sent on various errands frequently had to make their own way back to the fighting.

This could become quite an adventure in its own right, especially since the Red Army rarely posted military police at crossroads to direct traffic and round up stragglers. The standard methodology consisted of wandering about and inquiring of all parties encountered as to the whereabouts of one's unit. Even if these contacts had useful information, the unit might have moved in the meantime.

If the troops were to just hold the front lines, they frequently found defensive works already dug and waiting for them. Civilian volunteers had prepared the terrain, sometimes under fire. Regardless, the soldiers would usually set about improving them, with a particular interest in camouflage. Even if camouflage already was in place – which wasn't likely unless another army unit had previously held the defenses – it would need refreshing. The trimmed tree limbs and such that made up the concealment would begin to wilt and turn brown, so the Soviets made sure that they replaced the foliage every other day or so.

When NCOs and officers gave the men any time away from these chores, they usually turned their attentions toward improving their living arrangements. A carpet of *dry*, old pine needles could greatly improve the comfort of sleeping on bare ground, for starters. Others went foraging; local farmers probably had to keep a sharp eye on their chickens, until they were told to eat them or pack them away ahead of the advancing Germans.

In early counterattacks and offensives, the Soviets often wasted little time between sending troops to the line and into the assault proper. A good commander would take a few hours to form his men up properly, but most of them felt an overwhelming need for speed. In the desperate 1941 months, a road column might attack straight from the march. A year later, the reinforcements carefully parceled across the Volga into Stalingrad survived a harrowing ferry ride only to be immediately thrust into a stinking, smoking arena that offered no safe quarter. Troops might need to roll against Soldier skill to realize that this threat is looming; otherwise, they might be caught with unloaded rifles, grenades stuck in the bottom of full knapsacks, or the like. More than one Red Army recruit measured his experience of the front in seconds . . .

AND FAREWELL

Those wounded in the lines often had to wait for good medical care. Usually, a female medic or two dragged them to the rear, where with luck horse-drawn ambulances took them a bit farther back to clearing stations.

In heavy fighting, the army sometimes set up specialist hospitals and loaded the wounded on trains. These stopped at each hospital, where doctors picked out the cases that matched their expertise and equipment. While efficient in some ways, this process could add considerably to delays in treatment.

Back at the front lines, local residents (if they were still around) often inherited the job of burying the dead – and sometimes mourned their very own sons who had fallen in defense of home and hearth, not just homeland.

MOVING THE PLANTS

From the outset, the German invaders aimed their attack toward the factories and mines of the western Soviet Union. The vast wheat fields of the Ukraine would help fill bellies, but what would really make the Third Reich stronger was all that potent industry – the great iron and coal mines of the Donbass, the manufacturing and shipping of the Baltic ports, manufacturing and textile centers in the central corridor leading to Moscow, eventually the massive factories of Stalingrad and the Volga region, and on to the tantalizing Baku oil fields, with their desperately needed petroleum, and the iron mines of the Urals.

The Soviets needed these plants in order to keep up their fight even more urgently than Hitler needed them to expand his own. While many had to be given up in the retreats of 1941, the Soviets did not abandon the most crucial. Instead, they worked around the clock to pack them up (often while German shells crashed around them) then load them onto trains for relocation to points much farther east – sometimes only minutes ahead of the Wehrmacht's advance elements. Through October 1941, the Soviets packed up nearly 300 large and 140 smaller factories in the Ukraine. Nearly a hundred plants managed to slip out of Leningrad before the Germans closed their noose on the one railroad line that offered escape. Almost 500 industries retreated from Moscow with intent to make Barbarossa's final victory ring hollow should the capital fall. A few hundred more plants followed through the first few months of 1942, some 1,500 in all filling up roughly 1.5 million freight cars making their way eastward on only four rail lines.

A little more than half of them stopped in the Urals, on the edge of Hitler's final goals for Russian conquest, but safe enough for the moment. A third kept moving farther east into Siberia, and some 200 took a southerly route to the Volga region. On arrival, the exhausted workers who had come along for the trip – more than 200,000 of them by the time that the massive migration ended – often found little more than a cleared site and bags of cement awaiting them. At other sites, the easterners awaiting the plant had worked around the clock to have bare walls and electric hookups awaiting the newcomers. Everyone resumed tireless shifts to reassemble their workplaces in record time, with huge assembly lines sometimes returning to operation three days after arrival. Only afterward did they turn their attention to issues such as housing for themselves (p. 109).

By the time that the dust had settled and lathes resumed spinning in mid-1942, Soviet propaganda was playing up this historic relocation, boasting that it illustrated the will to resist among the faithful. Certainly, it was an extraordinary moment in an extraordinary war, but more recent historians have come to downplay – even verge on dismissing – what the Reds accomplished. They point out that a war-wary Stalin had favored eastern sites for the industrialization projects under the five-year plans of the 1930s. These often massive works – Stalin liked his engineers to build on a larger scale than seen anywhere else in the world – possessed a huge industrial capacity even before the first disassembled western factory came chugging over the Urals.

While the Ural-Kuznetsk combine and other existing eastern centers certainly would have kept the Red Army from taking the field with empty hands, all the relocated western capacity was sorely needed and put to good use. The eastern industries alone would have been hard-pressed to keep the nation in a modern war, as 1942's shortages illustrated. Perhaps the relocations were not the nation-saving sacrifice that the Soviets made them out to be, but they did change the complexion of the war. If nothing else, they illustrated that impossible resiliency remained a Russian virtue.

As for the western plants that the Soviets had to leave behind, most were burned or blown up before the Red Army retreated. In the few years remaining to it, the Third Reich never realized more than a fraction of its dreams of hijacking this industrial capacity. Certainly, some real potential remained – whether the mines had been collapsed or not, the iron and coal remained under the Donbass, just as the precious oil remained in Baku – but the Germans found themselves spending nearly as many resources in fighting partisans and watching the hostile locals as they managed to extract from their new territories. They would have needed many more years to rebuild and truly exploit their gains.

In the Meantime

In the interim between battles, troops held the lines or moved to the next fight. When holding a position, quite a few frontoviks would be sent out to keep an eye on the Fritzes (p. 40), while others stood guard duties in which the Reds tried not to imitate the mistakes that their scouts relied upon the Germans making.

In any spare time, those who thought that they might be staying put for a while often started gardens; one never knew when a little extra something would come in handy. At all ranks, they found mail to be a great pleasure. Red troops wrote many letters, and often maintained warm correspondences with complete strangers who had become their pen pal as a "good Soviet" thing to do. These relationships became doubly valuable to the many soldiers who had already lost their entire families, either confirmed dead or unaccounted for behind the German advance.

They regarded their liquor ration even more fondly than their mail. The Red Army supplied a daily allowance of vodka, which alternated between 100 grams (4 ounces or shots) and nothing for the support personnel. The front-line ration alternated between 100 and 200 grams most of the time. While a Red rifleman certainly could not expect to see this luxury at all times, when he did get it, the 100-gram version might get him tipsy, and the 200-gram version would leave some men stumbling drunk. At these times, the junior officers – who often lacked a great deal of experience and training – might have an even harder time than usual keeping the troops in line. Of course, the Red Army had its own salty old NCOs, and more than a few fire-breathing senior officers, to back up its authority during such incidents, presuming that an ill-tempered commissar or NKVD troops did not get their hands on the offenders first.

If civilians remained in the area, some of them would soon be in the lines with the troops, though this offered more risk of being caught in combat. No matter how poor its rations, the army always had far more than the populace, and the troops tended to share with the children, who they knew needed more food than they did and got less (pp. 98-99). (The Red Army had long held a policy of taking in orphans, anyway, and in August 1943 set up 11 "Suvorov schools" that enrolled orphaned boys 10 and older into a seven-year course of cadet studies.)

Things may have reached their grimmest at the front in the summer of '42, primarily because the situation became so fluid in the south. The Wehrmacht was advancing so rapidly that Red command and control broke down. Even larger units lost contact with their headquarters, and retreated on their own initiative without any clear idea as to where they should go. As intimidating as the Germans found the endless steppe (p. 94), it was little more comforting to the countless Red troops wandering it aimlessly.

The Red Army turned things around at Stalingrad (p. 103), however, and from that point conditions improved rapidly. Both domestic and Lend-Lease supplies began to arrive in quantity, and the frontoviks eagerly took to these newfound riches. Armor crews in particular invested considerable ingenuity into squeezing more gear into their mounts. Figuring that they never could have too many rounds, they loaded the standard number, then strapped extra shells to the outside of their tank, perhaps covered with a tarp. Those who crewed Lend-Lease U.S. tanks really appreciated that the ammo came in sturdy cardboard tubes, strapped three wide. They lined the floor of the crew areas with these and stood on the tubes. (In game terms, they would use up the typically small cargo space left in most tanks, then start using up the 1 VSP each of access space that crew stations have included in their volume.) Both habits could backfire in a fight, with the shells hauled on the exterior detonating when struck, or those inside trapping crew members in a burning (and soon to explode) vehicle . . .

While cramming spare rounds, external fuel tanks, and everything else on their vehicle, the tank crews took care to leave enough sitting space for any "tank riders" (see p. W46) assigned to them. The tank crews valued these infantrymen very highly, knowing that their seven to 10 pairs of eyes and SMGs provided the tank's most effective protection against German infantry at close quarters.

In other circumstances, carrying passengers could have certain drawbacks. In one incident, an officer with a severe hangover grew increasingly incensed at the driving skills of the enlisted man at the controls of the tank he was riding. After a particularly tooth-rattling pothole, he jumped down, drew his pistol, and shot the driver through his open hatch. The Soviet authorities frowned upon this rather old-Russian gesture . . .

Even if riders weren't carried, the more casual crews would keep a space open right behind a T-34's turret, where warm air from the transmission vented. Leaving the driver to suffer, everyone else huddled there beneath a tarp during winter travel. (Needless to say, a single SMG-carrying German could sweep the crew off this perch just about instantly, if he caught them in this state.)

THE EASTERN FRONT

THE NEXT BATTLE

Eventually, the lull ended or the movement reached its destination, and the Red soldier entered his next fight. As the war went on, this experience evolved into a considerably different thing than the early helter-skelter days of infantry lining trenches and armor attacking without support.

For one thing, the infantry finally found an arena in which it proved more than a match for the Germans: the urban combat of Stalingrad and a handful of later campaigns. Fighting in the rubble of a great city mirrored the Eastern Front at large, in that neither side ever had enough men to fully fill out its lines. The Soviets learned to carefully select the strongpoints that they would defend, then carefully farm out units equipped for their precise roles, with just enough MG crews to cover the open lanes of approach, perhaps an antitank gun or two if any could be found, SMG men to cover the blind spots, and grenadiers to cover the truly blind spots where Germans might lurk behind a wall or beneath a high window.

Then, as often as not, they waited. The offense-oriented Germans usually obliged, only to discover that once a frontovik found a good fighting hole, neither hell or high water would dislodge him. They could try flame, smoke, waiting for men to starve – and still get shot at the next time they tried to cross the ground that a strongpoint covered. Worse, Ivan found fighting holes everywhere. The Germans could abandon an unsalvageable panzer in the evening and find the Soviets using it as a pillbox in the morning. This unflinching persistence finally made Fritz blink – and the entire Red Army sensed it.

After Stalingrad, the Soviets' war slowly shifted to the offensive, which demanded more of both soldiers and generals. They generally met the challenge. Troops on their way to the next great offensive might enjoy the luxury of truck transport – although a jarring ride, it still beat walking – as Lend-Lease transport was pooled into the units taking part in assaults. En route, they might pass through great formations of fake tanks and artillery, used in the *maskirovka* campaign to deceive the Wehrmacht as to true Soviet positions. The artillery, and sometimes the air force, also began doing a much better job of paving the way for these offensives.

Things were far from perfect, though. While the penal battalions took the brunt of any errant artillery fire (p. 38), everyone found cover when the bombers showed up. The air force was renowned for its poor marksmanship, even though a pilot whose stray bombs hit his own troops could expect serious repercussions. From Stalin on down, the Reds took "friendly fire" as a cost of doing business. In addition, field maintenance on their fine homegrown tanks and even finer U.S.-built trucks left something to be desired. As an offensive stretched out, the Soviets ended up cannibalizing vehicles to keep others running, and in general jury-rigging their motor pool almost as much as the threadbare and retreating Germans in front of them.

Worst of all, even to the final days of the war, Soviet riflemen and tankers could find themselves used up in a diversionary attack, designed to make a lot of noise with absolutely no regard for casualties. These could conjure images of the worst days of 1941, and kept the frontoviks reminded that their leaders were willing to spend them freely.

BEHIND ENEMY LINES

The 1941 debacle left a large portion of the Soviet populace – including untold thousands of Red soldiers – trapped in what had become the Third Reich's latest conquest. Though the front lines had passed them by, the war most certainly had not.

CIVILIANS

Most ordinary folk greeted the German conquerors with varying levels of concern and a wait-and-see attitude, but a considerable minority actually welcomed the change in regime. They all found out that the Germans wasted far less time than the Communists. Reich administrators appeared on the heels of the troops, culling out suspect people – men of military age, party officials, and the like – for relocation back to Germany as forced labor. If SS units were doing the picking, not all of these people would make it more than a few hours from home before an altogether different plan was unveiled.

Among the remaining populace, the Germans bombastically described their extensive rules, while detailing the grisly things that would happen to those who failed to obey. In case translation difficulties left any doubt, they often erected gallows at various street corners or in the town square. They then announced huge quotas for harvests, and other production in cases where the Red Army had left any intact industrial capacity. To keep the locals spurred, they followed up with threats to ship the lot of them back to Germany as forced labor if things did not go smoothly.

Things rarely went smoothly.

CIVILIAN PARTISANS

For all their grand prewar boasts about pushing the imperialist invader back at the border, the Soviets had developed extensive plans for partisan warfare in an enemy's rear. Every historical defense of Russia had involved trading not just any space for time, but rather a particularly hostile space.

While the partisan movement became as great as the Soviet planners had envisioned, it did not wholly stem from their preparations. Many of their existing caches, plans, and personnel fell through. In the meantime, however, many an able-bodied Russian pondered the gray-clad troops coming up the road, rubbed his chin, and decided that he'd have better odds by taking the weapons from a Red Army corpse and disappearing into the forest like a medieval bandit.

This was not an easy life. Forming groups of five to 20, these partisans often had to keep moving to avoid detection. To add to their mobility, many kept mounts. Though these were tough Russian ponies requiring relatively little upkeep (see p. W129), they added to the partisans' most pressing need: obtaining food (pp. 98-99).

A few lucky bands held inaccessible but arable ground where they could raise their own living in relative safety, but most of them had to obtain stores and supplies from those former Soviets who remained in the occupied towns. The problem was that the townspeople themselves did not have enough to get by after the Germans took their cut. Those partisans motivated by ideology, including the agents that the government had trained for just this contingency, shrugged and demanded that the supplies be handed over for the greater Soviet good. Those partisans motivated simply by survival – and many were – probably pretended to be ideologues themselves, or simply enjoyed the process if they were racist Russians raiding Ukrainian villages. In any case where hungry armed men demanded scarce victuals from unarmed hungry townsfolk, the locals might come to hate the partisans more than the German overseers (p. 106).

As the war progressed, the invaders took to using Russian labor, usually led by a lone German soldier, for rear-area duties (p. 106). Some daring partisan bands dressed one member who spoke German to fill the role of supervisor, then masqueraded as a Hiwi supply detail to boldly draw supplies from Wehrmacht depots.

Operations

For the first few months, the Germans hardly noticed these bands hiding in the forests and swamps. Eventually, though, the Soviets began reaching out from the other side of the front lines. Their agents brought much appreciated supplies – and orders to join the fighting.

They were given two primary targets: the handful of rail lines that kept the German army fed, and those former Soviet citizens who had aided the German war effort in exchange for their lives. Early attacks against the rails amounted to little more than ambushes of undefended work crews as they repaired isolated sections of track. Terrorizing the "turncoats" required substantially different tactics, often involving sneaking into town for a close-range assassination.

In both cases, the scattered bands began to wage an effective war. The Germans had to reinforce the troops assigned to guarding the rails, and began to experience serious difficulties in getting any Russians to fill high-profile posts within the new Reich administration. The partisans had no such employment concerns; many a Russian who had stuck it out for a few months of occupation now slipped off to join the partisan movement, having gotten his fill of the Nazi nastiness. Women took up the partisan cause in large numbers, though matters were less civilized than in the Red Army (p. 42). The NKVD trained its leader-agents to not waste time sorting out romantic squabbles among partisans, but rather to just shoot the woman.

In 1942, the awakened Germans began hitting back at the partisans, with quite a bit of success. Ragged and exhausted bands often slept in their saddles until their hardy mounts dropped beneath them. At the same time, more Red Army or NKVD specialists were beginning to filter through the lines and take command of these units, though the small-group politics of ousting a homegrown leader could become complex. The surviving bands grew more military in nature, and their weapons reflected the evolution. They began placing a devilish variety of mines on both train tracks and rolling stock.

In the fall of 1942, the Germans placed "control officers" throughout the fields of some occupied territories, to ensure that the harvest was properly collected and handed over to the authorities. They could not afford to place an infantry company in each such role, however, so the partisans simply swept through these regions and picked off the isolated overseers until the Reich had to abandon the program.

As the partisan efforts made it nearly impossible to move trains eastward, the Germans began relying more and more upon the primitive road network. The partisans followed them to this new arena. Their stock tactic was to pick a stretch of road through thick forest, then form a log barricade just around a curve. As a truck or convoy stopped at this barricade, partisans farther back quickly barricaded the road *behind* them. Meanwhile, those at the front of the ambush opened fire. As the Germans responded to these attacks by arming their trucks – and by eventually assigning soldiers returning from leave to serve as sentries during this passage – the partisans expanded their manpower and firepower to match.

Partisan Soldiers

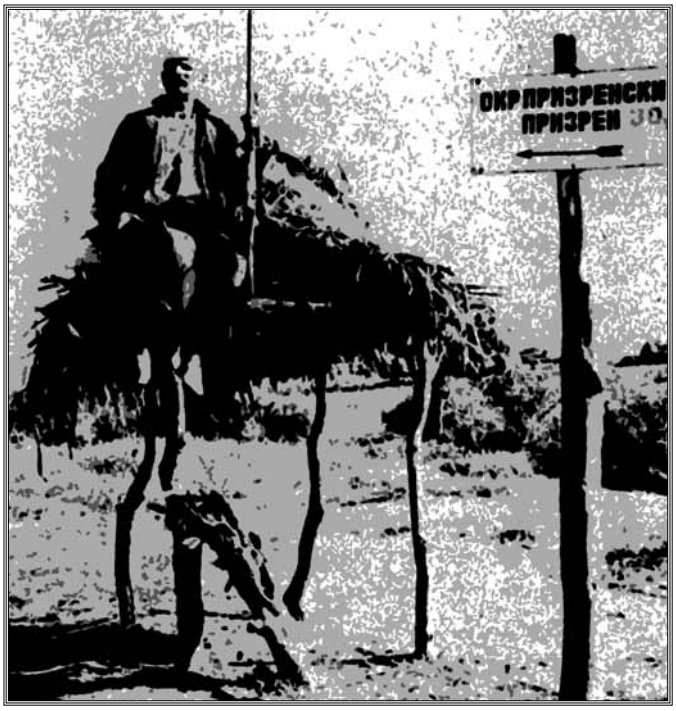
The few times that rear-area Germans actually did encounter "partisans" in mid-1941, they usually were fighting stranded army units, instead. Most of these soldiers had not been looking for a fight, but rather bumped into the Germans on their way to someplace safer than the one they had just left.

Rather than try to make their way back, many of these soldiers also took up the partisan lifestyle. They enjoyed several advantages over their civilian counterparts: military discipline and organization, usually better weapons, and probably a great deal more support and trust from the Soviet authorities in charge of supplying the partisan effort. Their supply chain eventually evolved to include regular airdrops from beyond the front lines; the Germans often would see the landing or drop-zone lights set up in some inaccessible site, and hear the drone of the plane engines, but be able to do nothing about it.

These soldier-partisans could break up into "bands" – probably actually squads, just as if on maneuver – like the civilians, in order to filter and forage quietly through a region, then reassemble into units of battalion size or even larger. When they took casualties, they often could evacuate them on the same planes that brought in supplies by night. They replaced their losses by press-ganging any civilian partisans that they encountered, as well as the random fighting-age townsman that the Germans had overlooked in their own sifting of the populace.

The soldier-partisans engaged in the same sorts of attacks as their civilian counterparts, though given their greater numbers and efficiency they often took on more formidable targets. An NKVD partisan unit of this nature enjoyed the most spectacular victory of the rear-area war. The night of July 30, 1943, they attached a magnetic mine to a tank car full of gasoline at the Osipovichi rail switchyard. When the mine detonated, the gasoline quickly set the entire train on fire, which in turn caused an adjacent ammunition train to spectacularly explode. This in turn ignited and consumed two additional trains, one filled with fodder and the other with Tiger tanks. The resulting firestorm mangled tracks and switches, shutting down the rail line for extensive repairs. Adding insult to injury, the massive fireworks panicked the guards at a nearby concentration camp, who fled, leaving several Russian and eastern European prisoners to make their escape and join the partisan force.

Few partisan operations enjoyed such success – and when German antipartisan forces happened to pick a band's region for one of their sweeps, life could become both grim and short (p. 18) – but with the exception of some bitterly contested stretches of 1942, the partisans generally held the upper hand in their fight . . . as long as they kept moving, didn't let their consciences get in the way of taking what they needed, and avoided biting off more than they could chew.



TAKING THE OTHER SIDE

Hitler resisted any effort to convert unhappy Soviets to the Nazi cause. He wanted to exterminate, not "liberate." More practical Germans, however, saw that Stalin's harsh rule had disaffected millions, creating a vast pool of potential recruits who could tip the scales on the Eastern Front.

Given that they usually had to recruit quietly, lest the Führer notice, these German authorities did not mobilize a great number of dissidents, but they had their successes.

THE RUSSIANS

Though far grander recruitment plans had been created – and dismissed – at earlier dates, the first Russians entered Wehrmacht service in small auxiliary units during the last months of 1941. POWs facing starvation and deserters from the grim Red lines made up most of these *Hiwis* (volunteers), so it's hard to gauge how much their motives had to do with beliefs as opposed to raw survival. Mostly, the Hiwis performed menial labor that freed up "reliable" personnel for combat. Though the Germans treated them shabbily enough, the Hiwis fared far better than men who refused this service, and by 1943 the Wehrmacht may have employed almost a million of them.

As its personnel crisis grew, the Wehrmacht began forming those Russians who had volunteered with particular enthusiasm into security units for their supply lines. These *Osttruppen* skirmished with their countrymen fighting as partisans and sometimes found themselves holding quiet sectors on the front.

The Russian National Army

None of these scattered efforts represented a true opposition army, with popular support in defiance of Stalin. The seeds of such movements were beginning to sprout, however.

Some Byelorussians stranded behind the German advance objected to area partisans' assumption that a good Russian would rather starve himself feeding partisans than live another day under Nazi rule. They formed militias in self-defense, then switched to the offensive in increasing partnership with the Germans. They also began taking part in SS eradication programs that required murder rather than combat. This opposition had no interest in behaving better than the regime that had just abandoned it.

As 1942 began, the Germans improved the unit's arms. B.V. Kaminski, a former Red Army captain who was actually of German-Polish origins and a gulag survivor, accepted promotion to major general and headed this force. The Germans called it "Kaminski's Brigade," but its commander held on to more high-minded pretensions and called it the Russian National Army of Liberation, or RONA by its Russian initials.

RONA never grew larger than divisional size. It continued fighting partisans before the front came to its home region in late 1943. RONA was savaged before joining the German retreat with families in tow. In July 1944, the Waffen-SS commandeered the unit and named it SS-Sturmbrigade RONA. By this time, whatever discipline once existed had disappeared, and the RONA men qualified as little more than brigands.

The SS sent part of RONA into Warsaw to help quell the uprising there (p. 22), but all they did was ignore higher command while drunkenly killing and raping in already pacified zones. The SS command responded by summoning Kaminski and his subordinates to a conference and shooting them.

SS chief Heinrich Himmler (see p. W:IC53) had deemed the self-styled "warlord of Lokot" and RONA as liabilities, partly because he recently had come over to the idea of fronting the ROA (below) as an opposition army. He sent some RONA men to the ROA, some to perform Hiwi labors.

The Russian Army of Liberation

German authorities who disagreed with Hitler's policy had begun discreetly planning the Russian Army of Liberation, or ROA, soon after the war began. By the end of 1943, it already had absorbed all of RONA's Byelorussian peers, such as the Russian National People's Army, or RNNA, the Gil-Rodionov Druzhina, and smaller units.

To head this army, the Germans had picked A.A. Vlasov, a renowned Red Army general who had surrendered in June 1942. They had the general write a leaflet, which the Luftwaffe dropped over Red lines in late 1942. Deserters began coming over to serve Vlasov, but Hitler also got wind of the plot and ordered his subordinates to drop the idea. Despite his orders, they persisted anyway, aiding the dissidents in issuing a "Smolensk Manifesto" that alleged the ROA would restore freedoms that Stalin had taken away. By this time a free man, Vlasov continued recruiting in occupied territories in 1943.

In September 1943, front-line Wehrmacht officers looking for scapegoats blamed treachery by ex-Soviet troops for several Red Army breakthroughs. Hitler launched into one of his tirades, and demanded that Russians be yanked from his armies. He had to give in when informed that the Wehrmacht simply could not replace the hundreds of thousands of easterners then fighting in German lines. The Führer satisfied himself by ordering Russian volunteer units to other fronts, incidentally undercutting the ROA's base of support.

Himmler had opposed the ROA, but came to realize that Germany was losing the war. A rebel army might both help at the front and add an after-the-fact veneer of legitimacy to Nazi "intervention." Reversing course in July 1944, he allowed Vlasov to form the Committee for the Liberation of the Peoples of Russia, or KONR, under which the troops would formally fight. Generally, only Russians signed on; the KONR issued a November 1944 Prague Manifesto calling for Stalin's overthrow. Still, those Russians volunteered by the thousands and thousands, including refugees who had retreated with the Wehrmacht rather than return to Communist rule.

The Third Reich was disintegrating by this time, so the KONR army was doomed before it even formed. The Wehrmacht couldn't afford to return all the ex-Soviet troops on other fronts, and few arms could be procured. Plans for five divisions became two and parts of a third. The Russians made

do with what they could scrape up and trained for a few hectic months. Then one division joined the dwindling German units defending the eastern approaches to Berlin in April 1945. They were ordered to push back the Soviet bridgehead at Frankfurt-on-Oder, taking heavy casualties on what they knew to be an all-but-hopeless task.

The division's commander, Gen. S.K. Bunyachenko, turned his survivors south and began marching toward Czechoslovakia – despite repeated German protests that he should stop and resume taking their orders – until he met up with Vlasov at the border at month's end. A forced march from Prague, the rebel Russian army pondered its fate until May 5, when the Czech underground government asked Vlasov for aid in sweeping the SS out of their capital. Thinking that the Americans would shortly occupy Prague – and would hesitate to evict men who had just saved them the bloody work of clearing the city – the Russians agreed. The next morning they arrived at Prague and that evening the job was done – then the next day they learned that the Soviets would occupy Prague, not the Americans. On May 8 they left the city for the same campsite and grimly uncertain future that they thought they had left behind just days earlier.

Vlasov and Bunyachenko tried all sorts of other options to get the Americans to take their men into their zone of control, but the U.S. Army wanted nothing to do with a rebel force. One American suggested that his superiors might look more sympathetically on a flood of individuals rather than a standing "army," so the Russian leaders disbanded their still-young division to make its escape man by man.

The Red Army, meanwhile, was eager to get its hands on these dissidents. It implemented a massive manhunt. Most of the rebels were shot on sight, or swept up and treated most cruelly before being shot. At least one shortened his pain by leaping beneath the treads of an oncoming tank. The minority that survived capture were deported back to the Soviet Union to face execution or life sentences. The handful that reached U.S. lines were quickly handed back over to the Soviets, who captured Vlasov himself on May 12.

The rest of the rebel army – which included a large number of Cossacks – mostly fell into British custody, but they too were deported in late May. A few hundred, mostly Cossacks, escaped this fate with the help of some sympathetic British soldiers who looked the other way. The rest were sent into Red Army custody, where they endured the same rough treatment as Bunyachenko's men. Some allegedly were sentenced to hard labor as miners for the rest of their lives – ordered to descend and never emerge to the surface again.

The Ukrainians

Since the 1920s, the Ukrainian regions of Galitsia and Volhyn had fought Polish rule with a substantial right-wing resistance that eventually organized as the *Organizatsiya Ukrainskikh Natsionalistiv*, or OUN. In September 1939, these lands fell under Soviet control under Stalin's secret pact with Hitler. Communist rule – especially under a regime that had already murdered so many Ukrainians – certainly was no trade up in OUN eyes, though some Polish Ukrainians sincerely felt otherwise. (Exactly how many will never be known, though the Soviets held a referendum and claimed 93% support.)

The resistance's leadership relocated to the German-held Polish territories, where they began discussions with the Third Reich's officials. At a February 1940 meeting in Krakow, the movement split into factions. The OUN-B under Stefan Bandera joined the Nazi camp while the OUN-M kept its distance for the moment.

As Barbarossa began, both OUN factions led militarized raiding formations organized by the Germans and called Nachtigall and Roland. These specialized in atrocities against Jews, of a viciousness that often outperformed even hardened SS killers. Eventually, the OUN's insistence on independence led it to fall out with the Nazis. The leadership was arrested and scattered, but their followers continued to support the German regime, many joining the 14th Galician SS Division or furthering the persecution of Jews.

Of all the dissidents described in this section, the Ukrainians had the greatest odds of escaping Soviet retribution after the war. Many of them pointed out that, technically, they were Polish citizens, and thus escaped deportation from U.S. or British zones of control as wartime traitors to their country.

Others

Though he still didn't embrace them, Hitler was more comfortable with Soviet minorities from far-off places joining his fight. He approved a Wehrmacht plan to form these minority rebels into Eastern Legions, or *Ostlegionen*. From 1942, four such units were formed, one each filled with Turkish peoples, Muslims from the Caucasus region, Georgians, and Armenians. Some of them fielded troops of considerable quality.

The Cossacks

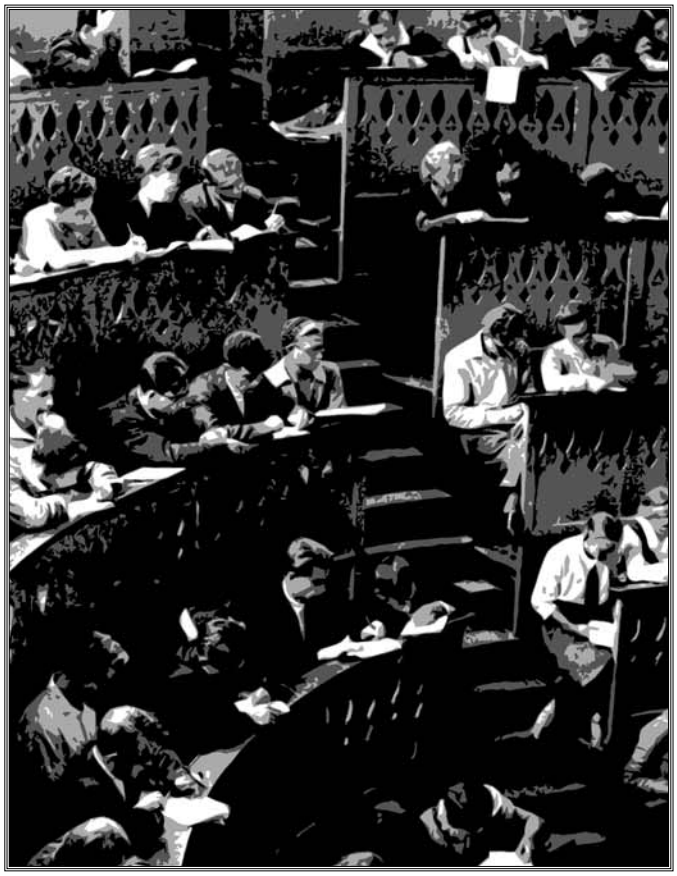
Though the Cossacks (p. 48) craved their own Kazakian state, their anti-Soviet military history made them favorite recruits for the Germans. A legendary Cossack ataman presumed dead since 1919 emerged from hiding to join the Axis cause.

By mid-1942, Cossack units were fighting with the Germans, usually against partisans. A year later, a Cossack division had been created from smaller units.

Axis Cossacks later served on the front, and in France and Yugoslavia after Hitler's relocation orders were implemented. All in all, probably 250,000 of the horsemen served Hitler.

THE COMMUNIST LIFE

The Soviet Union entering the war in 1939 was a much different place, with a much different people, than the land the Communists had begun to take over in 1917. What had been a centuries-old empire of peasant serfs with no more than 20% literacy had turned itself into a still blue-collar, but much more sophisticated society, with only 20% illiteracy. Before the fighting began, millions of citizens each year were learning advanced crafts and trades, while thousands of Soviets had studied engineering and other sciences in Germany, the United States, and elsewhere.



The Communist concept of educating the masses did not limit itself to purely practical things. Their institutions of learning mixed the topic at hand with a heavy dose of political theory; a good worker used exactly so much torque to bolt down the cylinder heads of such-and-such engine for the good of the party, and so forth.

Among other tools, this served the party's overarching desire to reshape society's most basic social structures. Their vision of a socialist community was unlike anything that had ever come before, but the war – with its crises heaped atop crises – caused the party to shelve most of these domestic agendas, even turn back the clock on some of them.

Thus, Soviet wartime society mixed the ingrained traditions of countless years of medieval peasantry with the insight given by education and the radical manipulations of Communist theorists, all jumbled by the unforgiving realities of the war.

FAMILY

Party intellectuals wanted to destroy family bonds in Soviet society. Like their Nazi antagonists, they saw the family as competing with the state for a citizen's affection. Blood bonds were the stuff on which imperialism thrived.

They probably succeeded in this goal more thoroughly than any culture in history. Even though Russian culture had long featured a tightknit family structure, a significant percentage of well-indoctrinated Soviet citizens did not regard mother or father, brother or sister, as vital bonds. Rather, these were accidents of birth that should not interfere with their personal relationship with the state. While many citizens felt horrified when parents or sibling fell victim to a purge, others felt that Soviet justice must be correct, and went on to faithfully serve the state for the rest of their lives.

An unintended consequence of this tinkering (though other factors were involved) was a drastic drop in birth rates. In a society that did not value families, fewer people bothered to form one. This was a severe repercussion for a regime that expected to need more and more workers and soldiers as time went on – and which had already lost millions of citizens in various upheavals.

Even those who did want to settle down had to contend with physical separation; the massive public works of the 1930s caused millions of men to follow the labor, while most of the women stayed where they were. The state began to second-guess its policy of providing contraception for women who desired it. It also began a 1937 propaganda campaign – popularly called, after the comely maiden who adorned its posters, the "Khetagurova movement" – to persuade women to relocate to the newly built far-eastern settlements. These grim concrete boomtowns usually had dozens of males for every female who had so far been willing to make a home there.

WORK

In 1939, the Soviets put a good deal of their industry on a wartime basis, partly in response to the gathering threats of conflict, but mostly because the party was exasperated with slowing productivity and the massive turnover and turmoil that had resulted from the worker migrations of the 1930s.

These wartime conditions meant that many workers worked eight hours every day, had five-year contracts keeping them from seeking better positions, and had to carefully navigate some very strict conditions. Being late by 20 minutes counted as an unauthorized day off, an infraction that went into the worker's permanent record. Strikes or other organized protests – the very sort of thing that formed the bedrock of Communist ideas in an earlier age – were strictly prohibited.

Unsurprisingly, the belt tightened further when the fighting began. Officially, the work day increased to 11 hours, but social pressure pushed most workers to put in 14 or more hours every day without respite. Being absent from work could result in interrogation by security officials and criminal prosecution.

Conditions were even tougher on most of the huge state farms, called *sovkhozy*. In this crucial agricultural segment, women generally replaced the male farmhands called to the war. As before the war, the state paid farmhands very little, but farmers could usually tend a little plot for themselves. Many chose to spend as little effort as possible working the state's vast acreage and to nurture their own small planting.

Despite their rhetoric, the Soviets did not pay all workers equally, nor did they pay on the basis of need. Many took skill tests that determined their pay. The average factory hand with overtime might take home 500 rubles per month, in game terms roughly converting to $85. Others made far less, while skilled specialists in crucial war industries might pull down 1,500 rubles. Even in state industries, some workers supplemented this income by making and selling products on the side.

The Gray Market

The state issued civilians with ration coupons for their food and other basic needs. These rationed items generally were available, and at reasonable state-enforced prices, but they did not stretch far enough for anyone who did not enjoy an endless diet of cabbage and potatoes while re-patching patched clothes. Most citizens turned to the semi-legal private markets to buy a few crucial goods at vastly inflated prices.

In game terms, those items on pp. W87-90 that would reasonably be part of the rationed Soviet economy – primarily food and permanent lodging – will be available at the listed prices (multiplied by 6 for conversion to rubles). Extra fare in these categories, and other goods, can be found in this gray market, usually at about 10 times the listed cost (60× in rubles). A contest of Merchant skills might reduce this by 5% per point by which a buyer beats a seller, up to 25%. Even in the grimmest circumstances, this market will exist (p. 98) – in the darkest days of the Leningrad famine, luxury foods could be obtained, but at *much* more than 10 times basic cost – and the discreet purchaser would be well advised not to inquire what sort of meat was in the sausage.

Of course, one factor distinguishing the Soviet working life from that in other nations was that many citizens worked within hailing distance of the front, especially in the early years. Their routine days could be shattered by shellfire, or the sudden need to take up arms and defend their workbench and tools.

Housing

During the rapid industrialization of the five-year plans (p. 10), living standards became very meager in the Soviet Union. In 1928, the average Soviet possessed only 63 square feet of living space – essentially an 8'-by-8' room. Things only got worse as the rural populace moved to urban centers during the industrialization, with many of them living in barracks with only a bunk to call home.

The war turned even a bunk into an infrequent luxury for those in the Red Army. Even though many workers kept their prewar lodgings, the wartime workweek led some plants to set out cots on the factory floor. Others ended up migrating with their relocated plant (p. 101), sleeping in tents or sheds until they were allowed time to build better quarters.

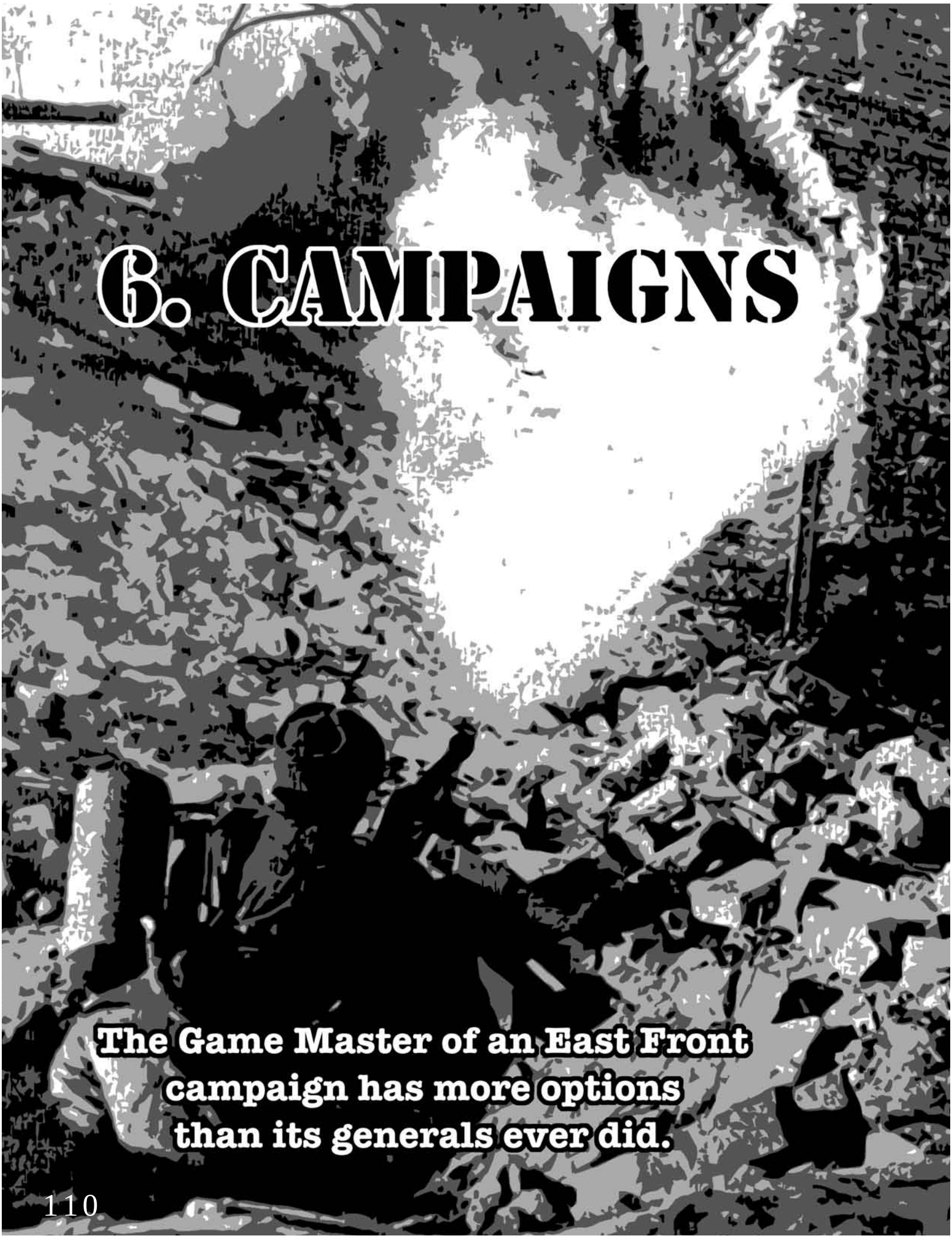
The prewar overcrowding actually eased in a few sectors where death had outpaced destruction. For instance, those who survived in Leningrad, or returned after the siege, might have a wide choice of vacated apartments or homes. Other cities, after enduring a year or two under German occupation, returned to Soviet rule with only a small fraction of their previous population. Far more frequently, housing at bitterly contested sites such as Stalingrad – where virtually no homes survived the Luftwaffe's bombs – would be even more precious than before the invaders arrived.

Religion

The Communist aggressively sought to extinguish all religion from the Soviet sphere – never mind that the Russian Orthodox Church had a 929-year-old headstart in this battle for hearts and minds. By 1926, the Soviets had slain hundreds of priests and bishops, seized church property, and allowed only a trickle of religious activity to continue.

As the war began, the party discovered for itself what a U.S. officer in the Pacific would soon immortalize with the observation that "There are no atheists in foxholes." Soviet morale needed bolstering, and traditional values – including religion – would help. On Oct. 7, 1941, during the height of the battle for Moscow, Stalin lifted his ban on practicing religion. Though Stalin himself was an ex-seminarian, he gave this permission only reluctantly, even given the grim conditions of the time.

Though the surviving church officials knew quite well that they were being used, they went along willingly, even enthusiastically. They reopened the churches, preached the righteousness of the struggle against the German invaders, and even took up donations for the Soviet war effort. Many apathetic or disillusioned citizens finally took up the cause on hearing these sermons, and the amount of money that the church collected from an impoverished audience verged on the astounding . . . the state could hardly complain. In response, the party further softened its stance, such that even an openly religious individual could advance without discrimination during the war years. Afterward, over the course of decades, the Orthodox Church would gradually lose some of this official tolerance, but it was never again relegated to the near-outlaw status it suffered before the war.



6. CAMPAIGNS

The Game Master of an East Front campaign has more options than its generals ever did.

CAMPAIGN STYLES

WWII-based campaigns can take on many different tones, per pp. W158-162. A humorous campaign will be hard to pull off in the constant grimness of the Great Patriotic War, but any other style, from pure horror to heroic sagas, can fit onto the Soviet stage. Even the background depends on the observer. Through western eyes, the utilitarian shabbiness of the Communist regime will color the whole campaign. To rural Soviet PCs, used to their society, the war will bring constant amazement at their nation's size and diversity.

STALIN'S SACRIFICES

For a grim and gritty campaign, there is hardly a better choice than the Eastern Front. In this sort of campaign, the only heroes that the PCs will encounter will be glassy-eyed fanatics. The state propaganda organs will praise their exploits, post-mortem, but those on the scene will meet serious sociopaths willing to trade their lives (and anyone else's) for a moment of glory . . . until the next self-appointed martyr steals the spotlight in *Pravda* and the army paper, *Red Star*.

For the less heroic – especially those who hated Stalin, and there were plenty who did – desertion will be an increasingly attractive option. However, STAVKA men aren't fools. When checking a new patient, Red Army medics don't first check how severe a wound is, but whether it might be self-inflicted. NKVD battalions lurk just behind the lines, ready to sweep up any stragglers. Every train has security details checking papers, and traveling cross-country means living off a land that had already been picked clean by millions of starving civilians.

So most everyone will stay and fight. Sometimes they'll fight the Germans, but every day they'll fight to keep health and sanity intact. Even though the army gets preference for rations, troops sometimes will go for days with little or no food. They will face the winter that so drastically thins the German ranks with no special Russian magic . . . just warmer clothing and orders to grit their teeth and bear it.

With cold and hunger their biggest enemies, Red troops will become sloppy soldiers, picking up habits that can cost them their lives in combat . . . yet most troops will keep doing things the same way unless an experienced leader whips them into shape and makes himself more feared than the cold. Improving his chance to survive a battle seems beyond the frontovik's ken; the Führer, the Chairman, and perhaps God will sort that out in their own good time. All a fellow can do is try to keep warm in the meantime, and maybe not too hungry.

The PCs often will start out as conscripts, fitfully trained and built on 75 points at best. It would make sense to start this campaign as Operation Barbarossa begins, because it simply doesn't get any bleaker than in this opening salvo.

From the Frying Pan . . .

Should the adventuring party find itself in Leningrad as the winter days shorten, things could get far bleaker. Even for front-line troops, the starvation rules (pp. 98-99) will begin to kick in, and the constant bombardment will assure that a revolving cast of pinched-face NPCs fills out the scene, even if none of the PCs themselves are retired from play after hearing the scream of an oncoming 155mm shell.

The comradely facade of Soviet society will give way as bellies tighten. Each survivor will guard what he has for fear that his neighbor is thinking the same larcenous thoughts that he's thinking. In most cases, this distrust will slowly harden into a cold-blooded instinct to steal the other guy's ration book first, before he steals yours. Leningrad could play out like *The Treasure of the Sierra Madre* as presented by the have-nots rather than the haves.

As bad as things in the encircled city may get, though, they will seem positively cheerful compared to a campaign in which the PCs join the millions of Soviet POWs captured in 1941-42. This would become an exercise in minimalist horror, as the Germans simply round up their unfortunate charges and start marching them west – without water, or food, or facilities in which to relieve themselves, or medical care. Wounds, illness, dehydration, and starvation will race to see which finishes off each mud- and filth-encrusted man, while the German sentries respond to an exhausted marcher falling out by clubbing him with the butts of their rifles.

Eventually, this death march will come to an end in some large open area, probably in conquered Poland, but the Germans will simply ring their filthy and staggering POWs in barbed wire and perhaps get around to providing a little water. Nazi Germany cannot afford to feed and house its prisoners, and would not want to go to the expense even if it could. The Germans would really rather that they just disappear in their numberless millions, but barring that, dying en masse in some secluded locale will suffice.

The best "relief" that these POWs can hope for is that the Germans offer them menial labor with the Wehrmacht (p. 106), in exchange for table scraps and some hope of living out the week. A particularly perceptive Soviet may realize that taking this offer will mean abandoning home forever, even if he somehow survives the duration. Stalin and his paranoid party will never welcome back such a "turncoat."

All a fellow can do is try to keep warm . . .

While challenging the players with this sort of damned-at-all-turns scenario might seem like overkill, the stunningly ignoble fate awaiting them should spur them to seek a way out, especially about the time that they're forced to guard an ailing comrade from the camp cannibals who have found their own method of eking out an existence . . .

Tobacco and Sweat

Admittedly, not everyone will enjoy a campaign that resembles *Kafka, Get Your Karbine*. For those who like a little hope – even a chance to make a difference – injected into their campaigning, the Eastern Front can retain all its challenging reality, but be met with more of the chipper resolve that the Soviets believed that they exhibited.

In this sort of campaign, most everyone holds fast to the inevitability of eventual victory (p. 44), and this unbridled optimism keeps the living going even when the dead outnumber them. No one lets the many things they can't possibly do get them down. Everyone instead strives to invent new things that they can do. Throwing yourself on a hand grenade isn't an easy exit from an unbearable reality – it's a selfless act of devotion to your socialist brothers.

The Soviet balance of realism and heroism doesn't have to play out quite this nobly, but there's still an important theme here: a greater good is hanging in the balance. No matter what the shortcomings of the current regime, the socialist dream is at stake and a terrible tyranny is trying to extinguish it. In these times it might be unfashionable to pose as a champion of the Communist ideal, but at its core – "from each according to his abilities, to each according to his needs" – socialism remains a compelling theory. It's only in practice that the shine wears off . . .

Fallen From the Skies

In most armies, paratroopers form the basis for heroic campaigns. With the Soviets, they are candidates for a more balanced approach. Though the Soviets invented the basic principles of airborne warfare – and formed large airborne units – they simply never got good at it. As a result, they did not utilize paratroopers with nearly as much enthusiasm as the Germans did early in the war and the western Allies did late in it.

The primary problem may have been that, for all their ability to field massive numbers of green or average troops, the Soviets found it hard to specifically train large units to the standards required for effective paratroop assaults. (They had considerably better luck with smaller units, though; see p. 33.) Thus, many of their paratroop units exhibited little more initiative than typical line infantry, even though in practice their combat mission required far more aggression and spirit.

Compounding the problem, even when STAVKA had trained paratroops, it was consantly tempted to plug them into the line as stopgap infantry. The Red Army began the war with five airborne corps, which as with Soviet armor were really no more than glorified divisions. These were supposed to have 10,500 men apiece, but were understrength and short of equipment. Since the Luftwaffe had taken control of the air, the troops were sent into combat as regular ground units. The ravaged survivors rebuilt their units in time for the winter offensives beginning in December 1941 . . . in which a series of small drops gave little gain and steep casualties. In 1942, the paratroops were sent to blunt the Wehrmacht's southern offensive, again fighting as ground units. At year's end, STAVKA pulled them out to reorganize as 10 guards parachute divisions, in practice little changed from the previous corps structure.

The Reds also formed six new airborne corps, which generally suffered from incomplete training without even the benefit of ground-combat experience that the guards units had. In September 1943, three brigades of these men jumped about 25 miles behind the lines near Kremenchug to divert the Germans during crossings of the river Dnieper. Widely scattered in the drop, each small party of paratroops dug in where they were, rather than take the crucial risks of reforming their units (see p. W77). The Germans easily eradicated this piecemeal scattering of men, where a coherent force could have represented a formidable threat.

Given this history, a campaign centered on Soviet paratroopers would avoid larger-than-life esprit de corps and super-soldier exploits. In the Soviet version, many factors taken for granted elsewhere would be risky variables. The transport planes might fly right into the teeth of a blizzard, or simply deliver the unit far from their intended destination. The wrong parachutes might be issued, so that the men are highlighted against a gray sky swinging beneath a green canopy. Where other paratroopers could expect ground forces to reach them and take over the fight within four days, Soviet paratroops would have considered relief within four days as nothing short of a miracle. While the 1941 landings did enjoy support from glider-landed heavy weapons and troops, the 1943 operation did without any equipment that the men could not strap onto their bodies. (As wary as the Soviets were of parachute assaults, they seemed to have grown even more skittish about using gliders. Though they fielded a wide variety of these aircraft, accident rates were alarmingly high.)

Generally, this sort of campaign would feature a high body count, with the PCs struggling to overcome the lack of even basic support and often encumbered by second-rate comrades in arms. Most of the men who took part in the 1943 assault had never jumped out of a plane before that night.

The only benefit that they would enjoy over their counterparts from other countries would be the possibility of contacting partisans for shelter and support. The GM can use partisans as an unexpected source of aid when the going gets tougher than he anticipated, or to divert the campaign with a little romance or intrigue, as the paratroopers either join the partisans or accept their aid as guides to rejoin their own lines.

Mother or Father?

The Russians who made up the dominant culture in Soviet society might say they fought for either "Mother Russia" or "Father Russia." The apparent confusion in the sexual identity of their homeland stems primarily from translation issues.

The most-used word to describe the homeland in romantic terms was *Rodina*, which when lowercased means simply "land of one's birth," but when uppercased by a Russian or Soviet writer means something more profound about Russia or the USSR, respectively. The word is itself feminine, as is the word "Russia" itself, so is most often translated as "motherland," though this isn't entirely accurate.

In describing strong, masculine attributes of the homeland, a Russian will refer to *otechestvo* or *otchizna*, which more literally mean "fatherland" despite the former being of neutral gender and the latter being of feminine gender.

Very rarely, a Russian actually will refer to "Mother Russia" in Russian, but this was generally seen as melodramatic, or old-fashioned at a minimum.

The Home Front Lines

Another fairly balanced campaign might be set among the civilians of Moscow or other points more or less behind the front lines. A great variety of adventures could take place in the Soviet rear without anyone ever picking up a rifle.

For starters, day-to-day work in the Soviet factories was often an adventure. It was not one of those '60s newsreels in which cars come popping out of a plant like clockwork. Equipment broke down without replacements, requiring workers to repair or jury-rig their own tools. Materials had to be substituted as often as not, and of course the personnel drain to the Red Army radically increased the workload of those who remained. A good deal of enterprise would have to be shown in these conditions.

On the other hand, for every lot of lumber that failed to show up where it was expected, another lot often showed up where it was not needed. A cagey foreman could sniff around the city and do some horse trading, although rare materials would be hard to pry from those who had them. Scrounging skill would be highly valuable, and was raised to an art form by Soviet civilians in real life. A good place to start looking would be flooded basements, which often stayed flooded for lack of a pump while the war shuttered up the business on top of them. Often, useful things waited beneath the blackened timbers of burned-out commercial buildings too, where no one had bothered to salvage anything for lack of hands to do the work. The GM should keep in mind that – except in the worst circumstances, such as starving Leningrad – German munitions usually left more to be salvaged than Soviet conscription left people to do the salvaging.

In the short periods between shifts at work, these civilians will need to keep themselves alive on rations that are too small and clothing allowances that don't keep up with wear and tear. Scrounging might help here, too, but more likely they'll have to resort to the gray market (p. 109), which means they'll need to earn some extra income to afford the prices. That, in turn, will require a sideline job of some sort – marketing vegetables from their own gardens, repairing shoes, or selling off the family heirlooms one at a time.

As demanding as this routine is, things can get worse. Illness will require dragging themselves to work half-delirious or facing the threats of a foreman. He may be fanatically heartless, or simply helpless; he himself will face sharp questions from a state official if his crew fails to meet quotas. NKVD personnel of rather mixed quality will be snooping around the apartments and neighborhoods, alert for any sort of "treasonous" activity, no matter how undefined this might be in their heads.

Of course, very few of the protagonists in this sort of campaign will be able-bodied men. Most often, they would have to be boys, too young to be very strong, or men too old to be very agile. No more than ST or DX 9 would be appropriate in each case, respectively. The only exceptions would be the sorts of men described on p. 51 as exempt from conscription. These men might enjoy a wide selection of romantic interests, but they will also feel some social pressure to volunteer for the army, assuming their patriotism isn't already urging the same risky course.

The civilian PCs also could be women, but even then a character would need to be married, supporting children, or old enough that every other person calls her by the Russian term for "grandmother," *babushka*. Children would count as the Dependent disadvantage, but the Soviet mother will earn every point as she tries to keep her offspring fed and alive. Playing a babushka would open up a whole new set of challenges. While the Russian culture sets its babushkas on a pedestal, it also leaves them with many of the dreary daily chores. Babushkas raised the kids, swept the steps, and survived on the smallest of rations. A woman this old in WWII might be a valuable source of survival skills – she's bound to have known starvation and resorted to her own home medical remedies more than once over the decades – but she'll also be put upon whenever someone around her needs a toddler watched or an errand run.

A great variety of adventures could take place in the Soviet rear without anyone ever picking up a rifle.

Red Razors

Despite the "huge quantity, low quality" reputation of the Red Army's war effort, it did field some troops of exceptional quality, suitable for a heroic or even cinematic style of play.

Never a Bullet Wasted

The best Soviet snipers were one-man armies. They also got plenty of honors and glory from the Soviet news and propaganda outlets.

Though the Soviets knew from long experience how much a few expert marksmen could add to an infantry unit's abilities, the Finns drove the point home during the Winter War. Their snipers played havoc with Soviet communications and morale. The Red Army responded by adopting the same tactics for use against the Germans, pushing snipers forward to kill runners, officers, and other key personnel, while keeping up a steady drain on the enemy's manpower and nerves.

Initially, each infantry platoon was to field one sniper, armed with an SVT-40 semiautomatic rifle (see p. W95). Shortages of the rifle kept many units from filling this role, and the marksmen who did receive the weapon did not often care for it. A bolt-action substitute was fielded (p. 62) while the sniper's role evolved in late 1941; snipers from multiple platoons were banded together and sent a bit farther out to perform minor scouting along with their primary job. From 1942, snipers began to be assigned as independent elements attached to higher commands. In this way, they often were pooled in very large numbers, particularly at Leningrad.

Soviet snipers generally took the field in teams of two, alternating between the roles of sniper and observer, but battlefield conditions often led individuals to go it alone. When an enemy sniper was causing particularly severe casualties on a front, both Germans and Soviets had the habit of sending one of their own top snipers to get rid of him. In these circumstances, both sides usually attached more observers to the lead sniper, so that teams of three or four marksmen would be hunting a single target together.

Tactics varied from sniper to sniper, but in all cases depended on excellent camouflage in rural areas or concealment in urban areas.

Some preferred to hide themselves in trees, while others preferred to stay close to the ground. Many concealed themselves by night in the terrain between opposing lines, depending on their unexpected angle of fire by day to keep the Germans from figuring out their position. When hunting other snipers, Vasily Zaitsev made an art form of posing dummies as a decoy (the same tactics attributed to his German opponent in the film *Enemy at the Gates*), then carefully shifting them from behind to make them appear to change positions. If the dummy drew fire, he could depend on his foe to take a while to inspect his "unharmed" target, then fire a second shot that would allow Zaitsev to spot him and return fire. He felt this particularly "stubborn" behavior in German snipers helped him do his job.

Typical engagement ranges were about 400 yards in the country, 100 yards in cities. At those ranges, the first shot at a valid target usually ended the contest.

Many women became snipers, and during the war Mila Pavlichenko enjoyed far more fame than any of her peers. Slight and young, Pavlichenko had earned the nickname "the Russian Valkyrie" among German troops by 1943 while recording 309 kills in the logbook that all Soviet (and most other) snipers carried to record the particulars of their missions. Sent off to tour the United States and Britain, Pavlichenko drove her handlers ragged with her hustle and shocked her audiences with her straightforward manners.

While former hunters and outdoorsmen were natural candidates to become snipers, many of them had nondescript urban roots. They had honed their expertise in the prewar training programs (p. 29) or had simply exhibited a talent for shooting.

The Unremembered Elite

An alternate high-powered campaign could cast the players as Winter War survivors training units during the 1940-41 reforms. Having seen the way a handful of top Finn soldiers could create chaos in their own ranks, they would set out to train their own men to those standards or better . . . then, in June, take the field against the Germans with these superb, if small, formations.

While some might argue that this is an alternate history (pp. 122-124), the Soviets' early special forces (p. 33) suggest that it's not an unreasonable concept. Also, given the vast scope of the Eastern Front, it's certainly possible that a few elite Red units were simply swallowed up among the vast armies that were on the whole undertrained, poorly equipped, and (most of all) lacking a good plan of action.

The exploits of this sort of unit might come to resemble a commando campaign. If it's caught behind the German advance, the unit might become a top-notch partisan operation (pp. 104-105). In all cases, the GM can subtly pave the way for the PCs by having most German NPCs be a bit sloppy about their work. The enemy should expect second-rate opposition and routinely react in surprised and confused fashion when a high-caliber Soviet unit stops them in their tracks.

Sinister Allies

Any sort of Soviet campaign might take on a new twist in 1945, as the ever-accelerating Red Army crashes its way through eastern Europe toward Berlin. In many western eyes, that was when the Soviets reverted from worthy and long-suffering Allies to suspicious and Godless Communist hordes with questionable motives. Front-line Red troops will have to listen to German captives explain how their nation will soon be allying with the British and Americans to throw back the Soviets. This is bound to weigh on their minds should an Anglo-American armored division pull up on the horizon. Troops in contact with westerners will see their initially cordial relationship grow colder and colder, though this will rarely reach the depths experienced during the Cold War.

Assassins in the Woods

For a devious twist, the GM might have the players portray Soviet agents with exactly the sort of underhanded agenda that the westerners feared. For instance, they might be NKVD-trained leaders of partisan units (pp. 104-105) ordered to sweep into Poland or the Balkans with their bands of hardened guerrillas. Plenty of legitimate work will remain for them, picking up (or off . . .) German stragglers and cleaning up the remnants of turncoat units (pp. 106-107). In the latter case, they should expect a vicious fight; the abandoned Ukrainian nationalists or whoever will know to expect no quarter, nor will they ask any.

The Soviet partisans' real job, however, will be to soften up the Poles and other nationalists who fought on the *Allied* side. When outgunned, the partisans will need to point to their German and turncoat targets as the reason for pushing so far west – and hope that their Acting or Fast-Talk skill far outstrips their audience's Detect Lies ability. But when they have numbers and/or surprise on their side . . . well, time won't be wasted on explaining anything. Setting up these ambushes won't be easy; the Poles greatly distrust the Soviets, while the Balkan nationalists have already been fighting their homegrown Communists. These various targets – some completely irregular, and others formed more like standard military units complete with tanks and artillery – will be just as likely to stage an ambush of the Soviet partisans as vice versa.

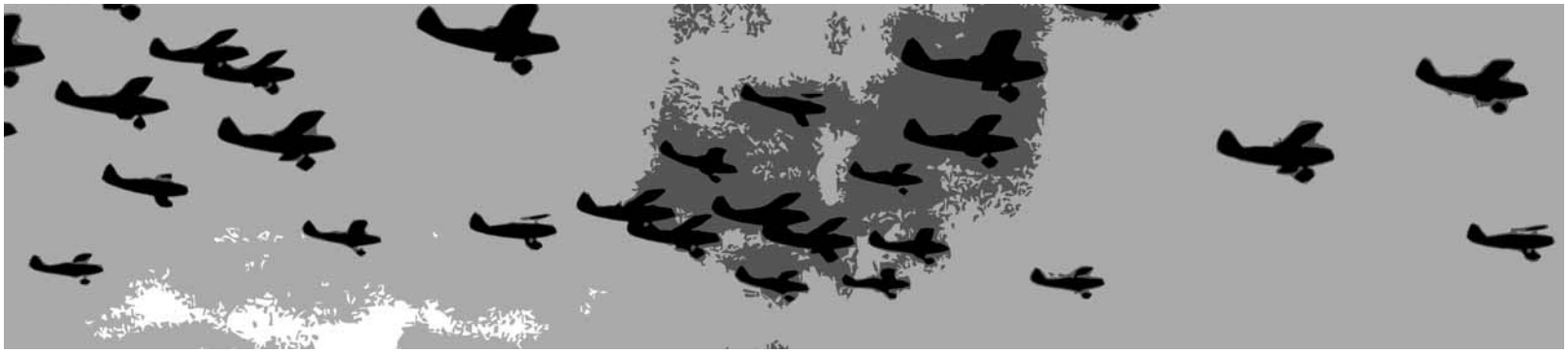
Regardless, Moscow intends to let the western powers believe that free elections will determine eastern Europe's fate, while quietly ensuring that Communist regimes take power. When it comes to getting things done – and blood spilled – in a hushed fashion, the partisans hold a candle to no one.

The Arms Race Begins

Those sorts of dark motives will not appeal to everyone. A less morally troubling campaign might have the players portray special teams of Soviet military technicians, racing to seize cutting-edge German technology such as rockets and jet planes.

They'll mostly gnash their teeth in frustration. For all the assets that the Soviets threw at these Nazi prizes, the British – and especially the Americans – deployed many more. The Soviet investigators will arrive to find Red Army units holding a vital German research facility well behind the agreed-upon line dividing Anglo-American and Soviet occupation. Regardless, the premises will show signs of being rapidly emptied before the Reds got there. They won't find a single rocket part or lab worker, but they might discover plenty of Camel and Lucky Strike stubs littered across the floor . . .

Of course, the technicians' superiors won't want to hear excuses, only results. Such an important failure could have *severe* repercussions, whether the special teams are blameless or not. They'll be strongly advised to find *some* rocket scientist or advanced technology that the westerners overlooked. Or, they can stalk over to the American zone in protest, and demand an accounting. There, they'll find U.S. Army liaisons talking a very cooperative game . . . but it will be clear that they slipped into the Soviet zone and made off with everything worth taking. It will take a great deal of ingenuity – and perhaps some underhanded means of their own – to wrest anything or anyone back from the Americanskis.



Into the Fray

Two of the more high-profile sorts of Soviet aerial campaigns have been described already. Squadrons flying the Il-2 Shturmovik (see p. W115) fought across the Eastern Front throughout the war, and the "Night Witches" (p. 49) plagued the Germans through a good part of it.

The Fighters

Other campaigns might focus on the Soviet fighter forces, as briefly described on p. 34. A fighter regiment, or *polk*, generally fielded three squadrons of 12 planes each.

Their daily bread and butter consisted of flying cover missions over ground units, keeping an eye out for bombers. They particularly hoped to encounter Stukas (see p. W114), which usually were easy prey. While patrolling in this fashion, the fighters often kept a loose formation at varying altitudes, with individual planes flitting this way and that, to lessen the odds of Luftwaffe fighters sneaking up on them. When they did sight bombers, the Red fighter pilots faced a special hazard. STAVKA maintained such tight security about new arms that it did not make it a point to inform its own troops about the debut of a new plane (or tank, or anything, for that matter). An eager Soviet squadron might pounce upon some unknown sort of bombers only to discover that they had red stars on their wings – ideally *before* they had pushed the trigger buttons on their joysticks . . .

The fighters also escorted the Shturmovik and daylight bombers to their targets. Generally a squadron would split into a pursuit group that counterattacked any Axis fighters and a defense group that always stuck to the bombers until they reached their target. These missions were more likely to draw enemy fighters into the fray – the Germans, too, were intent on knocking down bombers – but dogfights still were fairly rare. The Germans never had enough fighters to cover the entire Eastern Front. The Luftwaffe pooled those units that it could at the points where ground fighting was the fiercest, but even there a Soviet escort mission might not see an airborne adversary. In relatively quiet zones, appearances were even more rare. More often, the Red fighters ended up strafing anti-aircraft units to keep them occupied while the bombers fulfilled their mission. When Luftwaffe fighters did show up, especially when they faced an inexperienced Soviet squadron, the effect could be immediate, dramatic, and deadly.

Reconnaissance and, increasingly as the war went on, ground-attack missions filled out the usual assortment of fighter missions. A pair of top fighter pilots might be allowed to make deep probes into enemy territory to find and attack any targets of opportunity.

Though the Soviets largely deserved their reputation as indifferent pilots – as evidenced by the many German aces who accumulated incredible records on the Eastern Front – the Red air force did produce the top Allied ace of the war, Ivan Kozhedub, with 62 kills. He also shot down the only Me 262 jet fighter (see p. W:IC89) that the Soviets ever bested in an aerial duel. The second-leading Red ace, Aleksandr Pokryshkin with 59 kills, enjoyed the perhaps even more important distinction of surviving the entire Great Patriotic War flying combat missions. He also was instrumental in introducing the tactics for patrolling over combat zones. (Early in the war, the fighters had orders to simply circle over the battle low and slow, making them easy pickings.) Another Soviet ace, Alexander Gorovetz, shot down nine Stukas in a single go, before his empty guns made him an easy kill for German fighters. The top female ace, Lily Litvak, had 12 kills.

Pokryshkin and many other Soviet fighters did much of their flying in Lend-Lease aircraft. The U.S.-made P-39 Airacobra was a particular favorite.

The Bombers

The first days of the Great Patriotic War saw many of the Soviets' conventional bomber units relive their high losses and general failures of the Winter War (p. 34). This led Red planners to emphasize "aerial artillery" tactics such as those exemplified by the Shturmovik – light bombers dive-bombing specific military targets and generally limiting their missions to direct support of the ground forces.

Thus, even if based on a different aircraft, most bomber campaigns will resemble those featuring the Il-2: short flights to attack panzers and troop columns, while dodging small-caliber flak and hoping that the Luftwaffe doesn't show up. Later in the war, with the skies largely belonging to the Soviets, these smaller bombers were turned more frequently toward urban targets, particularly Berlin.

An atypical campaign could place the players in one of the few squadrons flying the TB-7 (Pe-8 from 1941) four-engined bomber. On the rare occasions that the Soviets needed to transport someone important a vast distance and quickly – such as Molotov to Washington, D.C., in mid-1942 – these air crews got the call. They also participated in the few long-range missions that the Soviets undertook, beginning with a penetration to Berlin in August 1941, on to other German targets, and continuing with campaigns to attack strategic goals in Hungary and Romania over the course of the war, as well. The Soviets never made more than 142 of these planes, so Red fighter pilots would always be likely to mistake them for some new enemy aircraft. A medium bomber, the Il-4 (see p. W:MP100), also performed strategic bombing raids.

Sheathed Sword

Most campaigns based in the navy will feature the small commando units (p. 33) or the naval infantry (p. 35), both of which are really ground campaigns where the combatants happen to wear striped navy undershirts. Pure naval campaigns can be lower-key affairs, befitting the profile the navy had to take throughout the war.

The Baltic Blitz

Still, an action-packed campaign could place the players in the roles of officers commanding submarines or escort ships of the Baltic Fleet – or perhaps on the staff of Vice Admiral Vladimir Tributs – a few months before the invasion in 1941. Since the "integration" of the Baltic states into the Soviet defenses (p. 12), the fleet has moved forward to Tallinn, the capital of Estonia, from its Leningrad base, the fortress of Kronstadt. Through Tributs' command, the navy intends to keep a closer eye on Germany, and the fleet has dispatched advanced elements even closer to the border, stationed at Riga and Libau in Latvia.

While eyeing Germany, the sailors' more immediate concern will be the Baltic peoples among which they operate. To many locals, the Red military is a hostile occupier. Nationalists will create what problems they can, misdelivering supplies, bungling the construction of defensive works, or simply failing to show up when the navy contracts local fitters for repairs. The GM should establish that many natives are not friendly.

The Wehrmacht will gradually drive all other concerns to the background. Perhaps more than any other Red commander, Tributs worried about the Germans' intentions, being in position to notice the Luftwaffe's daily reconnaissance overflights, the U-boats prowling area waters, and the masses of men and panzers clustering on the border. Initially, his officers might spend a lot of time collating this intelligence for their superior. If so, the first part of this campaign would resemble *The Pieces of Peace* scenario on pp. 118-120. (Alternatively, Tributs or his staff members would make excellent contacts in that setting.) Ultimately, all this intelligence will ensure that the navy, at least, will be at full alert when the Germans invade.

Subs and picket ships are sent out to scout as the fighting begins. Historically, the sea remained quiet, but the GM could put a Kriegsmarine warship, or transports, across the bow of any PCs' vessels. The Germans, meanwhile, have the Baltic Fleet as a specific target, but they intend to destroy it via its *bases*, working up the coast to Kronstadt. They bomb Riga and quickly overrun Libau. Meanwhile, some Baltic nationalists have taken up arms, too. Hidden snipers shoot at naval officers on port-town streets, and various groups seize radio stations.

Further chaos ensues. The army and navy have no system to coordinate defending the bases. The defenses themselves remain largely unbuilt, with gross problems in many of the finished sites – such as gun slits that are too narrow for the gun barrels. (The GM can decide whether this is incompetence or espionage.) It soon becomes obvious the Soviets will have to fall back, but they have no evacuation plan.

By June 24, German *Fallschirmjäger* (paratroops) have dropped from the skies and are investing Riga. The Germans have ringed in the port with mines, save the eye-of-the-needle Muhu-Väin Strait. It's decided this path must be risked, even though the pride of the navy, the cruiser *Kirov* (p. 91), is much too large. Dredgers spend backbreaking days widening the channel until the *Kirov* tries it June 29 as the Germans close in. Historically, the cruiser bottoms on a Great War blockage, then a shoal, and tug crews spend hours wrestling it clear while panzers obliterate the last army and NKVD units in Riga.

At Tallinn, the fleet aids the desperate ground fighting until August, while watching the local nationalists preen and party as they await the Germans. The *Kirov* and numerous destroyers fire tirelessly at the encircling forces, with tugs moving them about to elude German artillery. The ships also use dense smoke screens to hide from Luftwaffe bombers. Finally, on Aug. 28, the Soviets cram their civilians onto their last 29 merchant transports and the fleet stages a massive exodus for Kronstadt.

Thousands of mines lie between them and home; 25 of the transports sink, three end up grounded, and only one (the *Kazakhstan*) makes it to Leningrad. Some 16 fleet vessels suffer a similar fate. Some passengers throw their life jackets to floating survivors, then end up needing them minutes later. A navy wife makes her escape by clinging to a mine for 18 hours. While German shore batteries and torpedoes from patrol craft add to the havoc, the surviving ships' crews fish out as many people as they can and slowly escape the killing field.

Once back in its home port, the Baltic Fleet continued to play a large role in defending Leningrad (see Chapter 1) from the besieging Axis forces. Its ships had not jinked their last artillery barrage or dodged their last Luftwaffe bombs. Before even arriving at this epic battle, however, the ships and sailors had fought as eventful a war as any uniformed Soviet combatants, one with ample opportunity for civilian relations, intrigue, and a wide variety of challenges.

THE PIECES OF PEACE

Even as early as late 1940, Stalin may have been wrestling with the most crucial issue of the entire war: What stance should he take with the increasingly belligerent Hitler? His options included:

• Do nothing, confident in the non-aggression pact that Hitler had been so eager to sign back when he *really* needed the Soviets to sit back and let him pick his fights elsewhere. Obviously, the Nazis' needs in that regard had dwindled since 1939, and few Soviets took this option seriously.

• Build up the military but do everything possible to avoid confrontation with Hitler, even when this kept the Red Army from improving its defensive capabilities. This assumed that Hitler would need provocation to attack the USSR, though most authorities agreed that in Poland he had manufactured his own, and in Scandinavia he had not really bothered with just cause. Despite the evidence that avoiding a fight with Germany would be fruitless, this was the course that Stalin chose, with a robust if not total commitment to the military buildup.

• Build up the military, as above, but do whatever was necessary to improve Soviet defenses, without regard to German sensitivities. Even the many advocates of this course had to admit that this *would* create a diplomatic stir. Nazi emissaries did not tend to be as level-headed as the career diplomats that they had elbowed aside, and were bound to bluster and bully if faced with such a development. Hitler himself had not risen to his current heights by viewing his neighbors with a reasonable or tolerant eye.

• Attack Germany before the Wehrmacht could strike first. This extreme course of action had little support – yet. Most of the Red Army leadership agreed that their troops weren't ready for such a challenge. Perhaps in 1942.

History's bottom line says that Stalin made the wrong call by leaving his own defenses in a weakened state to avoid angering Hitler – but that wasn't so obvious in 1940-41. Also, criticism of Stalin's decision usually fails to address the potential ramifications of his alternatives, many of which also could lead to an unequal war.

The Setup

An intriguing campaign could place the players in the roles of junior staff officers working somewhere on the border with the Reich. As 1940 ends, their admiral or general summons them to his HQ some short distance away. During the trip, the GM should describe the usual German reconnaissance plane flying overhead, as well as the empty and useless bunkers which Stalin forbids that they man. Frustration is rampant in the army.

On their arrival, their superior explains that Stalin is receiving a wealth of intelligence on German intentions, but withholding it from his military leaders. This admiral or general needs a well-rounded picture so that he himself can argue some sense into the chairman.

To get this data, he's dispatching his trusted lieutenants – the PCs – to Moscow or wherever the trail may lead, to track down and question the scattered security and military officials who have various pieces of the puzzle. He'll issue them plenty of funds, and travel passes to go anywhere any time. He'll also provide two or three contacts, letters authorizing them to question these contacts, and generic authorization letters to use on whoever the initial contacts refer them to. The letters state that their superior has received a scrap of intelligence on German war plans, and has sent his officers to obtain data confirming or negating this intelligence. These will imply that only the reader is being questioned, and will carefully avoid suggesting that the bearers are on their all-encompassing fact-finding mission. Unfortunately, the generic letters will need to be conspicuously vague on the specifics of the mission – so they may arouse suspicion – but returning to HQ after each interview to obtain a more carefully fabricated cover will waste precious time that the nation appears unable to spare.

Given this amount of background – with the proper details filled in – the players are likely to assume that their fact-finding mission will lead through a series of contacts to an accurate description of Operation Barbarossa. After all, it's fairly common knowledge that Soviet intelligence was aware of the German invasion's details well before it was launched. They may further assume that the point of the campaign is to place them in position to launch an alternate history in which their efforts convince Stalin to prepare more wisely to thwart Hitler's legions.

The Twist

What's much less well-known is the steady sprinkling of *contradictory* intelligence that Red sources also had to deal with. The GM should ensure that, whatever else they uncover, these misleading nuggets find their way into their collection of data. The players may be tempted to take the lion's share of their findings and conveniently ignore what doesn't fit while exposing Barbarossa, but the contradictory items should give them pause. Could the campaign be going off on an even more radical alternate history than they had presumed? Is their team being set up to present convincing but *wrong* evidence to their superior, and from there to Stalin, in this alternate history? Or should they keep plugging away until something uncontradictable confirms the "real" Barbarossa? The GM, of course, is simply inflicting upon them the same mishmash that Stalin really had to wade through.

The following synopses are listed by the date upon which they reached Moscow and Stalin's desk. Depending on where the fact-finders plug themselves into the information pipeline, they might track down the same intelligence a bit sooner, but usually will obtain it considerably later than that date. Following the date is the code-name of the data's source (see p. 121 for more detail on each) and a terse description of the spy's findings. Sometimes the data is conveyed through a chain of two or more spies. The GM should keep in mind that, once the team has found a contact with access to a given source's reports, they should have an easier time obtaining subsequent reports from that same source – but their continuing inquiries will be met with mounting suspicion.

1940

Sept. 29: Meteor reports that in the next spring Hitler will address "problems" in the east by military action.

Dec. 14: Litseist reports that Germany's leadership is not willing to fight on two fronts, and considers Britain to be their only enemy.

Dec. 29: Meteor conveys that Alta conveyed that Aryan reported that Hitler has issued an order to prepare for war with the USSR beginning in March 1941.

1941

Feb. 7: Teffi reports that rumors among diplomatic circles of a German invasion of the USSR have grown very strong. The less dominant version has it that these plans will wait for the conquest of Britain. The most-credited version has it that Germany will attack before facing Britain, to secure its rear and seize raw materials for that fight.

Feb. 21: Dora reports that the chief of intelligence of Switzerland's general staff estimates that Germany has 150 divisions ready to march into the USSR. His opinion has it that the Wehrmacht will attack at the end of May.

Feb. 27: Arnold reports no definitive signs of preparation for an imminent assault, but the Germans are very actively building fortifications and roads in their *own* territory, and continue to keep many troops stationed in Poland.

Feb. 28: Alta reports that military circles maintain that war with USSR will begin in this year.

March 1: Mars reports that German invasion of the USSR is considered impossible before victory over Britain. Military attaches from the United States, Turkey, and Yugoslavia emphasize that German buildup in Romania is intended to foil a possible British invasion of the Balkans, with the secondary mission of defending the region against Turkish or Soviet invasion. After defeating the British, the Germans will attack the USSR

March 2: Eschenko reports a great deal of conversation on a possible invasion. The Russian section of the Wehrmacht's general staff is working actively. That said, the Germans have dismissed the possibility of invading in the near future; they are only spreading *rumors* of imminent plans in order to breed insecurity in Moscow and cow the Soviets into the broadest concessions. Sources in Berlin state in no uncertain terms that the buildup in Romania is not part of an invasion force.

March 9: Sophocles reports that the Wehrmacht general staff has abandoned the possibility of invading Britain. They have set a goal of seizing the Ukraine and Baku, on the condition that it must be implemented by May at the latest. Hungary, Romania, and Bulgaria are preparing to aid that effort.

March 14: Corsican reports that a Berlin political professor with top-notch connections, Egmont Zechlin, has it from two field marshals that Hitler has decided to invade by springtime. The Germans calculate that the still-green wheat will foil Red Army efforts to burn it as they retreat, leaving it for their own consumption. The report is tempered by the caution that Zechlin is prone to exaggeration.

March 14: Lyakhterov reports that his contact says the rumors among diplomatic circles about imminent invasion are falsehoods perpetrated by the British. He suggests that the Soviets check the peaceful conditions in the Carpathian Ukraine, and insists Germany has all the fight it wants with Britain and economically needs to keep the Soviet peace.

March 24: Eschenko reports that rumors are rampant in Berlin about imminent invasion. These have it that the Soviets always were Germany's enemy, and that it would be foolhardy to leave them in the nation's rear to attack the British. Wehrmacht officers boast that the nation has armed 12 million men and they're eager to fight. Some even say that May is the launch date.

April 11: Zakhar conveys that Starshina reports conversation with Major X, a Luftwaffe liaison. X says that Hitler initiated the invasion plans, justifying it as a preventive war to keep the Soviets from attacking after a fight with the British left the Wehrmacht weakened. Before any attack, however, the Nazis will present Stalin an ultimatum in which he could instead choose to become a subservient member of the Axis alliance. These plans will move forward once the Wehrmacht gets Greece and Yugoslavia under control.

April 17: Stepanov conveys that Starshina reports that invasion talk has quieted a bit in light of the Wehrmacht's victories in Libya. The thinking has it that African victories can defeat the British without a cross-channel assault, which in turn negates the need for Hitler's "preventive war" in the east.

April 22: Dora reports that government circles in Berlin say that the Wehrmacht will invade the Ukraine on June 15 and expects only light resistance.

May 9: Starshina reports that Luftwaffe staffs are urgently planning their role in an invasion. May 20 often is given as the launch date, but others speak of June. The Luftwaffe officers also say that, before any invasion, Germany will wage a "war of nerves" to demoralize the Soviets, then present Stalin with an ultimatum requiring greater exports to the Reich and an end to all Communist propaganda. The demands would include that German political officers and troops be allowed in the Ukraine to guarantee that the terms are met.

May 19: Dora reports that any assault will wait until the Germans have made the Black Sea impregnable to the Royal Navy by securing sites in Asia Minor. The Germans will then concentrate on seizing Gibraltar and the Suez Channel to completely sweep the British from the Mediterranean.

May 25: Litseist reports that invasion is unlikely, even though the German populace would approve of it far more than an assault on Britain and the Germans think that it would only take six weeks. Hitler fears that attacking the Communists could break the unity of his own National Socialist party. Furthermore, the campaigning period would create serious food shortages in Germany while Russian exports ceased, and during that period the British would grow stronger through U.S. aid. The possibility of moving against the British during the summer would be lost, and a winter famine could result.

May 29: Eschenko reports that preparations continue, with invasion set for as early as June. Whether or not it's all just a massive bluff is known only to Hitler and his closest advisers.

June 9: Schiller reports that the invasion is fully prepared, and had been expected to begin at the end of May. Now, if Britain remains undefeated in autumn, the Ukraine and its industrial core, the Donbass, will be invaded. If the British fall before then, war with the Soviets might be avoided.

The fact is that the Soviets "knew" of Operation Barbarossa only 11 days after Hitler ordered the Wehrmacht to begin preparations on Dec. 18, 1940 – but there was a great deal of distance between knowing and really knowing.

Setting Things in Motion

The GM should feel free to send the PCs *anywhere* within the USSR as they track down their initial contacts and follow the trails that those contacts offer them. Even if information on Germany was very unlikely to arrive via Vladivostok, for instance, a liaison official willing to talk might have been transferred there in the interval since receiving the report that the investigators want to inquire about.

Travel would mostly be by train, except when the team is lucky enough to find a military plane with room to spare going in their direction. During these trips, the fact-finders should encounter frantic and often despairing Red Army officers trying to figure out how to prepare to defend the fatherland without actually conducting any solid preparations. (Stalin has forbidden most of them.) There'll also be plenty of vicious security personnel with penetrating questions to dodge, hopeless optimists still taking lessons in German and confident that an enduring peace will be forged, close-mouthed German technicians working on various Soviet warships and plants with suspiciously packed suitcases, immense trains of raw materials headed west while the returning boxcars that should hold finished goods are empty, and whatever else the GM wants to throw into the background.

The hunt will lead the party to five intelligence-gathering agencies: the GUGB (more commonly known as the NKGB; see p. W47), the NKO or People's Commissariat of Defense, the NKVMF or People's Commissariat of the Navy, the NKID or People's Commissariat of Foreign Affairs, and the Comintern. None of these agencies cooperated with the others to any real degree. When dealing with top officials from any of them, the fact-finders will have to be careful not to let slip that they have information that must have come from one of the other agencies; only Stalin himself would have resources that crossed agencies.

The Worst Case

No one will go out of their way to point this out to the investigators, but they should realize it on their own: If *anyone* gets any hint that the team is doing more than chasing down corroboration for a single strand of intelligence, they are likely to find themselves in an immense amount of trouble. Though the purges (p. 29) are winding down, they are not yet over. The investigators will remember plenty of senior officers who faced a firing squad or shipment to a Siberian work camp. Stalin will *not* take kindly to anyone meddling in his chains of intelligence, nor will any of his underlings. The officers' outlook is exceedingly grim if they get caught.

Weighed against that risk is that their own superior can make life just about as bad if they disobey *his* orders. Alternatively, the men assigned to this task could reason that, no matter how noble his intentions might be, their superior technically is enlisting their aid to commit treason. They'd be within their rights to simply report him to the NKVD and let them add him to their purges.

This "good Soviet" course, however, holds its own risks. The state's eager and bloody-handed watchdogs will not hesitate to interrogate the informers on precisely how they knew of their superior's treason, and include them among the guilty if they don't like the answers. (Actually, they need little more motive than not liking the tone of someone's voice . . .)

Perhaps more importantly, there should really be a sensation that Stalin may be mishandling things, and that his judgment may jeopardize the state. As conscientious Red Army officers, the team should *want* to find out what's really going on, since the fate of the Soviet Union lies in the balance.

THE REDS, ORCHESTRATED

In 1942, Hitler admitted that the Bolsheviks were outdoing his Nazi Germany in one field: espionage. Their spy network had thrived since the revolution. After ousting Russia's middle-class journalists, the Reds turned to volunteer worker-correspondents to collect news at home and abroad. Some of these had a good eye for detail, access to ground-level data, and a Communist fervor that made treason no great burden.

This view from the factory floor could not tell the Soviets the things they most wanted to know. They cultivated military- and upper-class spies, using some of these natives as spymasters while importing their own specially trained personnel in other cases. These undercover spymasters often were not Russian, however. For instance, Leopold Trepper (see below) and the men he replaced in France were all Polish Jews, hungry men who had wandered to Palestine and back before finding a cause and home (such as it was) in service to the USSR.

When leftist westerners joined the Spanish Civil War (see p. W10), the Soviets immediately confiscated their passports and never returned them, even if the owner lived to make a claim. With some small alterations, these often formed the basis for many Red agents' cover identities during the war.

The Red Orchestra

Soviet agents' slang for their radios was "music boxes," which made their operators "musicians," so the Gestapo began to refer to their real targets – the men and women leading the spy networks – as orchestra conductors, or *Kapellmeisters*. Thus, the Soviet European network became the *Rote Kapelle,* loosely meaning "Red Orchestra."

The Red Orchestra was a complex and, of necessity, fluid pyramid of contacts, with individual agents in the "cell structure" knowing almost nothing of anyone except their one or two spymasters, and several spymasters working different subnetworks. Initially, most of the ring's agents had been pointed at Britain, but by the fall of France they turned toward Germany. A Junker and aviation-ministry official, Harro Schulze-Boysen, and an economic official, Arvid Harnack, formed the most important network, with aid from Harnack's wife, Margarete. They collected data from agents in offices around Berlin, then radioed it to "The Center" in Moscow. The Center also had a few independent agents in the city, and the Red Army had its own resources ferreting out the same sort of secrets.

All spies expect to get caught, and the Orchestra did not operate with immunity. Another key spymaster, Leopold "the Big Chief" Trepper, was still rebuilding the network in France and Belgium after an agent turned by the U.S. FBI had returned to Europe and flipped in 1932. A decade later, the Gestapo seriously dented the wartime Berlin circle by decrypting Moscow's intent to send in some new agents and sending an impersonator to receive them. Those who survived – because those who got caught knew nothing of them thanks to the cell structure – kept on doing their jobs. Trepper, in particular, seemed to live a charmed life. He set up new agents and organized spy work across Europe with some of the Reich's best detectives futilely sniffing at his trail.

The Germans got a crucial break on June 30, 1942, when they tracked the transmission of a "musician" who turned out to be an old German Communist and instructor of other radio operators. His long history transcended the cell structure, and after some rough Gestapo handling he gave up enough to doom Schulze-Boysen and the Harnacks, and even to help catch the elusive Trepper. Sweeping up these spymasters turned the cell structure from strength to weakness – with no way to give reports, most of the Red Orchestra's contacts dried up by mid-1943, with the Swiss ring holding out until the end of the year. Many of those caught faced torture and death. Others were sent to concentration camps. A few who cooperated made it back out onto the uncertain streets of a wartime Reich.

The Top Spies

Some of the most crucial prewar agents are listed below; many play a role in *The Pieces of Peace* on pp. 118-120. All of them worked for the NKGB-GUGB or the Red Army's *Razvedupr*, or intelligence directorate of the general staff.

Alta (NKGB): Ilse Stoebe, 1911-42, a German journalist and Red Orchestra member who until Fall 1940 worked in the information department of the German Foreign Ministry.

Arnold (Razvedupr): General-major V.I. Tupikov, 1901-41, Soviet military attache in Germany. In 1941, became chief of staff of the Southeast Front and died in combat.

Aryan (NKGB): Rudolf von Scheliha, 1897-1942, head of the information department of the German Foreign Ministry, a Red Orchestra member lost to a Gestapo impostor's work.

Corsican (NKGB): Arvid Harnack, 1901-42, worked with Reichminister of Economics; a Red Orchestra ringleader.

Dora/Albert (Razvedupr): Sandor Rado, 1899-1981, head of Swiss cartographic agency; a Red Orchestra ringleader.

Eschenko (NKGB): G.M. Eremin, third secretary of the Soviet Embassy in Berlin.

Litseist (NKGB): Orestes Berlings, a Latvian journalist in Berlin and a German agent-provocateur (Reich codename: *Peter*) who infiltrated the NKGB network in Berlin.

Mars (Razvedupr): Polkovnik N.G. Lyakhterev, a military attache in Hungary.

Meteor (Razvedupr): Polkovnik N.D. Skornyakov, on the military-attache staff in Berlin.

Schiller (NKGB): V.M. Zarubin, 1894-1972, NKGB agent in Shanghai who in Fall 1941 moved to the United States and resumed his spying career until 1944.

Sophocles (Razvedupr): General-major A.T. Samokhin, Soviet military attache in Yugoslavia in 1940 and later deputy head of intelligence for the general staff.

Starshina (NKGB): Harro Schulze-Boysen, 1909-42, Luftwaffe oberleutenant at its headquarters (OKL) in 1941, then in the aviation ministry in '42. A Red Orchestra ringleader.

Stepanov (NKGB): General-major A.M. Korotkov, deputy head of the intelligence network in Berlin.

Teffi (NKGB): A source whose name and particulars have not yet come to public light.

Zakhar (NKGB): A.Z. Kobulov, 1906-53, head of NKVD network in Berlin who worked under diplomatic guise.

ALTERNATE HISTORIES

The Pieces of Peace campaign seed tries to mislead the PCs into believing that they're entering an alternate-history setting, in which the course of events is altered at a pivotal point so that the campaign can explore what would happen as a result of this change.

If the GM is really interested in an alternate history centered on the Soviet Union's place in the war, the launch of Operation Barbarossa would indeed be a logical place to start; however, a number of alternatives are offered here. All of these except the boxed scenario on p. 123 are built upon "established truthd" in western histories that some current historians in the former Soviet Union have a tendency to dispute or "clarify."

PURGING THE PURGES

The prevailing wisdom is that the late-1930s purge of the officer corps (p. 29) left the Red Army with too few officers willing to make hard decisions when the fighting began, and that a particularly hard-felt was the loss of the army's top officer, the "brilliant" Marshal Tukhachevsky. Some former Soviets argue that this oversimplifies the case.

Though the army did have some 66,000 vacant officer posts in 1941, they point out that the purges were only partially to blame. The official numbers have 4,474 middle and senior officers removed in 1937, 5,032 more in 1938, and 2,918 junior officers in those same years, which were the heights of the purge. While 1939 through early 1941 saw a few more officers disappear into the night, during the same period some 1,400 previously imprisoned officials were restored to service. Even assuming that these official numbers are low – and many observers would say so – they represent only about 11,000 vacancies created by firing squad or transfer to the gulag. It's fair to argue that many of the 1941 vacancies were created by the massive military buildup leading up to that year.

As for Tukhachevsky, his considerable reputation in life was burnished after his death, but his successes in the field consisted of the 1921 suppression of "Antonov's Riot," a peasant uprising in the Tambov area. To put it down, Tukhachevsky had to resort to machine guns, artillery, and poison gas. His only real military campaign, the 1920 invasion of Poland (p. 8), ended just short of disaster.

Certainly, Tukhachevsky has great personal courage and an excellent touch for staff work; he instituted important reforms in the mid-1920s and some of his theory served the Red Army to its last days. Regardless, had Tukhachevsky lived to lead the Red Army against 1941's invaders, little suggests that he would have fared any better than the "skittish" purge survivors who actually held command at that time. Meanwhile, the shortage of officers would have been less acute than it historically was, but there still would have been a shortage, simply because there were more units to lead.

The other question, of course, is how much more confidently and aggressively the officer corps would have performed without the shadow of the purges. The GM will have to decide.

THE FIRST SHOTS FIRED

The first fight between Wehrmacht and Soviet troops took place on Sept. 19, 1939, on the outskirts of the Polish town Lvov, near the secret demarcation line that the two invaders had set up. The Polish defenders had infuriated the Germans by beating off their attacks while preparing to surrender to the Reds. (This would not prevent German military historians from claiming that they had captured the town as planned.) A few men were killed and a couple of tanks damaged when the German and Soviet recon units subsequently clashed.

In real life, the firefight was brushed off. In a plausible alternate history, an equally furious Hitler and Stalin might make a mountain of this molehill, leading the antagonists into armed conflict nearly two full years earlier than in the real world. It's possible that – without the opportunity to carefully plan their invasion – the Wehrmacht would have seemed much less unstoppable. However, the Soviets were grossly unprepared to move large numbers of troops to Poland at this time, as well. Having not yet taken its own lumps at German hands, Britain probably would have been much less inclined to take up the Soviet cause in 1939, though the still intact French might have offered an alliance in their stead.

LIEUTENANT WINTER

It is agreed that even the best of Russian winters is a bitter and brutal thing, but many Soviet historians dispute the claim by German General Erhaud Rauss and others that the early-war winters, particularly 1941, were more severe than normal.

They argue that the Germans enjoyed months of mild (if not unseasonably warm) conditions during their advance, with October ranging from 37° to 19° Fahrenheit and November having only four days below 14° as an average. These were certainly chilly conditions, but were more of a discomfort than a hardship, while they hardened the dirt roads ideally for panzer advances. Autumn and early winter offered more advantages than disadvantages to the invader.

Only on Dec. 6 – with strong winds and snow ushering in temperatures below -4° – did the weather reach a severity that a Russian might consider formidable. By this time, the Wehrmacht advance already had lost its steam.

The Russian point is that the Germans liked to blame "General Winter" for their failure to capture Moscow, when the stubborn Red Army, the defensive lines built by the equally put-upon residents of Moscow, and the Wehrmacht's own logistics failures were the real culprits. That said, they ask what would have happened had the Wehrmacht stormed into the teeth of a truly early and ferocious once-in-a-century winter . . .

The "obvious" answer is that – had the oil began freezing in panzer crankcases and the fingers snapping off of riflemen in October rather than December – Operation Barbarossa would have been stunted well before Moscow, allowing the Soviets a better opportunity to fall back and regroup without further losses, and diminishing the German successes of 1941.

THE BEAR AND THE DOGS

All the other alternate histories in this section fiddle with minor details. They nudge Soviet fortunes, either barely allowing the Germans to win the war or pushing up the timetable of the eventual Red victory. Of course, like the first pebble in an avalanche, either result could trigger a cascading sequence of results, and leading to a reality far different from the one we know, limited only by the GM's imagination.

This scenario moves more rapidly. In 1940, as the Soviets fought their clumsy war with Finland, world opinion turned savagely against the Communist nation. Many westerners even thought more favorably of Nazi Germany at the time. (Certainly, the western lull contributed to this comparison, since Hitler's troops weren't active except on the seas and, a bit, in the skies.) The leadership and public in both Britain and France felt a good deal of sympathy for the "plucky" Finns in their David-vs.-Goliath conflict. This wasn't entirely fair – the Soviets *had* tried to offer a negotiated settlement before setting out to obtain their goals force – but "fair" often had little to do with world opinion of the Soviet Union.

Stalin knew all this, and greatly feared Allied attacks in both north and south. As mentioned on p. W13, the British proposed to move troops across Scandinavia to support Finland, with sizeable units conveniently stopping short of their stated goal to guard Norway and Sweden from German invasion. Those two countries declined this mildly underhanded aid, fearing that the Allies would send enough troops to goad Hitler into attacking, but far to few to deter him. Had their thinking tilted just a bit differently, a British force with some French elements would have been fighting against the Red Army in early 1940.

In the meantime, the Soviets thought that the French had 150,000 troops in Syria under Gen. Maxime Weygand, an old guard who had long displayed his distaste for all things Communist. (He had led a cadre of French officers that helped the Poles turn back the 1920 Soviet invasion; see p. 8.) From Syria, the Silk Road leads to the Baku oil fields, although only a primitive, practically hidden track had led across the formidable Kara Dag mountain range.

At the time, with Hitler and Stalin's coldly calculated pact still in full force, the oil of Baku was driving the Wehrmacht war machine. Without the fuel, its panzers would not have gotten far from the border. The French under Weygand probably could abort any invasion of their homeland, if only they could somehow pass intact from Syria to Baku.

Of course, when the time came, Stalin expected to use this oil to propel *his* war machine, so he felt no less anxiety on this point than Hitler. They both ordered intelligence agents to explore the possibility of such an attack, and both received the dismaying report that – since the last time anyone checked – Persia's Reza Shah Pahlavi had paved and built quality bridges and generally made the operation quite feasible. (See ***GURPS WWII: All the King's Men*** for more on Iran during the course of the war as it really played out.) The French ultimately pursued other options, but had their leadership fastened onto the idea, they, too, could have been waging war with the Soviets in early 1940.

Either campaign could have mushroomed into a full-bore theater of war. British reinforcement could have convinced the Finns to delay their peace settlements, extending the frozen campaign long enough to compel the British to send more troops, and repeating the cycle until the islanders were fully engaged. Crippling the Baku refineries and burning their stores would have been one thing, but the French would have needed a major commitment if they intended to *hold* the place. In these circumstances, it's only a mild stretch to suggest that both might make a reluctant peace with Hitler, who would be eager to seize the choicest morsels before someone else got to them. Compounding the Soviet woes, if Japan saw their traditional foe so sorely beset, its colonels would have been eager to join the fray in the far east. They had not yet resolved to tackle the United States, instead. By the end of 1940, Stalin could have been facing a truly global alliance. These "allies" could only have justified their cooperation by demonizing the Soviet bear that they were savaging like a pack of dogs.

An intriguing alternative would have the war-skittish British and French make only token displays of force in Finland and at Baku, then negotiate with both Germany and Japan to have those nations go the war against the Reds, in exchange for stirring up no trouble elsewhere and getting to keep the spoils. A fairly even match, this war could last a *long* time – but if the Soviets eventually fell, the victors could have claimed their prizes, regrouped for a generation or two, and been ready to trigger the *real* WWII about . . . now.

Unlike the other scenarios in this section, this premise is not based upon what modern Russian historians argue is the real truth; it's based on the truth as Stalin perceived it at the time. Whether or not he was displaying an excess of suspicion about Allied intents can still be argued . . .

A campaign could make this case, or it could take a contrarian view. If the temperatures turned bone-chilling early enough in October, even Hitler would have realized that overcoats would be required before Moscow could be taken. (The Wehrmacht's leading elements were just east of Smolensk as the month began, poised to begin their last great bound toward the Soviet capital.) When the weather did halt the German advance, their lines would have been shorter, as well as smoother, and much less vulnerable to Soviet counterattack than historically was the case. Perhaps most importantly, if conditions became so severe in the battle theaters, the weather in the USSR's interior would likely be frightful – perhaps even bad enough to prevent the crucially needed Siberians in the eastern forces from transferring to the fight in the west via the Trans-Siberian line (p. 39).

An alternate history could be established in which a victorious Germany boasts of having defeated the Soviets in 1942 despite General Winter rearing his head monstrously in 1941 – not realizing that those early, frigid conditions saved them from the catastrophe that history actually had in store.

Had Hitler not had the early, dramatic example of the winter retreat of 1941-1942, he might not have been so quick to condemn irreplaceable men in later campaigns.

The Rout of Moscow

Speaking of Moscow, some Soviet commentators don't feel that the Red Army performed all that well in its counterattack that began Dec. 6 (p. 17). Though this drove the Germans back and sent a profound psychological shock reverberating throughout the ranks of the Wehrmacht, it also allowed the invaders to retreat in relatively good order given how exhausted and overextended they truly were.

Critics point out that much of this counterattack involved frontal assaults by troops who weren't really present in densities to afford such wasteful, crude tactics. (The Moscow counterattack had only about two battalions of infantry, six artillery pieces, and 1.5 tanks per mile of front, where the forces encircling Stalingrad often enjoyed four battalions, 90 guns, and some 18 tanks per mile of front.) Others – probably Zhukov himself if he were still alive – would argue that most of the troops dispatched into frontal assaults were already pinned in the front lines without transport. They could only be made useful by sending them 200 yards forward under fire; sending them 20,000 yards around the German flanks was outside the realm of the possible.

Still, there may be room to imagine a much greater Soviet victory at Moscow, one that sends the Wehrmacht reeling into rout and perhaps even allows the Red Army to encircle Guderian's men much as they would 6th Army in the next holiday season. Taken at the face value of greater German losses and an even more shattering loss of morale, this could shorten the war by a year or more. Historically, the Wehrmacht never quite shook off the memory of that retreat; perhaps a rout would have emboldened some officers enough to implement an effective assassination scheme against Hitler.

Again, a contrarian view could be taken: In real life, for the first time, Hitler ordered his retreating troops to stand fast, and most historians agree that his hard-nosed orders saved the day. Unfortunately, that success led the Führer to believe that sheer willpower *always* could save the day, and through the rest of the war he doomed untold numbers of his troops by repeating his demands to stand fast in situations that begged for orderly retreat. Had Hitler not had the early, dramatic example of the winter retreat of 1941-42, he might not have been so quick to condemn irreplaceable men in later campaigns.

Seizing the Day at Stalingrad

Even the Soviets' most hallowed victory of the war – Stalingrad – comes under criticism. From the beginning, Operation Uranus, or the encirclement of 6th Army at Stalingrad, had a follow-up phase named Operation Saturn Major, in which the Red Army would penetrate all the way to Rostov. This would cut off the armored spearhead of Army Group A (see p. W24) south of the Don river and position the army to attack the German flanks north of the river. The German support troops would be torn between retreating to avoid further attack or staying in place to attempt to renew overland supply to the panzers stranded to the south.

In a best-case scenario, this follow-up attack could have cost the Germans as many men as at Stalingrad, and many more of their beloved panzers. (By this time, Army Group A had most of the armor originally allotted to 6th Army's Army Group B.) Instead of the single punch that Stalingrad inflicted in real history, a one-two combination might have collapsed morale and again led to a more determined bid to assassinate Hitler.

In real life, the bold strokes of Saturn Major on paper became the cautious advances of Saturn Minor in practice. The Stalingrad ring had pinned far more Germans than the Soviets had anticipated – and they did not die as rapidly as had been predicted – so many troops were delayed there waiting for 6th Army to yield. Meanwhile, the German's armored bids to relieve Stalingrad made STAVKA nervous; they feared the German thrusts might be more powerful than they really were. Fog alternating with heavy rains also favored the defense. In the end, by the time that the tentative Red Army reached Rostov, the Wehrmacht's generals had had just enough time to minimize the damage and retreat in good order.

DU, SS

A campaign highlighting the worst of Soviet nature could be set, somewhat ironically, in the best days of the Soviet war experience.

By the time that the Soviets entered eastern Germany in 1944, there was no doubt who would win the war. For the most part, the white-hot thirst to avenge 1941-42 had cooled down – by then the front-line Red had seen plenty of evidence that most Germans were faring as miserably as he himself – but a few extremist propagandists were doing their utmost to whip the troops back up into a frenzy. These calls for random rapine did not really reflect the desires of the party leadership, but putting a stop to them was a delicate business. (A modern parallel might be drawn with both U.S. political parties and certain pundits – particularly on talk radio – who take their party's liberal or conservative position to extremes. While the party leadership might disagree with this extremism, trying to curb the overzealous risks serious misunderstandings and internal dissent.)

Meanwhile, the party did have a much more methodical vengeance in mind, to ferret out and deal with everyone who had failed or betrayed the Soviet state by the standards of Stalin's warped vision.

Additionally, the nature of the Soviet enlisted man had shifted over the course of the war. Many of the westerners with European values and urban educations had died in the early years, and men from the more primitive eastern expanses had taken their places. In many cases, their concept of a victor's rights still had their roots in a medieval mindset, where blood flowed easily and life was cheap.

From Hurrahs to Horrors

Given these factors, the Soviets often behaved abominably as they moved into German lands. Considering their better discipline and education, the front-line troops sometimes moved through a region with minimal fuss – even warning the locals to pack up and start moving west – and their battle-hardened officers did not tolerate what little nonsense did develop. Right behind them, though, arrived a cruder lot, who raced one another to grab every woman in sight – from 6 years old or 60 – and plunder every home. Small items were tucked into shirts, larger ones were thrown onto a squad's transport carts, and things too bulky to steal were smashed. Any alcohol that could be found was guzzled and drunken marathon rape sessions began. The officers in these units rarely curbed their men; they merely used their rank to take first choice of women and loot.

After the initial orgy of violent looting, political repercussions had to be ironed out. Behind the second-rate troops came NKVD military units, who often differed from those in front of them only in the police powers they enjoyed. Any men remaining in the region – including boys too young for the increasingly indiscriminate Wehrmacht – had to walk past a line of glowering Soviets and answer the blood-chilling accusation, "Du, SS." Anyone who could not convince them that he'd had nothing to do with the infamous Nazi organization faced a brief and messy future – and the standard of proof often fluctuated with the accusers' hangovers.

The NKVD also rounded up Soviets who had been captured as POWs. These men were asked, "Why didn't you escape?" If the interrogators did not like the answer – and they seldom did – the former POW could expect to be arrested and sentenced to the gulag for his troubles. Their accusers did not care that the German camps (p. 111) left men hardly able to stay alive, much less trek cross-country with no provisions. The point was that every POW represented a potential eyewitness to the military incompetence of 1941-42 – but men dying in Siberia found a very limited audience for their tales. Ultimately, some 1.5 million former POWs simply shifted from German to Soviet captivity. Many of those who had chosen to work for the Germans rather than risk starvation were simply shot.

Neither the marauding troops nor the methodical NKVD men paid much attention to their victims' nationality or politics. French men shipped to Germany as forced labor, Polish women moving west as refugees, whoever – they all got the same treatment as Hitler's faithful. Longtime German Communists who had hidden their allegiance for years – even contributed what espionage that they could – joyfully greeted the invading Soviet columns and were beaten, raped, or killed for their troubles. If they did get a chance to speak, they were asked why had they not joined the German partisan movement, which for all purposes did not exist. The Soviet machine had an unanswerable question with which to quickly dispatch every awkward survivor in its wake.

Meanwhile, women who had endured the initial round of being held as sexual captives – and thought that perhaps their ordeal was coming to an end – found that their captors had bartered their services to the next wave of troops moving into the region. At best, when it was finally over, they could hope to escape with only one or more venereal diseases. (This was very serious, given that the medical infrastructure in east Germany had been completely destroyed. It would take years to restore even the most basic services.) At worst, once their assailants became bored, they amused themselves with even more lethal forms of violence (see p. W:IC108).

All of this behavior imperiled the Red troopers, too. Drunken fights often ended badly, and most of these crimes could be punished with death should an officer be forthright enough to bring charges. Many who had survived winter and the Wehrmacht lost their lives during this squalid period.

A particularly wrenching campaign might place the players in the role of Soviet officers who endure the sheer hell of combat in 1944 and '45's final campaigns – growing close to their NPC enlisted men in the process – then have to decide what stance to take as their tried and true troops degenerate into rapists and robbers . . .

REFERENCES

Along with many of the references cited in ***GURPS WWII***, these sources stood out in the research for ***Red Tide***:

Books

Axell, Albert. *Russia's Heroes, 1941-45* (Carroll & Graf, 2002). This vivid and eclectic collection of interviews captures much of the daring and bravery displayed in various fields of Soviet arms. An excellent source for color on a variety of campaigns.

Burgess, Maj. William H. III (editor). *Inside Spetsnaz, Soviet Special Operations, A Critical Analysis* (Presidio Press, 1990). Though much of the volume deals with periods before and after WWII, this book provides a densely packed portrait of the not-quite-matured special forces that the Soviets employed in their Great Patriotic War.

Kennan, George F. *Russia and the West, Under Lenin and Stalin* (Mentor, 1960). More of a background read, with little to offer in the way of combat reporting, this book can further illustrate why the Soviets did the things they did, however little sense they might have made to western eyes.

Loza, Dmitriy. *Fighting for the Soviet Motherland, Recollections From the Eastern Front* (University of Nebraska, 1998). Fortunately for the reader, the author – a veteran armor commander – has a sharp eye for detail if almost no sense of humor. If a bit dry and self-righteous, his stories also include some of the little stuff that adds verisimilitude to a scene.

Lyons, Graham (editor). *The Russian Version of the Second World War* (Facts on File Publications, 1976). This book's goal is the same as the first chapter of each ***GURPS WWII*** national sourcebook: to illustrate the war as seen through the eyes of that particular combatant. Though it's a thin volume, it of course has far more opportunity to expand on the Soviet perspective.

Moynahan, Brian. *Claws of the Bear, The History of the Red Army From the Revolution to the Present* (Houghton Mifflin, 1989). Yet another volume that covers WWII only in passing, this provides some fundamental background perhaps more appropriate for researchers than for those looking to improve their campaign setting.

Perrault, Gilles. *The Red Orchestra* (Pocket Books, 1970). An entertaining read that focuses on the lives of these Communist spies and the mostly German men who tried to catch them. Full of the complex and often ambiguous interrelationships that make up espionage, it would provide a fundamental primer on running campaigns of this nature.

Salisbury, Harrison E. *The 900 Days, The Siege of Leningrad* (Harper & Row, 1969). One of many accounts of this very sad tale, this one does a good job of painting individual portraits and following them through the whole ghastly affair. As with any Leningrad offering, not for the weak of stomach.

Seaton, Col. Albert. *The Battle for Moscow* (Playboy Press, 1980). This account of the decisive campaign has a better-than-average amount of color content describing the rigors of life on the front lines, though as usual it tends to dwell on the German perspective more than the Soviet.

Suvorov, Viktor. *Inside the Soviet Army, A Cool, Unexaggerated and Utterly Terrifying Anatomy* (Grafton, 1986). More than a few authors of Soviet heritage prove unable to sit before a keyboard withoutt grinding their personal axe. Suvorov is worst than most on this point, and his book really has to do with painting the Cold War-era Red Army in the most frightening light, but it has some interesting tidbits on its WWII roots. Also, it takes a veteran Soviet officer to begin to make any sense of the Red Army's rather tangled administrative structure.

Tumarkin, Nina. *The Living & the Dead, The Rise and Fall of the Cult of World War II in Russia* (BasicBooks, 1994). This interesting account of the mythmaking both during and after the war paints Stalin in a critical light, which is a counterbalance to the many revisionists who would argue that he acted far more shrewdly than is generally supposed.

Ward, Chris. *Stalin's Russia* (Edward Arnold, 1993). An academic work primarily dealing with the prewar years, this could provide a greater understanding of Stalin's vision of Communism and the many ways in which it clashed with the Russian reality.

Werth, Alexander. *Russia at War 1941-1945* (Carroll & Graf, 1964). A rare eyewitness western perspective on the Soviet campaign. It offers too few portraits of the war on the ground, given its mammoth size, but remains worth a look as a comprehensive history of a vast topic.

Zhukov, Georgi K. *Marshal Zhukov's Greatest Battles* (Pocket Books, 1970). Though widely regarded as outspoken, the Soviet's master general has to tread far more lightly here than did his Wehrmacht counterparts, who were free – and pretty much obligated – to topple the dead Hitler's applecart in their own memoirs. Mostly of use to verify the background details of the Red Army's campaigns.

Film

The Cranes Are Flying (Mikheil Kalatozishvili, 1957). The story of two Muscovites in love, and the little international spat that comes between them.

Enemy at the Gates (Jean-Jacques Annaud, 2001). This depicts famed sniper Vasily Zaitsev's duel with the dreaded Major Konings. (Named König here. It's unclear who he was in real life.) It gets a lot of criticism, some unfair. (The romance isn't *that* farfetched. The rooftop bombing run is fair game . . .) The exotic nature of fighting in Stalingrad's rubble is well illustrated.

Ballad of a Soldier (Grigori Chukhraj, 1959). A rifleman on leave falls in love. (It's a wonder that the Soviets had any time left over for fighting . . .) Widely regarded as the classic Soviet film on the WWII experience.

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