

The ghosts Essential Guide to Standard Weapons.

Part 1 Assault Rifles

Definitions, and explanations.

Assault Rifle



M16A1 assault rifle

This is the standard infantry weapon of choice. Modern army choices are based on many aspects, accuracy, dispersion, muzzle rise, manual/semi/auto fire, and the ability to choose sights, carrying handles, Night vision systems, and muzzle suppressors (silencers). Weight and agility are important. They need to do other things like make sure the spent shells are dispersed away from both left and right handed people, and muzzle ends which prevent visible muzzle flash.

Both OPF and ArmA are not representative of real life, as NV goggles cannot be used with optical sights. Generally for Specialised purposes, the rifle can be fitted with a night vision sight, and the user, must remove the goggles to use the sight.

Carbine



M4A1 Carbine

This is the description given to a shortened version of the normal assault rifle. Both Muzzle, and shoulder stock maybe shortened.

There are also compact carbines, which have the same body of the assault rifle, but may have no shoulder stock, a short muzzle, and a pistol grip.



NATO Ammunition



100 & 30 round 5.56x45mm



This is a standard bullet, it's the 5.56x45mm bullet. It is used in many assault and carbine weapons, and makes the supply of bullets for many armies an easy matter. Important for OPF/ArmA, since magazines can be passed between team members, with different chosen weapons. Depending on the magazine, it can be 20 (straight magazine) or 30 pieces, (the one with the curve), or 100 piece.

<p>SAW</p> 	<p>This is SQUAD AUTOMATIC WEAPON. An example of these is the M60. A normal 8 man infantry squad will use one, but the navy seals carry one for each 4 man fire team. Its quite a heavy weapon to carry around. Another one is the M249.</p>
<p>Ammunition Twist ratio</p>	<p>This is a characteristic of a bullet which causes it to turn while in flight. It improves penetration, and accuracy, but range may be compromised.</p>
<p>Manual, Automatic and semi automatic weapons, the difference explained.</p>	<p>The manual weapon (like many long range sniper rifles) require the user to 'charge' the firing mechanism, by spring loading the chamber, normally loading the single bullet, and 'priming' the weapon is done with this single manual action.</p> <p>Semi automatic weapons require the trigger to be pressed for each bullet fired. The Firing of a bullet, re-charges the firing mechanism (gas chamber), leaving the gun ready to be fired.</p> <p>A fully automatic weapon, as you have now guessed, is a weapon which continues to fire a burst of ammunition once the trigger continues to be 'depressed'. Most automatic infantry weapons, including machine guns, cannot do this indefinitely, due to the barrel heating up. The standard M16A1 has a burst fire of only 3 bullets, for each trigger press in full auto mode.</p>
<p>Aimpoint</p> 	<p>Its an optical sight (not telescopic), with a transparent centre illuminated point, allowing greater target visibility than the standard iron sight. It can be used effectively with both eyes open, and is battery operated.</p>

US Army Design Philosophy for modular Infantry weapon system

This is an example of the modular approach for an infantry weapon system. This was a prototype abandoned by the US Military in 2005, who have subsequently tendered for a replacement to the M4/M16, to be based on the XM8 approach.

XM8 BASELINE CARBINE



- 12.5" barrel
- common modular assemblies



- side loading 40mm grenade launcher

XM8 Carbine with add-on XM320 grenade launcher

COMPACT CARBINE



- short 9" barrel
- butt cap receiver cover
- personal defense applications

SHARPSHOOTER VARIANT



- 20" barrel
- advanced optical sight (all variants)

AUTOMATIC RIFLE



- heavy 20" barrel for sustained fire
- integral folding bipod
- 100-round drum magazine

ONE WEAPON — FOUR VARIANTS

The XM8 is designed as a modular weapon that fires 5.56 x 45mm NATO ammunition. Different barrels and other modules can be swapped quickly depending on operational requirements. The XM8 will be lighter and more reliable than the existing M4 carbine and M16 rifles. If approved, the Army could field 900,000.



History

The Armalite AR-15 replaced the M14 second world war weapon in the 60,s as the general purpose NATO round 5.56mm weapon. This was a light weight small caliber (5.56mm cf 7.62 for the M14) replacement. The US army adapted this, as the M16, which is the one now widely in use by the US army. A shortened version of the M16 is the M4 Carbine. Both are designs capable of supporting different, muzzles, stocks, cartridge size (standard 20 or 30 round versions non standard 100 rounds). The current version, the M16A2, is capable of 3 round burst automatic fire, and can even fire ammunition used by the M249 Saw machine gun. Some of the notable features include a weighted muzzle, to prevent muzzle climb, and adjustable rear sight for wind and elevation adjustment. It can also sport the M203 front loading grenade launcher under the barrel.

Designed for close combat operation, The M4 carbine (shortened M16A2) is 80% the same as the M16A2. The M4A2 rifle is the chosen standard issue of the navy seals, and uses full burst automatic, while the army uses the 3 round burst fire M4A1 version. Note the modular approach of the M4, with a standard iron sight, or the ability to put an AimPoint sight, or telescopic sight, or even an night vision sight.



The M4A11 is lightweight, gas operated, air-cooled, magazine fed, selectable fire rate, shoulder fired, and has a collapsible stock. It provides the individual soldier operating in close quarters the capability to engage targets at extended range with accurate, lethal fire. The M4 will replace all M3 .45 caliber submachine guns and selected M9 pistols and the M16 rifle series.

The M16A2 rifle is a product improvement of the M16A1 rifle, with improvements including, barrel stiffness, burst control, muzzle compensator, better hand grip, and muzzle compensator.

Weapon Comparison

Weapon	Calibre (ammo)	kilos	length	Effective range	Rounds/ min	Muzzle Velocity	Mag Size
M60	7.62mm	5.9	1080mm	3750m	up to 550	920m/s	100
M4	5.56 nato	2.5	760mm	360m	up to 1000	920m/s	20/30
M16	5.56 nato	3.0	1000mm	550m	up to 800	1080m/s	20/30
Steyr Aug	5.56 nato	3.8	805	450-500m	800	992m/s	30/42
Fen FNC	5.56 nato	4.1	1000	450	700	915m/s	30
Fen Fal	7.76 nato	4.5	1100		700	823m/s	20/30
AK47	7.62	4.3	870	400	600	780m/s	30/40
HK53A3	5.56	3.0	780		750	750m/s	25/30/40



FN FNC 1



Steyr Aug1



AK47



XM177



HK 53A1



HK MP5