By John Marshall

This out of the ordinary assault rifle was designed to be everything the AR-15/M16 series was not. Its structure was basically stamped steel. It had a gas system that did not vent gas into the bolt area. It had a folding stock for compactness, and it could be manufactured cheaply and easily in just about any backwater area in the world with relatively primitive equipment. In spite of many virtues, the selective fire AR-18 and semiauto AR-180 have now become relegated to collector status.

After adoption of the 7.62x51mm M14 rifle by the U.S. in 1957, the U.S. Continental Army Command looked into small-caliber, high-velocity rifles, and prototypes were solicited. ArmaLite and Winchester responded. ArmaLite's offering was the AR-15, which was a smaller version of their earlier AR-10, a 7.62x51mm rifle that had appeared too late to compete with the M14 prototypes. Military trials of these rifles dragged on for some time, and ArmaLite decided it could no longer afford to play. It sold the rights to the AR-15 to Colt, a decision I'm sure they regretted. Of course that rifle was subsequently adopted, the precursor to the M16 family of assault rifles still in service today.

Eugene Stoner, the chief designer for ArmaLite, afterward developed the AR-16, which was a folding stock assault rifle in 7.62x51mm. Instead of the direct-impingement gas system used by the AR-15, it used a short-stroke gas piston to give the bolt carrier a rearward push. The advantage was no gas fouling in the critical rotating bolt area, making the rifle much easier to clean and maintain. The bolt carrier and the bolt rode on two rods, each of which was surrounded by springs. The close tolerances of a traditional bolt raceway were eliminated.

Most of the parts in the gun were steel stampings, enabling easy manufacture. A bolt handle directly attached to the bolt carrier allowed a forward push on the bolt if needed, and a folding stock was provided. This was Stoner's last project for ArmaLite and he left shortly after designing it. Only a few prototype AR-16s were made, and this arm was never manufactured in quantity.

With the U.S. adoption of Colt's AR-15, ArmaLite decided to try again to cash in on a logical evolution of the small-caliber high-velocity concept. Stoner's AR-16 was essentially scaled down to fit the 5.56mm (.223) cartridge. The engineers involved were the new chief designer Arthur Miller, George Sullivan, and Chuck Dorchester. The new rifle was called the AR-18.

The AR-18 mimicked the AR-16 in almost all respects. There was a short-stroke, three-piece gas piston above the barrel. It moved back to contact the front face of the bolt carrier, pushing it rearward. A rotating seven-lug bolt similar to that on the M16 rifle was rotationally cammed by the bolt carrier to lock and unlock the bolt to and from the barrel collar at the rear of the barrel.

The bolt carrier did not contact the receiver walls, but rode instead on two rods, each with its own return spring. This arrangement helped with reliability when dirt and debris were present in the receiver. Steel stampings were extensively used for easy manufacturing, and a folding stock was implemented, making the rifle ideal for tankers and paratroopers. This stock could be folded and latched against the lower receiver to the left, and the arm could be fired with the stock open or closed. An ambidextrous selector switch"Some small quantitie Botswana, Haiti and slawed Irish Republic rifles immensely anc the ‘widowm