



Arsenal

**A VERY Limited Production
5.56x45mm Semiautomatic
Rifle with a 12.5-inch Barrel**

SLR-106CR

Text & Photos by Jeff W. Zimba

After concluding our testing of the Arsenal SLR-106FR rifle for the February issue of *Small Arms Review*, we assumed we would be finished with their 5.56x45mm rifle series. That was until we received a call from Vartan Barsoumian, the CEO of Arsenal, Inc., asking us to take a look at their newest project, the SLR-106CR. When asked how it differed from the 106FR, we were told it was very similar except it was styled after the short model with a 12.5 inch barrel. That was all we needed to hear.

Based on an extremely rare original Bulgarian design, Arsenal, Inc. decided to manufacture a very lim-

If you think you may want a real Bulgarian Shorty, Arsenal, Inc. may have just what you are looking for... if you are fortunate enough to find one.

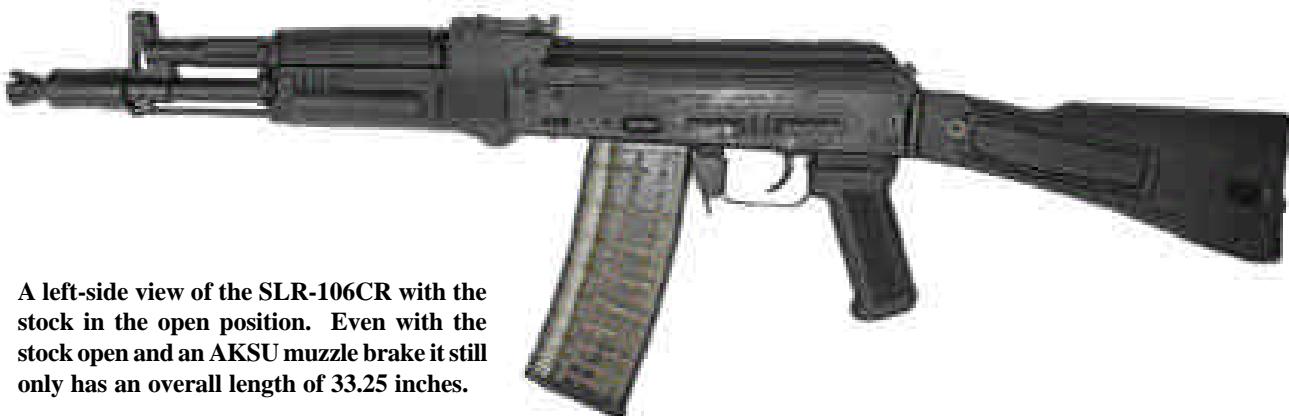
ited quantity of these rifles (only 1,500 units) and offer them for sale exclusively through their major distributors. Although these rifles will be in the same configuration as pic-

tured in this article, they will all have a barrel that extends past the 16-inch length to the remain Title I firearms. This way they could be sold without the additional paperwork necessary for a "Short Barreled



Lead photo, above: A round can clearly be seen exiting the action, with the bolt carrier fully retracted during live fire testing of the SLR-106CR short-barreled rifle.

Right: Testing was performed in temperatures barely above freezing. All muzzle velocity testing was recorded with a PACT MK IV XP Chronograph & Timer.



A left-side view of the SLR-106CR with the stock in the open position. Even with the stock open and an AKSU muzzle brake it still only has an overall length of 33.25 inches.

Rifle." When asked if the end users could file an ATF Form 1 to register their gun as a Short Barreled Rifle and remove 4 inches from the muzzle, Mr. Barsoumian said that after the proper, legal approval, with some careful and precise modifications he couldn't understand why not.

For the purpose of this article, it only seemed fitting to have the rifle in its correct Title II configuration for testing. After filing the proper forms with ATF, the rifle was shipped

as a factory Short Barreled Rifle and the testing began.

Since we just went into so much detail on the SLR-106FR rifle a few short months ago (*Small Arms Review*, Vol. 10, No. 5, February 2007) this article will compare the two firearms and focus on the differences of the SLR-106CR and its specific performance.

Just like the 106FR, the 106CR is chambered in 5.56x45mm and utilizes the same left-side folding stock

and custom 2-stage trigger mechanism. When the 106CR arrived, both guns were disassembled to look at the differences in the bolt carrier and return spring mechanisms. Much to our surprise, they are identical. All the differences in the barrel length are addressed in front of the gas block meaning that all the fire control parts, typically heavily customized, are completely interchangeable between rifles of both barrel lengths. Score some big points for Arsenal, Inc. in this department because replacement parts in almost all customized and shortened rifles are typically custom-made making spare parts difficult to obtain and expensive at best.

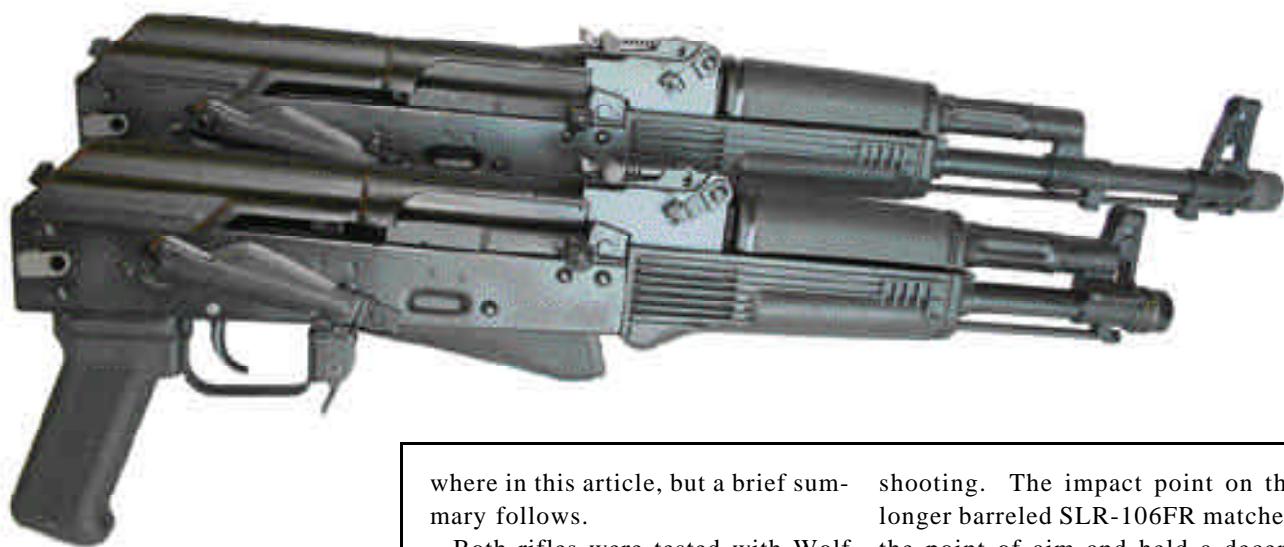
Both rifles were thoroughly inspected, examined and photographed and it was off to the range for some trigger time.

Range Time

As Murphy's Law would have it, we received our second significant snowstorm in a short period of time the day before we were scheduled to go to the range. While considered a blessing to those who enjoy snowmobiling and



The target on the left is a 20-round group of 62-grain Wolf Polyformance ammo fired in a rapid-fire session with the open, factory sights, at a distance of 50 yards with the SLR-106FR rifle and its 16.25 inch barrel. The target on the right is a 20-round group of 62-grain Wolf Polyformance ammo fired in a rapid-fire session with the open, factory sights at a distance of 50 yards with the SLR-106CR rifle and its 12.5 inch barrel. After the shooting had concluded it was noticed that the sights on the 106CR had inadvertently been set to 200 meters instead of the 100-meter setting. That may explain why the group was a little higher than the point of aim. The orange dot was the point of aim for both strings.



The 106CR is in front of the standard 106FR illustrating the difference in barrel length and where that change was made. The standard barrel length on the 106FR is 16.25 inches while the barrel length on the 106CR is only 12.5 inches. Overall length on the 106CR is a mere 21.25 inches.

skiing in this "Winter Wonderland," almost 3 feet of new-fallen snow on the shooting range is considered something quite different to those wishing to test a new firearm. While it was quite difficult to find an accessible range, we finally settled for a 50 yard range that only required a short walk to pack everything in. This limited the day's testing to a distance of only 50 yards but we had a covered line with plenty of bench room to setup all the equipment and cases. Additionally, since we were testing a 12.5 inch barreled rifle with open sights, we were not disappointed that the 600 yard range was completely closed.

The first thing we did was measure the muzzle velocity and compare it to some direct fire with the longer barreled SLR-106FR. In many instances, anytime extremely short barrels are mentioned, the loss in muzzle velocity is an immediate following topic so it was decided to address this issue first. A muzzle velocity chart with all the results is included else-

where in this article, but a brief summary follows.

Both rifles were tested with Wolf Polyformance FMJ ammunition using both 55-grain 62-grain ammo. During the initial testing both rifles were equipped with the popular 4-piece flash hiders. After finishing the initial strings, both flash hiders were removed and retested again with the 62-grain ammo to check for any variance the flash hiders may or may not have been responsible for. The 16.25 inch barrel provided an average muzzle velocity of 2,750 feet per second (fps) with the 55-grain ammo. The 12.5 inch barrel averaged 2,562 fps with the same ammo for an average reduction of 188 fps. The difference between barrel lengths when using the 62-grain ammo was a very close 173 fps reduction. When the rifles were tested with no muzzle brake, muzzle velocity reduction from the long barrel and the short barrel was only 121 fps. While the 16.25 inch barrel had an average reduction of 44 fps when removing the brake, the 12.5 inch barrel recorded an average increase of 8 fps when the brake was removed.

As we were only 50 yards from the firing line to the impact area, there was no major accuracy testing. We did fire some 20-round, rapid-fire groups and, given the conditions, we were all impressed. Since the barrels of both rifles utilize a 1 in 7 twist ratio we opted to use the Wolf 62-grain ammo for this portion of the

shooting. The impact point on the longer barreled SLR-106FR matched the point of aim and held a decent group with only a few flyers. The shorter barreled SLR-106CR held groups almost as tight with a similar number of flyers but we were a little disappointed to see that the center of the point of impact was about 3 inches above the point of aim. It was only when we were picking up for the day that someone noticed the rear sight on the shorter rifle had inadvertently been set to the 200-meter adjustment. That would certainly have influenced the point of impact and caused the group to hit above the point of aim.

Conclusion

Since short-barreled AKs have gained such interest in the recreational shooting community, this rifle configuration is sure to be an instant hit. The performance, quality and workmanship that have become a benchmark of the guns by Arsenal, Inc. will only solidify this. Everyone who handled the SLR-106CR liked the look and feel, and all who had the opportunity to fire it immediately fell in love with it. It was very smooth to shoot with a minimal amount of recoil and muzzle rise. Since these have been manufactured in a limited quantity, if you can get your hands on one it should not disappoint.

Sources

Arsenal, Inc

Dept. SAR

Las Vegas, Nevada

Phone: (888) 539-2220

Fax: (702) 643-2088

Website: www.arsenalinc.com

Parts and Accessories

K-Var Corporation

(702) 364-8880

Website: www.k-var.com

Ammunition

Wolf Performance Ammunition

Dept. SAR

1225 North Lance Lane

Anaheim, CA 92806

(888) 757-WOLF

Website: www.wolfammo.com

PACT Timers

PACT INC.

Dept. SAR

P.O. Box 535025

Grand Prairie, TX 75053

800-722-8462

Website: www.PACT.com

Muzzle Velocity						
SLR-106FR (16.25-inch Barrel)			SLR-106CR (12.5-inch Barrel)			
55-grain	High	Low	Average	High	Low	Average
Test 1	2,882 fps	2,621 fps	2,740 fps	2,742 fps	2,470 fps	2,570 fps
Test 2	2,850 fps	2,654 fps	2,760 fps	2,674 fps	2,456 fps	2,555 fps
62-grain						
Test 1	2,742 fps	2,648 fps	2,702 fps	2,583 fps	2,419 fps	2,488 fps
Test 2	2,727 fps	2,633 fps	2,673 fps	2,585 fps	2,501 fps	2,541 fps
No Brake						
Test 1	2,693 fps	2,588 fps	2,645 fps	2,606 fps	2,452 fps	2,532 fps
Test 2	2,686 fps	2,611 fps	2,642 fps	2,555 fps	2,486 fps	2,512 fps

Test data collected with PACT MK IV XP Chronograph & Timer. Ammo utilized: Wolf Polyformance FMJ. Muzzle brake utilized in initial testing was a 4-piece flash hider that was removed during the final 2 stages. Air temperatures during the test firing averaged 38 degrees Fahrenheit. All testing with no brake was conducted with the 62-grain ammo.

Technical Specifications SLR-106CR

Caliber:	5.56x45mm
Overall Length:	31 inches (787mm)
Folded Length:	21.5 inches (546mm)
Barrel Length:	12.5 inches (317mm)
Barrel Rifling:	6-grooves, 1 in 7 inches (1 in 178mm)
Weight (No Magazine):	7.9 pounds (3.58kg)
Receiver Construction:	1mm, stamped receiver
Point of Manufacture:	Bulgaria
Point of Assembly:	Las Vegas, Nevada USA.
Finish:	Phosphate-treated and finished with black baked-on paint as used in all Bulgarian commercial production.
MSRP:	\$949.00

