



Chocolate Warfare

AK rifles
rev. May 2023

Open Source
chocolate-warfare.com



Introduction

The AK rifle series has a significant impact on the world. It has been used in conflicts and insurgencies around the globe, and it has become a symbol of revolution and resistance in many countries.

The widespread availability and use of AK rifles has also led to concerns about their use by criminal and terrorist organizations.

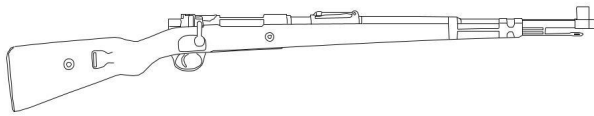
Here are a short list of reasons why the AK is so popular:

1. **Reliability:** The AK rifles are known for their legendary reliability, even in harsh environments and adverse conditions. The rifles can function even if they are dirty, wet, or poorly maintained.
2. **Durability:** The AK rifles are built to be durable and rugged, making them ideal for use in military and police operations, as well as for civilian use.
3. **Simplicity:** The AK rifles are simple to operate and maintain, with fewer parts and components than many other rifles. This simplicity makes them easier to repair and maintain, even in the field.
4. **Affordability:** The AK rifles are generally less expensive than many other rifles of similar caliber and quality, making them accessible to a wide range of users.
5. **Ease of use:** The AK rifles have a simple and intuitive design, with ergonomic controls that are easy to use and understand.
6. **Availability:** The AK rifles are widely available around the world, making them a popular choice for military, police, and civilian use in many countries.

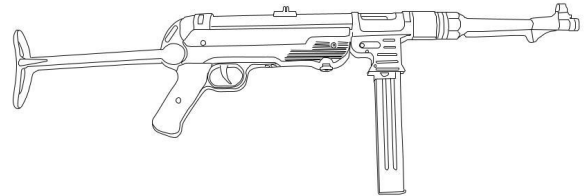
It is estimated that there are over 100 different variants of the AK rifle in existence. For the sake of simplicity, this handbook will stick to Russian issued AKs. The information and manipulation are similar to most variants.

The intermediate cartridge

The AK is a direct development of the 2nd World War with the introduction of the intermediate cartridge by the German military in the latest years of the war.



KAR98K (7.92x57)



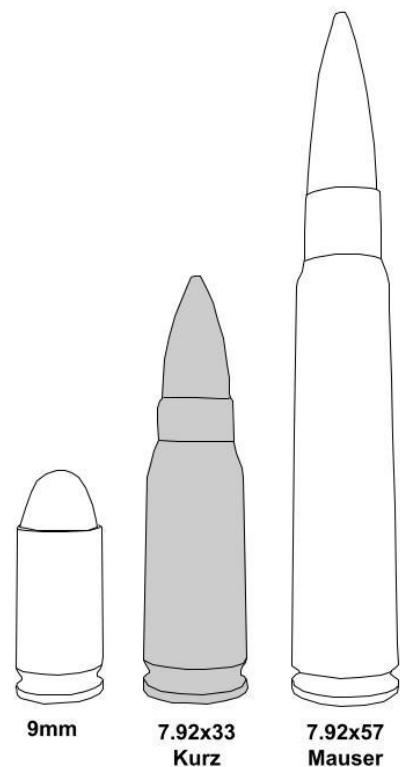
MP40 (9mm)

Prior to the start of the second World War, the German military recognized the need for a new type of ammunition that would bridge the gap between pistol and rifle capabilities.

Most engagements were fought below 400m and there was the idea of giving every man a machine gun. Therefore, the military wanted a round that would offer greater range and accuracy than a pistol caliber, but be lighter than a full-size rifle cartridge.

The solution was the 7.92x33mm Kurz. This new round was specifically designed for use in the Sturmgewehr 44, a revolutionary new rifle that combined the firepower of a machine gun with the portability and ease of use of a submachine gun.

The introduction of the intermediate cartridge and the Sturmgewehr 44 marked a major shift in military thinking and tactics. The new rifle and cartridge combination allowed soldiers to engage targets at longer ranges than with a submachine gun, while still maintaining the speed and agility necessary for close-quarters combat.

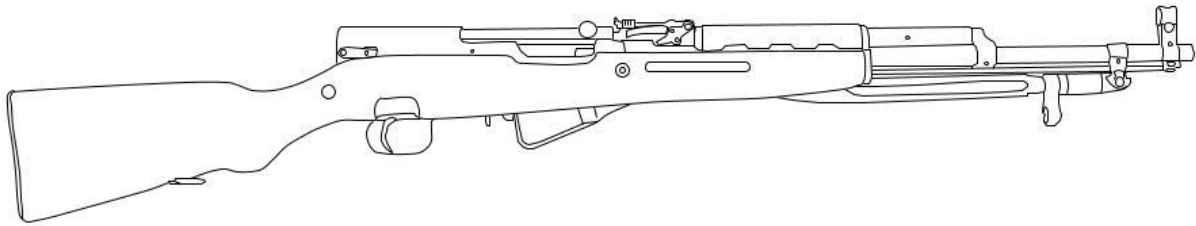


Sturmgewehr 44 chambered in 7.92x33

Development of the AK47 after WW2

The Soviet Union became interested in the intermediate cartridge and the concept of a selective-fire rifle after the end of the 2nd World War.

To address this concern, Soviet weapons designers began developing a new type of rifle that would fire this new ammunition. However, the first rifle to be adopted by the Soviet Army after the war was the SKS, which was introduced in 1945 and fired the 7.62x39mm cartridge.



Simonov SKS (7.62x39) introduced in 1945.

The SKS is a semi-automatic rifle that has a fixed 10-round magazine. The SKS saw limited use in the Soviet military, as it was quickly replaced by the AK-47 in the 50s after its introduction in 1947. However, the SKS was widely given to satellite communist countries and saw combat in Korea and Vietnam wars. The attached bayonet and fixed magazine box made a rustic weapon which required very little training to be used by any insurgency groups against the West.

The Soviet army was still in need of its own assault rifle like the Sturmgewehr 44.

Here comes Mickael Kalashnikov, a wounded tank mechanic who started to design firearms after his recovery. With his team, he presented in 1946 a first prototype which passed the Army trials.

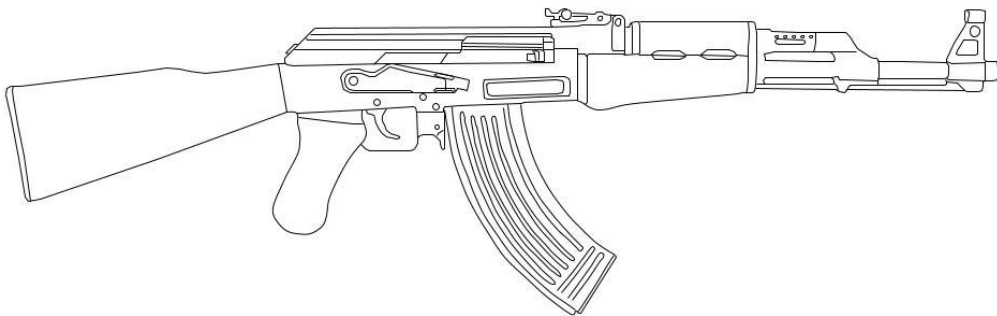
From now on, the AK was constantly reiterated:

- 1946 first prototype presented to the Soviet Army trials. Changes on the rifle are requested.
- 1949 Adoption of the rifle under the name AK47. Large scale production started but led into manufacturing issues.
- 1953 After numerous variants, the AK47 type 4 was accepted under the name AKM and the mass production finally started to replace most weapons in use in the Soviet army.
- 1950s-1970s multiple variants are produced by the communist block and satellite countries. Squad automatic weapons and sniper variants were developed during this period.
- 1974 saw the introduction of a new caliber: 5.45x39 and the AK was adapted to the new caliber with the designation of AK74.

The 5.45 caliber presented a lot of advantages: higher velocity, lighter weight, lower recoil, better penetration and reduced barrel wear.

- 1991 the AK74 is slightly modernized with the use of plastic furniture instead of wood. The official name is now AK74M and is still the most used rifle by the Russian Federation.
- 2011: The Russian army started the soldier modernization program "Ratnik". Within this program, a new AK design was proposed to the Army which was later adopted in 2018 as the AK12.

Common Russian AKs

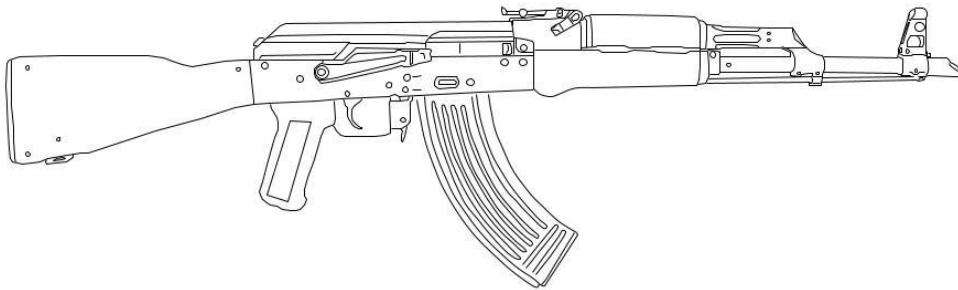


AK47

Introduction:
1947

Chambered:
7.62x39

Introduced in 1947, it is the first adopted rifle by the Soviet Army.

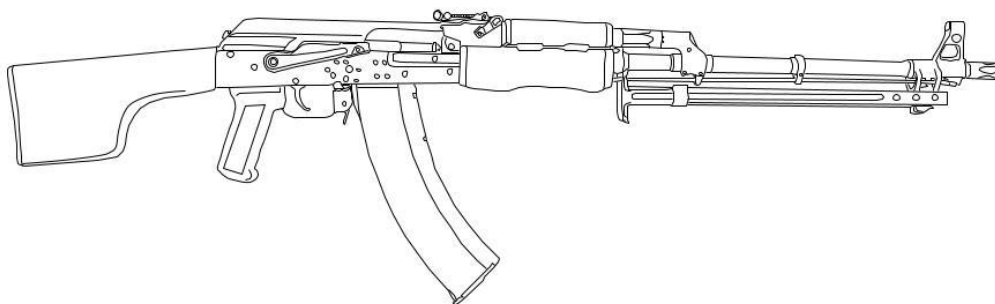


AKM

Introduction:
1953

Chambered:
7.62x39

An Improved version of the AK47 which solved a lot of manufacturing issues.



RPK

Introduction:
1961 (7.62)
1974 (5.45)

Chambered:
7.62x39
5.45x39

Squad automatic weapon variant.



AK74 / AK74M

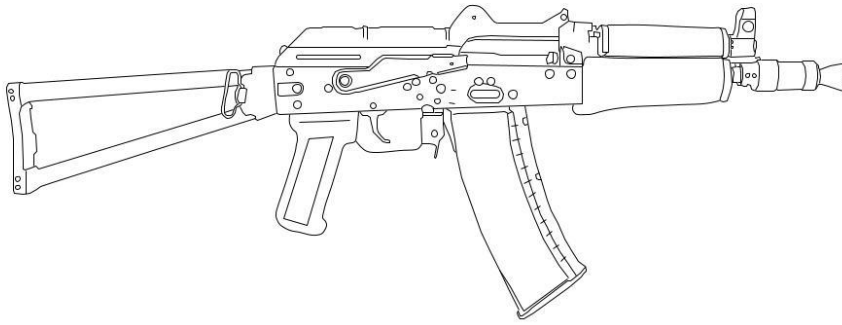
Introduction:
1974

Chambered:
5.45x39

Current Russian assault rifle

Chocolate Warfare

AK rifles
rev. May 2023

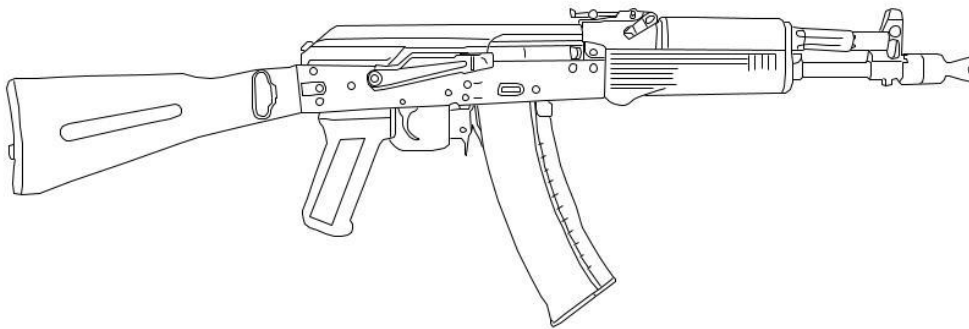


AKS74U

Introduction:
1979

Chambered:
5.45x39

Initially intended for vehicle crews and pilots. Extensively used by special forces.

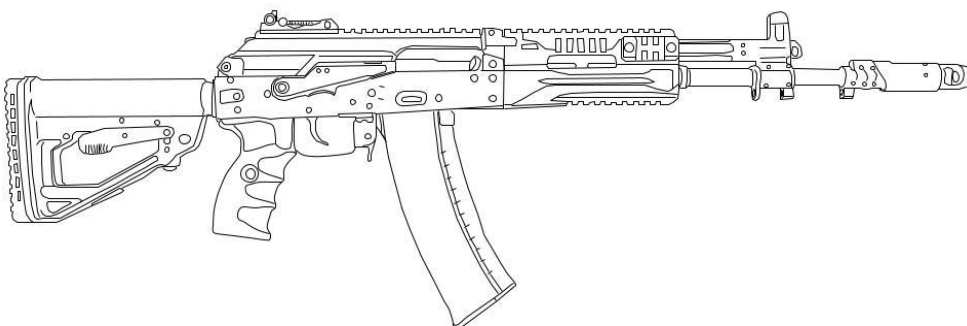


AK105

Introduction:
2001

Chambered:
5.45x39

Replacement for the AKS74U.



AK12

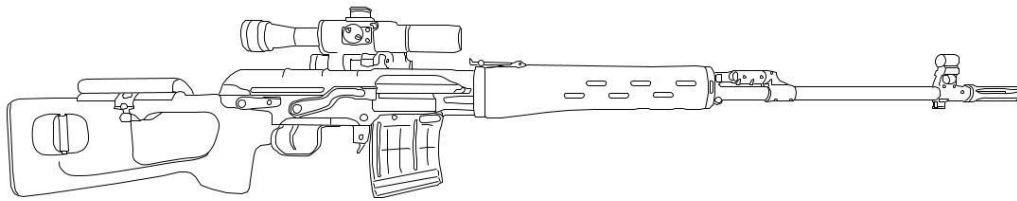
Introduction:
2018

Chambered:
5.45x39

New issued rifle of the Russian Federation.

AK Related firearms

In use by the Russian Federation



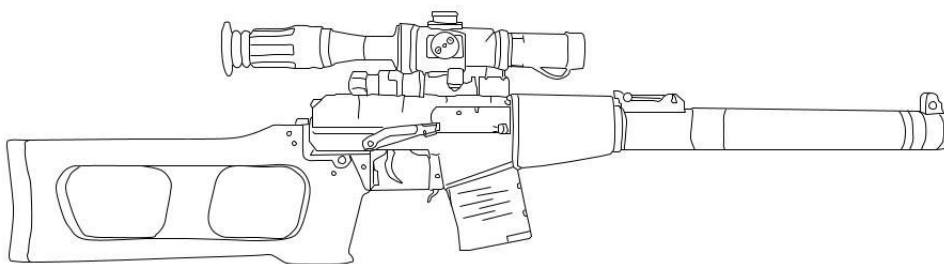
Dragonov

Introduction:
1963

Chambered:
7.62x54R

System: Short
stroke piston

Designated marksman rifle for targets up to 800m.



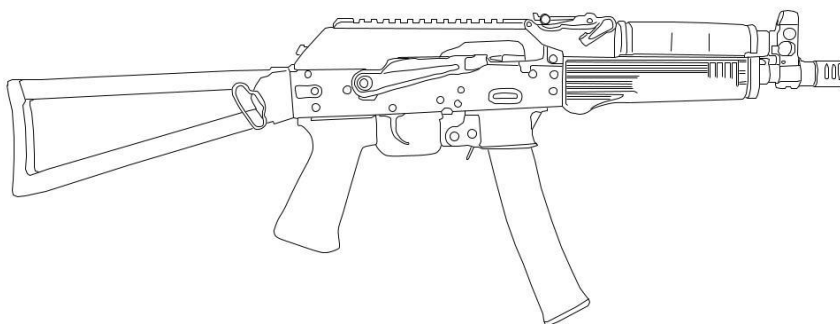
VSS Vintorez

Introduction:
1987

Chambered:
9x39mm

System:
Striker and long
stroke piston

Sub machine gun in 9mm mostly used by SWAT teams.



PP19-1 Vityaz

Introduction:
2008

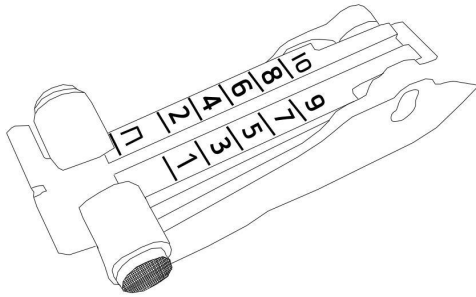
Chambered:
9mm

System: Direct
blowback

Sub machine gun in 9mm mostly used by SWAT teams.

AK sights and zero

Sights



The sights are expressed in hundreds of meters.

The "point-blank range" battle zero setting "П" standing for постоянная (constant).

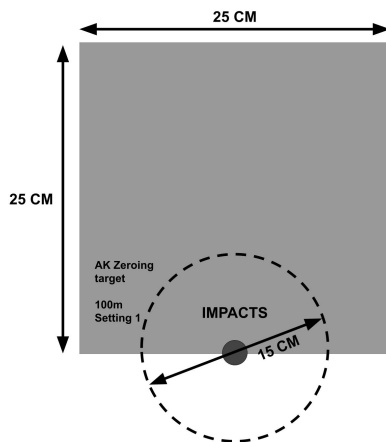
The holds are:

7.62x39 AKM: 18m/240m

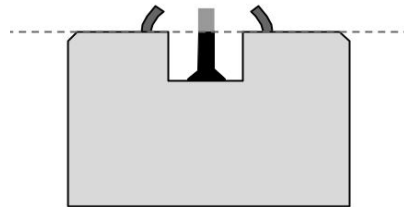
5.45x39 AK74: 25m/400m

5.45x39 AK74U : ?/350m

How to zero

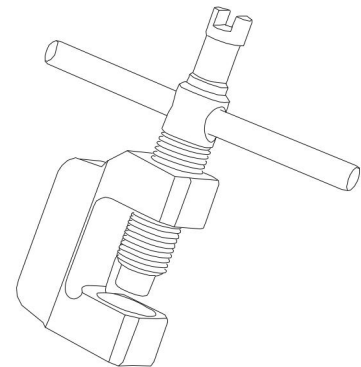


AK Zeroing target
100m, setting "1"
5 shots group



Sight picture
at 100m
target width = front sight width

Point of aim: base of the target



AK Sight tool
Screw/unscrew the front sight
for elevation
Push right/left the front sight
for derive

Alternative Zero method

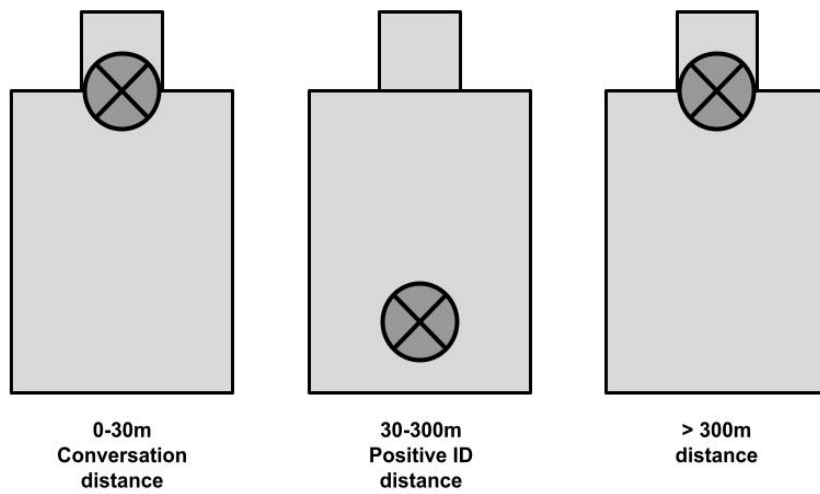
7.62x39 AKM

Use the setting "П" at 18m and the point of aim should coincide with the point of impact.
Confirm at 100m with setting 1.

5.45x39 AK74

Use the setting "П" at 25m and the point of aim should coincide with the point of impact.
Confirm at 100m with setting 1.

“Π” setting usage



Ballistic charts

From Soviet manuals:

AKM 7.62x39 with 122gr. M43 lead-core								
Setting	100m	200m	300m	400m	500m	600m	700m	800m
1	0	-20cm	-	-	-	-	-	-
2	+10cm	0	-45cm	-	-	-	-	-
3	+25cm	+30cm	0	-77cm	-	-	-	-
4	+44cm	+69cm	+57cm	0	-1.23m	-	-	-
5	+68cm	+1.16m	+1.29m	+95cm	0	-1.87m	-	-
6	+99cm	+1.8m	+2.8m	+2.1m	+1.4m	0	-2.7m	-6.4m
7	+1.3m	+2.5m	+3.3m	+3.6m	+3.3m	+2.1m	0	-3.5m
8	+1.8m	+3.4m	+4.6m	+5.4m	+5.5m	+4.7m	+3m	0

AK74 5.45x39 with 52gr 7N6M								
Setting	100m	200m	300m	400m	500m	600m	700m	800m
1	0	-10cm	-	-	-	-	-	-
2	+5cm	0	-25cm	-	-	-	-	-
3	+13cm	+16cm	0	-43cm	-	-	-	-
4	+24cm	+38cm	+32cm	0	-65cm	-	-	-
5	+37cm	+64cm	+71cm	+52cm	0	-98cm	-	-
6	+54cm	+97cm	+1.2m	+1.2m	+82cm	0	-1.5m	-3.7m
7	+75cm	+1.4m	+1.8m	+2m	+1.9m	+1.3m	0	-2.1m
8	+1m	+1.9m	+2.7m	+3.1m	+3.2m	+2.9m	+1.9m	0

Contribution

If you want to contribute or access to the original document, please reach us:

<https://chocolate-warfare.com>

info@chocolate-warfare.com

Annexe 1 - AK manufacturer ID¹

3. REAR SIGHT MARKS

Sight Mark	Country
D	Albania
П	Bulgaria
D	China
N	Germany (GDR)
A	Hungary
□	North Korea
S	Poland
P	Romania
П	Russia
O	Yugoslavia

2. FIRE SELECTOR MARKS

Upper	Lower	Country
A	1	Albania
L	D	Albania
AB	ЕД	Bulgaria
连	单	China
L	D	China
آب	مدرى	Egypt
D	E	Germany (GDR)
∞	1	Hungary
ص	ف	Iraq
☐	☐	North Korea
C	P	Poland
Z	O	Poland
1	3	Romania
A	R	Romania
AB	ОА	Russia
R	J	Yugoslavia

4. FACTORY IDENTIFYING MARKS

Factory Mark	Country
⑩	Bulgaria
she X 63	Czechoslovakia / Czech Republic (proof; date)
△ 五六式	China (Type 56 model)
△ 56式	China (Type 56 model)
△ 56-1	China (Type 56-1 model)
△ 56S-2	China (Type 56-2 model)
١٩٧٢ ① ١٠١٢٣٤	Egypt (date:1972; proof mark; serial number)
◇	Germany (GDR)
Ⓚ3	Germany (GDR)
③	Germany (GDR)
☀	Germany (GDR)
Ⓞ6	Germany (GDR)

Factory Mark	Country
△	Iraq
△ ١٩٧٢ ١٠١٢٣٤	Iraq (calibre; model: Tabuk; proof mark)
△	Iraq
☆	North Korea
☆	North Korea
☆ 58	North Korea (Type 58 model)
☆ 68	North Korea (Type 68 model)
⑪	Poland
△	Romania (Cugir factory)
△	Russia (Izhevsk factory)
△	Russia (Izhevsk factory)
☆	Russia (Molot factory)
☆	Russia (Tula factory)
ZASTAVA-KRAGUEVAC	Yugoslavia / Serbia (Zastava factory)
Ⓞ	Yugoslavia / Serbia (Zastava factory)
M.70.AB2	Yugoslavia / Serbia (M70 B2 model)

¹ <https://www.thefirearmblog.com/blog/2014/12/04/field-guide-reading-kalashnikov-markings/>