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# ARES Research Note 6 – An Introduction to Basic AK Type Rifle Identification

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## Introduction

The AK rifle, designed in 1947 as the *Avtomat Kalashnikova obraztsa 1947* or 'Kalashnikov Automatic Rifle, model 1947', represents perhaps the definitive assault rifle design. The development and introduction of the assault rifle represented an important mid-ground for automatic weapons between machine guns, firing full-power rifle cartridges, and submachine guns, firing pistol calibre cartridges. The so-called 'intermediate cartridge' allowed for riflemen to deliver comparatively accurate and lethal automatic fire at ranges greater than submachine guns could operate. Early assault rifles were informed by the experiences of the Second World War, which saw close-in fighting in urban terrain and jungles, rather than the longer range engagements of many previous conflicts.

The *Avtomat Kalashnikova (AK)*, often referred to in the West as the 'AK-47', refined the assault rifle concept, fusing together desirable design features from a number of earlier weapons. It was cheap to produce, reliable, and chambered for the effective 7.62 x 39 mm cartridge. AK type rifles are simple to operate, require little maintenance to remain functional, and can be produced using comparatively rudimentary production machinery. The Soviet Union not only exported vast quantities of AK type rifles (especially the AKM or *Avtomat Kalashnikova Modernizirovanniy*; 'Kalashnikov automatic rifle, modernised', introduced in 1959), but also allowed for the transfer of manufacturing technology and blueprints to a number of satellite states and close allies.

All of this meant that the AK was widely produced, and it remains available throughout much of the world today – more than 60 years after its introduction. More AK type rifles have been produced than any other firearm, and the AK is considered the most wide spread small arm on the planet. Strictly speaking, the designation 'AK-47' applies only to the original prototype design, now to be found only in museums. It is frequently used, incorrectly, to describe the entirety of the large and varied family of AK rifles now to be found in every corner of the world. Nearly 200 copies, variants, and derivatives have been identified by ARES and other researchers to date, some faithful copies of the original design, and others produced in various calibres and for differing battlefield roles.

These variations can often be subtle and are not easily distinguished to the unpractised observer. However, determining the particular version of the rifle in question can provide valuable information to help determine its origin. For basic identification purposes, these variants can be grouped into the three main 'parent' categories that appear below, each original Soviet designs. Those requiring greater detail on the many variants of these that exist are encouraged to consult the reading list appended to this guide, or to contact ARES.

## AK

### *Avtomat Kalashnikova*, 'Kalashnikov Automatic Rifle'

The original Kalashnikov variant based upon the AK-47 prototype, but not introduced into Soviet military service until 1949. The AK is chambered for the 7.62 x 39 mm cartridge, developed for the earlier RPD light machine gun and SKS rifle. Though originally intended to be produced using metal stampings, the vast majority still in use today feature the classic machined ('milled') steel receiver. This heavy receiver required that a large rectangular slot be milled into it above the magazine well on both sides, providing a useful identifying feature to the observer. A version of the rifle with an underfolding stock for vehicle crews was produced in parallel and designated the AKS, the 'S' standing for *Skladnoy* or 'folding'. Despite the later evolution of the design, AK variants based on the milled receiver are still produced today.



## AKM

### *Avtomat Kalashnikova Modernizirovanniy*, 'Kalashnikov Automatic Rifle, Modernised'

The basic AK design was improved in 1959 with a lightened receiver. Some modifications were internal, but the basic pattern of receiver is easily spotted by virtue of the small 'dimple' above the magazine well, contrasting with the large machined slot of the previous milled design. A short, slanted compensator was fitted to the muzzle to assist with recoil in automatic fire, and is another identifying feature of the variant (though it is removable). As with its milled predecessor, an underfolding equivalent with the same basic stock design as the AKS was produced, under its own designation of 'AKMS'.



## AK-74

### *Avtomat Kalashnikova obraztsa 1974, 'Kalashnikov Automatic Rifle, Model 1974'*

The third major iteration of the AK is a reflection of the global military trend toward small calibre, high velocity (SCHV) ammunition. Introduced in 1974 under revised Soviet nomenclature as the AK-74, the new variant was essentially a stamped receiver AKM chambered for the new 5.45 x 39 mm cartridge, the shape of which dictated a new magazine with visibly reduced curvature. The magazine, together with a distinctive new muzzle brake, constitute the primary means of identification for this variant. To distinguish it from earlier guns, the stocks had a long groove milled in each side, and a raised rib was added to the sides of the handguards. From 1985, 'plum' coloured polyamide material replaced the traditional laminated wooden furniture. Once again, a folding stock variant was produced in the form of the AKS-74. This time however, the skeletal metal stock folded alongside the receiver instead of underneath it. The truncated AKS-74U ('U' for *Ukorochenniy* or 'shortened') was also introduced alongside the AKS-74 in the late 1970s.



Fixed and folding stock designs were combined in 1991 with the introduction of the current Russian service variant, the AK-74M. Immediately prior to this, the colour of the existing polymer furniture was changed to black. The AKS-74 was largely replaced in Russian service with the new rifle. The AK-74M and its later derivatives are sometimes called the 'AK-100' (though no such rifle exists) or 'century' series, and comprise a number of sub-variants in different configurations and calibres was produced in the early 2000s, primarily for export.



## Further Reading

*Markings on AK Type Rifles*, by N.R. Jenzen-Jones (ARES)

*AK-47: The Grim Reaper*, by Frank Iannamico

*The Gun*, by C.J. Chivers

*Kalashnikov: The Arms and the Man*, by Edward Clinton Ezell

The Small Arms Survey has produced a series of weapons identification sheets and a weapons ID database, covering some AK type rifles, available at:

<http://www.smallarmssurvey.org/weapons-and-markets/tools/weapons-id-database.html>

## Safety Information

Remember, all arms and munitions are dangerous. Treat all firearms as if they were loaded, and all munitions as if they were live, until you have personally confirmed otherwise. If you do not have specialist knowledge, never assume that arms or munitions are safe to handle until they have been inspected by a subject matter specialist. You should not approach, handle, move, operate, or modify arms and munitions unless explicitly trained to do so. If you encounter any unexploded ordnance (UXO) or explosive remnants of war (ERW), always remember the 'ARMS' acronym:

**A**VOID the area

**R**ECORD all relevant information

**M**ARK the area to warn others

**S**EEK assistance from the relevant authorities

## Disclaimer

This report is presented for informational purposes only. It is not intended to provide instruction regarding the construction, handling, disposal, or modification of any weapons systems. Armament Research Services (ARES) strongly discourages non-qualified persons from handling arms and munitions. Arms or munitions of any variety should not be handled without the correct training, and then only in a manner consistent with such training. Subject matter experts, such as armourers, ATOs, and EOD specialists, should be consulted before interacting with arms and munitions. Make a full and informed appraisal of the local security situation before conducting any research related to arms or munitions.

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