

The World's Most Popular Gun

The Long Road to the AK-47

No firearm in history has enjoyed the fame or popularity of the assault rifle known as the AK-47, or Kalashnikov. Created by a Soviet weapons designer at the dawn of the Cold War, it was mass-produced and distributed worldwide in the millions, leading to its canonization in the revolutionary Third World of the 1950s and 1960s. Indeed, far beyond its utility, the AK-47 became a Cold War icon, appearing on revolutionary flags, in songs and poems, and in televised insurgencies as proof of communist fervor and supposed martial superiority. And it continues to play a major role in warfare today, most visibly in guerrilla conflicts in Africa and the Middle East.

The AK-47 has succeeded so wildly because it is almost an ideal realization of the personal firearm: where most weapons have had to contend with tradeoffs between accuracy, lethality, speed of fire, reliability, cost of production, and ease of carrying and use, the AK-47 managed to find a sweet spot maximizing these traits. In fact, the weapon is so reliable, effective, and easy to use by untrained operators that its advent made it widely possible for just about any group, even with little money, modern technology, or formal military training, to mount significant, deadly assaults against a much larger and more advanced force—a fact that has transformed the face of warfare

and created a revolutionary romance that still surrounds the weapon.

Since gunpowder is not static in power in the way that human muscle is, once fiery arms were invented in the fourteenth century, they would in theory constantly improve in a way that bows, slings, and swords could not. But in reality, centuries of technological stagnation followed the invention of the first gun: for example, the eighteenth- and nineteenth-century “Brown Bess” flintlock musket remained almost unchanged during its use by the British Empire over the course of more than a century. Early muskets and their predecessors had slow rates of fire and poor accuracy and reliability, and thus did not always ensure battlefield superiority over arrows, edged weapons, and hand-launched missiles. Benjamin Franklin famously advocated the use of bows by the cash-strapped Continental Army, arguing that they were cheaper, easier to use, and could send more arrows per minute than the musket could fire balls.

The problem was that the various qualities of a good handheld weapon were often mutually exclusive. Increased lethality, for instance, was usually attained by increasing the weight of the firearm and bullets, which often reduced reliability and mobility, and made weapons too expensive to outfit an entire army. So

the development of personal firearms was often haphazard, especially during periods of general peace. Black-powder, muzzle-loading, smoothbore (unrifled) firearms were the norm for centuries. Only in the mid-nineteenth century did sophisticated metallurgy and techniques of mass production at last begin to usher in rear-loading models, cartridge ammunition, more powerful and smokeless gunpowder, rifled barrels, and interchangeable, machined parts. The result was a giant leap in the ability of soldiers to kill one another on a mass scale, as the ancient science of effective body armor was unable to keep pace. By the nineteenth century, the personal arms race was on.

The watershed years were those of the American Civil War, which created a race for more rapidly firing and lethal arms. The war that began with the use of muskets and Minié balls ended with the Henry repeating rifle, which allowed a skilled single shooter to load and fire up to twenty-eight times per minute. The war also saw the development of the Gatling machine gun, and, somewhat later, the Maxim, the first fully automatic weapon. The more advanced models

of these machines could in theory spit out six hundred rounds per minute, allowing two-man teams to lay down a volume of fire greater than what was possible from a whole company of riflemen. The new machine guns proved revolutionary, especially in the colonial wars in Africa, Asia, and Latin America, in which small numbers of Westerners could trump numerically superior foes, sending a chilling message of technological superiority. The venerable traditions of the mounted lancer, the cavalryman, and the skilled swordsman slipped into decline with the advent of the machine gun.

But the early machine guns, though rapid-fire and quite lethal, were heavy and they often jammed, leaving their operators defenseless. And they were costly and difficult to move and maneuver. Nevertheless, during World War I, improved mobile Maxim, Vickers, and Colt-Browning machine guns reigned supreme across the trenches, overpowering the firing rates of bolt-action, clip-fed rifles. In response to the machine gun's lethal tyranny on the battlefield, early twentieth-century tacticians began dreaming of an everyman's mini-machine gun that would diffuse such

AK-47: The Weapon that Changed the Face of War

By Larry Kahaner
Wiley ~ 2006
272 pp. ~ \$25.95 (cloth)

The Gun

By C. J. Chivers
Simon & Schuster ~ 2010
496 pp. ~ \$28 (cloth)

The Gun that Changed the World

By Mikhail Kalashnikov
with Elena Joy
Polity ~ 2007
224 pp. ~ \$19.95 (paper)



killing power into the hands of millions of combatants.

The result was the generation of the so-called submachine gun, most prominently the German MP-18, the Italian Villar Perosa and Beretta Model 1918, and the American Thompson (or Tommy Gun). These weapons fired pistol cartridges, allowing for the employment of existing stocks; they were relatively light at around ten pounds; and they could in theory be shot at astounding rates of fire of well over 400 rounds per minute. Whereas World War I was defined by heavy machine guns battling each other in antipodal fashion across clearly defined fields of fire, battles of World War II were frequently fought in jungles, forests, and urban streets, in which the enemy was typically near and highly mobile. Submachine guns proved popular during this war—and spawned a number of cheaper imitations—thanks to their adaptability to a situation in which constant streams of bullets were directed at soldiers from every direction by constantly moving enemies, and enemies were more likely to be stopped by sudden, rapid fire than by precisely aimed shots from small, longer-barrel weapons.

Yet, for a variety of reasons, the new submachine guns could still not entirely replace clip-fed repeating rifles. While they delivered far more bullets per minute, their short barrels allowed only for poor accuracy and limited range. The less powerful pistol cartridges and greater recoil from near-continuous fire also meant

that few submachine guns were deadly beyond two hundred yards—a potentially fatal limitation at the times when rifle sharpshooters had clear fields of fire at over a thousand yards. The constant rapid firing, together with the grime, heat, and filthy conditions of battle, made the submachine guns jam far too frequently. And another problem developed during the war that transcended the weapons' advantage of rapid firing: heavily-laden soldiers simply could not carry enough additional bullets—often larger-caliber .30 and .45 ammunition—to take advantage of their guns' voracious appetites.

On the other hand, repeating rifles, even when semi-automatic and equipped with enlarged clips and improved barrel and stock designs that allowed a good chance of hits at great distances, did not allow enough shots per minute for the increasingly close-order combat in which enemy soldiers might appear suddenly en masse, and in all conceivable landscapes. Their longer barrels and clumsy shoulder stocks certainly proved a hindrance during close-in fighting. Other tradeoffs arose as millions of combatants joined the Allies or Axis powers in a global war, allowing little time to ensure traditional marksmanship training for men from such widely disparate backgrounds. The advantages that could be gained from employing a more accurate, slower-firing, traditional semi-automatic rifle were often lost by the inexperience of the users. There had been design attempts during World War I to bridge these differences, the most successful

of which was the American Browning Automatic Rifle. It was almost as accurate as a rifle, but with a weight of over fifteen pounds and a small magazine of just twenty rounds, riflemen often had to shoot from a prone position, with a barrel tripod and plenty of available magazines nearby.

But in the post-World War II era, a true breakthrough addressed the apparently irreconcilable advantages of submachine guns and repeating, clip-fed rifles. The brilliant compromise became known as the “assault rifle,” the most prominent of which was the Russian Mikhail Kalashnikov’s AK-47 (for automatic Kalashnikov, model 1947), which came into wide use in the early 1950s. Kalashnikov, who benefited from the designs of earlier German and Russian prototypes, seemingly at last solved the six-hundred-year-long dilemma of providing an accurate rifle that was not only capable of firing hundreds of rounds per minute, but was still deadly at ranges of 300-400 yards and beyond. And at under ten pounds, the AK-47 was easy to carry, simple to operate, and highly dependable. Moreover, by using a medium-sized bullet (the 7.62x39mm cartridge, equivalent to about .31 caliber) rather than larger .40 caliber rounds, the AK-47 achieved a deadly muzzle velocity of over 2,300 feet per second. In short, Kalashnikov seemed to have squared the circle by creating a light, cheap, rapid-firing, accurate, reliable, and lethal weapon that was neither rifle nor submachine gun. The gun proved perfect for revolutionaries in Third World

countries, and the Kremlin would gleefully reward its new friends with mass deliveries of their wondrous weapon.

The sudden ubiquity of the AK-47 stunned the United States and Europe, and seemed to turn the so-called First World’s advantages in marksmanship and weapon craftsmanship on their heads. Illiterate insurgents, amply equipped with cheap AK-47s—now produced even more inexpensively by an array of Soviet satellite countries—suddenly had at their disposal more firepower than American soldiers. And what did it matter if Western riflemen were in theory better trained or shot a better calibrated and more accurate weapon, when mere teenagers in the tens of thousands could pepper Western troops with bullets?

The widespread export of the AK-47 marked yet another Sputnik-like moment in which state communism seemed to outpace Western entrepreneurialism. And just as the Soviets’ Sputnik success would set off the space race, and as there were other rivalries between the Soviet T-34 tank and its American counterparts, and between MiG-15 and F-86 jet fighters in the skies of Korea, so too was there a competition in assault rifle technology. Not until the early 1960s did the Americans accept that their old reliable M1 and its replacement M14 were woefully wrong for the new non-traditional theaters of the Cold War.

If a new American assault weapon were to follow in the Kalashnikov model, it would have to trump its Russian competitor with greater

accuracy and lethality. This goal was seemingly accomplished with the M16 rifle, invented in the 1950s by the legendary arms designer Eugene Stoner. The sleek black assault rifle employed plastic and aluminum alloys to reduce the weight to two pounds less than the rival AK-47. And it used even smaller ammunition—the 5.56x45mm high-velocity bullet that was to become the standard NATO round.

The result was that, by all accounts, the M16 proved to be an exceptionally reliable and accurate assault rifle. Its smaller-caliber bullet was in some ways as lethal as the AK-47's larger ammunition, as it had a muzzle velocity of over 3,000 feet per second, and the bullet tended to break up after penetrating flesh. The M16 also proved somewhat easier to handle and had less recoil than the AK-47. And soldiers could carry far more of the lighter-weight ammunition. The ensuing shoot-off between the two weapons in the Vietnam War was supposed to make clear the American gun's advantages in rates of fire, accuracy, and lethality.

But just the opposite proved to be true—at least in the first four years of the M16's wide use. Jamming was chronic, apparently due to initial design flaws in the gun, manufacturing problems with the gunpowder, and soldiers' frequent failure to clean the weapon regularly amid the humidity and dirt of the jungle. In contrast, the AK-47 seemed nearly indestructible, in part due to its simpler construction and greater tolerances. In Vietnam, at least, the verdict favored the notion

of an uncomplicated assault rifle that compensated for lost accuracy by achieving greater reliability, simplicity of use, and a larger bullet.

The AK-47 further exasperated Westerners by its cheap fabrication from stamped metals and its brilliant operation with just a few working parts. By the late 1960s, soldiers were taking apart, cleaning, and reassembling the weapon in about half the time required for the M16. Something that felt and looked so “cheap,” and that was produced by the Communist Bloc notorious for its shoddily manufactured products, surely, it seemed, could not be comparable to a rifle designed by the Americans, the British, or the Germans, with their far more distinguished firearms pedigree.

Yet the Communist Bloc continued to meet world demand with millions of AK-47s. And when the Soviet Union collapsed, its former republics and clients often sought to unload their stockpiles at discounted prices. Ironically, the United States eventually became the largest purchaser of the AK-47 in its efforts to supply poorer allies—such as some areas of the former-Yugoslavia, post-Saddam Iraq, and Afghanistan—with cheap, reliable assault rifles without its own large fingerprints on the arm sales. The result today is that some 75 million AK-47s have been produced, with most still in circulation, making it the most ubiquitous weapon in the history of firearms—dwarfing the M16's eight million.

The debate between exponents of the AK-47 and the M16 has never

been resolved, in part because both guns continued to evolve with subsequent improved models and have now both been superseded by more recent designs; in part because ideology and national chauvinism were inseparable from dispassionate analysis; and in part because the relative value of accuracy versus reliability is so subjective. In any case, NATO troops in general felt that their improved models of M16s by the 1980s had proved superior, even as some of the old problems of jamming and insufficient stopping power sometimes reappeared during the harsh conditions of sand and heat during the most recent Iraq War.

The story of the AK-47, amid the ongoing saga of rifle evolution, has in recent years spawned a number of popular books. The best is C.J. Chivers's scholarly *The Gun*. Chivers takes a properly skeptical view of many of the claims by Mikhail Kalashnikov surrounding the birth of AK-47, and offers a sober and fair account of the acrimonious rivalry between the M16 and AK-47. In dispassionate fashion, Chivers concludes that few inventions of the twentieth century have done so much to kill so many through "war, terror, atrocity, and crime." But after such a clear-headed analysis of the AK-47, he surprisingly offers the emotional hope that eventually the seasons, aging, and wear and tear will finally rid the world of this nearly indestructible menace—and with it the bestowing into the hands of untrained near-children the world over the power to kill indiscriminately and en masse. To this hope, one

might rejoin that the fault is not in our stars, but in our selves.

Larry Kahaner's book *AK-47: The Weapon that Changed the Face of War* is a lighter but nevertheless engaging story of the contemporary AK-47 as a cultural phenomenon. He too reminds us that many of the terrorist movements and insurgencies in Asia, Latin America, and especially Africa would have been impossible without the widespread dispersion of the AK-47, the ideal weapon for impoverished, poorly trained mercenaries. He points out that the acrimonious controversy between the AK-47 and the M16 resurfaced again forty years after Vietnam during the post-Saddam Hussein insurgency, when improved versions of both assault rifles collided in the streets of urban Iraq. And the verdict was again ambiguous, as U.S. troops still largely preferred their own weapons but developed a grudging respect for the insurgents' "bullet hoses," which shot streams of deadly large-caliber bullets at close ranges and seemed impervious to the sand and heat of the Iraqi landscape.

Then there is the book by Mikhail Kalashnikov himself. Now a nonagenarian, Kalashnikov was presented in 2009 with the title Hero of the Russian Federation, the country's highest honor. With the help of his daughter Elena Joly, Kalashnikov wrote an autobiography, first published in French in 2003 and available in a 2006 English translation. Kalashnikov fought during the worst months of the German invasion of Russia; in 1941, in a failed counter-offensive, he was almost killed

when his Red Army tank regiment was cut off and overwhelmed.

During a long subsequent illness and recovery, Kalashnikov's innate gun-making talents were noticed. And so, despite his lack of formal design training, he was soon promoted to work with a team of Soviet engineers, quickly emerged as a senior designer, and was mostly responsible for the AK-47. The most fascinating chapters in Kalashnikov's story are about the nightmare of life in Stalin's Soviet Union, in which any achievement, commercial or intellectual, earned envy that in turn might translate into accusations of being a counter-revolutionary, would-be elite, often with deadly repercussions.

As Chivers and Kahaner point out, and as is discernible in Kalashnikov's memoir, his relationship with his own deadly invention over the last two-thirds of a century has proved erratic. Kalashnikov is proud of his promotion to the rank of lieutenant general in the Armed Forces of the Russian Federation, and under Communist rule he was twice honored as a Hero of Socialist Labor. Yet even as Kalashnikov details the horrors of Stalinist Russia that resulted in his own family's brutal exile, he concludes, "I consider Stalin as one of the great national leaders of the twentieth century, and as a great army leader."

Kalashnikov takes great trouble to note that the AK-47 grew out of an effort to protect his homeland from a repeat of the sort of barbaric invasion that Hitler unleashed, adding that he

did not profit, at least in Western style, from the sales of some 100 million weapons that bear his name (including variants on the AK-47). And yet Kalashnikov seems almost longingly to note the millions of dollars in profits that came to Eugene Stoner from his M16, even as he ostensibly prefers the public acclaim in Russia that was never accorded to Stoner in the United States. That same paradox characterizes Kalashnikov's occasional regret that his invention became the signature weapon among terrorists and bandits—many of them now deadly enemies of Russia itself—juxtaposed with his pride in the astounding success of a supposedly defensive AK-47. Speaking at a ceremony honoring the sixtieth anniversary of the weapon, he claimed, "I sleep well. It's the politicians who are to blame for failing to come to an agreement and resorting to violence."

So what in the end are we to make of the AK-47, given that people ultimately kill one another and design weapons that do it so effectively? A perfect storm of events explains the gun's lethal role in eroding civilization over the last six decades. The impoverished post-colonial world was eager for the sort of advanced weapons that had characterized a near-century of endemic warfare in the more advanced West, and the Soviet Union was eager to fan liberationist movements against the West. It took the postwar glamour of international communism, the industrial muscle of the Soviet Union, and a Russian genius with no higher education but great practical savvy

to at last provide millions with such parity, meeting the requirements of a new arms lethality at very little cost. The result was the tragedy of a global assault rifle that has been crucial to self-described liberationists in furthering so often the cause of tyranny.

—*Victor Davis Hanson* is a senior fellow in classics and military history at the Hoover Institution, and is the author, most recently, of *The Father of Us All: War and History, Ancient and Modern* (Bloomsbury, 2010) and the novel *The End of Sparta* (Bloomsbury, 2011).