

Minnesota National Guard

M16A2 Rifle

Primary function: Infantry weapon

Manufacturer: Colt Manufacturing and Fabrique Nationale Manufacturing Inc.

Length: 39.63 inches (100.66 centimeters) Weight, with 30 round magazine: 8.79 pounds (3.99 kilograms)

Bore diameter: 5.56mm (.233 inches) Maximum effective range:

Area target: 2,624.8 feet (800 meters)

Point target: 1,804.5 feet (550 meters)

Muzzle velocity: 2,800 feet (853 meters) per second Rate of fire:

Cyclic: 800 rounds per minute

Sustained: 12-15 rounds per minute

Semiautomatic: 45 rounds per minute

Burst: 90 rounds per minute

Magazine capacity: 30 rounds

Unit Replacement Cost: \$586

Features: The M16A2 5.56mm rifle is a lightweight, air-cooled, gas-operated, magazine-fed, shoulder- or hip-fired weapon designed for either automatic fire (3-round bursts) or semiautomatic fire (single shot) through the use of a selector lever. The weapon has a fully adjustable rear sight. The bottom of the trigger guard opens to provide access to the trigger while wearing winter mittens. The upper receiver/barrel assembly has a fully adjustable rear sight and a compensator which helps keep the muzzle down during firing. The steel bolt group and barrel extension are designed with locking lugs which lock the bolt group to the barrel extension allowing the rifle to have a lightweight aluminum receiver.

Background: The M16A2 rifle is a product improvement of the M16A1 rifle. The improvements are:

- * a heavier, stiffer barrel than the barrel of the M16A1;
- * a redesigned handguard, using two identical halves, with a round contour which is sturdier and provides a better grip when holding the rifle;
- * a new buttstock and pistol grip made of a tougher injection moldable plastic that provides much greater resistance to breakage;
- * an improved rear sight which can be easily adjusted for windage and range;
- * a modified upper receiver design to deflect ejected cartridges, and preclude the possibility of the ejected cartridges hitting the face of a left-handed firer;
- * a burst control device, that limits the number of rounds fired in the automatic mode to three per trigger pull, which increases accuracy while reducing ammunition expenditure;
- * a muzzle compensator, designed to reduce position disclosure and improve controllability and accuracy in both burst and rapid semi-automatic fire;
- * a heavier barrel with a 1 in 7 twist to fire NATO standard SS 109 type (M855) ammunition which is also fired from the M249 Squad Automatic Weapon (SAW). This further increases the effective range and penetration of the rifle cartridge. The M16A2 will also shoot the older M193 ammunition designed for a 1 in 12 twist